

MASTER IN PROJECT MANAGEMENT (MPM)

UNIVERSIDAD PARA LA COOPERACION INTERNACIONAL
(UCI)

DEVELOPMENT OF A PROJECT MANAGEMENT PLAN FOR THE BELIZE
CHEMICALS AND WASTE MANAGEMENT PROJECT

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

San José de Costa Rica

February, 2018

UNIVERSIDAD PARA LA COOPERACION INTERNACIONAL
(UCI)

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

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DEDICATION

I dedicate this work to my husband, Ryan Michael-Lee Cobb, for always believing in me and for giving me more than a reason to continue to strive for excellence. To my family and friends who in various ways supported me through the development of this final graduation project.

ACKNOWLEDGMENTS

I thank the Almighty God for giving me the knowledge, patience and for being my source of strength throughout this Master's Program. I thank my tutor Ms. Sara Fonseca of the Global School of Project Management (GSPM)– University for International Cooperation (UCI), for guiding me through the right direction to successfully complete this final graduation project.

I also thank all my professors and the staff of UCI for their endless support throughout this Master's degree program.

My appreciation goes to UCI for selecting and awarding me a partial scholarship to pursue this Master's degree in Project Management.

Finally, I must express my very profound gratitude to my husband, Ryan Michael-Lee Cobb, for the unconditional support and continuous encouragement throughout this Master's degree program.

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ABBREVIATIONS AND ACRONYMS

BCWM Project – Belize Chemicals and Waste Management Project

CMP – Communication Management Plan

DOE – Department of the Environment

EPA – Environmental Protection Act

FGP – Final Graduation Project

GEF – Global Environment Facility

GSPM – Global School of Project Management

ISO – International Organization for Standardization

PAA – Project Administrative Assistant

PD – Project Director

PM – Project Manager

PMBOK – Project Management Book of Knowledge

PMI – Project Management Institute

PMP – Procurement Management Plan

PMU – Project Management Unit

PO – Purchase Order

POPs – Persistent Organic Pollutants

PSC – Project Steering Committee

RACI – Responsible, Accountable, Consult, Inform

RAM – Responsible Assignment Matrix

RBS – Risk Breakdown Structure

RDP – Request for Direct Payment

RFP – Request for Proposal

RFQ – Request for Quotation

RMP – Risk Management Plan

SMP – Stakeholder Management Plan

SOLGEN's – Solicitor General's

SOW – Statement of Work

TOR – Terms of Reference

UCI – University for the International Cooperation

ABBREVIATIONS AND ACRONYMS (Cont'd)

UNDP – United Nations Development Programme

UPOPs – Unintentional Persistent Organic Pollutants

WBS – Work Breakdown Structure

EXECUTIVE SUMMARY (ABSTRACT)

The Department of the Environment (DOE) within the Ministry of Agriculture, Fisheries, Forestry, the Environment, Sustainable Development and Immigration is the Focal Point and Competent Technical Authority for International Multilateral Agreements regarding chemicals management. The Government of Belize is party to various International Multilateral Agreements such as the Basel, Stockholm, Vienna and Rotterdam Conventions. The DOE's primary responsibility as Focal Point and Competent Technical Authority is the implementation and compliance of these conventions. To assist Belize in complying with the relevant obligations under any of these conventions, the DOE has collaborated with funding agencies and acts as the executing agency for various projects related to chemicals management. In 2014, the DOE through its responsible Ministry collaborated with the Global Environment Facility (GEF) and the United Nations Development Programme (UNDP) to execute a three (3) year project entitled "Belize Chemicals and Waste Management (BCWM) Project."

Currently there is a lack of a standardized approach to planning a project due to non-exposure to current project management procedures and practices. There is no project management plan or framework to manage the BCWM project. The only document available is the project document, but it contains insufficient information to properly manage the BCWM project.

In order to effectively carry out the project management activities within the time frame, desirable quality and budget, a comprehensive project management plan had to be developed. The intended benefit of the project management plan is to serve as an improvement opportunity to the current BCWM project that has progressed without a project management plan. In addition, an intended benefit is for the project management plan to serve as an organizational process asset for future chemical related projects.

The general objective was to develop a Project Management Plan to execute and manage the Belize Chemicals and Waste Management Project. The specific objectives were: Objective one – to create a scope management plan to identify the project requirements, main deliverables and subsequent activities in order to ensure that it includes all the work required to successfully complete the project. Objective two – to develop a schedule management plan in order to have a schedule baseline that can be used to measure project performance throughout the project life cycle. Objective three – to develop a cost management plan in order to establish what the project costs will be. Objective four – to develop a quality management plan in order to identify the project quality requirements in order to ensure results meet expectations for approval. Objective five – to develop a human resource management plan to identify and manage human resources effectively in order to complete the project within time, cost and scope constraints.

Objective six – to develop a communications management plan in order to ensure the timely and effective communication of project status and other key information to stakeholders. Objective seven – to develop a risk management plan that identifies the project’s main risks and plans a response for the most critical ones. Objective eight – to develop a procurement management plan to be used to obtain goods and services required by the project. Lastly, objective nine – to develop a stakeholder management plan in order to identify the project’s main stakeholders and plan how to effectively engage and manage them.

The methodology used for the research was analytical research. The main sources used to gather information included A Guide to the Project Management of Knowledge (PMBOK® Guide) - Fifth Edition, interviews were held with the project team members, the project document for the Belize Chemicals and Waste Management (BCWM) project developed by the United Nations Development Programme and the quarterly project status reports developed by the project team. The information that was gathered was analyzed to create each subcomponent of the subsidiary plans used to develop the Project Management Plan for the Belize Chemicals and Waste Management Project.

In conclusion, the Project Management Plan consists of nine (9) subsidiary plans which provide the DOE with a framework of good practices and principles to effectively carry out the project management activities within the timeframe, desired work quality and budget. The scope management plan is a fundamental tool that will allow the DOE to clearly define the project work, identify the project requirements and aid in the successful completion of the BCWM project. The schedule management plan provides a detailed timeline of project activities, which will be useful to ensure the timely execution of activities. The cost management plan provides the project budget and the S- curve of cash flow, which serve as tools to control and monitor the project to avoid cost overruns. The procurement management plan will allow the project management team to save time and ensure accountability and transparency of the procurement process. By properly managing human resources, the probability of project success is improved since the management of the human resources on a project has a major impact on project’s success or failure. Effective communication and stakeholder management and engagement are key to achieving the BCWM project goals.

The three main recommendations made were: 1 – the DOE should implement formal project management practices and principles in order to increase the likelihood of the project’s success. 2 – The DOE should implement the use of the project management plan created, as a framework of good practices to manage and execute the remaining activities of the BCWM project within time, desired quality and within budget. 3 – The DOE should allow the use of the project management developed in this study as an organization process asset and resource for future chemical related projects.

1 INTRODUCTION

1.1. Background

This project is based on the Belize Chemicals and Waste Management project executed by the Department of the Environment (DOE). This Government Department is currently within the Ministry of Agriculture, Fisheries, Forestry, Environment, Sustainable Development and Immigration.

As stated in the DOE Annual Report 2015-2016, in 1992 the DOE was legally established through the enactment of the Environmental Protection Act (EPA), Chapter 328 of the Substantive Laws of Belize, Revised Edition 2000—2003. Two major events led to the enactment of the Environmental Protection Act; and consequently resulted in the legal establishment of the Department. The first was the 1992 United Nations Conference on the Environment and Development, widely known as The Earth Summit, held in Rio de Janeiro, Brazil. The second, the 1992 Hatchet Caye incident, where a developer reportedly began to dynamite the coral reef to make a channel for the passage of navigation vessels.

According to the 2014-2024 National Environmental Policy and Strategy, the Government of Belize is a party to Multilateral Agreements, such as the Basel, Stockholm, Vienna and Rotterdam Conventions; all regarding the management of chemicals. The DOE is the Focal Point and Competent Technical Authority to these conventions and as such is responsible for the implementation and compliance of the technical aspect of the convention. The DOE is the executing agency for projects related to chemical management that assist in complying with the relevant obligations under any of these conventions.

Since 2006, the DOE has obtained financial assistance from the Global Environment Facility (GEF) and the United Nations Development Programme for the execution of projects with the objective of strengthening national legal and Institutional capacities and the coordination mechanism for sound management of chemicals in Belize.

In 2014, GEF approved funding for the execution of the Belize Chemicals and Waste Management project that is for a period of three (3) years with DOE as the executing partner and UNDP as the responsible partner. The main project objective is to strengthen the existing institutional management system with an emphasis placed on Belize's National chemical management framework and legislation. The purpose of the BCWM project is to assist Belize in implementing relevant obligations under the Stockholm Convention, in particular to reduce the releases of Unintentional Persistent Organic Pollutants (UPOPs), as well as to build the country's capacity to manage chemicals and waste. The project launched in March 2015 with a project management team composed of a project director, a project manager and an administrative assistant. The project director is the Chief environmental officer of the DOE, which complements the project management team. The project is a national implemented modality project, meaning that Government policies and procedures should be the driving forces of the project. However, due to the limited guidelines available, the project sometimes follows the framework and reporting specifications of the UNDP. During the first year of the project, there was a change in project manager. This was a result of the previous project manager being released due to project delays and a failure to abide with any procurement procedure.

The new project manager is well knowledgeable in project management best practices and proposes to develop a project management plan, framed with the standards of the Project Management Institute, to manage the BCWM project for the remaining duration. Assuming that this development will allow an improvement opportunity to use current project management procedures and good practices for the successful execution of the project.

1.2. Statement of the problem

The problem is that there is a lack of a standardized approach to planning a project due to non-exposure to current project management procedures and practices. At this moment, there is no project management plan or framework to manage the BCWM project. It has been a challenge for the project managers to

manage the BCWM project with the absence of a systematic approach for the management of the BCWM project. This is clearly seen with the interruptions and delays encountered during the first year of the project. The only document available is the project document, which has limited information for the proper management of the project. (Project Document, 2014) The project document contains information on the project objectives, outcomes, budget, main project risk and the project management arrangements. This document is falling short in providing the details of the activities and work required under each outcome, in terms of the requirements such as the technical aspect, time, and cost details. There is no activity budget estimate, budget baseline or a schedule baseline. Hence, the document is limited in the necessary information to properly manage the BCWM project.

1.3. Purpose

Although the BCWM project is in its last quarter of the last year of execution, the purpose of this study is to develop a project management plan that integrates good practices and principles to effectively carry out the project management activities within the time frame, desirable quality and within budget. The project management plan should detail all the critical aspects of the project including various document templates, reports and process plans. There is no earn value statistics since the project management team does not use earned value management tools or any tools to assess and measure the project performance and progress.

The project management plan's intended advantage is to serve as an improvement opportunity to the current BCWM project that is progressing without a project management plan. Another intended advantage is for the project management plan to serve also as an organizational process asset for future chemical related projects. Hence, this document is a vital resource for the Department.

1.4. General objective

To develop a Project Management Plan to execute and manage the Belize Chemicals and Waste Management Project.

1.5. Specific objectives

1. To create a scope management plan to identify the project requirements, main deliverables and subsequent activities in order to ensure that it includes all the work required to successfully complete the project.
2. To develop a schedule management plan in order to have a schedule baseline that can be used to measure project performance throughout the project life cycle.
3. To develop a cost management plan in order to establish what the project costs will be.
4. To develop a quality management plan in order to identify the project quality requirements in order to ensure results meet expectations for approval.
5. To develop a human resource management plan to identify and manage human resources effectively in order to complete the project within time, cost and scope constraints.
6. To develop a communications management plan in order to ensure the timely and effective communication of project status and other key information to stakeholders.
7. To develop a risk management plan that identifies the project's main risks and plans a response for the most critical ones.
8. To develop a procurement management plan to be used to obtain goods and services required by the project.
9. To develop a stakeholder management plan in order to identify the project's main stakeholders and plan how to effectively engage and manage them.

2 THEORETICAL FRAMEWORK

2.1 Company/Enterprise framework

According to the Department of the Environment (DOE) website, the DOE is a Government Department which was legally established in 1992 with the passage of the Environmental Protection Act (EPA) Chapter 328 of the substantive Laws of Belize. This Act entrusted the DOE with the responsibility to monitor the implementation of the Act and subsequent Regulations and to take necessary action to enforce the provisions of the Act and Regulations. The Act grants the DOE with broad regulatory and enforcement authority for the prevention and control of environmental pollution, conservation and management of natural resources, and environmental impact assessment.

2.1.1 Company/Enterprise background

According to the DOE Annual Report 2015-2016, the DOE was established on September 1989 with the main objective of protecting Belize's environment. The establishment of DOE was literally a "one-man operation." In 1992 the DOE was legally established with the passage of the EPA chapter 328 of the substantive Laws of Belize. Over the years, the DOE has obtained more personnel and today there is a total of twenty-six (26) personnel working at the department. The positions can be classified into five (5) categories as senior management, middle management, professional, technical support and administrative support.

According to the DOE Annual Report 2015-2016, the main objectives of the Department of the Environment are:

1. "To foster an appreciation for the natural environment of Belize and the importance of a healthy environment in the pursuit of the social and economic well-being of all Belizeans;
2. To identify the major environmental problems confronting Belize and to work towards the solution of these problems;
3. To assist and work in close partnership with project proponents in ensuring that their projects are both environmentally and technically sound through

the implementation of Government's Environmental Impact Assessment requirements;

4. To have an effective compliance monitoring programme aimed at ensuring compliance with Belize's Environmental Laws;
5. To continue the development of a functional process for strong intra/inter-ministerial and inter-sectoral cooperation which is essential in addressing environmental issues;
6. To work closely with local, regional and international agencies and organizations on environmental issues; and
7. To develop and promulgate new regulations and standards for the prevention and control of pollution aimed at ensuring a greater and healthier quality of life for all Belizeans."

2.1.2 Mission and vision statements

According to the 2014-2024 National Environmental Policy and Strategy, during the consultation process for the development of the 2014-2024 National Environmental Policy and Strategy, the DOE and its stakeholders rearticulated the Department's vision and mission statements.

Mission:

To ensure that Belize's development is sound through effective environmental management for present and future generations.

Vision:

To be leaders in environmental stewardship for sustainable development both nationally and regionally.

Developing and using a project management plan will allow DOE to improve its current project management procedures by incorporating good practices to achieve the successful execution of the project. This in itself will assist the DOE in achieving its vision since by using project management procedures and good practices, the DOE will introduce components for the successful execution of the project which will ensure that the objectives of the BCWM project are achieved.

2.1.3 Organizational structure

According to the DOE annual report 2015-2016, in order for the DOE to fulfill its mandate, “the Department is dissected into six (6) different units” which is shown in the organization structure in Figure 1.

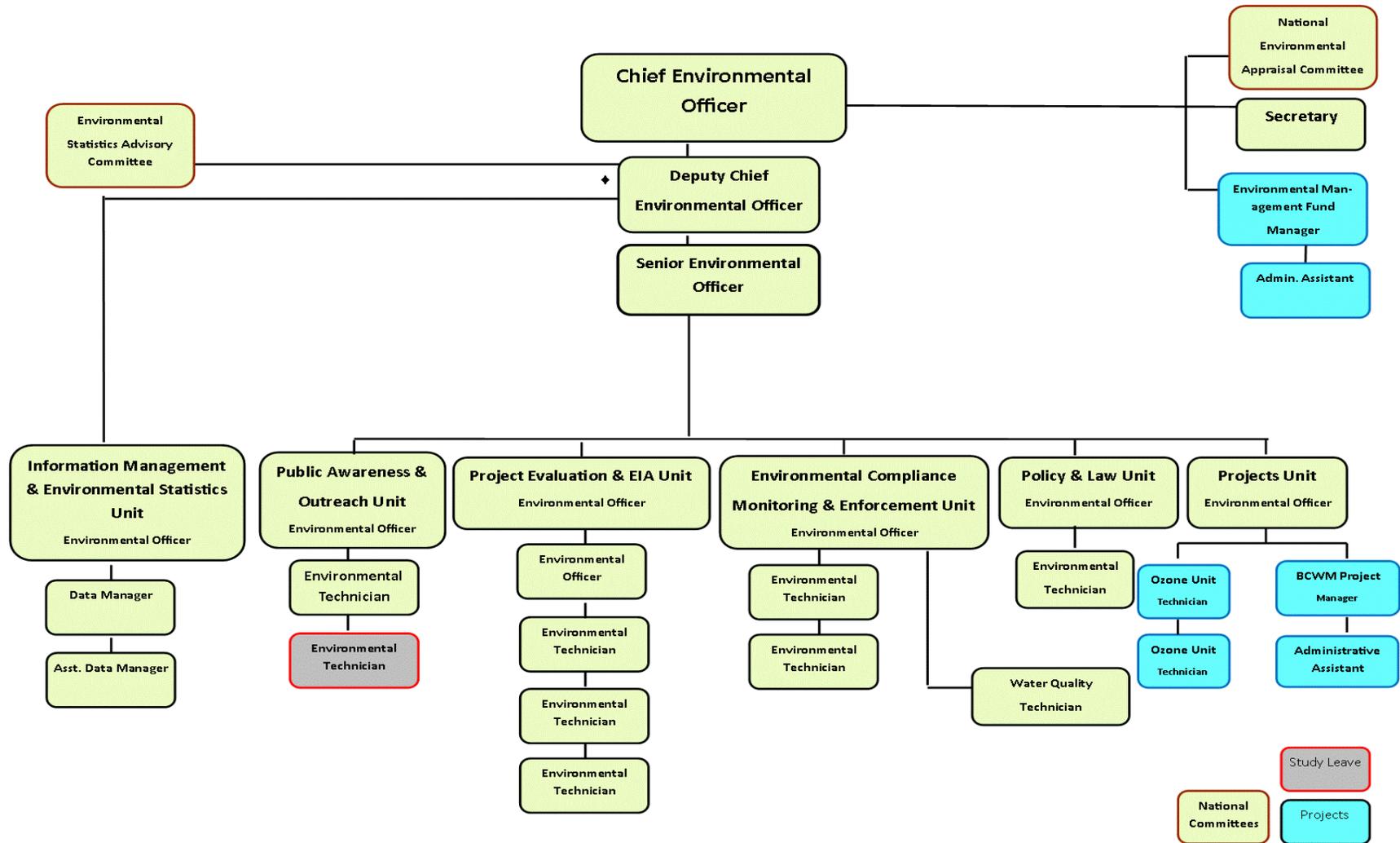


Figure 1 Organizational structure of the Department of the Environment (Source: Department of the Environment, 2017)

2.1.4 Products offered

The Department of the Environment offers assistance in protecting and ensuring a sustainable development for all of Belize.

According to Regulation 4 of the Environmental Protection Act Chapter 328, revised edition 2000, the functions of the department are as follows:

1. "Be responsible for the continuous and long-term assessment of the natural resources and of pollution;
2. Ensure the protection and rational use of the natural resources for the benefit of the present and future generations;
3. Prevent and control pollution by coordination all activities relating to the discharge of waste into the environment;
4. Control the volume, types, constituents and effects of waste, discharges, emissions, deposits or other sources of emission and substances which are of danger or a potential danger to the quality of the Environment;
5. Issue the necessary licenses, with or without conditions, for use for the exercise of activities that may cause pollution;
6. Undertake surveys and investigations into the causes, nature, extent and prevention of pollution and to assist and co-operate with other persons or bodies carrying out similar surveys or investigations;
7. Conduct, promote, and co-ordinate research in relation to any aspect of environmental pollution or the prevention thereof, and to develop criteria for the protection and improvement of the environment;
8. Undertake investigation and inspections to ensure compliance with the legislation;
9. Provide information and education to the public regarding the importance of protection and improvement of the environment
10. Undertake resource inventories, surveys and ecological analyses to obtain information on the social and biophysical environment or promote research thereof;

11. Examine and evaluate and if necessary carry out environmental impact assessment and risk analysis and to make suitable recommendations to mitigate against harmful effects of any proposed action on the environment;
12. Advise the Government on the formulation of policies relating to good management of natural resources and the environment;
13. Recommend measures aimed at controlling pollution resulting from industrial processes or otherwise;
14. Monitor trends in the use of natural resources and their impact on the environment;
15. Foster, through inter-ministerial cooperation, the prudent use and proper management of the natural resources of Belize, the control of pollution of the natural environment and there-establishment of an ecological equilibrium, where needed, so as to guarantee a better quality of life for present and future generations;
16. Encourage governmental and non-governmental institutions agencies to align their activities with the ideas of sustainable development;
17. Exercise any other functions relating to the protection of the environment.

As a coordination function of the DOE, the DOE acts as the Focal Point for a number of multilateral international Environmental Conventions such as the Basel Convention, the Vienna Convention and Montreal Protocol, the Stockholm Convention, the Rotterdam Convention and the Cartagena Convention. In this role, the DOE would thus be responsible for coordinating the reporting requirements for the above-named Conventions and be the executing agency for projects related to chemicals or environmental management that assist in complying with the relevant obligations under any of these conventions.

It is believed that the development and use of a project management plan will allow an improvement opportunity to current project management procedures and provide good practices for the successful execution of the project. Hence, by successfully executing the BCWM project, the Government of Belize will be able to implement its relevant obligations under the Stockholm Convention, in

particular by achieving a reduction in the releases of Unintentional Persistent Organic Pollutants (UPOP's), as well as building the country's capacity to manage chemicals and waste.

2.2 Project Management concepts

2.2.1 Project

As defined by the PMBOK® Guide – Fifth Edition, a project is “a temporary endeavor undertaken to create a unique product, service, or result.”

Also, according to the international standard ISO 10006 Quality management systems - Guidelines for quality management in projects (ISO 10006:2003(E)), a project is defined as a “unique process, consisting of a set of coordinated and controlled activities with start and end dates, undertaken to achieve an objective conforming to specific requirement, including the constraints of time, cost and resources.”

2.2.2 Project management

According to the PMBOK® Guide – Fifth Edition, project management is defined as “the application of knowledge, skills, tools, and techniques to project activities to meet the project requirements.”

Another definition for project management is according to the international standard ISO 10006 Quality management systems - Guidelines for quality management in projects (ISO 10006:2003(E)), where project management is defined as “planning, organizing, monitoring, controlling and reporting of all aspects of a project and the motivation of all those involved in it to achieve the project objectives.”

2.2.3 Project life cycle

The PMBOK® Guide – Fifth Edition defines a project life cycle as “the series of phases that a project passes through from its initiation to its closure.” The Project Life Cycle consists of the initiating, planning (organizing and preparing), executing, and closing processes of the framework as described in the PMBOK®

Guide – Fifth Edition. Each of these processes is necessary to ensure that the project stays on track and that it is completed according to the specifications.



Figure 2 Typical Project life cycle structure (Source: Vreede, 2012)

2.2.4 Project management processes

According to the PMBOK® Guide – Fifth Edition, “project management is accomplished through the appropriate application and integration of 47 logically grouped project management processes, which are categorized into five process groups.” The process groups are initiating, planning, executing, monitoring and lastly, controlling and closing.

The PMBOK® Guide – Fifth Edition mentions that, “these processes ensure the effective flow of the project throughout its life cycle.”

Only the processes involved in initiating and planning a project will be used to develop the Project management plan for the BCWM Project. The Project management plan will be a compilation of subsidiary plans created as a result of each initiating and planning process activity.

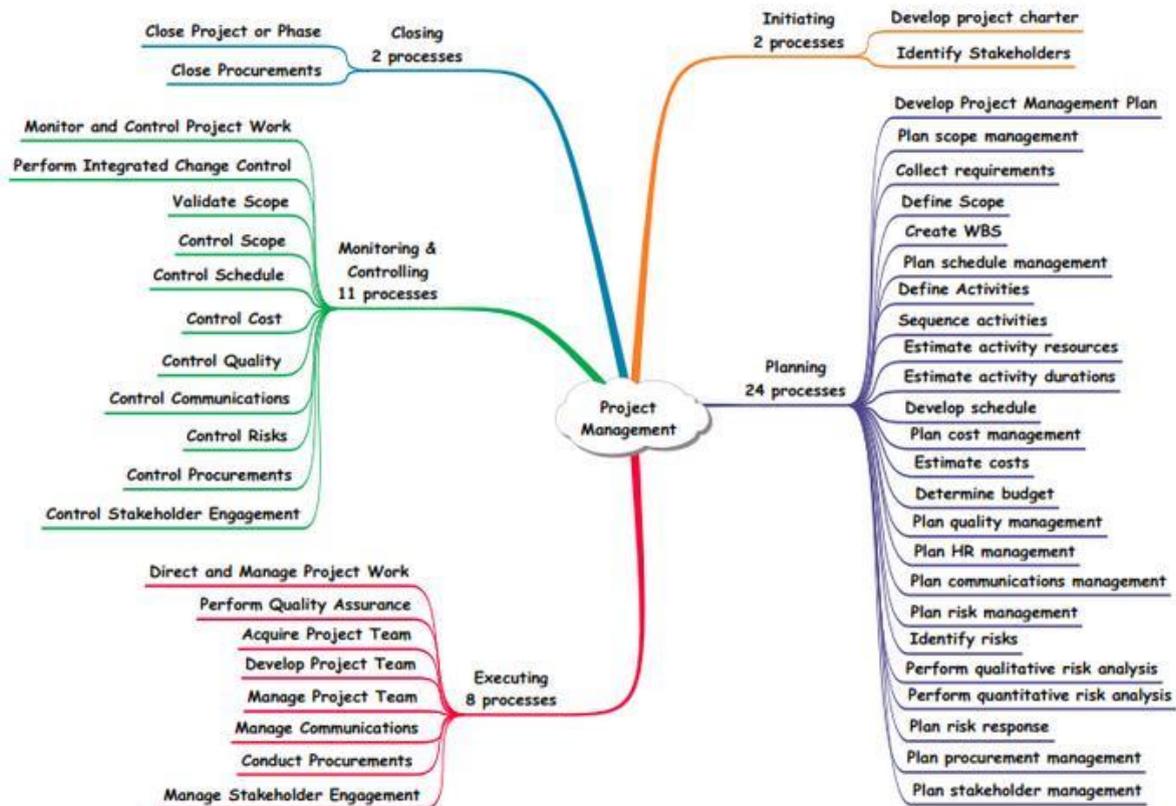


Figure 3 47 Project management processes based on PMBOK® Guide – Fifth Edition (Source: Muddha, 2014)

2.2.5 Project management knowledge areas

Along with the phases and processes of project management set forth by the PMBOK® Guide – Fifth Edition, project management also consists of ten knowledge areas. These knowledge areas represent the competencies that project managers must develop in order to be successful.

The ten knowledge areas of project management listed in the PMBOK® Guide – Fifth Edition are as follows:

- Integration management
- Scope management
- Time management
- Cost management
- Quality management
- Human resource management
- Communication management

- Risk management
- Procurement management
- Stakeholder management



Figure 4 Project management knowledge areas processes based on PMBOK® Guide – Fifth Edition (Source: Babou, n.d.)

2.2.5.1. Project Integration management

According to PMBOK® Guide – Fifth Edition, the “Project Integration Management” Knowledge Area “includes the processes and activities needed to identify, define, combine, unify, and coordinate the various processes and activities of project management within the Project Process Groups.”

2.2.5.2. Project Scope management

According to the PMBOK® Guide – Fifth Edition, “Project Scope management includes the processes required to ensure that the project includes all the work required, and only the work required, to complete the project successfully.”

This knowledge area deals with defining the project scope, project requirements scope, project work, developing the work breakdown structure, developing the scope baseline and managing the scope of the project. Project Scope Management determines what the project is all about, the deliverables that are to be provided and the groundwork upon which the project team shall build.

2.2.5.3. Project Time management

According to the PMBOK® Guide – Fifth Edition, “Project Time Management includes the processes required to manage the timely completion of the project.” It involves defining, sequencing, estimating resource and duration, developing and controlling the project schedule.

2.2.5.4. Project Cost management

According to the PMBOK® Guide – Fifth Edition, “Project Cost Management includes the processes involved in the planning, estimating, budgeting, financing, funding, managing, and controlling costs so that the project can be completed within the approved budget.” It involves estimating, determining and controlling the project costs.

2.2.5.5. Project Quality management

According to the PMBOK® Guide – Fifth Edition, “Project Quality Management includes the processes and activities of the performing organization that determine quality policies, objectives, and responsibilities so that the project will satisfy the needs for which it was undertaken. In this knowledge area, the quality requirements for the project deliverables are planned and monitored.

2.2.5.6. Project Human Resource management

According to the PMBOK® Guide – Fifth Edition, “Project Human Resource Management includes the processes that organize, manage, and lead the project team.” In this knowledge area, the human resources that will be utilized, developed, acquired and managed will be defined.

2.2.5.7. Project Communication management

According to the PMBOK® Guide – Fifth Edition, “Project Communication Management includes the processes that are required to ensure timely and appropriate planning, collection, creation, distribution, storage, retrieval, management, control, monitoring, and the ultimate disposition of project information.”

2.2.5.8. Project Risk management

According to the PMBOK® Guide – Fifth Edition, “Project Risk Management includes the processes of conducting risk management planning, identification, analysis, response planning, and controlling risk on a project.” This knowledge area concentrates on identifying, analyzing, and planning responses to both threat risks and opportunity risks.

2.2.5.9. Project Procurement management

According to the PMBOK® Guide – Fifth Edition, “Project Procurement Management includes the processes necessary to purchase or acquire products, services, or services needed from outside the project team.” In this knowledge area, the project manager will come up with the plan for conducting procurement, controlling the procurements and closing out the procurements

2.2.5.10. Project Stakeholder management

According to the PMBOK® Guide – Fifth Edition, “Project Stakeholder Management includes the processes required to identify the people, groups or

organization that could impact or be impacted by the project, to analyze stakeholder expectations and their impact on the project, and to develop appropriate management strategies for effectively engaging stakeholders in project decisions and execution.”

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

2.3.1 The Triple Constraint

The triple constraint involves three primary constraints that most projects will have. These constraints are time, cost and scope. Time refers to the time or schedule constraints related to the project. Cost constraint involves the budget and all other monetary constraints related to the project. Scope constraint refers to the limit of what the project is expected to accomplish. These constraints are interrelated. If one constraint changes then the other two constraints will also be affected. Quality is affected by the balance of these three components. Quality is addition constraint to every project.



Figure 5 Triple Constraint in Project management (Source: Tens Six Consulting, 2014)

3 METHODOLOGICAL FRAMEWORK

3.1 Information sources

According to Ajuwon, information sources are defined as, “the various means by which information is recorded for use by an individual or organization.” Ajuwon

further defines it as the, “means by which a person is informed about something or knowledge is provided or shared with someone, a group of people or organization.”

The Free Dictionary defines information sources as, “any system producing information intended for transmission; in information science, the conventional designation for scholarly documents or publications, which serve not only as important sources but also as the means of transmission of information in space and time.”

Some information sources can be media, blogs, personal experiences, speeches, books, journal and magazine articles, observations, documents, expert opinions, encyclopedias and web pages. These information sources can be in print, non-print and electronic media formats.

3.1.1 Primary sources

The Virginia Tech Libraries define primary source as an “original document containing firsthand information about the topic.”

The Florida Gulf Coast University defines primary sources as, “original manuscript, document or records used in preparing a published or unpublished work.”

Some primary sources are diaries, interviews, minutes of meeting, technical reports, letters, original work of art, photographs, speeches, videos and work of literature.

The primary information sources used on the FGP are as follows:

- Interviews
- The project document for the Belize Chemicals and Waste Management (BCWM) project developed by the United Nations Development Programme.
- Quarterly project status reports

3.1.2 Secondary sources

The Virginia Tech Libraries define secondary source as containing, “commentary on or discussion about a primary source.”

The Florida Gulf Coast University defines secondary sources as, “a published or unpublished work that relies on primary source (s).”

A secondary information source is a source that did not have a firsthand experience or participation in the events being researched.

The secondary information sources used on the FGP are as follows:

- PMBOK® Guide – Fifth Edition
- Library databases
- PMI database
- Internet

Chart 1 Information sources (Source: Author of the study)

Objectives	Information sources	
	Primary	Secondary
1. To create a scope management plan to identify the project requirements, main deliverables and subsequent activities in order to ensure that it includes all the work required to successfully	Interview with project manager and BCWM project document	PMBOK® Guide – Fifth Edition and PMI database

complete the project.		
2. To develop a schedule management plan in order to have a schedule baseline that can be used to measure project performance throughout the project life cycle.	Interview with project manager and BCWM project document	PMBOK® Guide – Fifth Edition and PMI database
3. To develop a cost management plan in order to establish what the project costs will be.	Interview with project manager and BCWM project document	PMBOK® Guide – Fifth Edition and PMI database
4. To develop a quality management plan in order to identify the project quality requirements in order to ensure results meet expectations for approval.	Interview with project manager and BCWM project document	PMBOK® Guide – Fifth Edition and PMI database
5. To develop a human resource management plan	Interview with project manager and	PMBOK® Guide – Fifth Edition and PMI database

<p>to identify and manage human resources effectively in order to complete the project within time, cost and scope constraints.</p>	<p>BCWM project document</p>	
<p>6. To develop a communications management plan in order to ensure the timely and effective communication of project status and other key information to stakeholders</p>	<p>Interview with project manager and BCWM project document</p>	<p>PMBOK® Guide – Fifth Edition and PMI database</p>
<p>7. To develop a risk management plan that identifies the project's main risks and plans a response for the most critical ones.</p>	<p>Interview with project manager and BCWM project document</p>	<p>PMBOK® Guide – Fifth Edition and PMI database</p>
<p>8. To develop a procurement</p>	<p>Interview with project</p>	<p>PMBOK® Guide – Fifth Edition and PMI database</p>

management plan to be used to obtain goods and services required by the project.	manager and BCWM project document	
9. To develop a stakeholder management plan in order to identify the project's main stakeholders and plan how to effectively engage and manage them.	Interview with project manager and BCWM project document	PMBOK® Guide – Fifth Edition and PMI database

3.2 Research methods

According to the Cambridge Business English Dictionary, a research method is defined as, “a particular way of studying something in order to discover new information about it or understand it better.”

3.2.1 Analytical method

According to Reference.com, analytical research method is defined as. “a specific research that involves critical thinking skills and the evaluation of facts and information relative to the research being conducted.” Reference.com mentions that “some researchers conduct analytical research to find supporting evidence to current research being done in order to make the work more reliable.” It also mentions that. “other researchers conduct analytical research to form new ideas about a topic being studied.”

The research method for each specific objective of the FGP is indicated in Chart 2 below.

Chart 2 Research methods (Source: Author of the study)

Objectives	Research methods
	Analytical Research Method
1.To create a scope management plan to identify the project requirements , main deliverables and subsequent activities in order to ensure that it includes all the work required to successfully complete the project.	The analytical method was applied by using information from the sources identified in Chart 1 to create the components which comprise the scope management plan.
2.To develop a schedule management plan in order to have a schedule baseline that can be used to measure project performance throughout the project life cycle.	The analytical method was applied by using information from the sources identified in Chart 1 to create the components which comprise the time management plan.
3.To develop a cost management plan in order to establish what the project costs will be.	The analytical method was applied by using information from the sources identified in Chart 1 to create the components which comprise the cost management plan.
4. To develop a quality management plan in order to identify the project quality requirements in order to ensure results meet expectations for approval.	The analytical method was applied by using information from the sources identified in Chart 1 to create the components which comprise the quality management plan.
5. To develop a human resource management plan to identify and manage human resources	The analytical method was applied by using information from the sources identified in Chart 1 to create the

effectively in order to complete the project within time, cost and scope constraints.	components which comprise the human resource management plan.
6. To develop a communications management plan in order to ensure the timely and effective communication of project status and other key information to stakeholders.	The analytical method was applied by using information from the sources identified in Chart 1 to create the components which comprise the communication management plan.
7. To develop a risk management plan that identifies the project's main risks and plans a response for the most critical ones.	The analytical method was applied by using information from the sources identified in Chart 1 to create the components which comprise the risk management plan.
8. To develop a procurement management plan to be used to obtain goods and services required by the project.	The analytical method was applied by using information from the sources identified in Chart 1 to create the components which comprise the procurement management plan.
9. To develop a stakeholder management plan in order to identify the project's main stakeholders and plan how to effectively engage and manage them.	The analytical method was applied by using information from the sources identified in Chart 1 to create the components which comprise the stakeholder management plan.

3.3 Tools

According to the PMBOK® Guide – Fifth Edition, a tool is defined as, “something tangible, such as a template or software program, used in performing an activity to produce a product or result.”

According to the Merriam-Webster Dictionary, a tool is defined as, “something (such as an instrument or apparatus) used in performing an operation or necessary in the practice of a vocation or profession.”

Chart 3 Tools (Source: Author of the study)

Objectives	Tools
<p>1. To create a scope management plan to identify the project requirements , main deliverables and subsequent activities in order to ensure that it includes all the work required to successfully complete the project.</p>	<p>Plan Scope Management</p> <ul style="list-style-type: none"> • Expert judgment • Meetings • Scope management plan template • Requirements management plan template <p>Collect requirements</p> <ul style="list-style-type: none"> • Interviews • Benchmarking • Document analysis • Requirements traceability matrix template <p>Define scope</p> <ul style="list-style-type: none"> • Expert judgement • Product analysis • Facilitated workshops <p>Create Work breakdown structure (WBS)</p> <ul style="list-style-type: none"> • Decomposition • Expert judgement • WBS generator <p>Validate scope</p> <ul style="list-style-type: none"> • Inspection (Product reviews) <p>Control scope</p> <ul style="list-style-type: none"> • Variance analysis
<p>2. To develop a schedule</p>	<p>Plan schedule management</p>

<p>management plan in order to have a schedule baseline that can be used to measure project performance throughout the project life cycle.</p>	<ul style="list-style-type: none"> • Expert judgement • Meetings • Schedule management plan template <p>Define Activities</p> <ul style="list-style-type: none"> • Decomposition • Expert judgement <p>Sequence activities</p> <ul style="list-style-type: none"> • Dependencies determination • Gantt chart • Microsoft Project 2016 <p>Estimate activity resources</p> <ul style="list-style-type: none"> • Expert judgment • Published estimating data • Bottom-up estimating • Microsoft Project 2016 <p>Estimate activity durations</p> <ul style="list-style-type: none"> • Expert judgement • Reserve analysis <p>Develop schedule</p> <ul style="list-style-type: none"> • Microsoft Project 2016 • Gantt chart <p>Control Schedule</p> <ul style="list-style-type: none"> • Trend analysis • Microsoft Project 2016 to track planned dates versus actual dates to report variances. • Gantt chart
<p>3. To develop a cost management plan in order to establish what</p>	<p>Plan cost management</p> <ul style="list-style-type: none"> • Expert judgement • Meetings

<p>the project costs will be.</p>	<ul style="list-style-type: none"> • Cost management plan template <p>Estimate cost</p> <ul style="list-style-type: none"> • Expert judgement • Bottom-up estimating • Reserve analysis • Microsoft Project 2016 <p>Determine budget</p> <ul style="list-style-type: none"> • Cost aggregation • Reserve analysis • Expert judgement • Microsoft Project 2016 <p>Control costs</p> <ul style="list-style-type: none"> • Forecasting • Microsoft Project 2016 to conduct performance reviews such as variance analysis, earned value performance
<p>4. To develop a quality management plan in order to identify the project quality requirements in order to ensure results meet expectations for approval.</p>	<p>Plan quality management</p> <ul style="list-style-type: none"> • Cost of quality • Histograms • Flowcharts • Quality management template <p>Perform quality assurance</p> <ul style="list-style-type: none"> • Activity network diagrams • Audits <p>Control quality</p> <ul style="list-style-type: none"> • Quality metrics • Quality checklists • Pareto diagrams • Histograms • Inspections

	<ul style="list-style-type: none"> • Approved change request review templates
5. To develop a human resource management plan to identify and manage human resources effectively in order to complete the project within time, cost and scope constraints.	<p>Plan human resource management</p> <ul style="list-style-type: none"> • Organization hierarchical-type charts • Expert judgement • Meetings <p>Acquire project team</p> <ul style="list-style-type: none"> • Pre-assignment • Negotiation • Acquisition • Virtual teams <p>Develop project team</p> <ul style="list-style-type: none"> • Personnel assessment templates <p>Manage project team</p> <ul style="list-style-type: none"> • Project performance appraisals templates
6. To develop a communications management plan in order to ensure the timely and effective communication of project status and other key information to stakeholders.	<p>Plan communication management</p> <ul style="list-style-type: none"> • Communication requirement analysis • Communication methods • Communication management plan template <p>Manage communications</p> <ul style="list-style-type: none"> • Communication methods <p>Control communications</p> <ul style="list-style-type: none"> • Expert judgement
7. To develop a risk management plan that identifies the project's main risks and plans a response for the most critical ones.	<p>Plan risk management</p> <ul style="list-style-type: none"> • Expert judgement • Risk management plan template <p>Identify risk</p> <ul style="list-style-type: none"> • Documentation reviews • Expert judgement

	<p>Perform qualitative risk analysis</p> <ul style="list-style-type: none"> • Probability and impact matrix • Risk probability and impact assessment • Expert judgement <p>Perform quantitative risk analysis</p> <ul style="list-style-type: none"> • Histograms • Risk simulation • Expert judgement <p>Plan risk responses</p> <ul style="list-style-type: none"> • Strategies for negative and positive risks • Contingency response strategies • Expert judgement <p>Control risks</p> <ul style="list-style-type: none"> • Risk assessment guides • Reserve analysis
<p>8. To develop a procurement management plan to be used to obtain goods and services required by the project.</p>	<p>Plan procurement management</p> <ul style="list-style-type: none"> • Expert judgement • Procurement management plan template • Market research <p>Conduct procurements</p> <ul style="list-style-type: none"> • Proposal evaluation criteria template • Proposal template • Terms of reference • Evaluation report template <p>Control procurements</p> <ul style="list-style-type: none"> • Contract change control templates • Procurement performance review templates • Inspection and audit guides <p>Close procurement</p>

	<ul style="list-style-type: none"> • Procurement audit
<p>9. To develop a stakeholder management plan in order to identify the project's main stakeholders and plan how to effectively engage and manage them.</p>	<p>Identify stakeholders</p> <ul style="list-style-type: none"> • Stakeholder analysis • Expert judgment • Stakeholder register template <p>Plan stakeholder management</p> <ul style="list-style-type: none"> • Expert judgment • Power interest grid • Stakeholder management plan template <p>Plan stakeholder management</p> <ul style="list-style-type: none"> • Expert judgement • Stakeholder engagement assessment matrix <p>Manage stakeholder engagement</p> <ul style="list-style-type: none"> • Communication methods • Issue log template • Change request template <p>Control stakeholder engagement</p> <ul style="list-style-type: none"> • Expert judgement • Project performance reporting templates

3.4 Assumptions and constraints

According to the PMBOK® Guide – Fifth Edition, an assumption is defined as, “a factor in the planning process that is considered to be true, real, or certain, without proof or demonstration.” The Oxford Dictionaries define an assumption as “a thing that is accepted as true or as certain to happen, without proof.”

The PMBOK® Guide – Fifth Edition defines a constraint as “a limiting factor that affects the execution of a project, program, portfolio, or process.” The Oxford Dictionaries define a constraint as “a limitation or restriction.”

The assumptions and constraints considered for each specific objective of the FGP are outlined in Chart 4 below.

Chart 4 Assumptions and Constraints (Source: Author of the study)

Objectives	Assumptions	Constraints
<p>1. To create a scope management plan to identify the project requirements, main deliverables and subsequent activities in order to ensure that it includes all the work required to successfully complete the project.</p>	<p>It is assumed that the scope management plan identifies all the work required.</p> <p>It is assumed that the Department, as executing agency is supportive in the facilitation of works related to the development of the scope management plan.</p> <p>It is assumed that the works identified by the stakeholders are adequately included within the scope of the project.</p>	<p>Time constraint since the scope of work is a lot and the time allocated to undertake the works is short.</p>
<p>2. To develop a schedule management plan in order to have a schedule baseline that can be used to measure project performance throughout the project life cycle.</p>	<p>It is assumed that the proposed time is adequate in order to accomplish all the scope of work.</p>	<p>The time allocated for the execution of FGP activities is limited and needs to be abided with.</p>

Objectives	Assumptions	Constraints
3. To develop a cost management plan in order to establish what the project costs will be.	It is assumed that a detailed and realistic budget is developed.	The budget required for the execution of project activities must not exceed the available budget.
4. To develop a quality management plan in order to identify the project quality requirements in order to ensure results meet expectations for approval.	It is assumed that the quality management plan will identify all the quality requirements of the project.	The time available to execute the FGP (three months) is a limiting factor for the development of the quality management plan.
5. To develop a human resource management plan to identify and manage human resources effectively in order to complete the project within time, cost and scope constraints.	It is assumed that the human resources management plan identifies all the required human resources. It is also assumed that the Department will obtain all the required human resources to complete the project.	The time available to execute the FGP (three months) is a limiting factor for the development of the human resource management plan. The required resources may

Objectives	Assumptions	Constraints
		not be readily available.
6. To develop a communications management plan in order to ensure the timely and effective communication of project status and other key information to stakeholders.	It is assumed that the communications management plan contains the required communication methods to suffice the stakeholder needs.	The time available to execute the FGP (three months) is a limiting factor for the development of the communication management plan.
7. To develop a risk management plan that identifies the project's main risks and plans a response for the most critical ones.	It is assumed that all critical risks are identified along with their risk response strategies.	All critical risks are to be identified within the time available for the FGP.
8. To develop a procurement management plan to be used to obtain goods and services required by the project.	It is assumed that the Department has all the information required to develop the procurement management plan.	Time is a limiting factor for the development of a detailed procurement management plan.
9. To develop a stakeholder management plan in order to identify the project's main stakeholders and	It is assumed that all the project stakeholders are identified and are on board with the execution	Time is a limiting factor for the identification of all relevant

Objectives	Assumptions	Constraints
plan how to effectively engage and manage them.	of the project.	stakeholders and the development of the stakeholder management plan.

3.5 Deliverables

According to the PMBOK® Guide – Fifth Edition, a deliverable is defined as “any unique and verifiable product, result, or capacity to perform a service that is required to be produced to complete a process, phase, or project.” The Oxford Dictionaries define a deliverable as “a thing to be provided, especially as a product of a development process.”

The deliverables developed on the FGP are presented in Chart 5 below.

Chart 5 Deliverables (Source: Author of the study)

Objectives	Deliverables
1. To create a scope management plan to identify the project requirements , main deliverables and subsequent activities in order to ensure that it includes all the work required to successfully complete the project.	Scope management plan with requirements management plan and scope baseline.
2. To develop a schedule management plan in order to have a schedule baseline that can be used to measure project performance	Schedule management plan with activity list, schedule network diagram, schedule baseline, and schedule in Gantt chart

throughout the project life cycle.	
3. To develop a cost management plan in order to establish what the project costs will be.	Cost management plan with activity cost estimates, and cost baseline
4. To develop a quality management plan in order to identify the project quality requirements in order to ensure results meet expectations for approval.	Quality management plan with quality metrics, quality checklist, approved change requests review template.
5. To develop a human resource management plan to identify and manage human resources effectively in order to complete the project within time, cost and scope constraints.	Human resource management plan with project staff assignment, and team performance appraisal template
6. To develop a communications management plan in order to ensure the timely and effective communication of project status and other key information to stakeholders.	Communications management plan
7. To develop a risk management plan that identifies the project's main risks and plans a response for the most critical ones.	Risk management plan with a risk register
8. To develop a procurement management plan to be used to obtain goods and services required by the project.	Procurement management plan with procurement statement of work, source selection criteria, proposal and evaluation report templates

9. To develop a stakeholder management plan in order to identify the project's main stakeholders and plan how to effectively engage and manage them.	Stakeholder management plan with stakeholder register and issue log
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4 RESULTS

4.1 Scope Management Plan

4.1.1 Introduction

The Scope Management Plan provides the scope framework for the Belize Chemicals and Waste Management (BCWM) Project. This Scope Management Plan documents the scope management approach, roles and responsibilities as it pertains to the project scope, scope definition, scope baseline, verification and scope change and control mechanism. Also, within this plan, the Requirements Management Plan is documented.

The objective of the BCWM Project is to protect human health and the environment locally and globally by reducing releases of harmful Persistent Organic Pollutants (POPs) substances and increasing the capacity for hazardous chemicals and waste management. This objective will be accomplished through two principal project components: (1) Regulatory Strengthening and Environmentally sound management of chemicals and waste, including POPs, and (2) UPOPs release reduction in waste management operations and agriculture. The project objective is in line with the Global Environment Facility (GEF) objective- phase out of POPs and Reduce POPs releases.

4.1.2 Scope Management Approach

The Scope Statement, Work Breakdown Structure (WBS) and WBS Dictionary define the scope of this project.

The Project Steering Committee (PSC), is comprised of: the Project Director, a representative of the United Nations Development Programme , the Belize Customs and Excise Department, the Caribbean Agriculture Research & Development, the Ministry of Health, the Belize Solid Waste Management Authority, the Pesticides Control Board, the Ministry of Economic Development, the Fabrigas Belize Limited, the Belize Agriculture Health Authority, the Sugar

Industry Research and Development Institute (SIRDI) and the University of Belize. The PSC will be responsible for the scope management. This committee will establish and approve documentation for measuring the project scope.

Proposed scope changes may be initiated by any PSC member or any member of the project team. All change requests will be submitted to the Project Manager who will then evaluate the requested scope change based on its impact on project cost and timelines. Upon acceptance of the scope change request, the Project Manager will submit the scope change requests to the PSC (who serves as the Change Control Board) for acceptance. Upon approval of scope change request by the Change Control Board, the Project Manager will update all project documents and communicate the scope change to all stakeholders. The Project Steering Committee will consider the feedback and input from the Project Manager and Stakeholders and is responsible for the acceptance of the final project deliverables and project scope.

4.1.3 Roles and Responsibilities

Several Individuals are responsible for the successful management of the project scope.

The Chart 6 below defines the roles and responsibilities of key stakeholders in order to ensure that all approved work and only the approved work is undertaken during the BCWM Project Life Cycle.

Chart 6 Scope Management Roles and Responsibilities (Source: Author of the study)

Role	Description of Responsibility
Project Sponsor	<ul style="list-style-type: none"> • Provides financial resources
Responsible Partner	<ul style="list-style-type: none"> • Acts as the project sponsor Implementing Agency • Ensures that the project delivers the agreed outcomes

	<ul style="list-style-type: none"> • Involved from project initiation to closure and reports to project sponsor • Ensures transparency, appropriate conduct and financial responsibility • Oversees annual financial audits, as well as the execution of independent Project Midterm and Terminal Evaluations • Provides regular programmatic and administrative oversight • Actively reviews and authorizes go/no go decisions, scope changes and quarter reviews • Provides additional funds for scope change • Provides technical and operational support necessary for the implementation of activities and results of the project.
Project Director	<ul style="list-style-type: none"> • Represents the Implementing Partner (Executing Agency) • Has overall accountability for the project • Provides in kind contribution to the project • Responsible for supervising the project activities • Provides overall management of the project • Chairs the Project Steering Committee
Project Manager	<ul style="list-style-type: none"> • Responsible for project planning, implementation, coordinating, controlling and monitoring project activities. • Prepares, tracks, and implements the annual work plans for the project; • Organizes and manages the work of the PSC. • Develops of Terms of Reference and contracts for national and international consultants

	<ul style="list-style-type: none">• Provides effective interaction with relevant state agencies, private companies, NGOs and other interested parties.• Builds effective working relationships with the project's key partners at the local level to ensure that project-inspired activities proceed with the full support and involvement of (i) local stakeholders, (ii) Beneficiary Groups and other local institutions/groups, and (iii) the private sector, resource users, etc.;• Disseminates information of project activity and results to project partners and the general public.• Supervises the internal processes for quality control, including creation of logs of risks, problems and quality indicators of project activity, monitoring and maintaining these logs, and making necessary changes.• Prepares and timely submits quarterly and annual progress reports using standard reporting formats on status project implementation in accordance with the project document.• Regularly reports and communicates with the PSC and UNDP on project status, including problems.• Controls the spending of project funds on intended purposes in accordance with the approved budget of each project outcome.• Participates in the approval of the project plan and deliverables• Secures acceptance and approval of deliverables• Escalates issues that cannot be resolved by
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	<p>project team to the PSC</p> <ul style="list-style-type: none"> • Facilitates scope change requests • Facilitates impact assessments of scope change requests • Organizes and facilitate scheduled change control meetings • Communicates outcomes of scope change requests • Updates documents upon approval of scope changes
Project Team	<ul style="list-style-type: none"> • Assists the Project Manager with the day to day management of project activities such as participating in defining change resolutions • Directed by the Project Manager
Project Steering Committee	<ul style="list-style-type: none"> • Serves as the Change Control Board • Accepts project deliverables and project scope • Provides management decisions when guidance is required by the Project Manager • Have final authority on matters requiring official review and approval, including annual work plan and key hires • Responsible for the scope management. Establishes and approves documentation for measuring the project scope.
Stakeholders	<ul style="list-style-type: none"> • Key provider of requirements, recipients of project deliverables and associated benefits

4.1.4 Scope Definition

The scope for the BCWM Project was defined through a comprehensive requirements collections process carried out by UNDP (the responsible partner)

and the Department of the Environment (DOE) (Implementing partner/executing agency).

4.1.5 Scope Baseline

The Scope Baseline is the approved specific version of the detailed project scope statement, work breakdown structure (WBS) and its associated WBS dictionary.

❖ Project Scope Statement

The Project scope statement for the BCWM project consists of the description of the project scope, major deliverables, constraints, and exclusion, assumption and acceptance criteria. These elements are described as follows:

➤ Project Scope Description

The BCWM Project aims to assist the country in implementing its relevant obligations under the Stockholm Convention, in particular to reduce the releases of UPOPs, as well as to build country's capacity, in line with the GEF objectives. This will be accomplished through four main project components.

Component 1: Regulatory Strengthening and Environmentally sound management of chemicals and waste, including POPs

- **Outcome 1.1:** Institutional capacities strengthened through enhanced policies and regulatory framework supporting sound management of chemical life cycle.

The following activities will be carried out to deliver Outcome 1.1:

Activity 1.1.1: Updating of the Legal Framework for the sound management of chemicals in Belize

Activity 1.1.2: Industrial chemicals regulation developed in incorporate enabling control regulations for Poly Chlorinated Biphenyls (PCB) and their standard operating procedures in the legal framework.

Activity 1.1.3: Support the PCB's Institutional Strengthening exercise aimed at addressing legal and Institutional gaps to allow better delivery of its mandates for the management of pesticides including POPs

Activity 1.1.4: Solid waste management compliance promotion

Outcome 1.2: Management and disposal of existing POPs waste

This outcome will work towards safe management and disposal of the identified intentionally produced POPs stockpiles in Belize. The stockpiles consist of both PCB and DDT that are in the ownership of private sector and Ministry of Health. The DDT stockpile has previously been packed by a regional project, and is ready for its exportation to final disposal. However, the PCB containing oil needs to be repacked before shipment.

The activities to be under taken under this project component consist of:

Activity 1.2.1: Verification, classification and inventory of Chemical stockpiles in Belize.

Activity 1.2.2: Repackaging, disposal of POPs stockpiles, and Training in buyer's competence for disposal services for hazardous waste, including POPs as well as safe practices for handling, packing and transportation.

Component 2: UPOPs release reduction in waste management operations and agriculture

As envisioned in the project concept stage, this project component will work towards ensuring that the municipal waste management in the Western Corridor area will be upgraded to modern standards without uncontrolled burning and resulting Unintentional POPs emissions. The back bone of this will consist of the overarching Solid Waste Management Project complemented with key activities that will ensure that no gaps and possibilities for systematic uncontrolled burning can take place in the Western Corridor area and that potentially high POPs release resulting waste is clearly separated.

In the agricultural sector, green harvesting with underlying field improvements as well as expert, technical and technological assistance will enable smaller scale cooperative sugar cane farmers to stop burning of the cane fields pre-and post-harvest with increased yields and decreased inputs.

Outcome 2.1: Measureable reduction in dioxin release from formal and informal waste dumps

The main cluster of activities to contribute this outcome is the Western Corridor Solid Waste Management Project by the MNR&A and the Solid Waste Management Authority completed with additional activities in closure of the waste dumps in Belmopan and Burrell Boom. This, partnered with corresponding measures at the waste sites to separate hazardous and high POPs releasing waste fractions such as electric and computing equipment casings at waste transfer centers, will result in considerable POPs release reduction.

Activity 1.2.2: Will consist of i) Burrell Boom Closure of open dumpsite and construction of a transfer station.

Activity 1.2.2: Sensitization of the schools and communities nearby the Burrell Boom on the use of the new transfer station and proper waste management.

Outcome 2.2: Reduction of UPOPs releases from uncontrolled, open burning of agricultural and other wastes

This outcome will work towards a gradual shift among small scale cane growers towards agricultural practices that ends the need for burning of the cane fields before and after harvest. The approach will be initially tested in one sugar cane harvest group and is expected to be extended to cover one harvest branch, paving way for further replication by the end of the project.

Activity 2.2.1: Piloted alternatives to agricultural burning in sugar cane farming.

This will entail technical assistance towards preparing fields suitable for such harvesting, the actual field preparation, introduction of small scale mechanical harvesting approaches and technologies, preferably by technologies recently

developed in the LAC region as well as technical assistance and implementation of appropriate pest management approaches as well as post-harvest action.

Activity 2.2.2: The promotion of farmer voluntary programs and guidelines regulating agricultural burning will consist of action to replicate the approaches introduced in Activity 2.2.1 widely in the sugarcane farming community. The work will develop guidelines of introducing Green Harvesting as well as discuss the inclusion of these in Fairtrade and other preferential trading schemes that are considering environmental benefits.

Component 3: Monitoring, learning, adaptive feedback, outreach, and evaluation

This component aims at the monitoring and evaluation of results achieved to improve the implementation of the project and disseminate lessons learnt domestically and internationally. The outputs of this component are:

- M&E and adaptive management are applied to provide feedback to the project coordination process to capitalize on the project needs; and
- Lessons learned and best practices are accumulated, summarized and replicated at the country level.

Component 4: Project Management

Activity 4.1: Adaptive Management

Activity 4.1.1: Manage Communication

Activity 4.1.2: Manage Procurement

Activity 4.1.3: Track and Manage tasks

Activity 4.1.4: Manage change requests

Activity 4.1.5: Update Project Management Plan

Activity 4.1.6: Project status meetings

Activity 4.2: UNDP Administration

➤ Project Acceptance Criteria

The following requirements must be met for the project to be accepted as complete:

1. All of the work captured in the Scope baseline is completed within budget and timeline

➤ Project Exclusions

The Scope of the project does not include any activity that does not assist in the accomplishment of the project outcomes.

➤ Project Constraints

The project should not exceed US \$1,015,000.00. In addition, the project duration should not exceed three (3) years to substantial completion and six (6) months after the three years for final financial closure.

➤ Project Assumptions

- Budget:
 - It is assumed that the funds available are sufficient to execute all project activities
- Work force:
 - It is assumed that there are sufficient quantities of skilled workers and consultants that are competent for the project's required activities
- Schedule:
 - It is assumed that the project will be completed in the third year, with an additional six (6) months allocated for financial closure.
- Planning:
 - It is assumed that the Ministry of Environment and Contractor General will approve contracts for the required contractual services

❖ WBS

The WBS has been created to decompose the project deliverables into manageable work packages. This decomposition allows the Project Manager to have a more effective management the project's scope as the project team works on the tasks necessary for project completion.

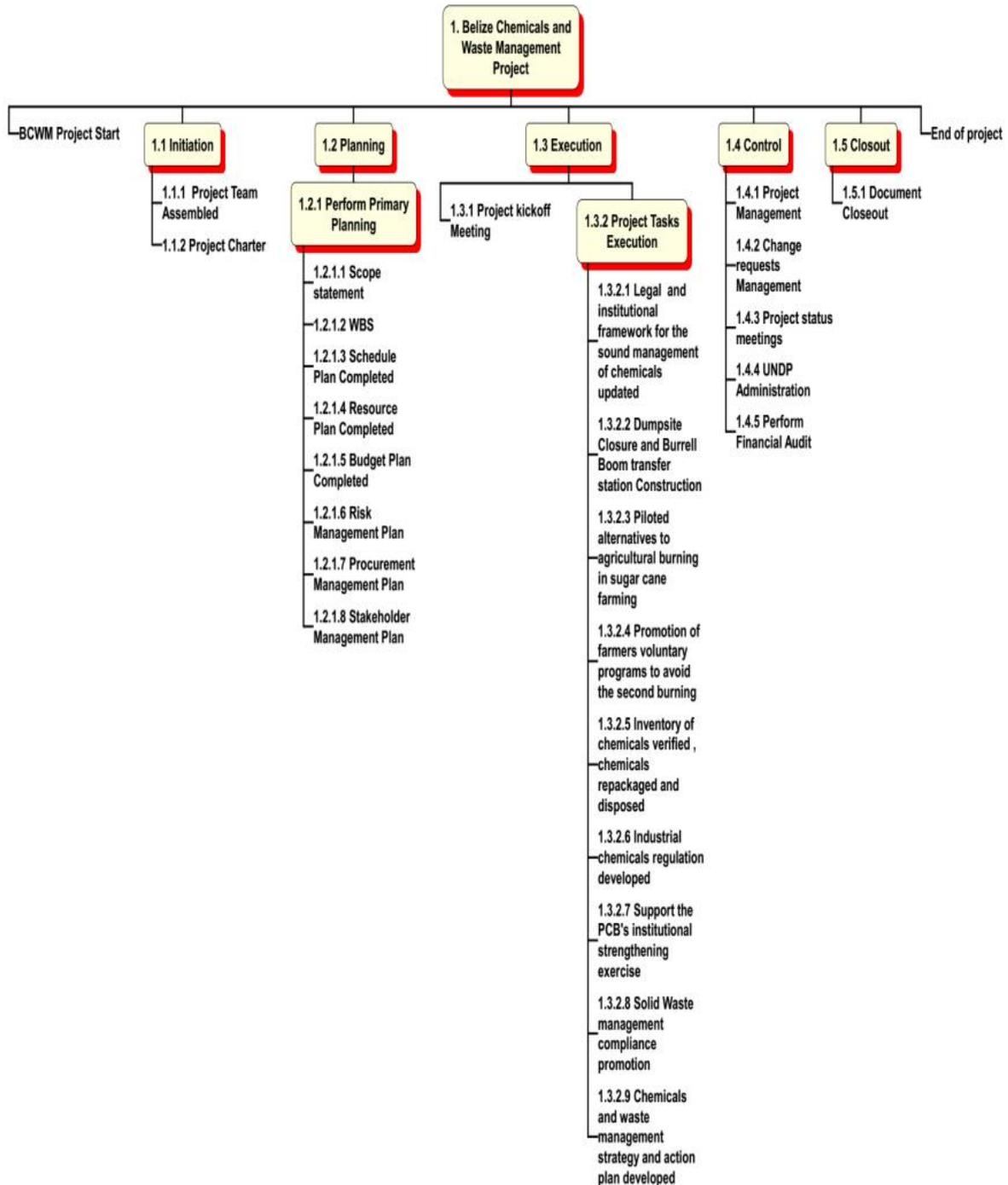


Figure 6 Work Breakdown Structure (Source: Author of the study)

❖ WBS Dictionary

In order to define the WBS in detail, a WBS Dictionary was created to capture the tasks characteristic information such as task names, work product, level of effort, resources, dependencies and others. This WBS Dictionary will help the Project Manager develop a detailed schedule baseline.

Chart 7 WBS Dictionary (Source: Author of the study)

WBS	Task Name	Description of Work	Predecessors	Resource Names
1	Belize Chemicals and Waste Management Project			
0	BCWM Project Start			
1.1	Initiation		2	
1.1.1	Project Team Assembled	The selection of Project Team, contracting and project kickoff meeting held.	2	
1.1.2	Project Charter	Development and approval of Project Charter	4	
1.2	Planning		3,5	
1.2.1	Perform Primary Planning		3,5	
1.2.1.1	Scope statement	Creation of preliminary scope	3,5	Project Manager, Administrative

		statement.		Assistant
1.2.1. 2	WBS	Development of work breakdown structure.	8	Project Manager, Administrative Assistant
1.2.1. 3	Schedule Plan Completed	Development of Schedule Plan.	8	Project Director, Project Manager, Administrative Assistant
1.2.1. 4	Resource Plan Completed	Development of a resource Plan	9,10	Project Manager, Administrative Assistant
1.2.1. 5	Budget Plan Completed	Development of Budget for project activities.	11	Project Manager, Administrative Assistant, Project Director
1.2.1. 6	Risk Management Plan	Development of Risk Management Plan.	12	Project Manager, Administrative Assistant
1.2.1. 7	Procurement Management Plan	Development of Procurement Management Plan.	13	Project Manager, Administrative Assistant
1.2.1. 8	Stakeholder Management Plan	Creation of Stakeholder Management Plan.	14	Project Manager, Administrative Assistant, Project Director
1.3	1.3 Execution		6,15	
1.3.1	Project kickoff Meeting	Planning and execution of kickoff meeting.	15	

1.3.2	Project Tasks Execution		17	Administrative Assistant, Project Steering Committee
1.3.2.1	Legal and institutional framework for the sound management of chemicals updated	Review Legislative Scheme, preparation of Cabinet paper, consultation workshops to discuss draft Legislation.	17	Project Manager, Project Steering Committee
1.3.2.2	Dumpsite Closure and Burrell Boom transfer station Construction	Closure of open dumpsite servicing the communities near the Burrell Boom and the Construction of a transfer station.	17	Construction Company
1.3.2.3	Piloted alternatives to agricultural burning in sugar cane farming	Purchase of equipment to assist in the implementation of piloted alternatives to agricultural burning in sugar cane farming.	19	Sugar Industry Research and Development Institute
1.3.2.4	Promotion of farmers voluntary	Execution of consultation workshops and	21	Sugar Industry Research and Development

	programs to avoid the second burning	procurement of public awareness materials for the promotion of farmers voluntary programs to avoid the second burning in sugar cane farming.		Institute
1.3.2.5	Inventory of chemicals verified, chemicals repackaged and disposed	Verification of Inventory of POPs chemicals. Training, repackaging and final disposal of POPs chemicals.	19	Chemicals expert
1.3.2.6	Industrial chemicals regulation developed	Development of Regulation for the management and control of Industrial chemicals.	23SS+34 wks	Legal Expert
1.3.2.7	Support the PCB's institutional strengthening exercise	Partnership with IICA to the development of strategic plan and action plan for the Pesticides Control Board.	19	IICA
1.3.2.8	Solid Waste management	Presentation to villagers in the	19	Project Manager, Administrative

	compliance promotion	vicinity of Burrell Boom on proper solid waste management. Development and procurement of public awareness materials. Printing of signage promoting proper solid waste management.		Assistant
1.3.2.9	Chemicals and waste management strategy and action plan developed	Contracting of chemicals management expert and the development of a chemicals and waste management strategy and action plan.	23	Chemicals management expert
1.4	Control		2SS,3SS	
1.4.1	Project Management	Track and management of project activities to ensure timely execution of activities and within budget. .	3SS	Project Manager, Administrative Assistant
1.4.2	Project status	Execution of	4	Project Manager,

	meetings	Project status meeting.		Administrative Assistant
1.4.3	UNDP Administration	Monitoring and support on project activities.	3SS	United Nations Development Programme Officer
1.5	1Closout		16,27	
1.5.1	Document Closeout	Execution of Terminal Project Evaluation, documentation of lessons learned, filing of records and acceptance of project completion by project sponsor.	16,27	Consultant
	End of project		3,6,16,28,32	

4.1.6 Scope verification

During the project's life cycle, the Project Manager will verify interim project deliverables against the original scope as defined in the project scope statement, WBS and WBS Dictionary. Once the Project Manager has finalized this verification, the Project Manager will meet with the Project Steering Committee to obtain formal acceptance of the deliverable. To document the acceptance of the deliverable, all Project Steering Committee members are to sign a project deliverable acceptance document.

4.1.7 Scope Control

The scope of work for the BCWM Project will be controlled by the Project Manager and the Project team. With the use of the WBS Dictionary, the project

team will ensure that only the work prescribed in the WBS Dictionary is performed and that the defined deliverables for each WBS element is generated. The Project Director will oversee that this scope control process is followed and that the progress is reported.

4.1.8 Scope Change

The PSC member or any member of the project team can request project scope changes throughout the project life cycle. If a change to the BCWM Project scope is needed, the process for recommending and estimating changes to the scope is carried out. All change requests are to be submitted to the Project Manager in the prescribed project change request form as shown in Appendix 5. The Project Manager will review the suggested change to the scope of the project and carry out an estimation of the impacts of said changes on the cost and the timelines. The Project Manager will then either reject the change request if it does not apply to the intent of the project, or convene a Change Control meeting with the project team and the Change Control Board to formally submit the change request. If the Change Control Board approves the scope change, the Change Control Board will then formally accept the change by signing the project change control document. Upon acceptance of the scope change by the Change Control Board, the Project Manager will update all project documents and communicate the scope change to all project team members' stakeholders.

4.1.9 Requirements Management Plan

➤ Introduction

The Requirements Management Plan documents all the necessary information required to effectively manage project requirements from definition, through traceability and delivery.

➤ Collection, documentation, tracking and reporting requirements

The information provided in the BCWM Project document provided valuable information in determining requirements for this Project. All requirements are documented within a Project management system and are reviewed on a bi-weekly basis as a part of the regular project team meetings.

The requirements were collected and documented in the requirements traceability matrix (RTM) shown in Chart 9.

➤ **Categories**

Requirements are capabilities and conditions to which the system or project must conform. Requirements can be broadly classified as Functional and Non-Functional Requirements.

Functional Requirements:

- Feature of the Consultancies
- Outputs of the Consultancies
- Audit / Legal Requirements

Non-Functional Requirements:

- Reliability
- Availability
- Scalability
- Performance
- Supportability

❖ **Prioritization**

The Project manager will facilitate project meetings in order to establish priorities for all project requirements. This project uses a three level scale in order to prioritize requirements.

Chart 8 below illustrates these levels and defines how these requirements are grouped.

Chart 8 Three- Level scale to prioritize requirements (Source: Author of the study)

Priority Level	Definition
High	These requirements are critical and are required for project/product success or the advancement to the next project activity or phase.
Medium	These requirements support product/process operations but can be completed simultaneously.
Low	These requirements are quality and or functional enhancement and are desirable if time and resources allows it.

❖ Metrics

The project metrics are typical in nature and consist of performance, quality and cost specifications.

In order to achieve project success, the deliverables must meet or exceed all established metrics.

Cost:

- The daily professional fees for consultants must cost less than US \$950
- The goods must be obtained from a provider which offers the best value for money quote.
- The budget for each project component must be within approved budget.
- EV, AC, PV
- CPI, SPI, EAC, VAC

Quality:

- Project quality standards must be adhered to, by quality criterion as outlined in section 4.4.3.

- All defined indicators must be met.
- Completeness of work
- On-time delivery of reports and agreed deliverables of consultants
- Issues with availability and reliability
- Customer satisfaction
- Earned value

Performance:

- Schedule variance must not be a negative value.
- Cost variance must not be a negative value.

Schedule

- Track percentage of work done ensuring that the project progresses as scheduled without delays.
- Activities
- Completion dates

Risk

- Schedule
- Cost
- Resources
- Deliverables

❖ Requirements Change Management

Change of requirements is inevitable throughout the project life cycle. All change requests to requirements are to be submitted to the Project Manager in the prescribed project change request form as shown in Appendix 5. The Project Manager will review and analyze the change request. The Project Manager will then either reject the change request if it does not apply to the intent of the project, or convene a Change Control meeting with the project team and the Change Control Board to formally submit the change request. If the Change

Control Board approves the change request to the requirements, the Change Control Board will then formally accept the change by signing the project change control document. Upon acceptance of the change in requirements by the Change Control Board, the Project Manager will update the requirements and communicate such change to all project team members and stakeholder.

❖ Requirements Traceability Matrix

The requirements traceability matrix is a tool which ensures that deliverables meet the project requirements. Chart 9 below shows the project requirements traceability matrix.

Chart 9 Requirements Traceability Matrix (Source: Author of the study)

Requirement Information					Relationship Traceability			
ID	Requirement	Priority	Category	Source	Objective	WBS Deliverable	Metric	Verification
1	Project team to have experience in project management and chemistry background	High	Technical	Implementing Partner	To ensure better understanding of project outcomes and ensure project delivery.	Task 1.1.1	Project delivery	Done
2	Stakeholder participation	Medium	Technical	Implementing partner	To ensure stakeholder buy in.	Task 1.3.2.1	Customer satisfaction	Done

3	Construction must adhere to local building code requirements and Environmental compliance plan.	High	Technical	Implementing partner	To ensure compliance with local government requirement for the construction of buildings.	Task 1.3.2.2	Project delivery	Done
Requirement Information					Relationship Traceability			
ID	Requirement	Priority	Category	Source	Objective	WBS Deliverable	Metric	Verification
4	Service provider to wear and have proper personal protective equipment at hand.	High	Functional	Implementing partner	To ensure proper safety measure and personnel protection.	Task 1.3.2.5	Number of accidents	Done
5	Health and safety Plan in place	High	Functional	Responsible partner		Task 1.3.2.5	Number of	Done

	during the implementation of activities.						accidents	
6	Service provider must present a Bank Guarantee	High	Technical	Responsible partner	To ensure a guarantee is in place should something go wrong due to service provider negligence.	Task 1.3.2.5	Cost	Done

4.2 Schedule Management Plan

4.2.1 Introduction

The Schedule Management Plan defines the approach the project team will use in creating the project schedule. This plan also includes how the project team will monitor the project schedule and manage changes after the baseline schedule has been approved.

4.2.2 Schedule Management Approach

The schedule was created using a Microsoft Project 2016. The activity definition identifies the specific work packages which must be performed to complete each deliverable. Activity sequencing is used to determine the order of work packages and assign the relationships between the project activities. Activity duration estimation is used to calculate the number of work periods required to complete the work packages. Resource estimation is used to assign resources to the work packages in order to complete the schedule.

The project team reviews the schedule and then presents to the Project Steering Committee for its review and approval. Once the schedule is approved, it is then baselined.

The following are designated as milestones for the project schedule:

- Approved Project Charter
- Project Inception Workshop (kick-off meeting)
- Project implementation of validation workshops
- Acceptance of Project Deliverables

4.2.3 Activity List

The Project Activity list shown in Chart 10 includes all scheduled activities required on the project.

Chart 10 Activity List (Source: Author of the study)

WBS	Task Name	Duration	Predecessors	Resource Names	Milestone
1	Belize Chemicals and Waste Management Project	165 wks			No
0	BCWM Project Start	0 wks			No
1.1	Initiation	12.2 wks	2		No
1.1.1	Project Team Assembled	10.2 wks	2		No
1.1.2	Project Charter	2 wks	4		No
1.2	Planning	11 wks	3,5		No
1.2.1	Perform Primary Planning	11 wks	3,5		No
1.2.1.1	Scope statement	2 wks	3,5	Project Manager, Administrative Assistant	No
1.2.1.2	WBS	1 wk	8	Project Manager, Administrative Assistant	No
1.2.1.3	Schedule	1 wk	8	Project Director,	No

	Plan Completed			Project Manager, Administrative Assistant	
1.2.1.4	Resource Plan Completed	1 wk	9,10	Project Manager, Administrative Assistant	No
1.2.1.5	Budget Plan Completed	1 wk	11	Project Manager, Administrative Assistant, Project Director	No
1.2.1.6	Risk Management Plan	1 wk	12	Project Manager, Administrative Assistant	No
1.2.1.7	Procurement Management Plan	4 wks	13	Project Manager, Administrative Assistant	No
1.2.1.8	Stakeholder Management Plan	1 wk	14	Project Manager, Administrative Assistant, Project Director	No
1.3	Execution	139.8 wks	6,15		No
1.3.1	Project kickoff Meeting	4.8 wks	15,6		No
1.3.2	Project Tasks Execution	135 wks	17	Administrative Assistant, Project Steering Committee	No
1.3.2.1	Legal and institutional	20 wks	17	Project Manager, Project Steering	Yes

	framework for the sound management of chemicals updated			Committee	
1.3.2.2	Dumpsite Closure and Burrell Boom transfer station Construction	64 wks	17	Construction Company	Yes
1.3.2.3	Piloted alternatives to agricultural burning in sugar cane farming	42 wks	19	Sugar Industry Research and Development Institute	No
1.3.2.4	Promotion of farmers voluntary programs to avoid the second burning	52 wks	21	Sugar Industry Research and Development Institute	No
1.3.2.5	Inventory of chemicals verified, chemicals repackaged and disposed	91 wks	19	Chemicals expert	Yes

1.3.2.6	Industrial chemicals regulation developed	52 wks	23SS+34 wks	Legal Expert	No
1.3.2.7	Support the PCB's institutional strengthening exercise	24 wks	19	IICA	No
1.3.2.8	Solid Waste management compliance promotion	33 wks	19	Project Manager, Administrative Assistant	No
1.3.2.9	Chemicals and waste management strategy and action plan developed	24 wks	23	Chemicals management expert	Yes
1.4	Control	165 wks	2SS,3SS		No
1.4.1	Project Management	165 wks	3SS	Project Manager, Administrative Assistant	No
1.4.2	Project status meetings	154.7 wks	4	Project Manager, Administrative Assistant	No
1.4.3	UNDP Administration	165 wks	3SS	United Nations Development Programme Officer	No

1.5	Closeout	2 wks	16,27		No
1.5.1	Document Closeout	2 wks	16,27	Consultant	No
	End of project	0 wks	3,6,16,32,28		Yes

4.2.4 Schedule Network Diagram

Once the project activities were identified and defined, the Microsoft Project 2016 was utilized to develop the Schedule Network Diagram shown in Figure 7 below.

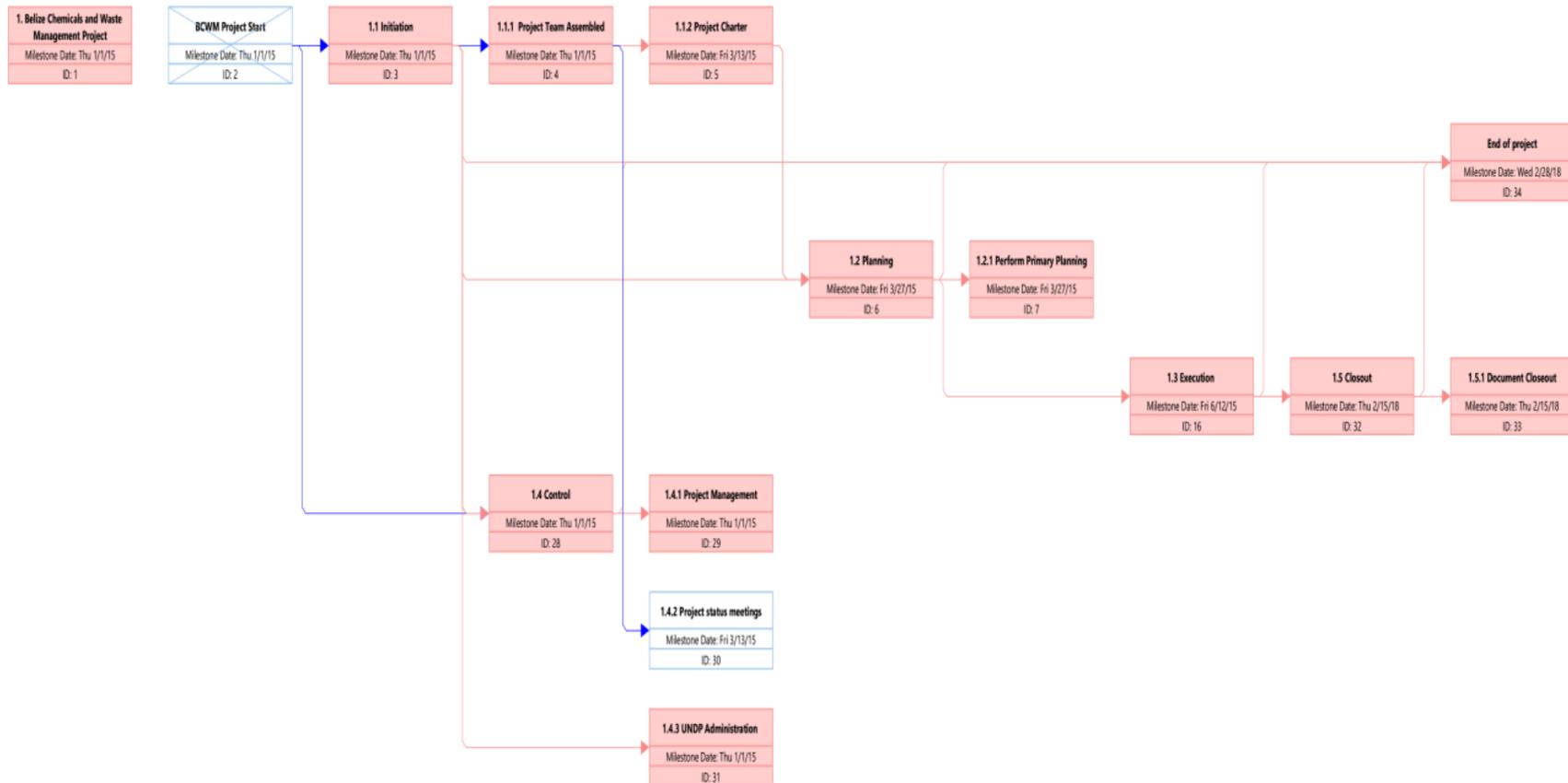
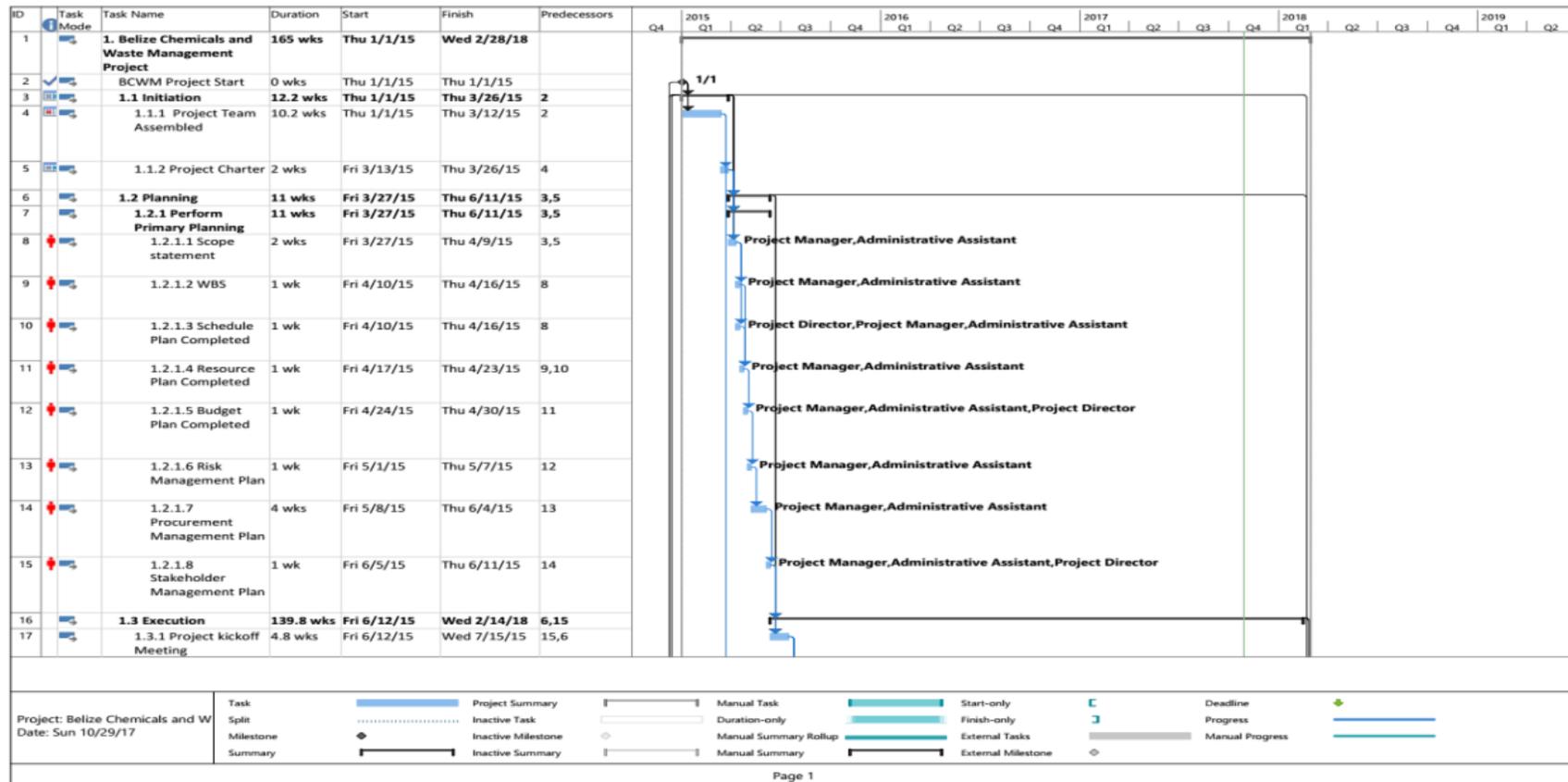


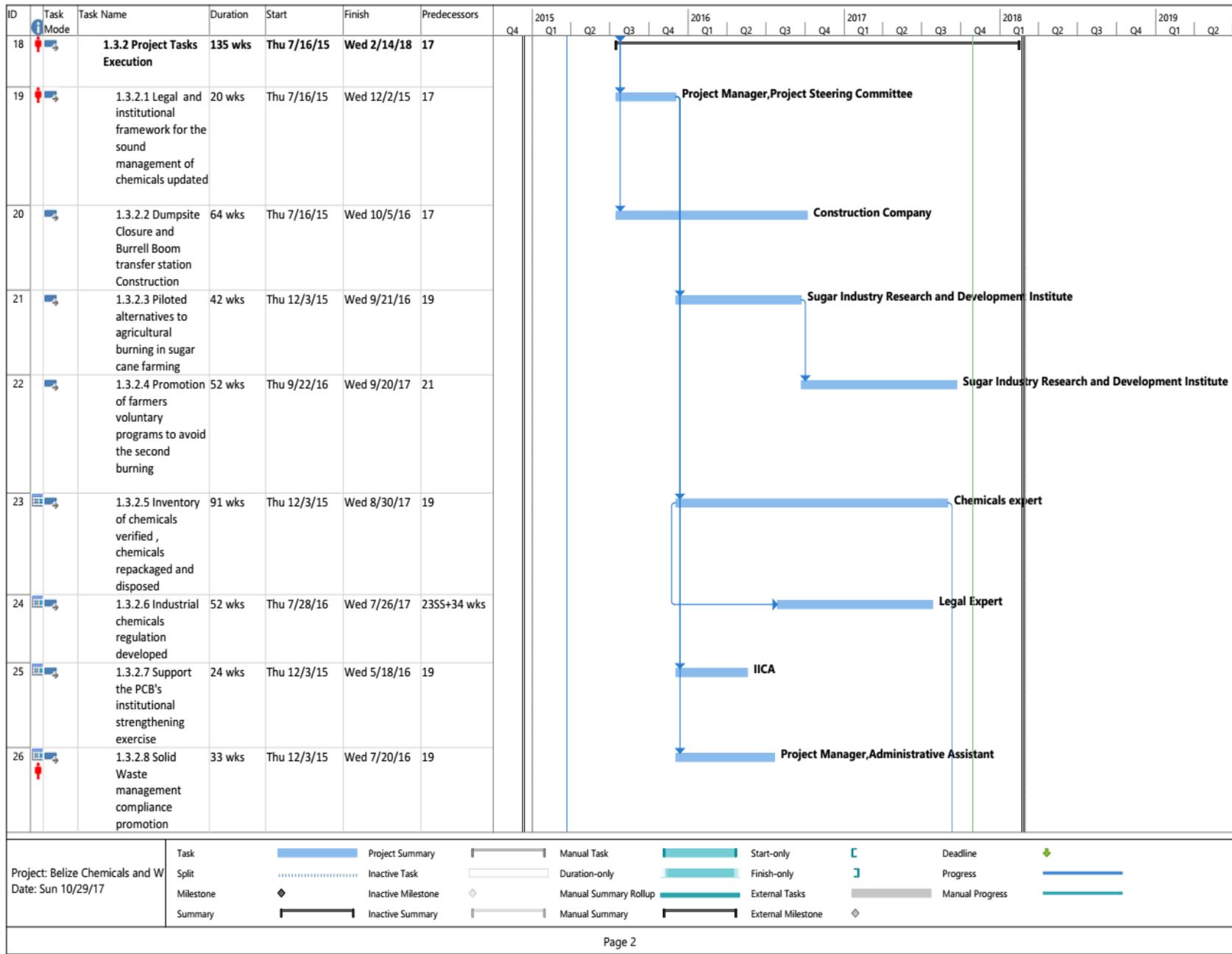
Figure 7 Schedule Network Diagram (Source: Author of the study)

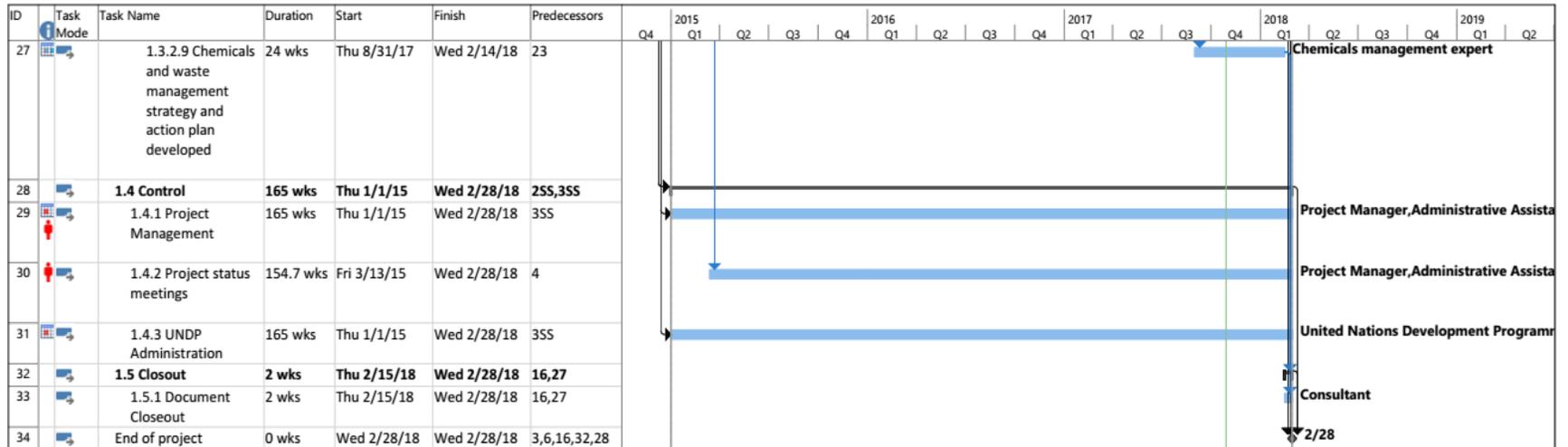
4.2.5 Schedule Baseline

The BCWM Project schedule is presented in Chart 11 below.

Chart 11 BCWM Project Schedule (Gantt Chart) (Source: Author of the study)







Chemicals management expert
 Project Manager, Administrative Assista
 Project Manager, Administrative Assista
 United Nations Development Program
 Consultant
 2/28

Project: Belize Chemicals and W Date: Sun 10/29/17	Task		Project Summary		Manual Task		Start-only		Deadline	
	Split		Inactive Task		Duration-only		Finish-only		Progress	
	Milestone		Inactive Milestone		Manual Summary Rollup		External Tasks		Manual Progress	
	Summary		Inactive Summary		Manual Summary		External Milestone			

4.2.6 Schedule Control

The project schedule is reviewed and updated on a weekly basis; or when new information is obtained and added, or deleted from the schedule.

The Project Manager is responsible for the performing the schedule updates/reviews and communicating any changes to the Project Director. The reporting of schedule status will be done in accordance with the project's Communication Plan.

4.2.7 Schedule Change and Thresholds

If any member of the project team determines that a change to the schedule is necessary, the Project Manager and Project team will meet to assess and evaluate the change. The project team will determine which tasks are impacted, the variances as a result of the potential change and determine how change will affect the scope, schedule and resources. If after the evaluation is finalized, the Project manager observes that any change exceeds the established schedule constraints, a schedule change request must be submitted.

Submittal of a Schedule Change Request to the PSC for approval is required if either one of the two following conditions is true:

- The proposed change is estimated to reduce the duration of an individual work package by 15% or more, or increase the duration of an individual work package by 15% or more.
- The change is estimated to reduce the duration of the overall baseline schedule by 15% or more, or increase the duration of the overall baseline schedule by 15% or more.

Any change requests that do not meet these thresholds may be submitted to the Project Director for approval.

Once the change request is approved, the Project Manager is responsible for the adjusting the schedule and communicating the changes and impacts to the project team.

4.3 Cost Management Plan

The Project Manager will be responsible for managing and reporting on the project's cost throughout the duration of the project. The Project Manager will send out a monthly financial report by E-mail to the Project Steering Committee (PSC). During quarterly project progress meeting, the Project Manager and Project Administrative Assistant will meet with Responsible Partner and PSC to present and review the project's cost performance for the preceding quarter. Performance will be measured using earned value management. The Project Manager is responsible for preparing the Cost Management Plan and the Cost Baseline. The Project Manager is responsible for accounting for cost deviations and presenting the Project Sponsor with options for getting the project back on budget. The Responsible Partner and PSC have the authority to make changes to the project to bring it back within budget.

4.3.1 Rules for Performance Measurement

Project performance will be measured using the Earned Value Management. The following four Earned Value metrics will be used to measure the project's cost performance:

1. Schedule Variance (SV)
2. Cost Variance (CV)
3. Schedule Performance Index (SPI)
4. Cost Performance Index (CPI)

If the Schedule Performance Index or Cost Performance Index has a variance of between 0.1 and 0.2, the Project Manager must report the reason for the exception. If the SPI or CPI has a variance of greater than 0.2, the Project

Manager must report the reason for the exception and provide the Project Steering Committee with a detailed corrective plan to bring the project's performance back to acceptable levels.

Chart 12 Performance measure (Source: Author of the study)

Performance Measure	Yellow	Red
Schedule Performance Index (SPI)	Between 0.9 and 0.8 Between 1.1 and 1.2	Less than 0.8 or Greater than 1.2
Cost Performance Index (CPI)	Between 0.9 and 0.8 Between 1.1 and 1.2	Less than 0.8 or Greater than 1.2

4.3.2 Cost Reporting and Format

Reporting for cost management will be included in the quarterly end of stage progress reports. There will be a section named "Cost Management" where the Earned Value Metrics identified will be included. All cost variances outside of the thresholds identified will be reported along with any corrective plans. The Change orders, which are triggered based on the project overruns, will be identified and tracked in this report.

4.3.3 Estimating Costs by Activity

Estimates of the cost by work package are shown in Chart 13. Estimates will be refined as more information about the project becomes available.

The estimated cost for some tasks and activities reflect a \$0 cost due to various reasons which are highlighted in Chart 14.

Chart 13 Activity cost estimates and Back up Information (Source: Author of the study)

WBS	Task Name	Activity	Cost Estimates
1	Belize Chemicals and Waste Management Project		\$1,015,000.00
1.1	Initiation		\$0.00
1.1.1	Project Team Assembled		
		Selection of Project Team	\$0.00
		Contracting of Project Team	\$0.00
		Project team kickoff meeting	\$0.00
1.1.2	Project Charter		\$0.00
1.2	Planning		\$0.00
1.2.1	Perform Primary Planning		\$0.00
1.2.1.1	Scope Statement		\$0.00
1.2.1.2	WBS		\$0.00
1.2.1.3	Schedule Plan Completed		\$0.00
1.2.1.4	Resource Plan Completed		\$0.00
1.2.1.5	Budget Plan Completed		\$0.00
1.2.1.6	Risk Management Plan		\$0.00
1.2.1.7	Procurement Management Plan		\$0.00
1.2.1.8	Stakeholder Management Plan		\$0.00
1.3	Execution		\$790,649.00
1.3.1	Project kickoff Meeting		\$4,000.00
1.3.1.1		Create stakeholder list	\$0.00

1.3.1.2		Send invitations	\$0.00
1.3.1.3		Hold Inception workshop (Kickoff meeting with stakeholders)	\$4,000.00
1.3.2	Project Tasks Execution		\$786,649.00
1.3.2.1	Legal and institutional framework for the sound management of chemicals updated		\$5,000.00
		Internal review of SOLGEN'S legislative scheme	\$400.00
		Prepare and submit Cabinet Paper	\$0.00
		Host first workshop with DOE staff and PSC to review and discuss draft National Integrated Chemicals Management Bill	\$2,100.00
		Host second workshop with DOE staff and PSC to review and discuss draft National Integrated Chemicals Management Bill	\$2,500.00
1.3.2.2	Dumpsites Closure and Burrell Boom transfer station construction		\$350,000.00

		Closure and cleaning of Open dumpsites nearby the Burrell Boom	\$10,000.00
		Construction of transfer station for the Burrell Boom communities	\$340,000.00
1.3.2.3	Piloted alternatives to agricultural burning in sugar cane farming		\$96,109.00
		Purchase of (2) Tractors, (2) disc ridgers and (2) rotary tillers.	83,109.000
		Purchase of (1) canon sprayer	\$13,000.00
1.3.2.4	Promotion of farmers voluntary programs to avoid the second burning		\$33,985.00
		Pilot Demonstration for the adoption of green practices by sugar cane farmers	\$19,050.00
		Sensitization workshop for the promotion of voluntary programs	\$4,210.00
		Hosting of four field days of green harvesting	\$2,600.00

		demonstrations to farmers using mechanical harvesting	
		Creation of seed bank of 4 to 5 sugar cane varieties (upright leaf shedding) that are more conducive to mechanical harvesting. This includes creating a 10 Acre plot: Land preparation, purchase of seeds, transportation and planting cost, input cost (fertilizer and herbicides).	\$8,125
1.3.2.5	Inventory of chemicals verified, chemicals repackaged and disposed		\$234,126.00
		Verification consultancy	\$19,361.00
		Develop TOR for Verification consultancy	\$90.00
		Advertisement of TOR for verification consultancy	\$994.00
		Evaluation of proposal	\$300.00
		Sign Contract with	\$0.00

		consultant for verification consultancy	
		Implementation of Consultancy for the verification of Inventory of chemicals	\$16,550.00
		Meetings /Workshop	\$1,427.00
		Consultation meetings with Pesticide owners	\$307.00
		Validation workshop for verification consultancy report	\$1,120.00
		Repackaging and disposal of chemicals	\$214,800.00
		Develop TOR for the repackaging and disposal consultancy	\$200.00
		Evaluation of Proposals for the repackaging and disposal consultancy	\$0.00
		Signing of Contract for the repackaging and disposal consultancy	\$0.00
		Implementation of the Repackaging and disposal consultancy	\$170,000.00
		Disposal of POPs	\$39,100

		Chemicals Contingency	
		Meetings/Workshop	\$5,500.00
		Consultation meetings	\$1,000.00
		Training workshop	\$4,500.00
1.3.2.6	Industrial chemicals regulation developed to incorporate control regulations		\$15,230.00
		Development of TOR for consultancy to draft regulations on industrial chemicals	\$200.00
		Advertisement of TOR	\$800.00
		Evaluation of proposals	\$200.00
		Signing of Contract for industrial chemicals regulations consultancy	\$0.00
		Implementation of Consultancy for the development of regulations for industrial chemicals	\$11,410.00
		Workshop/consultation meetings with stakeholders	\$2,620.00
1.3.2.7	Support the PCB's institutional strengthening exercise		\$20,000.00
		Partnership with IICA	\$20,000.00

		to develop a strategic plan and action plan for the Pesticides Control Board	
1.3.2.8	Solid Waste management compliance promotion		\$5,467.00
		Presentation to villagers in the vicinity of the Boom transfer station	\$1,000.00
		Develop material for public awareness sessions to target the villages in these areas	\$1,328.00
		Printing of signage (posters) promoting proper solid waste management	\$3,139.00
1.3.2.9	Chemicals and waste management strategy and action plan developed		\$26,732.00
		Develop TOR	\$273.00
		Advertisement of TOR	\$708.00
		Evaluation of proposals	\$241.00
		Sign Contract with consultant for chemicals and waste management strategy consultancy	\$0.00

		Implementation of chemicals and waste management strategy consultancy	\$22,385.00
		Consultation meetings with stakeholders	\$1,625.00
		Validation workshop for chemicals and waste management strategy and action plan	\$1,500.00
1.4	Control		\$212,351.00
1.4.1	Project Management		\$186,611.00
		Salaries for Project Management Unit	\$142,320.00
		Office Supplies and equipment	\$5,791.00
		Travel Costs	\$38,500.00
1.4.2	Project status meetings		\$9,500.00
		Project Steering Committee Meetings	\$8,000.00
		Technical Review Committee Meetings	\$1,500.00
1.4.3	UNDP Administration		\$16,240.00
		Support fees	\$8,140.00
		Perform Financial Audit	\$8,100.00
1.5	Closeout		\$12,000.00
1.5.1	Document Closeout		\$12,000.00

		Perform Terminal Project Evaluation	\$12,000.00
		Document Lessons Learned	\$0.00
		Update files/ Records	\$0.00
		Gain Formal Acceptance of Project Completion	\$0.00
		Archive File/Documents	\$0.00

Chart 14 Justification for Activities with estimated cost equal to \$0. (Source: Author of the study)

WBS	Task Name	Activity	Cost Estimates	Justification
1.1	Initiation		\$0.00	
1.1.1	Project Team Assembled	Selection of Project Team	\$0.00	The Department of the Environment (DOE) as the Implementing partner provides in kind contribution to the project by using human resource and other resources (i.e. conference room) to carry out the selection of project team. The cost incurred for the selection of project team

				is the covered by the DOE as in kind contribution.
		Contracting of Project Team	\$0.00	There are no payments made upon signing of contract. All cost estimated for the project management team is being considered in the salaries.
		Project team kickoff meeting	\$0.00	This meeting is an initial meeting with the team as they start their working contract. There is no cost estimated for this activity since this activity is considered a requirement and is contemplated with their salaries.
1.1.2	Project Charter	Develop Project Charter	\$0.00	The development of the Project Charter will be the responsibility of the project manager and administrative assistant as part of their work. The cost for the development of these documents is being considered within their salaries. Hence the

				reason this activity has no cost.
1.2	Planning		\$0.00	
1.2.1	Perform Primary Planning		\$0.00	The development of the perform planning documentation will be the responsibility of the project manager and administrative assistant as part of their daily work. The cost for the development of these documents is being considered within their salaries. Hence the reason this activity has no cost.
T	Scope Statement		\$0.00	Refer to justification for WBS #1.2.1.
1.2.1.2	WBS		\$0.00	Refer to justification for WBS #1.2.1.
1.2.1.3	Schedule Plan Completed		\$0.00	Refer to justification for WBS #1.2.1.
1.2.1.4	Resource Plan Completed		\$0.00	Refer to justification for WBS #1.2.1.
1.2.1.5	Budget Plan Completed		\$0.00	Refer to justification for WBS #1.2.1.
1.2.1.6	Risk Management		\$0.00	Refer to justification for WBS #1.2.1.

	Plan			
1.2.1.7	Procurement Management Plan		\$0.00	Refer to justification for WBS #1.2.1.
1.2.1.8	Stakeholder Management Plan		\$0.00	Refer to justification for WBS #1.2.1.
1.3.1	Project kickoff Meeting	Create stakeholder list	\$0.00	The creation of stakeholder list will be the responsibility of the project manager and administrative assistant as part of their work. The cost for the development of these documents is being considered within their salaries. Hence the reason this activity has no cost.
		Send invitations	\$0.00	Sending invitation incur no cost since the mailing services for government is free of cost. In addition, invitations are also sent via email which has no cost to the project. Sending invitations will be the responsibility of the project manager and

				administrative assistant and the cost of their daily work is included in their salary. Hence, the cost estimate for this activity is \$0.
1.3.2.1	Legal and institutional framework for the sound management of chemicals updated	Prepare and submit Cabinet Paper	\$0.00	The Department of the Environment as the Implementing partner provides in kind contribution to the project by allowing the project to use the Human resources they have available for free. Hence, the project obtains the assistance from the legal unit to develop the cabinet paper for free.
1.3.2.5	Inventory of chemicals verified, chemicals repackaged and disposed	Sign Contract with consultant for verification consultancy	\$0.00	There are no payments made upon signing of contract. Payments are made upon submission and approval of deliverables. Hence, there is no cost incurred for the signing of contracts.
		Evaluation of Proposals for	\$0.00	Since the consultancy is advertised

		the repackaging and disposal consultancy		internationally to capture overseas consultants' expertise, the procurement process for this consultancy is carried out by the Responsible partner. Whatever cost incurred is part of the kind contribution from the Responsible partner for they are to provide support to the project as it related to international consultancies. Hence, the cost estimate for this activity is \$0.
		Signing of Contract for the repackaging and disposal consultancy	\$0.00	There are no payments made upon signing of contract. Payments are made upon submission and approval of deliverables. Hence, there is no cost incurred for the signing of contracts.
1.3.2.6	Industrial chemicals regulation developed to incorporate	Signing of Contract	\$0.00	There are no payments made upon signing of contract. Payments are made upon submission and approval of

	control regulations			deliverables. Hence, there is no cost incurred for the signing of contracts.
1.3.2.9	Chemicals and waste management strategy and action plan developed	Sign Contract with consultant for chemicals and waste management strategy consultancy	\$0.00	There are no payments made upon signing of contract. Payments are made upon submission and approval of deliverables. Hence, there is no cost incurred for the signing of contracts.
1.5.1	Document Closeout	Document Lessons Learned	\$0.00	The project manager is responsible for documented the lessons learned. The cost for her work is incurred in her salaries. Hence, the cost estimate for this activity is \$0.
		Update files/ Records	\$0.00	The project administrative assistant and the project manager are responsible for updating files/record. This activity is part of their daily work, hence, the cost estimate for this activity is \$0.
		Gain Formal	\$0.00	Upon completion of all

		Acceptance of Project Completion		<p>project activities, the project manager is responsible to provide all relevant documentation and reports to the Responsible partner and request formal acceptance of project. The Responsible Partner will provide support and assist in ensuring that the project obtains formal acceptance of project. The cost for the work of the project manager is incurred in the salaries and the cost for the support from the Responsible partner is incurred as in-kind contribution. Hence, the cost estimate for this activity is \$0.</p>
		Archive File/Documents	\$0.00	<p>It is the responsibility of the Implementing partner to archive the project files/documents. Whatever cost incurred under this activity is part</p>

				of the kind contribution from the Implementing partner and not a cost incurred on the project. Hence, the cost estimate for this activity is \$0.
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4.3.4 Developing the Budget

The process to determine the budget is described in the PMBOK® Guide – Fifth Edition as the process of aggregating the estimated costs of individual activities or work packages to establish an authorized cost baseline. The key benefit of this process is that it determines the cost baseline against which project performance can be monitored and controlled.

The cost estimate together with a project schedule are the main the inputs for cost budgeting. The budget gives an overview of the periodic and total costs of the project. The cost estimates define the cost of each work package or activity, whereas the budget allocates the costs over the time period when the cost will be incurred.

For this project, cost aggregation was the main technique used to determine the project budget. Cost estimates were aggregated by work packages in accordance with the work breakdown structure and are shown in Figure 6. Reserve analysis and expert judgement were important tools which were applied in this process.

Once the Project Steering Committee approved the project budget, the project budget is baselined by the Project Manager. The cost baseline is then approved (for the entire project) as a time phased budget against which cost performance is evaluated and reflective of the total amount for all WBS activities and processes.

A contingency reserve of 23% of the disposal of POPs activity is ideal for the project. A Management Reserve of approximately US \$5,000.00 is proposed as sufficient for effective project execution. At this point, the baselined budget may only be changed with the authorization of the Project Steering Committee. The Cost Baseline for this project is US \$975,900.00 + US \$39,100.00 = US \$1,015,000.00. The Management Reserve is US \$5,000.00.

Chart 15 Contingency reserve and management reserve and justification.
(Source: Author of the study)

Reserve type	Justification
Contingency reserve	<ul style="list-style-type: none"> A percentage of twenty-three percent contingency reserve was deemed as necessary for this project due to the possibility of additional expense incurred as a result of the transboundary movement of waste where the shipping route is not certain and might be required for the POPs wastes to go through the longer route.
Management reserve	<ul style="list-style-type: none"> The Management reserve is US \$5,000. It is low because our project team and Responsible Partner have the expertise so the uncertainties are less. This is a cost reserve to be used to manage the unidentified risks or “unknown-unknown” (unknown=unidentified, unknown=risks).

4.3.5 Cost Monitoring and Controlling

The key to effective cost control is the management of **cost baseline** and the changes to that baseline.

The BCWM Project cost control includes:

- Influencing the factors that create changes to the authorized cost baseline;
- Ensuring that all change requests are acted on in a timely manner;
- Managing the actual changes when and as they occur;
- Ensuring that cost expenditures do not exceed the authorized funding by period, by WBS component, by activity, and in total for the project;
- Monitoring cost performance to isolate and understand variances from the approved cost baseline;
- Monitoring work performance against funds expended;
- Preventing unapproved changes from being included in the reported cost or resource usage;
- Informing appropriate stakeholders of all approved changes and associated cost; and
- Bringing expected cost overruns within acceptable limits.

The cost control process analyzes the relationship between the consumption of the project funds to the actual physical work being accomplished for such expenditures. The cost baseline, is the approved version of the Time-phased budget, excluding any management reserves, which can only be changed through formal change control procedure and is used as a basis for comparison to the actual results. Since the cost estimates that make up the cost baseline are directly tied to the schedule activities, this enables a time-phased view of the cost baseline, which is typically displayed in the form of an S-curve.

The S-curve for the BCWM Project was generated using Project Management software tool 'MS Project' which allowed the Project Manager to visualize the performance of the project. The S-Curve is shown in Figure 8. The Earned Value Management (EVM) method was also used on this project as one of the tools and techniques utilized to integrate the scope baseline with the cost baseline, and the schedule baseline; this tool allowed the project management team to assess and measure project performance and progress. Another tool utilized to control the budget was forecasting. The Project Manager is responsible of accounting for cost

deviations and presenting the Responsible Partner with options for getting the project back on budget.

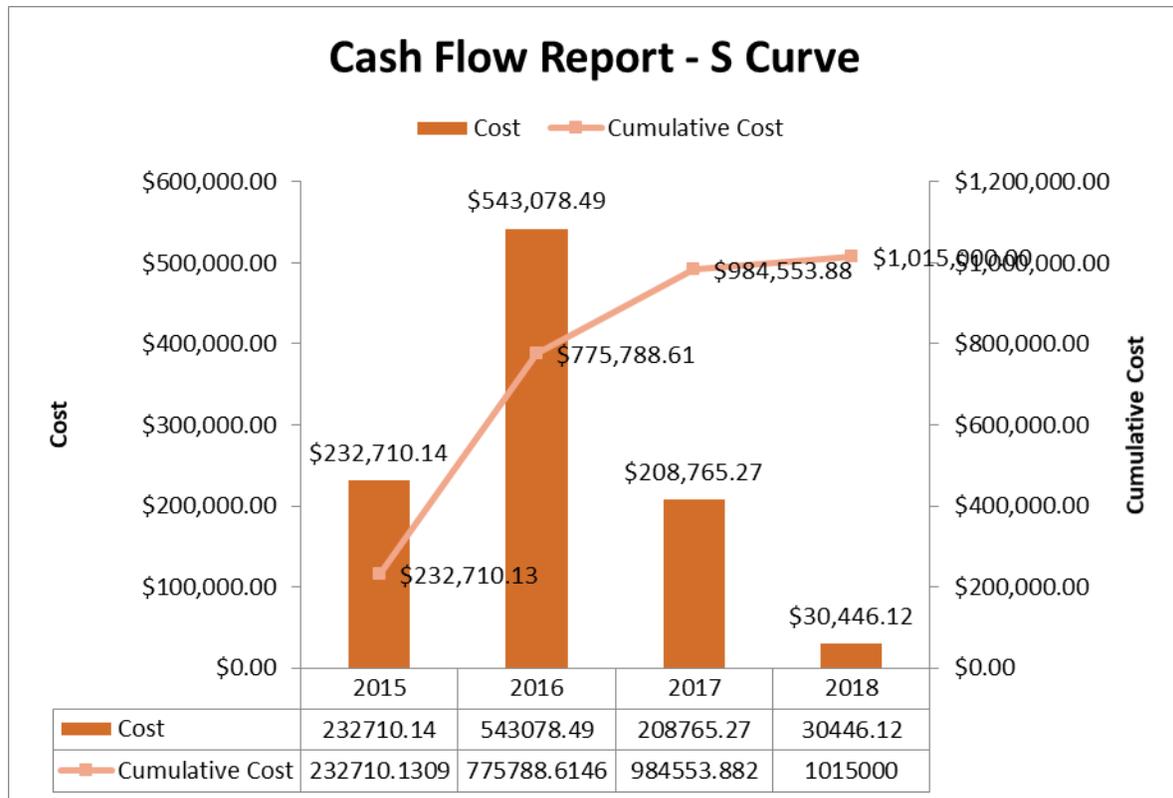


Figure 8 Graph representing the project “S” Curve (Source: Author of the Study)

4.3.6 Cost Change Management

The PSC member or any member of the project team can request project cost changes throughout the project life cycle. If a change to the BCWM Project cost is needed, a change request is to be submitted to the Project Manager in the prescribed project change request form as shown in Appendix 5. Change requests may include preventive or corrective actions, and are processed for review and disposition through the Change Control process. The Project Manager will review the suggested change to the cost of the project and carry out an estimation of the impacts of said changes on the project performance. The Project Manager will then either reject the change request if it does not apply to the intent of the project, or convene a Change Control meeting with the project team and the Change Control Board to formally submit the change request. If the Change Control Board

approves the cost change, the Change Control Board will then formally accept the change by signing the project change control document. Upon acceptance of the change by the Change Control Board, the Project Manager will update all project documents and communicate the cost change to all project team members and stakeholders.

4.4 Quality Management Plan

The Project Quality Management Plan documents the necessary information required to effectively manage project quality from project planning to delivery. The Project Manager is responsible for the oversight of the Quality Management Plan. The project quality policies, procedures, quality requirements and the quality management activities are defined below.

4.4.1 Quality Management Approach

The quality approach of the BCWM Project is to use the Responsible Partner's (UNDP's) current standard and criteria. Project quality management addresses both the management of the project and the products/deliverables of the project. Failure to meet quality requirements in either dimension can have serious negative consequences for any or all of the project stakeholders.

Quality metrics and a quality checklist are utilized to control quality of products/deliverables and the project. The quality checklist is shown in Appendix 4. The quality metrics are as follows:

Chart 16 Quality Metric. (Source: Author of the study)

Type	Quality Metric
Product/ Deliverable	Completeness of work
	On time delivery of reports and agreed deliverables of consultants
	Issues with reliability
	Issues with availability

	Customer satisfaction
Project	Scope change requests
	Overdue tasks/activities
	Tasks that should have started
	Over budgeted tasks
	Earned value
	Over allocated resources

The PSC member or any member of the project team can request project quality changes throughout the project life cycle. If a change to the Project quality is needed, a change request is to be submitted to the Project Manager in the prescribed project change request form as shown in Appendix 5.

4.4.2 Quality Requirements/Standards

The project quality standards that must be adhered to, by quality criterion, are outlined as follows:

Relevant:

- Project objectives and results are consistent with national needs and priorities, as well as stakeholder needs.

Management and monitoring:

- Outcomes are defined and remained unchanged throughout the project life cycle. The activities are consistent with the theory of change and have results-oriented indicators specified baselines and targets. Risks and opportunities are identified, with appropriate plans and actions taken to mitigate and manage risks. Governance of project is defined with clear roles and responsibilities and functions as intended to provide active and regular oversight by the Project Management Team to inform decision-making.

Efficient:

- Project activities budget is justifiable and within the approved budget for the project components. Monitoring and management include analysis of the respective actions to improve efficiency in delivering desired output or deliverable with the required quality and timeliness.
- The project budget and budget for each project component must be kept within limits.

Effective:

- Data from monitoring is used in decision making to maximize achievement of desired results.

4.4.3 Quality Assurance Approach

The steps that are taken to perform quality assurance are as follow:

1. Ensure that properly qualified personnel are hired for the consultancies. This will be done by performing a routine check on the qualifications and experience to ensure that the personnel have the required qualifications.
2. Perform quality audits to identify whether the activities are performed in line with organization processes and tactical decisions and evaluate the level of effectiveness for the activities to comply with the minimum quality control specifications. A confirmation document is developed showing the necessary changes to the implementation process which is key for developing corrective actions.
3. A metric that will be established specifically in this project would be the Percentage of work done by scheduling weekly meetings and check if the required milestones have been met. The project is not planned for long term, so the frequent revision of details is very important.
4. Regular examination and investigation of project activities will be carried out in order to identify what enhances the activity's value to define necessary improvements in the existing quality management framework.

5. For the consultancies being carried out, a crosscheck against the list of work that needs to be completed and what still needs to be done. The project team gathers all the final deliverables and verifies that they meet the original specifications.
6. Project Team follows closely and constantly communicates with the appropriate stakeholders in order to guarantee adequate stakeholder participation and collaboration on required information to ensure that the deliverables of consultants are of good quality.
7. To ensure adherence to the quality standards, the Responsible Partners carry out regular project monitoring and a project quality assessment in order to ensure that the quality criterion is met and improve development and greater accountability for results.

4.4.4 Quality Control Approach

During the implementation of the Project, the Project Team carries out frequent meetings with the consultants to ensure that they are performing as planned.

The Performance data is reported through the minutes of the meeting. If there are any requested changes, the project team is responsible of completing the change request form and submit to the Project Manager for its approval through the Project Steering Committee.

Also, constant inspections are carried out to the site locations where the work is done in order to ensure that the consultants are performing as planned. This inspection helps the project team in closely monitoring the work and aids to reveal deficiencies that can be corrected before they cause costly mistakes, which may need rework. Inspections were helpful during the verification consultancy and the Disposal of POPs waste consultancy.

4.5 Human Resource Management Plan

The human resources management plan is a tool, which aids in the management of this project's human resource activities throughout the project until closure. The Human Resource Management Plan is discussed in the following sections.

4.5.1 Roles, Responsibilities and Authority

Within the scope of this project, it is essential that all project team members clearly understand their roles and responsibilities to successfully perform their portion of the project.

Listed below are the roles, authority, responsibilities, and competencies for the project team:

- ❖ **Project Director (PD), (1 position):** The PD is responsible for supervising and the overall management of the project activities. The PD has overall accountability for the project. The PD chairs the Project Steering Committee meetings.

The Project Director possesses the following skills:

- Leadership/management
 - Team building
 - Effective listening and conflict resolution
 - Effective communication.
-
- ❖ **Project Manager (PM), (1 position):** The PM authorizes and approves all project expenses and accepts deliverables. The PM is responsible and accountable for the successful delivery of the project outputs (the overall success of the Project). The PM can delegate work, but retains responsibility and accountability. The PM is also responsible for approving work activities and packages once they meet established acceptability criteria and fall within standard variances. The PM is responsible for reporting project status in accordance with the communications management plan. Additionally, they are to provide three reports: an inception or project kick off report, a mid-report

and final report on progress. The PM supervises the work of the experts/consultants to ensure they are meeting objectives as per their terms of reference/contract. The PM monitors and evaluates the performance of all project team members and communicates their performance to the Project Director and then to the Administrative Officer of the Ministry responsible for Environment. The PM is also responsible for acquiring human resources for the project through coordination with the Ministry's responsible for Environment and the Contractor General, and to oversee the contracting of external resources.

The Project manager possesses the following skills:

- Leadership/management,
- Team building,
- Effective listening and conflict resolution,
- Budgeting,
- Scheduling; and,
- Effective communication.

❖ ***Project Administrative Assistant (PAA), (1 position):*** The PAA has limited authority in making decisions and directing resources. The PAA is responsible for assisting the PM in all aspects of project execution and closing, ensuring that the project and related processes are running smoothly. The PAA will work closely with the experts/consultants in conjunction with the PM. The PAA is responsible to oversee all expenditures as it relates to the project's implementation. The PAA approves, and disburses as per the financial/cost plan. The PAA is responsible to submit timely financial reports as per resource allocation and utilization to the PM as per the communications management plan. The following are skills that the PAA possess:

- Analytical skills
- Time management
- Change management

- Organized and multi-task
- Effective negotiation skills
- Problem solving and decision making
- Team player
- Excellent communication skills

❖ **Experts/ Consultants (C) (7 positions):** The consultant's' authority is to influence the PAA and PM and request to exercise their authority to help accomplish the goals. The consultants are responsible for delivering two outputs:

- Regulation for industrial chemicals developed
- Partnership with IICA to develop Strategic Plan, Action plan and Manuals for the Pesticides Control Board
- Verification and classification of inventory of chemicals
- Repackaging and Disposal of POPs wastes
- Partnership with SWaMA to close dumpsite and construct transfer station
- Partnership with SIRD I to carry three project activities
- Chemicals management strategy and action plan

The Experts/Consultants are responsible for engaging relevant stakeholders and beneficiaries to gather all the requirements for the project as it relates to the documents they must prepare. The experts/consultants are not authorized for any other project expenditures outside of the contract's amount agreed upon nor allocate any resources without the PSC approval. The deliverables will be overseen by the PM, then communicated to the PD. Experts/Consultants must be knowledgeable of executing chemicals projects, the financial environment, they must have negotiating, communication and effective listening skills.

Listed below are the role, authority and responsibility of the Project Sponsor (Principal Stakeholder)

- ❖ **Responsible Partner (RP)/ Project Sponsor Implementing Agency:** The United Nations Development Programme (UNDP) is the Responsible Partner who acts as the project sponsor Implementing Agency. The Responsible Partner ensures that the project delivers as per the Project Charter and Project Management Plan.

- ❖ **Implementing Partner (Executing Agency):** The Chief Environmental Officer of the Department of the Environment represents the Implementing Partner and Executing Agency. The Implementing Partner has overall authority and accountability over the project. The Implementing Partner is responsible for ensuring that deliverables and functions are achieved as per the Project Document, Project Charter and Project Management Plan.

4.5.2 RESPONSIBILITY ASSIGNMENT MATRIX (RAM)- RACI

This section provides a detailed demonstration of the project's tasks and team members. The responsibilities of team members in relation to the project tasks are being illustrated in the matrix shown in Chart 17. The tool "responsible, accountable, consult, inform" (RACI), which is an example of a responsibility assignment matrix (RAM) is being used to assist in communicating roles and responsibilities to the project team.

All proposed or identified changes to project responsibilities will be reviewed and approved by the project manager. It is important to note; that changes will be proposed in accordance with the project's change control process. When and if changes are made, all project documents will be updated and redistributed accordingly

Chart 17 RACI Matrix. (Source: Author of the study)

	P D	PM	PAA	Exper t 1	Exper t 2	Exper t 3	Exper t 4	Exper t 5	Partne rship 1	Partne rship 2	Partne rship 3
Requirements Gathering	C	A	A	R	R	R	R	R	R	R	R
Consultations with Pesticides owners	C	A	A	R	R	R	R	R	R	I	I
Consultations with Stakeholders, DOE and Regulatory agencies for chemicals management	C	A	A	R	R	R	R	R	R	R	I
Consultations with waste generators, importers and regulatory agencies on chemicals	C	A	A	I	R	R	R	R	R	I	I
Development of Industrial chemicals Regulations	C	A	A	R	I	I	I	I	I	I	I
Development of Strategic plan, action plan and manuals	C	A	A	I	I	I	I	I	R	I	I

Verification, Classification and inventory of chemicals	C	A	I	I	R	I	I	I	I	I	I
Repackaging and disposal of POPs wastes						R		I		I	I
Closure of dumpsite and Construction of transfer station	C	A	A	I	I	I	I	I	I	R	I
Promotion of Green harvesting, farmers best practices and creation of sugar cane seed bank	C	A	A	I	I	I	I	I	I	I	R
Development of Chemicals and waste management strategy and action plan	C	A	A	I	I	I	I	I	I	I	I

Key:

R – Responsible for completing the work

A – Accountable for ensuring task completion

C – Consulted before any decisions are made

I – Informed of when an action/decision has been made

4.5.3 Project Organizational Structure

The organization structure in Figure 9 highlights the positions along its corresponding relations and the reporting structure of the BCWM Project.

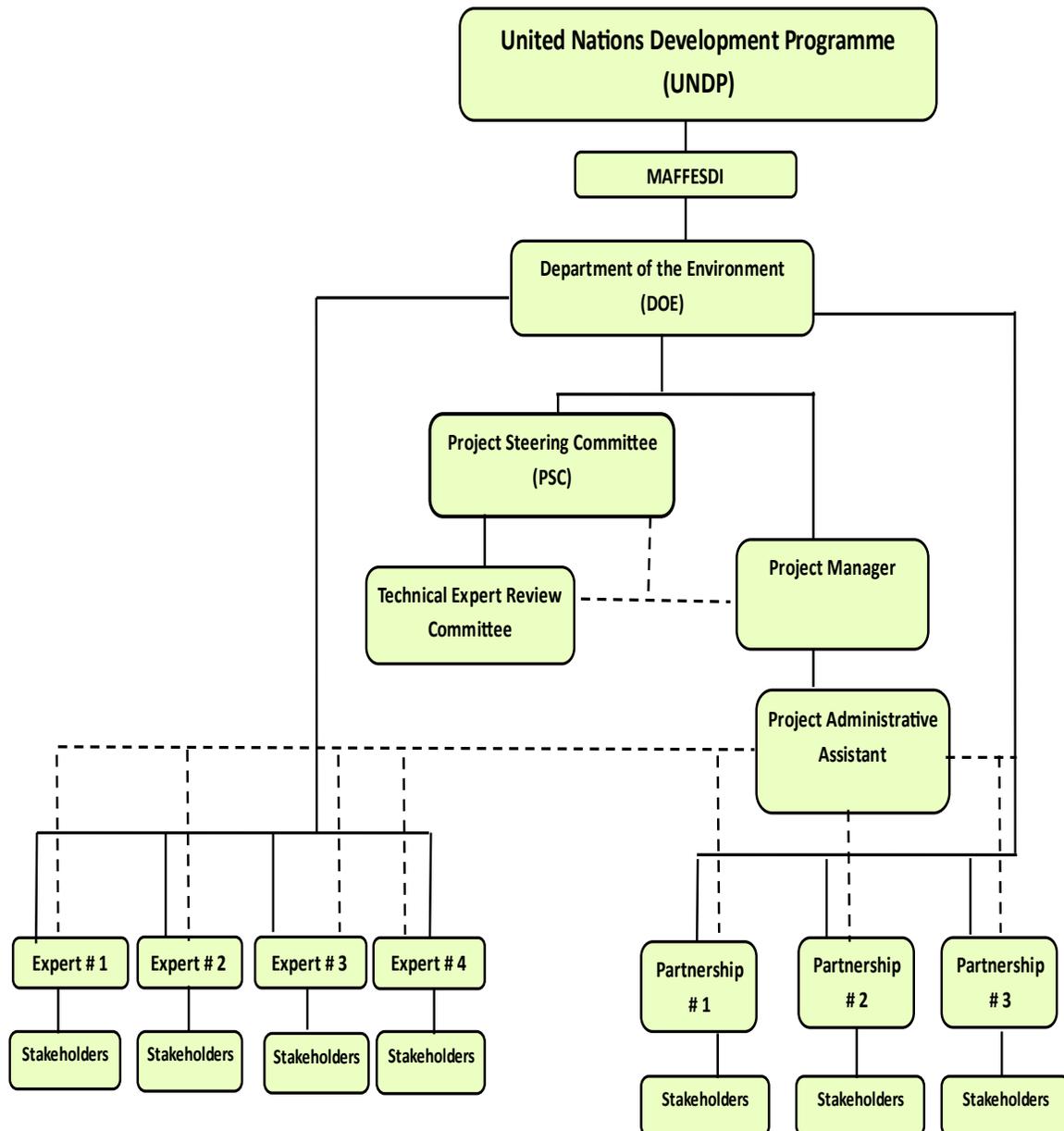


Figure 9 Organizational structure of the BCWM Project (Source: Author of the Study)

4.5.4 Staffing Management Plan

The day to day management of the project staff is the responsibility of the Project Manager (PM). The performance evaluations, recognition and disciplinary actions are the responsibility of the Project Director.

❖ Staff Acquisition

For this Project the project staff will consist of external and internal resources. There will be 4 contracts tendered within the scope of this project (consultant 1, consultant 2, consultant 3 and consultant 4). There are three partnership consultancies which are direct contracting with the respective partners. The Project Manager is responsible for the procurement process for the hiring of consultants following the government and the Responsible Partner's procedures. The PM identifies and assigns the resources in accordance with the project organizational structure. The project administrative assistant will assist the project manager in the acquisition process.

The Project Steering Committee must approve all resources before they may begin any project work. During the execution of project activities, the project management team and or the experts/consultants will be required to travel locally for this project.

The method of acquiring the team, besides negotiation was:

➤ Multi-criteria decision analysis

The multi criteria decision analysis was used to select the consultants. The tools used were the applicants' Resumes. These were scored and weighted based on criteria. The following factors were taken into consideration for scoring:

1. Experience and knowledge-years working with chemicals management project or related work.
2. Qualifications- focused on academic qualifications.
Based on the criteria "Master's Degree" in the field of

chemistry or science; those below such were rated lower

3. Cost- the proposed cost to undergo this consultancy based on TOR
4. Ability- looked at the competencies- report writing, communication, team playing, presentation skills, etc.
5. Skills- especially as it relates to chemicals management

➤ Virtual teams- and how they will be managed.

The team members are all from different locations but commute to work office every day. The PM is located like one hour away from the PD and the PAA. The Experts/Consultants work from home. To communicate several mediums are utilized:

1. Mobile communication- WhatsApp; viber, text messaging
2. Online- skype
3. Email
4. Telephone
5. The consultants schedule meetings with PM and PAA as they see fit since they have an assigned work plan with defined end dates for completion

❖ Resource Calendars

- The project will last for thirty-six (36) months and it is already underway for 33 months, which means that it has three (3) more months to go. All resources have been identified with the exception of the expert/consultant for the development of a chemicals and waste management strategy. The resource histogram prepared below illustrates that the project manager is required to contribute 40 hours per week for the thirty-six (36) months of the project and will then be released
- The PAA is to invest 40 hours a week for the thirty-six (36) months of the project and will then be released

- The experts/consultants are to invest 40 days within a six months' period and their contract concludes and thus will be released from the project

❖ **Training Requirements**

The only resources that will be trained are the Project Manager and Project Administrative Assistant. At the start of the project, the PM and PAA are required to undergo a mandatory training in order to ensure that the project management team is acquainted with the Responsible Partner's reporting and financial policies and procedures. Also, the project management team will be allowed to pursue any training in order to facilitate the smooth execution of the project.

❖ **Performance Reviews**

The PM, will review and track the PAA assigned work activities throughout the project lifecycle. Status reports, quarter and final reports will be used to benchmark completion of tasks. Under this project the only members that will undertake a formal performance review that will be documented are the PM and PAA. Appendix 6 and 7 show the team performance appraisal templates. The Experts/Consultants are on contract, their performance review is based on the outputs that they deliver, and how satisfied the PM and PSC is in the overall quality of work. The Partnerships are on a signed Memorandum of Understanding and their performance review is based on the outputs that they deliver.

Feedback will be provided to the PAA in relation to the project implementation and how she has been impacting the successful accomplishment of objectives.

4.5.5 Rewards and Recognition

The scope of this project does not allow funds to be used to provide monetary rewards; therefore, there will be a planned recognition and reward item for project team members.

- Upon successful completion of the project, a party will be held to celebrate

the success of each team member.

- Ensure that travel allowances are provided to project management team whenever they attend site inspections or any out of office work.

4.5.6 Regulations, Standards, and Policy Compliance

All human resource acquisition and releases shall be executed in conformity with the established local government labour laws of Belize and the United Nations Charter on human rights.

4.5.7 Safety

In order to ensure that the project management team or experts are protected from harm of exposure of any toxic chemicals, mandatory safety training is required to be conducted and the use of a health and safety plan.

4.6 Communications Management Plan

The communication management plan (CMP) defines the project's structure and methods of information collection, selection, organization and distribution and outlines understanding among project teams regarding the actions and processes necessary to facilitate the critical links among people, ideas, and information that is necessary for the project success.

This CMP sets the communication framework for the project and serves as a guide for communication throughout the life of the project. This document is a living document and will be updated as the communication needs of the project change.

The number of potential communication channels or paths is being derived from using the following formula $n(n-1)/2$; where n = number of stakeholders. This project has thirteen (13) stakeholders; therefore, $13(13-1)/2=78$ potential communication channels.

4.6.1 Stakeholder Identification and Communication Requirements Analysis

The communication needs of the project stakeholders have been identified as shown in Chart 18 below.

Chart 18 Stakeholder identification and Communication Requirements Analysis. (Source: Author of the study)

Stakeholder	Title	Communication Requirements	Communication Method	Contact Information	Sender
UNDP – Diane Wade-Moore	Acting Project Sponsor / Responsible Partner	<ul style="list-style-type: none"> • Project status reports inclusive of status of deliverables • List of project issues & obstacles • Project risk & responses 	Email & Phone	diane.wade@undp.org	Gisel Correa
Gisel Correa	Project Manager	<ul style="list-style-type: none"> • Deliverables reports • Project budgets /financial reports 	Email, Phone & Meetings.	chemicalwaste@environment.gov.bz	Zena Waight
Zena Waight	Project Administrati	<ul style="list-style-type: none"> • Deliverables reports • Project budgets /financial 	Emails, Phone & Meetings	chemicalwaste@environment.gov.bz	Zena Waight

	ve Assistant	reports			
Martin Alegría	Project Director	<ul style="list-style-type: none"> • Project status and quarterly reports inclusive of status of deliverables • Project budgets /financial reports • Change requests forms 	Emails, Phone & Meetings	orlando@belizeinvest.org.bz	Gisel Correa
Project Steering Committee	Project Steering Committee	<ul style="list-style-type: none"> • Project status and quarterly reports inclusive of status of deliverables • Project budgets /financial reports • Change requests forms 	Emails, Phone & Meetings		Gisel Correa
Elisa Montalvo	Expert 1	<ul style="list-style-type: none"> • Deliverables requests – feedback on draft Regulations 	Email, Phone & Meetings		Gisel Correa, Zena Waight

Dr. Abel Carrias	Expert 2	<ul style="list-style-type: none"> Deliverables requests - Inventory of chemical wastes 	Email, Phone & Meeting		Gisel Correa, Zena Waight
POLYECO S.A.	Expert 3	<ul style="list-style-type: none"> Types and Quantities of wastes 	Email/meetings		Gisel Correa, Zena Waight
Unknown	Expert 5	<ul style="list-style-type: none"> List of waste generators and importers List of regulatory agencies 	Email/meetings	lorraine@belizeinvest.org.bz	Zena Waight
IICA	Partnership 1	<ul style="list-style-type: none"> Memorandum of Understanding 	Email/meetings		Gisel Correa
Solid Waste Management Authority	Partnership 2	<ul style="list-style-type: none"> Memorandum of Understanding 	Email/meetings		Zena Waight

SIRDI	Partnership 3	<ul style="list-style-type: none"> • Memorandum of Understanding 	Email/meetings		Gisel Correa
Chemicals stakeholders	Target Audience	<ul style="list-style-type: none"> • To understand the sound management of chemicals and best practices • Time, location & date for meetings. 	Email, Phone & meetings, workshops,		Gisel Correa, Zena Waight

4.6.2 Communication methods

❖ **Communication Matrix**

The Communications Matrix below provides a structure to identify all types of communications required to execute the project.

Chart 19 Communication Matrix. (Source: Author of the study)

Communication Type/Deliverable	Target Audience	Description /Purpose	Delivery Vehicle/Method	Delivery Frequency	Author/ Sender	Review & Approval Required	Internal/External
Kickoff Meeting	<ul style="list-style-type: none"> ● Responsible Partner ● Project Manager ● Project Administrative Assistant ● Project Director 	<ul style="list-style-type: none"> ● To introduce the team and the project ● To review the projects objectives and management approach 	Face to Face Meeting	Once	PM	n/a	Internal & External

Status Reports	<ul style="list-style-type: none"> • Responsible Partner • Project Manager • Project Administrative Assistant 	<ul style="list-style-type: none"> • One page communication of project progress and the status of deliverables 	Email	Weekly	PM	PM & PD	Internal & External
Financial Reports	<ul style="list-style-type: none"> • Responsible Partner • Project Manager • Project Administrative Assistant • Project Director 	<ul style="list-style-type: none"> • Two page report on what has been spent and upcoming expenses requests. 	Email	Monthly, Quarterly and Annually	PAA	PM & PD	Internal & External

<p>Quarterly Status Reports (End of stage report as shown in Appendix 8 and 9, respectively)</p>	<ul style="list-style-type: none"> ● Responsible Partner ● Project Manager ● Project Administrative Assistant ● Project Director ● Project Steering Committee 	<ul style="list-style-type: none"> ● Detailed – minimum 15 pages communication of project progress and deliverable status 	<p>Email & Printed Quarterly</p>	<p>PM & PAA</p>	<p>PM, PD & PSC</p>	<p>Internal & External</p>
<p>Final Project – Lessons Learned Report (Final Project Lessons Learned Report as shown in Appendix 10)</p>	<ul style="list-style-type: none"> ● All stakeholders 	<ul style="list-style-type: none"> ● Communication of deliverables from beginning to end of project and success of endeavors. 	<p>Printed</p>	<p>End of project</p>	<p>Project Team (PM, PAA, PD, Experts/Consultants).</p>	<p>PM, PD, PSC</p> <p>Internal & External</p>

❖ Project Meetings

Chart 20 below indicates the types of meetings as well as frequency required.

Chart 20 Project Meetings (Source: Author of the study)

Meeting Type	Description/ Purpose	Delivery Frequency	Owner	Internal/ External	Comments/ Participants
Status meeting	Project progress	Bi weekly	Gisel	Internal	Bi weekly are informal meetings by project team to strategize
Consultation meetings	Project progress on outsourced consultations	Weekly	Gisel & Zena	External	Meetings with consultants to plan on deliverables
Stakeholder engagement meetings	Buy-in of stakeholders and gather information for the consultancies or validate the deliverables of consultancy	Monthly depending on project consultancy development	Gisel & Zena	External	Meetings to be held at least monthly on different locations
Official status report meetings	Project official progress report	Quarterly	Gisel	Internal	These meetings are to report to PSC on progress of project

4.7 Risk Management Plan

The Risk Management Plan (RMP) establishes the framework in which the project team identifies the project's main risks and plans a response for the most critical ones. The RMP defines how risks associated with the BCWM Project will be recorded, monitored throughout the lifecycle of the project.

4.7.1 Risk Management Approach

The Risk Management approach for the BCWM Project includes a methodical process in which the project manager and the project management team identifies scores and ranks the various risks. The risk information identified will be entered into the Risk Register shown in Chart 25. The Project Manager is responsible for maintaining the Risk Register.

The most likely to happen and risks with the highest impact will be added to the project Stage plan to ensure that the project management team take the necessary steps to implement the mitigation response at the appropriate time during the project. The Project Manager will provide status updates on the assigned risks in the bi-weekly project status meetings. Risk management is a continuous process that takes place throughout the lifecycle of a project. Throughout the project life cycle, the project management team will continuously identify and analyze the risks; developing mitigation options; selecting, planning, and implementing appropriate risk mitigations; and tracking the implementation to ensure successful risk reduction.

Upon completion of the project, during the closing process, the Project Manager will analyze each risk and review the risk management process. Based on this analysis, the Project Manager will identify any improvements that can be made to the risk management process for future projects. These improvements will be captured as part of the lessons learned.

4.7.2 Risk Categories

The Project Management Team has identified risks under the following categories:

- Technical
- Operational
- Management
- External
- Commercial

4.7.3 Risk Breakdown Structure

The Risk Breakdown Structure (RBS) includes the risk categories that will likely impact the BCWM Project. A brainstorming session was conducted to determine the categories, which are more likely to be present. Below is the RBS for the project.

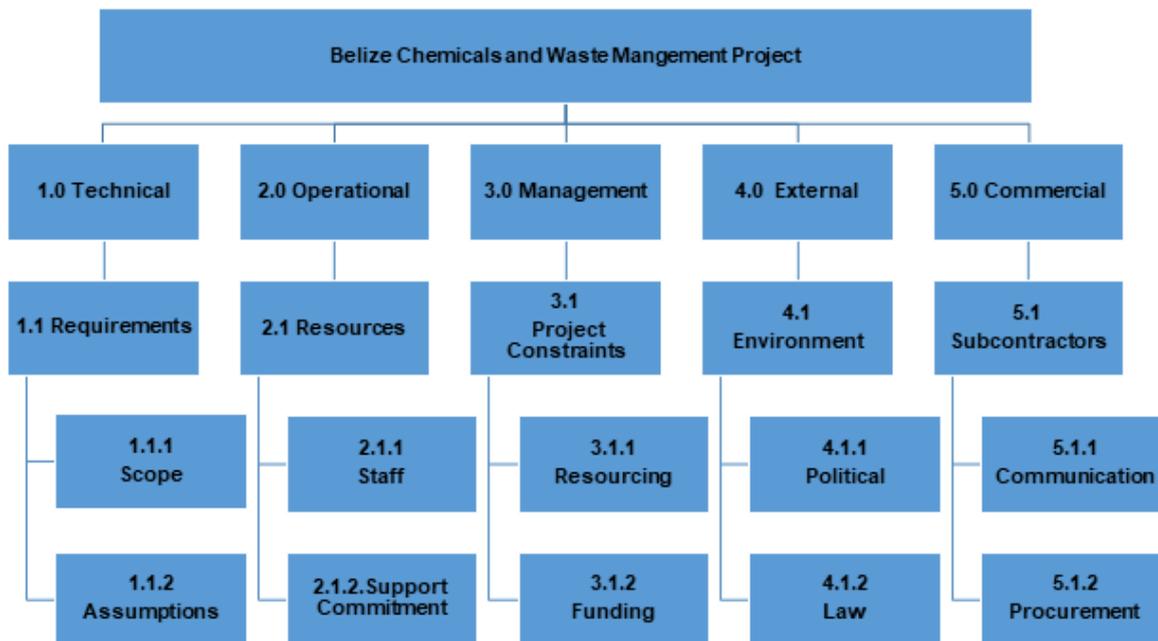


Figure 10 Risk Breakdown Structure for the BCWM Project (Source: Author of the Study)

4.7.4 Risk Prioritization & Categorization

When the risks are identified, the project management team determines the probability and impact of each risk in order to allow the project manager to

prioritize the risk avoidance and mitigation strategy. Risks that are more likely to occur and may have a significant impact on the project will be the highest priority risks while those which are less likely to happen or have a low impact will be a much lower priority. The impact and probability of risks is assessed using a Probability & Impact matrix during qualitative risk analysis.

The Project Manager, with input from the project management team using the following Probability & Impact Scales and Probability & Impact Matrix, assesses the probability and impact of occurrence for each identified risk:

❖ Probability & Impact Scales

The Probability & Impact Scales are the Risk Impact Scale, the Risk Probability Scale and the Pxl Scale shown in Chart 21, Chart 22 and Chart 23 respectively.

Chart 21 Risk Impact Scale (Source: Author of the study)

Impact	Category and Description				
Project Objective	Negligible (1)	Acceptable (3)	Marginal (5)	Critical (7)	Catastr ophic (9)
Cost	Less than \$100 over budget	\$100 - \$1,000 over budget	\$1001 - \$1,500 over budget	\$1,501 - \$2,500 over budget	>\$2,500 over budget
Time	1 day delay	2- 7 days delay	8 - 14 days delay	15 - 30 days delay	>30 days delay
Scope	Scope decrease	Minor areas of scope	Major areas of	Scope reduction	Project end

	barely noticeable	affected	scope affected	unable to sponsor	item is effectively useless
Impact	Category and Description				
Project Objective	Negligible (1)	Acceptable (3)	Marginal (5)	Critical (7)	Catastrophic (9)
Performance	Slight effect on performance	Minor effect on performance	Moderate effect on performance	Severe effect on performance	Deliverables cannot be accomplished

Chart 22 Risk Probability Scale (Source: Author of the study)

Category	Very Low (1)	Low (3)	Moderate (5)	High (7)	Very high (9)
Description	Once every 13 weeks- 2 years	Once every seven months to 12 months	once every 4 weeks to six months	Once every 1 to 3 weeks	More than once per week

Chart 23 Pxl Scale (Source: Author of the study)

Risk Level	Range	Color Code
Low	1 -10	Green

Moderate	11 - 40	Yellow
High	41- 60	Orange
Extreme	61-81	Red

❖ Probability & Impact Matrix

The impact and probability of risks are evaluated using the Probability & Impact Matrix shown in Chart 24. This Matrix helps determine which risks need detailed risk response plans.

Chart 24 Probability x Impact Matrix (Source: Author of the study)

<u>Severity</u>	<u>Probability of Impact</u>				
	Very Low (1)	Low (3)	Moderate (5)	High (7)	Very high (9)
Catastrophic (9)	9	27	45	63	81
Critical (7)	7	21	35	49	63
Marginal (5)	5	15	25	35	45
Acceptable (3)	3	9	15	21	27
Negligible (1)	1	3	5	7	9

4.7.5 Risk Register

The Risk Register for BCWM Project is a log of all identified risks, their probability and impact of occurrence, the category they belong to, mitigation strategy, and when the risk is estimated to occur. The Risk Register shown in Chart 25 was created early in the planning phase of the project.

Chart 25 Risk Register (Source: Author of the study)

RBS Code	Cause	Risk	Consequences	Probability	Impact	Pxl	Trigger	Owner	Strategy
5.1.1	Inadequate communication flow from PSC members	Failure to deliver as per the approved work plan	45 days delay on project, additional cost of \$3,000	once every 4 weeks to six months (Moderate)	Catastr ophic	High (45)	Not obtainin g consen sus or approva l of stage plans and Not complet	Project Manage r	An agreeme nt should be made that all approval s or comment s need to be submitte

							ing assigne d activitie s as per work plan		d within a specified timefram e given. If there is no response it should be agreed that there is no objection to the request
1.1.1	Project requirem	A continuo	40 days delays on project,	Once every three	Catastr ophic	High (45)	poor or limited	Project Manag	Mitigate - have a

	ents and stakeholder interests have high expectations	us flow of change requests might be present, throwing the project off course	additional cost of \$5000	months (Moderate)			stakeholder engagement and communication in planning phase	er	communication plan that ensures information is clearly shared with all stakeholders on scope and resources for project
2.1.1	Absence of	Project targets	60 days delay; additional cost	Once every month	Catastr ophic	High (45)	No Proposal	project manag	Advertis e the

	consultants/ service providers in the local market	may not be met due to the absence of required skilled consultants	of \$4000	(Moderate)			s received for a RFP	er	RFP both locally and internationally
2.1.1	Unavailability of skilled project managers	Poor budget management	100 days delay on project, additional cost of \$30,000	Once every 3 months (moderate)	Catastrophic	High (45)	Actual budget is 5% greater than planned budget	Project Manager	Mitigate : Train the financial officer and project management on

									budget management
3.1.1	Multiple projects being coordinated at the same time within the Ministry	Key resources are unavailable when required	10 days delay on project, additional cost of \$ 1,500	More than once per week (Very high)	Marginal	High (45)	Resource absent when scheduled	Project Manager	Mitigate : Locate experienced external resources from outside the Ministry
2.1.2	Unavailability of consultant and/ or Incomplete or no	Failure to deliver within agreed contract	30 days delay on project, additional cost of \$ 2,000	Once every 5 months (Moderate)	Critical	Moderate (35)	Not completing assigned task within	Project Coordinator	Mitigate : Close monitoring of work perform

	feedback from relevant stakeholders	terms					contracted period		ance and bi-weekly status meetings
1.1.2	No historical information since the project is the first of its kind in that country	Basis of estimating may be wrong	45 days delay on project, additional cost of \$10,000	Once per year (Low)	Catastr ophic	Moderate (27)	Planned budget and scope immensely exceeded	Financial Officer	Increase contingency reserve from 5% to 10% of budget

1.1.1	No baseline data due to the project being the first of its kind in the country.	Change of scope after project commences	9 days delay on project, additional cost of \$1,050	Once every 5 weeks (Moderate)	Marginal	Moderate (25)	Stakeholders add additional requirements that are not in the original scope	Project Manager	Put in place reserves (contingency reserve and management reserve)
4.1.2	New Minister of Finance in the country	Change of policy decisions	10 days delay on project, additional cost of \$ 1,200	Once every 4 months (Moderate)	Marginal	Moderate (25)	Government announces new financial approval policies	Financial Officer	Active Accept: Assign a contingency reserve

5.1.1	Bureaucracy in the Approvals and "no objection" of project work such as contracts .	Feedback is delayed affecting quality and delaying project deliverables as per contract terms	10 days delay on project; moderate effect on performance and an additional cost of \$1,100	Once every two months (Moderate)	Marginal	Moderate (25)	No response provided by agreed deadline	Project Manager	Mitigation: Set adequate timelines and having clear channels of communication
3.1.2	Red tape on the process of obtaining approval	Financial approval is being delayed which	14 days delay, moderate effect on performance and additional cost of \$1,010	Once every six months to 12 months (Low)	Marginal	Moderate (15)	Project manager and project administrative	PAA	Passive acceptance

	of annual budget funding limit and request for direct payments.	will affect timely execution of tasks					assistant (PAA) submitting requests with missing required documentation and Annual operational plan budget is wrong.		
4.1.1	Elections become	Change of	15 days delay on project,	Once every 2 years	Critical	Low (7)	Prime Minister	Project Manag	Active Accept:

	due during project execution	government	additional cost of \$ 2,000	(Very low)			announces election	er	Assign a contingency reserve
5.1.2	Requirements for procurement are lengthy	Not being able to find acceptable proposals to complete an RFP in the necessary	7 days delay on project; \$500 cost	once every six to 12 months (Low)	Acceptable	Low (9)	Evaluation of proposals show a negative turnover	Project manager	Mitigate : Put in place minimum requirements to increase the probability for finding an

		timefram e which can affect project delivera bles						accepta ble proposa l. Ensure that the TOR is precise to ensure the intende d audienc e is capture d.
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4.7.6 Monitoring and Controlling Risk

The project manager will monitor the status of risks identified in the risk register. The project manager will ensure adherence to the mitigation strategy which has been agreed upon. Risk monitoring will be a continuous process throughout the life of the project. The risk register will be updated weekly and communicated to the project management team during the project status meetings.

Risks will also be assigned a risk owner(s) who will track, monitor, and control their assigned risks. The risk owner will also provide a weekly status to the Project Director.

As risk events occur, the list of risks will be re-prioritized during weekly reviews and the risk management plan will reflect any and all changes to the risk list including secondary, residual risks and new risks that may arise throughout the project life cycle.

The project manager will communicate and notify the Project Responsible Partner and the Project Steering Committee of important changes to risk status during the Quarterly meetings and in the quarterly reports.

4.8 Procurement Management Plan

The Procurement Management Plan (PMP) sets the procurement framework to acquire goods and services required for the successful completion of the project activities. The PMP outlines the procurement activities that are part of the procurement process, procurement management approach, procurement statement of work, standard procurement documents (proposal and evaluation report templates), type of contracts to be used, contract approval process, seller selection process, selection criteria and vendor management.

4.8.1 Procurement Management Approach

The project manager (PM) will provide oversight and management for all project procurement activities. The project administrative assistant (PAA) will work with

the PM to identify all items and services to be procured for the successful implementation and completion of the project. The PM will review the procurement list and determine whether to make or buy the items or to initiate the procurement for services.

Regarding the procurement of goods, the PAA will be responsible for obtaining three quotes and carrying out a comparison using the Micro Purchasing Canvass form shown in Chart 28 for the selection of the vendor based on best value for money. Upon the finalization of the selection of vendor for the procurement of goods, the project manager will submit all relevant information on the selection of the vendor to the project director for its approval. Once the project director approves the selection of the vendor, the PAA will prepare a purchase order using the template shown in Chart 29. All purchase orders are signed by both the PM and the project director. Whenever, the PM or the PD is out on leave, an authorization letter is submitted to the responsible partner notifying the temporary authorization for the signing of documents on behalf of the PD or PM, whichever the case may be. Request for direct payment (RDP) for the purchase of goods is prepared by PAA. The RDP is approved by the PD and is then submitted to the responsible partner for the processing of payment.

For the procurement of services, some services i.e. consultancy services for the disposal of POPs chemicals is carried out by the responsible partner. A Terms of Reference (TOR) and a Request for Proposal (RFP) are developed by the PM in consultation with the expert review committee. The TOR and RFP are then submitted to the Project steering committee for its approval. The TOR template is shown in Chart 30. An example of a Request for Proposal (RFP) is shown in Chart 31. The RFP is then advertised for three weeks. An evaluation committee is established for the review and evaluation of proposals. The evaluation committee consists of three members of the Project steering committee, a member from the Department of the Environment (DOE) and a member from the Ministry of Environment. An Evaluation report following the structure shown in Chart 32 is developed and signed by the evaluation committee. The evaluation report is then

presented to the PSC for the approval of the recommended selected consultant/contractor. With the approval of the PSC, the request for approval of contract for the service provider is submitted the Contract General's Office. When the Contractor General approves it, the contract between the Ministry of Environment and the selected service provider is signed by both parties. When the contract is signed, the PAA prepares the RDP's as deliverables are accomplished according to the delivery timeframe and the schedule of payments.

4.8.2 Procurement Plan

The procurement plan for 2017 shown in Chart 26 is an example of the annual procurement plans developed for the BCWM Project. This plan is to serve as a guide for executing the procurement throughout the year 2017 of the project. This plan identifies and defines the items to be procured; the timeframe for the procurement as well as the contract cost.

PROCUREMENT ACTION PLAN 2017 Belize Chemicals and Waste Management Project

Requisition Docs Ready		Description	Type of Supply (Goods, Services, Works)	Est. Contract Amount (USD)	Issue of Expression of Interest (EOI) /Notification				Evaluation of Proposals					Contract Issuance													
Date	By				DATE	UNDP web	Local Paper	Int. Paper /Media	Issue Date	Deadline for Receipt	Duration (days)	RFQ	RFP	Single Stage	Two stage	Two stage with Combined Weights	Date of Issue	PO	Inst. Contr.	Works	Profes. Serv.	Publ. Transl	Publication	Reprinting	Security	Travel	Other
20 Apr 17	GC	Venue and Catering for meeting to review second draft of reguations	Services	350	N/A	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	17 Mar 17	23 Mar 17	6	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	24 Mar 17	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10 May 17	GC	Office Supplies	Goods	1,550	N/A	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2 May 17	8 May 17	6	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	9 May 17	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
26 May 17	GC	Venue and Catering for the validation of final draft of reguations	Services	675	N/A	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	21 Apr 17	27 May 17	36	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	28 Apr 17	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
30 Aug 17	GC	Final payment to POLYECO for the disposal of POP's, purchase of drums, training, repackaging, shipping and final disposal	Services	118,090	N/A	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A	N/A	#VALUE!	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1 Nov 16	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>					
1 Apr 17	GC	Project Administration (Salaries)	Service	8,400	N/A	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	N/A	N/A	#VALUE!	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1 Aug 16	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>					
1 Apr 17	GC	Miscellaneous expenses (Sundries)	Service	600	N/A	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A	N/A	#VALUE!	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1 Apr 17	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

PROCUREMENT ACTION PLAN 2017 Belize Chemicals and Waste Management Project

Requisition Docs Ready		Description	Type of Supply (Goods, Services, Works)	Est. Contract Amount (USD)	Issue of Expression of Interest (EOI) /Notification			Evaluation of Proposals					Contract Issuance													
Date	By				DATE	UNDP Web	Local Paper	Int.Paper/Media	Issue Date	Deadline for Receipt	Duration (days)	RFQ	RFP	Single Stage	Two stage	Two stage with Combined Weights	Date of Issue	PO	Inst. Contr.	Works	Profes. Serv.	Publ. Transl	Publication	Reprinting	Security	Travel
1 May 17	GC	Travel (Accomodation and subsistence allowance)	Service	2,250	N/A	<input type="checkbox"/>	<input type="checkbox"/>	N/A	N/A	#VALUE!	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1 May 17	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
9 Jun 17	GC	PEG Meeting Catering	Goods and Services	200	N/A	<input type="checkbox"/>	<input type="checkbox"/>	12 May 17	26 May 17	14	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7 Jun 17	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1 Jul 17	GC	Miscellaneous expenses (Vehicle Insurance)	Service		1,400	N/A	<input type="checkbox"/>	<input type="checkbox"/>	N/A	N/A	#VALUE!	<input type="checkbox"/>	1 Jul 17	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>				
1 Jul 17	GC	Project Administration (Salaries)	Service	14,600	N/A	<input type="checkbox"/>	<input type="checkbox"/>	N/A	N/A	#VALUE!	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1 Aug 16	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>						
1 Jul 17	GC	Travel (Accomodation and subsistence allowance)	Service	1,250	N/A	<input type="checkbox"/>	<input type="checkbox"/>	N/A	N/A	#VALUE!	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1 Jul 17	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1 Jul 17	GC	Miscellaneous expenses (Sundries)	Service	300	N/A	<input type="checkbox"/>	<input type="checkbox"/>	N/A	N/A	#VALUE!	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1 Jul 17	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

PROCUREMENT ACTION PLAN 2017 Belize Chemicals and Waste Management Project

Requisition Docs Ready		Description	Type of Supply (Goods, Services, Works)	Est. Contract Amount (USD)	Issue of Expression of Interest (EOI) /Notification				Evaluation of Proposals			Contract Issuance															
Date	By				DATE	UNDP Web	Local Paper	Int. Paper/Media	Issue Date	Deadline for Receipt	Duration (days)	RFQ	RFP	Single Stage	Two stage	Two stage with Combined Weights	Date of Issue	PO	Inst. Contr.	Works	Profes. Serv.	Publ. Transl	Publication	Reprinting	Security	Travel	Other
8 Sep 17	GC	PEG Meeting Catering	Goods and Services	300	N/A	<input type="checkbox"/>	<input type="checkbox"/>	11 May 17	25 May 17	14	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7 Sep 17	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
30 Oct 17	GC	1st payment to consultant for chemicals management strategy consultancy	Services	4,800	N/A	<input type="checkbox"/>	<input type="checkbox"/>	N/A	N/A	#VALUE!	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	26 Oct 17	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>							
1 Nov 17	GC	Catering for first meeting with consultant for the chemicals management strategy to finalize and agree on detailed work plan and scope of work	Services	125	N/A	<input type="checkbox"/>	<input type="checkbox"/>	N/A	N/A	#VALUE!	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	26 Oct 17	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
22 Dec 17		Catering and venew for the review of the first draft of the chemicals management strategy	Services	1,625.00	N/A	<input type="checkbox"/>	<input type="checkbox"/>	N/A	N/A	#VALUE!	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3 May 17	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
28 Dec 17	GC	2nd payment to consultant for chemicals management strategy consultancy	Services	6,400	N/A	<input type="checkbox"/>	<input type="checkbox"/>	N/A	N/A	#VALUE!	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	26 Oct 17	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>							
23 Dec 17	GC	PEG Meeting Catering	Goods and Services	1,150	N/A	<input type="checkbox"/>	<input type="checkbox"/>	11 Dec 17	18 Dec 17	7	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	19 Dec 17	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
				247,136.00																							

4.8.3 Contract Type

The type of contract utilized is firm fixed-price contract also known as lump sum contract. The procurement of services either individual consultancies or group consultancies are solicited under firm fixed-price contracts.

The project management team will work on the terms of reference and the request for proposal (RFP). Once approved by the project steering committee, the RFP will solicit bids from vendors to procure the required services with the required timeframe and at the best value for money under the firm fixed- price contract with the selected vendor. The TOR template and an example of RFP are shown in Chart 29 and Chart 30, respectively.

4.8.4 Statement of work

The statement of work (SOW) template that will be used for the procurement of services is shown in Chart 27. Figure 11 shows the description of each component of the SOW.

Chart 27 Statement of Work (Source: Author of the study)

STATEMENT OF WORK (SOW)	
Project Name and Purpose	
Scope of Work	
Location of work	

Period of Performance (Time Period)
Delivery Schedule
Applicable standards
Acceptance Criteria
Special Requirements
Payment Schedule



Figure 11 Statement of Work Description (Source: Shenoy, 2013)

4.8.5 Standard Procurement Documents

The Standard procurement documents for the BCWM Project are:

- 1) Micro purchasing canvass form
- 2) Purchase order form
- 3) Terms of reference template
- 4) Request for Proposal example, and
- 5) Evaluation report Template, shown in Chart 28, Chart 29, Chart 30, Chart 31 and Chart 32, respectively.

Chart 28 Micro purchasing canvass form (Source: Author of the study)

MICRO-PURCHASE CANVASS FORM

Vendor Details			Vendor 1		Vendor 2		Vendor 3	
Full Name :								
Address:								
Tel./Fax. No.:								
Email Address:								
Date/s of Canvassing								
Item No.	Brief Description/Specification of Goods/Services/Small Works	Quantity	Unit Price (BZD)	Total Price per Item (BZD)	Unit Price (BZD)	Total Price per Item (BZD)	Unit Price (BZD)	Total Price per Item (BZD)
1								
Total Prices of Goods/Services/Small Works								
Add : Cost of Transportation/Shipment (if any)								
Add : Other Charges (pls. specify)								
TOTAL FINAL AND ALL-INCLUSIVE PRICE:								

I, the undersigned, confirm that I personally conducted the canvassing of the prices of the goods/services/small works described above, and I hereby certify accuracy of the information I have provided.

Project Administrative Assistant BCWM Project

[Date]

<u>To be filled up by the Procurement Staff Preparing this Canvass Form:</u> Recommended Vendor:	<u>To be filled up by the Requisitioner:</u> Vendor Selected :
Reason for Recommendation:	Vendor Selected by (Name and Signature)
Activity and account code:	Reason for selection (if different from Recommended vendor):

Chart 29 Purchase order form (Source: Author of the study)



PURCHASE ORDER



Belize Chemicals and Waste Management Project

Department of the Environment

Market Square

Belmopan

Phone: 828-4856

Fax: 822-2860

Date	P.O. No.

VENDOR	SHIP TO
	Department of the Environment Market Square Belmopan

Vendor ID	Delivery Date	Ship Via	Terms of sale	Terms of payment	Currency

Comments: Administrative

Subtotal:	
GST	
Taxes	
Grand Total	

Project Manager

Project Director

Chart 30 Terms of Reference Template (Source: Author of the study)

Terms of Reference (TOR) for an Assignment Requiring the Services of an Individual or Team through Firm fixed-price contract
<p>RECOMMENDED MINIMUM CONTENTS OF TOR</p> <p>A. Project Title</p> <p>B. Project Description</p> <ul style="list-style-type: none"> a) Briefly describe the project rationale / background and the objectives of the project b) Briefly describe the context of the required services c) Emphasize the relevance/purpose of the work required and how it is linked to the project context d) List and describe the stakeholders for the project. e) If applicable, explain thoroughly the peculiarity of the setting of the project or the work required, if any (e.g., security risks involved in conducting the work in certain communities, certain cultures and practices unique to the stakeholders, etc.) <p>C. Scope of Work</p> <ul style="list-style-type: none"> a) List the results and the major tasks expected to be undertaken by the Consultant. b) Briefly describe the required activities (scope, location, subjects, etc.) and other information that will help prospective Offerors understand the nature of the work <p>D. Expected Outputs and Deliverables</p> <ul style="list-style-type: none"> a) List the outputs and specific deliverables in sequence, corresponding to the work and their corresponding target delivery dates. b) If the specific dates are contingent on too many variables and cannot yet be defined, the span of time from the commencement of the work could be indicated (e.g., 2nd week from contract signing, within 2-3 months from contract signing, etc.).

c) If there are multiple reviewers/certifying authorities for each output/deliverable, they shall be properly identified and indicated in this section.

d) If feasible, a table similar to the one below is desired in order to clearly summarize the above details:

Deliverables/ Outputs	Estimated Duration to Complete	Target Due Dates	Review and Approvals Required <i>(Indicate designation of person who will review output and confirm acceptance)</i>

E. Institutional Arrangement

- a) Identify the specific authority/ies who will directly supervise the Contractor, and to whom he/she will be directly responsible to, reporting to, seeking approval/acceptance of output from (e.g., the Project Manager, or National Project Director, etc.)
- b) Indicate the frequency of progress reporting, if required (e.g., weekly, monthly, fortnightly, etc.), the recommended formats, if any. If any of the reports must be presented, indicate the audience/body and expected location and venue.
- c) Identify institutions/organizations/individuals with whom the Contractor is expected to liaise/interact/collaborate/meet with in the course of performing the work (e.g., other agencies, project co-implementers, donors, communities, local government units, etc.)

- d) Define roles / extent of participation of entities involved in the management/implementation of the contract (e.g., as respondents to survey, resource persons to confer with, approving authority, evaluating performance, etc.)
- e) Specify if the project will be able to provide (or not) any facilities, support personnel, support service, or logistical support, what they will be, and at what stage of the work.

F. Duration of the Work

- a) State expected duration of work / total no. of days/weeks/months of the assignment including effective person-days, if applicable. Emphasize the expected date of full completion, if time is of the essence, indicate the consequences of any delay
- b) Indicate target date for the start of work and expected completion date, including conditions to determining both dates, if any
- c) Provide the estimated lead time for Project Implementing Partners to review outputs, give comments, certify approval/acceptance of outputs, etc.
- d) Explain special reason for urgency, if any, and serious consequence/impact of any form of delay in the completion of the work (e.g., deferment of the succeeding phase to the following year, cancellation of the budget allocation for the project, other potential losses to any party involved, etc.)

G. Duty Station

- a) Identify the Contractor's duty station/location for the contract duration, mentioning ALL the possible locations of field works/duty travel in pursuit of other relevant activities, specially where traveling to locations at security Phase I or above will be required
- b) State whether or not the Consultant/Contractor will be required to

report regularly or be present at a certain office during the work, including frequency of reporting, even if intermittent

H. Qualifications of the Successful Individual Contractor

Clearly define and indicate the following:

- a) The area of specialization, field of expertise, and other qualities of the ideal individual to perform the services/work satisfactorily;
- b) The minimum level of education acceptable and the fields of studies preferred, if any
- c) The minimum number of years of work experience on the preferred field of practice, if there is any preference
- d) Special skills / experience and other qualifications which will prove to be advantageous and vital to the success of the work implementation, especially if the assignment's setting/situation is unique or has peculiarities (e.g., experience in working with indigenous people, familiarity with the key issues confronting a certain region, understanding of and ability to relate with a specific culture/religion, knowledge of a local dialect, etc.)

I. Scope of Price Proposal and Schedule of Payments

In order to have a fair basis for comparison, requesting units must clearly state in the TOR that all proposals must be expressed in one of the following pricing options:

- a) Daily Fee- this option is only suited when the duration of engagement is definitive and the possibility of any extension is either very low/minimal, or manageable, if at all expected. This approach must be re-considered if the assignment has a high likelihood of extension or prolonged engagement, as it can create serious cost implications, and may undermine value-for-money.
- b) *Lump Sum Amount* – this is the preferred approach, because it is representative of payments closely linked to deliverables.

Chart 31 Request for proposal (RFP) example (Source: UNDP)

Request for Proposal
<p>For the development of a Chemicals and Waste Management Strategy and Action Plan, including a Disposal Plan</p>
<p>Section 1: Letter of invitation</p> <p>Belize</p> <p>RFP for the development of a chemicals and waste management strategy and action plan and a disposal plan</p> <p>Dear Mr./Ms.:</p> <p>The Department of the Environment (DOE) hereby invites you to submit a proposal to this Request for Proposal (RFP) for the above-referenced subject.</p> <p>The RFP includes the following documents:</p> <p>Section 1 -This Letter of invitation</p> <p>Section 2 – Tender Acknowledgement Form</p> <p>Section 3 - Instructions to Proposer (including Data Sheet)</p> <p>Section 4 - The Terms of Reference (TOR)</p> <p>Section 5 - Proposal Submission Cover Letter Form</p> <p>Section 6 – Technical Proposal Form</p> <p>Section 7 – Financial Proposal Form</p> <p>Your offer, comprising of Technical and Financial Proposal, in separate sealed envelopes, should be submitted in accordance with Section 3. Please note that the deadline for submission of these proposals is <specify time and date>.</p> <p>You are kindly requested to submit the completed Tender Acknowledgement Form to the DOE to the following address:</p> <p style="text-align: center;">Department of the Environment, Ministry of Agriculture, Fisheries, Forestry, The Environment</p>

Sustainable Development and Immigration

Old Lands Buildings, Market Square

City of Belmopan,

Cayo District, Belize C.A.

Attention: Belize Chemicals and Waste Management Project

The completed Tender Acknowledgement Form should be received by the DOE no later than <XX p.m.> on <insert Date>. The same letter should advise whether your company intends to submit a Proposal. If that is not the case, the Department would appreciate you indicating the reason, for our records.

Should you require further clarifications, kindly communicate with the contact person identified in the attached Data Sheet as the focal point for queries.

The Department looks forward to receiving your Proposal and thanks you in advance for your interest in the Department's procurement opportunities.

Yours Sincerely,

Project Director

Department of the Environment

Section 2: Tender Acknowledgement Form

Tender: Provision of Individual Contract Services for the development of a chemicals and waste management strategy and action plan, including a disposal plan

Dear Mr. Alegria:

I, _____ acknowledge receipt of
the Invitation

Name of Individual

to Tender referred to above, and hereby confirm that I

INTEND

DO NOT INTEND

to submit a proposal for the above captioned Tender.

I respectfully DECLINE to submit a proposal for the Tender for the following
reason(s):

NAME: _____ DATE: _____

SIGNATURE:

CONSULTANT NAME AND ADDRESS: _____

Section 3: Instruction to Proposers

A. CONTENTS OF PROPOSAL

1. Sections of Proposal

Proposers are required to complete, sign and submit the following
documents:

1.1. Proposal Submission Cover Letter Form (see Section 5);

- 1.2. Technical Proposal (see prescribed form in Section 6);
- 1.3. Financial Proposal (see prescribed form in Section 7);
- 1.4. Any attachments and/or appendices to the Proposal.

B. PREPARATION OF PROPOSALS

1. Cost

The Proposer shall bear any and all costs related to the preparation and/or submission of the Proposal, regardless of whether its Proposal was selected or not. The DOE shall in no case be responsible or liable for those costs, regardless of the conduct or outcome of the procurement process.

2. Language

The Proposal, as well as any and all related correspondence exchanged by the Proposer and DOE, shall be written in the English Language. Upon conclusion of a contract, the language of the contract shall govern the relationship between the contractor and DOE.

C. SUBMISSION AND OPENING OF PROPOSALS

1. Submission

- 1.1. The Financial Proposal and the Technical Proposal Envelopes MUST BE COMPLETELY SEPARATE and each of them must be submitted sealed individually and clearly marked on the outside as either "TECHNICAL PROPOSAL" or "FINANCIAL PROPOSAL", as appropriate. Each envelope MUST clearly indicate the name of the Proposer. The outer envelopes shall bear the address of the DOE as specified in the Data Sheet and shall include the Proposer's name and

address, as well as a warning that state “*not to be opened before the time and date for proposal opening*” as specified in the Data Sheet. The Proposer shall assume the responsibility for the misplacement or premature opening of Proposals due to improper sealing and labeling by the Proposer.

1.2. Proposers must submit their Proposals in the manner specified in the Data Sheet. When the Proposals are expected to be in transit for more than 24 hours, the Proposer must ensure that sufficient lead time has been provided in order to comply with DOE’s deadline for submission.

1.3. Proposers submitting Proposals by mail or by hand shall enclose the original and each copy of the Proposal, in separate sealed envelopes, duly marking each of the envelopes as “Original Proposal” and “Copy of Proposal” as appropriate. The 2 envelopes shall then be sealed in an outer envelope. The number of copies required shall be as specified in the **Data Sheet**. In the event of any discrepancy between the contents of the “Original Proposal” and the “Copy of Proposal”, the contents of the original shall govern. The original version of the Proposal shall be signed or initialed by the Proposer or person(s) duly authorized to commit the Proposer on every page.

2. Deadline for Submission of Proposals and Late Proposals

Proposals must be received by DOE at the address and no later than the date and time specified above.

The DOE shall not consider any Proposal that arrives after the deadline for submission of Proposals. Any Proposal received by the DOE after the deadline for submission of Proposals shall be declared late, rejected, and returned unopened to the Proposer.

3. Proposal Opening

The DOE will open the Proposals in the presence of an ad-hoc committee formed by the DOE of at least two (3) members. Since electronic submission is permitted, specific electronic proposal opening procedures will be guided according to the specifics in the **Data Sheet**.

4. Confidentiality

Information relating to the examination, evaluation, and comparison of Proposals, and the recommendation of contract award, shall not be disclosed to Proposers or any other persons not officially concerned with such process, even after publication of the contract award.

D. EVALUATION OF PROPOSALS

1. Preliminary Examination of Proposals

The DOE shall examine the Proposals to determine whether they are complete with respect to minimum documentary requirements, whether the documents have been properly signed, and whether the Proposals are generally in order, among other indicators that may be used at this stage. The DOE may reject any Proposal at this stage.

2. Evaluation of Proposals

2.1. The evaluation team shall review and evaluate the Technical Proposals on the basis of their responsiveness to the Terms of Reference and other documentation provided, applying the evaluation criteria, sub-criteria, and point system specified in the Data Sheets below. Each responsive Proposal will be given a technical score. A Proposal shall be rendered non-responsive at this stage if it does not substantially respond to the demands of the Terms of Reference, which also means that it fails to achieve the minimum technical score indicated in the Data Sheet.

Absolutely no changes may be made by the DOE in the criteria, sub-criteria and point system indicated in the Data Sheet after all Proposals have been received.

2.2. In the second stage, only the Financial Proposals of those Proposers who achieve the minimum technical score will be opened for evaluation for comparison and review. The Financial Proposal Envelopes corresponding to Proposals that did not meet the minimum passing technical score shall be returned to the Proposer unopened. The overall evaluation score will be based on a combination of the technical score and the financial offer. The evaluation method that applies for this Proposal shall be prorated.

When the Data Sheet specifies a combined scoring method, the formula for the rating of the Proposals will be as follows:

Rating the Technical Proposal (TP):

TP Rating = (Total Score Obtained by the Offer / Max. Obtainable Score for TP) x 100

Rating the Financial Proposal (FP):

FP Rating = (Lowest Priced Offer / Price of the Offer Being Reviewed) x 100

Total Combined Score:

(TP Rating) x (Weight of TP, e.g. 70%)

+ (FP Rating) x (Weight of FP, e.g., 30%)

Total Combined and Final Rating of the Proposal

E. AWARD OF CONTRACT

1. Right to Accept, Reject, or Render Non-Responsive Any or All Proposals

The DOE reserves the right to accept or reject any Proposal, to render any or all of the Proposals as non-responsive, and to reject all Proposals at any time prior to award of contract, without incurring any liability, or obligation to inform the affected Proposer(s) of the grounds for the DOE's action. Furthermore, the DOE shall not be obliged to award the contract to the lowest price offer.

2. Award Criteria

Prior to expiration of the period of proposal validity, the DOE shall award the contract to the qualified Proposer with the highest total score based on the evaluation method indicated in the **Data Sheet** (DS nos. 17).

3. Right to Vary Requirements at the Time of Award

At the time of award of Contract, the DOE reserves the right to vary the quantity of services and/or goods, by up to a maximum twenty-five per cent (25%) of the total offer, without any change in the unit price or other terms and conditions.

4. Contract Signature

Within five (5) days from the date of receipt of the Contract, the successful Proposer shall sign and date the Contract and return it to the DOE.

Failure of the successful Proposer to comply with the requirement of this provision shall constitute sufficient grounds for the annulment of the award, and the DOE may award the Contract to the Proposer with the second highest rated Proposal, or call for new Proposals.

Instructions to Proposers

DATA SHEET

The following data for the services to be procured shall complement, supplement, or amend the provisions in the Instruction to Proposers. In the case of a conflict between the Instructions to Proposers, the Data Sheet, and other annexes or references attached to the Data Sheet, the provisions in the Data Sheet shall govern.

DS No .	Cross Ref. to Instructions	Data	Specific Instructions / Requirements
1		Project Title :	PROVISION OF INDIVIDUAL CONTRACT SERVICES FOR THE DEVELOPMENT OF A CHEMICALS AND WASTE MANAGEMENT STRATEGY AND ACTION PLAN, INCLUDING A DISPOSAL PLAN
2		Title of Services/Work:	Invitation to submit a Proposal for the provision of Individual Contract Services for the development of a chemicals and waste management strategy and action plan, including a disposal plan for Belize.
3		Country / Region of Work	Belize/ Entire Belize

		Location:		
4	B 2	Language of the Proposal:	<input checked="" type="checkbox"/> English	
5		Conditions for Submitting Proposals for Parts or sub-parts of the TOR	<input checked="" type="checkbox"/> Not allowed	
6		Conditions for Submitting Alternative Proposals	<input checked="" type="checkbox"/> Shall not be considered	
7		A pre-proposal conference will be held on:	N/A	
8		Period of Proposal Validity commencing on the submission date without change in the personnel	<input checked="" type="checkbox"/> 90 days	

		proposed for the assignment and for the proposed price.		
9		Preferred Currency of	<input checked="" type="checkbox"/> Belize Dollars (BZD\$)	
10		Contact Details for submitting clarifications/question	<p>Focal Person in the Department of the Environment Gisel Correa-Cobb</p> <p>Address: Old Lands Buildings, Market Square, City of Belmopan, Cayo District, Belize C.A.</p> <p>E-mail address dedicated for this purpose: chemicalwaste@environment.gov.bz</p>	

11		<p>No. of copies of Proposal that must be submitted [if transmitted by courier]</p>	<p>Original: 1 Technical Proposal, 1 Financial Proposal</p> <p>Copies: 1 Technical Proposal, 1 Financial Proposal</p> <p>A flash drive or CD with the technical proposal in pdf (with no more than 15 Mb files) and 1 with the Financial Proposal in Excel</p> <ul style="list-style-type: none"> • The technical proposal, its copies and the flash drive or CD with the technical proposal in pdf must be submitted in envelope No.1 • The financial proposal, its copies and the flash drive or CD with the financial proposal in Excel on the envelope No.2 <p>Both envelopes (No. 1 and 2.) must be placed in a sealed envelope and labelled as follows:</p> <p>PROVISION OF INDIVIDUAL CONTRACT SERVICES FOR THE DEVELOPMENT OF A CHEMICALS AND WASTE MANAGEMENT STRATEGY AND ACTION PLAN, INCLUDING A DISPOSAL PLAN FOR BELIZE</p>
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12	C 1.2.	Proposal Submission Address	<u>Department of the Environment,</u> <u>Ministry of Agriculture, Forestry, Fisheries,</u> <u>Environment & Sustainable Development,</u> <u>Old Lands Building, Market Square</u> <u>City of Belmopan, Cayo District</u> <u>Belize C.A.</u> <u>Attention: Belize Chemicals and Waste</u> <u>Management Project</u>
13	C.2.	Deadline of Submission	Date and Time: June 23, 2017 4:30 PM (Belize Time)
14		Allowable Manner of Submitting Proposals	<input checked="" type="checkbox"/> Courier/Hand Delivery
15		Conditions and Procedures for electronic submission and opening, if allowed	N/A
16	C 3	Date, time and venue for opening of Proposals	Date and Time: June 26, 2017 9:00 AM Venue: Department of the Environment Office
17	D 2, E 2	Evaluation method to be	<input checked="" type="checkbox"/> Combined scoring

		used in selecting the most responsive Proposal	
18		Structure of the Technical Proposal	See section 6
19		Latest Expected date for commencement of Contract	July 17, 2017
20		Expected duration of contract	40 working days within a three (3) month period

The technical proposal is evaluated on the basis of its responsiveness to the Term of Reference (TOR) and scoring is allocated in accordance with the below given Technical Evaluation Criteria. If the offeror does not meet any of the minimum technical qualification criteria/requirements defined in the Form 1 of the Technical Proposal Evaluation (presented below), it will be given score zero and will be automatically disqualified and there is no more need for further evaluation of the disqualifying offeror.

Summary of Technical Proposal Evaluation Forms		Score Weight	Points Obtainable
1.	Proposed Methodology, Approach and Implementation Plan	100%	400
Total			400

The Technical Proposal Evaluation Forms are:

Form 1: Proposed Methodology, Approach and Implementation plan

Technical Proposal Evaluation Form 1		Points Obtainable
Proposed Methodology, Approach and Implementation plan		
2.1	To what degree does the Offeror understand the task? <ul style="list-style-type: none"> - <i>Full understanding of the tasks – 50;</i> - <i>Fair understanding of the task (minimum requirement) -35</i> 	50
2.2	Have the important aspects of the task been addressed in sufficient detail? <ul style="list-style-type: none"> - <i>High description of the tasks – 50;</i> - <i>Fairly appropriate (minimum requirement) – 35</i> 	50

2.3	<p>Has the offeror demonstrated an established, systematic methodology for the project implementation?</p> <ul style="list-style-type: none"> - <i>Comprehensive and systematic methodology - 50</i> - <i>Fairly appropriate — 35(min requirements)</i> 	50
2.5	<p>Is the conceptual framework adopted appropriate for the task?</p> <ul style="list-style-type: none"> - <i>Completely appropriate – 50 points;</i> - <i>Fairly appropriate (minimum requirement) -35 points;</i> 	50
2.6	<p>Is the scope of task well defined and does it correspond to the TOR?</p> <ul style="list-style-type: none"> - <i>Well defined scope of work and full correspondence to the TOR - 140</i> - <i>Fairly defined scope of work and partial correspondence to the TOR – 98 (min. requirement)</i> 	140
2.7	<p>Is the presentation clear and is the sequence of activities and the planning logical, realistic and promise efficient implementation to the project?</p> <ul style="list-style-type: none"> - <i>Clear presentation with sound logical and realistic planning – 60;</i> - <i>Fairly clear presentation with some elements of logical and realistic planning – 42 (min. requirement);</i> 	60
		400

Section 4: Terms of Reference

TERMS OF REFERENCE

Individual Consultant “Chemicals Management Expert”

**With the Ministry of Agriculture, Fisheries, Forestry, Environment,
Sustainable Development and Climate Change of Belize**

Project: Development of a Chemicals and Waste Management Strategy and Action Plan, including a Disposal Plan.

Duty Station: Belmopan, Belize

Duration of Project: 40 working days over a 3 months' period

Period of Performance: July 3, 2017 – October 2, 2017

Type of contract: Individual Contract

1. BACKGROUND

Chemicals play a part in almost all human activities (medicines, water purifiers, agricultural chemicals etc.). Many consumer and industrial products, including fuels, solvents, fertilizers, pesticides, paints, and household cleaning disinfectants, contain hazardous substances. Improper management and disposal of these chemicals and its respective wastes can lead to unexpected releases of toxins that are hazardous to humans and harmful to the environment.

Belize is faced with pollution issues associated with improper and unsafe chemicals and waste management practices. Also, safe handling, storage and disposal of seized chemicals, and waste encountered at sites present unique

problems to law enforcement and regulatory authorities in Belize.

The Sound Management of Chemicals and Wastes (SMCW) plays a key role in enabling countries to decouple growth from resource use and pollution, by redesigning products and production processes, phasing out toxic materials, minimizing waste generation and optimizing resource use through recycling and reuse.

As a signatory to Stockholm Convention on Persistent Organic Pollutants (POPs), the Basel convention, Rotterdam Convention, Vienna Convention and Montreal Protocol, the Government of Belize promotes the coherent and sound management of chemicals in Belize.

The Government of Belize, through the United Nations Development Programme and the Global Environment Facility (UNDP/GEF), is executing the project entitled “Belize Chemicals and Waste Management (BCWM) Project”. The project aims to assist Belize in implementing its relevant obligations under the Stockholm Convention, in particular to reduce the releases of Unintentional Persistent Organic Pollutants (UPOP’s), as well as to build the country’s capacity to manage chemicals and waste.

The Government of Belize, through the BCWM project is seeking a suitable individual professional with expertise in chemicals management to work with the Department of the Environment to develop a chemicals and waste management Strategy and Action Plan, including a Disposal Plan.

2. DUTIES AND RESPONSIBILITIES OF THE CHEMICALS MANAGEMENT EXPERT

Under the direct supervision of the Project Manager, the Chemicals Management Expert shall be responsible for the development of a chemicals and waste management Strategy and Action Plan, including a Disposal Plan.

Specifically, the Chemicals Management Expert’s responsibilities include but

are not limited to the following:

- Prepare a detailed work plan for consultancy activities, a schedule for site visits along with a list of users/importers/waste generators to be visited.
- Undertake site visits at various chemical users, importers and waste generators to conduct a situational analysis of the chemicals, waste management, disposal methods and practices in Belize.
- The Chemicals Management Expert must consult with pertinent regulatory agencies.
- Develop a chemicals and waste management Strategy for Belize.
- Based on the collected data and the developed chemicals and waste management Strategy, the Chemicals Management Expert will be responsible to develop an Action Plan, inclusive of a disposal Plan, for Belize.
- Actively participate as an advisory member to the Project Execution Group (PEG) and Expert committee for key meetings.
- Facilitate site visits, consultation meetings, workshops, including a National Consultation workshop to review proposed draft of the chemicals and waste management Strategy and Action Plan, including a disposal Plan, and a National validation workshop with relevant stakeholders. Prior to presenting the Strategy and Action Plan, including the Disposal Plan, the Chemicals Management Expert is required to submit the documents two weeks prior to these workshops.

The chemicals and waste management Strategy shall include but is not limited to the following:

1. Section 1 – Methodology followed in developing the chemicals and waste management strategy, establishing the legislative context framing the chemicals and waste management strategy, assessment and analysis of the current situation of the chemical and waste management and disposal methods and practices in Belize, set out the

challenges facing chemicals and waste management in Belize.

2. Section 2 – Set out the overall goals and approach to implementing the chemicals and waste management strategy, and the strategies to be followed to achieve each of the goals.
3. Section 3 – Describe each of the regulatory and economic instruments that will be used to give effect to the strategy set out in section two.
4. Section 4 – Institutional mechanisms for implementing the chemicals and waste management strategy, set out the roles, responsibilities, coordination and review mechanisms.

The Action Plan shall include but is not limited to the following:

1. Set out how Government, Industry, Academia and other relevant stakeholders will give effect to the chemicals and waste management strategy.
2. Disposal Plan for chemicals and its respective waste in Belize.

3. KEY DELIVERABLES

1. A detailed work plan; schedule of site visits and list of users/importers/waste generators to be visited;
2. A draft of the chemicals and waste management Strategy;
3. A draft Action Plan on Chemicals and Waste Management and its related Disposal Plan;
4. Reports from consultation and validation workshops;
5. Communication materials (presentations and hand-outs);
6. A final version of the chemicals and waste management Strategy.
7. A final version of the Action Plan on Chemicals and Waste Management inclusive of its Disposal Plan.
8. Final versions of documents shall be submitted in hard copy (3 copies) and electronic (word document)

4. DURATION

The assignment is expected to be completed within 40 working days within a 3-month period from the start date.

5. REPORTING REQUIREMENTS

The Chemicals Management Expert will report to the Chief Environmental Officer/Project Director of the Department of the Environment as required, to keep to the scheduled 3 months' timeline set. The dates are open to rescheduling, but not the time of performance, unless mutually agreed upon and subject to the internal payments procedures of the Department of the Environment.

The deliverables once approved, will become the property of the Government of Belize to utilize and disseminate as deemed necessary.

6. TERMS OF PAYMENT

Deliverables will be validated by the Project Execution Group (PEG) of the Belize Chemicals and Waste Management Project (BCWMP).

15% - Mobilization (on submission and acceptance of detailed work plan, schedule of site visits and list of users/importers/waste generators to be visited).

20% -On satisfactory completion of preliminary draft of the chemicals and waste management Strategy.

15% -On satisfactory completion of preliminary draft of the Action Plan on Chemicals and Waste Management, and its Disposal Plan.

25% - On submission and acceptance of final draft of the chemicals and waste management Strategy.

25% - On submission and acceptance of final draft of the Action Plan on Chemicals and Waste Management and its Disposal Plan.

Section 5: Proposal Submission Cover Letter Form

To: Martin Alegria

Chief Environmental Officer
Department of Environment
Old Lands Building
Market Square
City of Belmopan
Cayo District
Belize

Dear Sir/Madam:

I, the undersigned, hereby offer to provide professional services for [insert: title of services] in accordance with your Invitation to submit Proposal dated [insert: Date] and my Proposal. I am hereby submitting a Proposal, which includes the Technical Proposal and Financial Proposal sealed under a separate envelope.

I hereby declare that All the information and statements made in this Proposal are true and I accept that any misrepresentation contained in it may lead to my disqualification;

I confirm that I have read, understood and hereby accept the Terms of Reference (TOR) describing the duties and responsibilities required to conduct the assignment.

I agree to abide by this Proposal for *[insert: period of validity as indicated in Data Sheet]*.

I undertake, if my Proposal is accepted, to initiate the services immediately after the signing of a contract to conduct the activity according to the TOR.

I fully understand and recognize that the DOE is not bound to accept this proposal, that I shall bear all costs associated with its preparation and

submission, and that the DOE will in no case be responsible or liable for those costs, regardless of the conduct or outcome of the evaluation.

I remain,

Yours sincerely,

Signature of Proposer:

Contact Details:

Section 6: Technical Proposal Form

TECHNICAL PROPOSAL FORMAT

INSERT TITLE OF THE SERVICES

***Note: Technical Proposals not submitted in this format may be rejected.
The financial proposal should be included in separate envelope.***

Name of Proposing Individual:	
Address:	
Phone / Fax:	
Email:	

SECTION 1 - APPROACH AND IMPLEMENTATION PLAN

This section should demonstrate the Proposer's responsiveness to the TOR by identifying the specific components proposed, addressing the requirements, as specified, point by point; providing a detailed description of the essential performance characteristics proposed; and demonstrating how the proposed methodology meets or exceeds the requirements.

1.1. Approach to the Service/Work Required: Please provide a detailed description of the methodology for how you will achieve the Terms of Reference of the project, keeping in mind the appropriateness to local conditions and project environment.

1.2. Technical Quality Assurance Review Mechanisms: The methodology shall also include details of the Proposer's internal technical and quality assurance review mechanisms.

1.3 Implementation Timelines: The Proposer shall submit a Gantt Chart or Project Schedule indicating the detailed sequence of activities that will be undertaken and their corresponding timing.

1.4. Risks / Mitigation Measures: Please describe the potential risks for the implementation of this project that may impact achievement and timely completion of expected results as well as their quality. Describe measures that will be put in place to mitigate these risks.

1.5. Reporting and Monitoring: Please provide a brief description of the mechanisms proposed for this project for reporting to the DOE, including a reporting schedule.

1.6 Other: Any other comments or information regarding the project approach and methodology that will be adopted.

Section 7: Financial Proposal Form

The Proposer is required to prepare the Financial Proposal in an envelope separate from the rest of the RFP as indicated in the Instruction to Proposers.

The Financial Proposal must provide a detailed cost breakdown. Provide separate figures for each functional grouping or category. Any estimates for

cost-reimbursable items, such as travel and out-of-pocket expenses, should be listed separately.

In case of an equipment component to the service provider, the Price Schedule should include figures for both purchase and lease/rent options.

The format shown on the following pages is suggested for use as a guide in preparing the Financial Proposal. The format includes specific expenditures, which may or may not be required or applicable but are indicated to serve as examples.

A. Cost Breakdown per Deliverables

S N	Deliverables <i>[list them as referred to in the TOR]</i>	Percentage of Total Price (Weight for payment)	Price (Amount)
1	Deliverable 1	[DOE to give percentage (weight) of each deliverable over the total price for the payment purposes, as per TOR)	
2	Deliverable 2		
3			
	Total	100%	BZD

B. Cost Breakdown by Cost Component:

The Proposers are requested to provide the cost breakdown for the above given prices for each deliverable based on the following format. The DOE shall use the cost breakdown for the price reasonability assessment purposes as well as the calculation of price in the event that both parties have agreed to add new deliverables to the scope of Services.

Cost Components	Remuneration per Unit of Time (e.g., day, month, etc.)	Quantity	Total Rate for the Contract Duration
I. Personnel Costs			
Professional Fees			
II. Out of Pocket Expenses			
1. Travel Costs			
2. Daily Allowance			
3. Communications			
4. Reproduction			
5. Equipment Lease			
6. Others			
III. Other Related Costs			

Chart 32 Evaluation Report template (Source: Author of the study)

<u>EVALUATION REPORT</u>	
For the Procurement of Consultancy to develop a chemicals and waste management strategy and action plan, including a disposal plan for Belize	
Part 1: Basic Information: Project Background and Relevance of the Requirement	
1	<u>Brief description of Requirement:</u>
2	Category of Procurement Consultancy Services
3	Type of Contract
3	Duration of Contract
4	Funding Source/Project ID Belize Chemicals and Waste Management Project
5	Amount of Funds available for this Contract
6	<u>Purpose of Contract or brief scope (description of services)</u>
7	Modality of Project Execution NIM
8	Name of Direct Beneficiary/End-user Department of Environment (DOE)
9	<u>Project Background: Provide concise information of the project objectives, context, output and linkages to the proposed contract and expected result of implementation.</u>

Part 2: Planning and Preparatory Work		
10	<u>Source of Terms of Reference (TOR) (describe how TOR was developed)</u>	
Part 3: Procurement Process Information		
11	Procurement Method Applied	
12	<u>Describe the process of selection of proposals</u>	
13	Issue date of Invitations to submit a proposal - Date sent out	
14	Deadline for submission of Proposals	
15	Mode of Proposal Submission	
Part 4: Proposals Receiving		
16	No. of Proposals received	
17	No. of Late Proposals received and returned unopened (if any)	

Part 5: Evaluation of Proposals			
18	Evaluation procedure applied	Proposal- Lowest priced technically responsive	
19	Composition of Evaluation Committee	Name: 1. X 2. XX 3. XXX	Name of Organization:
20	No. of Proposals rejected during preliminary examination of proposals		
21	No. of technically responsive proposals after		

	evaluation (<i>Pls. attach detailed scoring matrix/sheets</i>)							
	No. of technically proposals that did not meet the minimum average passing technical proposal rating (score of XX points)							
22	Overall Results of Evaluation	Name of Offerors	Technical compliance (Indicate Yes/No)	Average Technical proposal rating (score)	Original Financial Proposal Price BZ \$	Average Financial proposal rating (score)	Total Combined Score	Ranking
		A.						
		B.						
23	Summary of Strengths and Weaknesses of Proposals							
		Strengths			Weaknesses			
	Proposal A:							
	Proposal B:							
24	FINAL RECOMMENDATION TO AWARD THE CONTRACT				Expert Name: Contract Value :			
Part 6: Value for Money Analysis								
25								
Part 7: Quality Assurance and Contract Management Mechanism:								
26	How will the contract and performance be managed for quality of goods/services? Capacity to manage the contract? Any performance security requirements?							

Part 8: Risk Management	
27	Risks associated with the implementation of this proposal:
Part 9: Recommendation	
28	<p>It is the unanimous recommendation that “XX” be appointed as the individual consultant for the consultancy “XXX” for the total value of (BZ \$xxx.xx) Etc...</p> <p>Approved by:</p> <p>_____</p> <p>Evaluation Committee Member</p>

Part 10: Attachments	
29	Minimum Attachments to this evaluation report: Attachment 1: Attachment 2:

4.8.6 Source selection criteria

The source selection criteria utilized to serve as basis for evaluating offers or proposals is the following:

- a) Combined Scoring method – where the qualifications and methodology will be weighted a max. of 70%, and combined with the price offer which will be weighted a max of 30%; or
- b) Lowest price method – where the award will be given to the qualified/responsive individual who offered the lowest price.

The combined scoring method is utilized for all firm fixed-price contracts for consultancy services. The lowest scoring method is utilized in the selection of goods only.

4.9 Stakeholder Management Plan

The Stakeholder Management Plan (SMP) identifies and analyses all internal and external stakeholders that may have an impact on the BCWM project with a view to effectively engage and manage stakeholders.

4.9.1 Stakeholder Identification

The stakeholders will be identified by performing a stakeholder analysis. Figure 12, Figure 13 and Figure 14 show the power/interest grid, the power/influence grid, and the influence/impact grid created early during the initiation phase of the project. The stakeholder register shown in Chart 33 was created to identify key stakeholders and their associated level of influence on the project. This stakeholder register is consulted and updated on a regular basis, as new stakeholders are identified or changed.

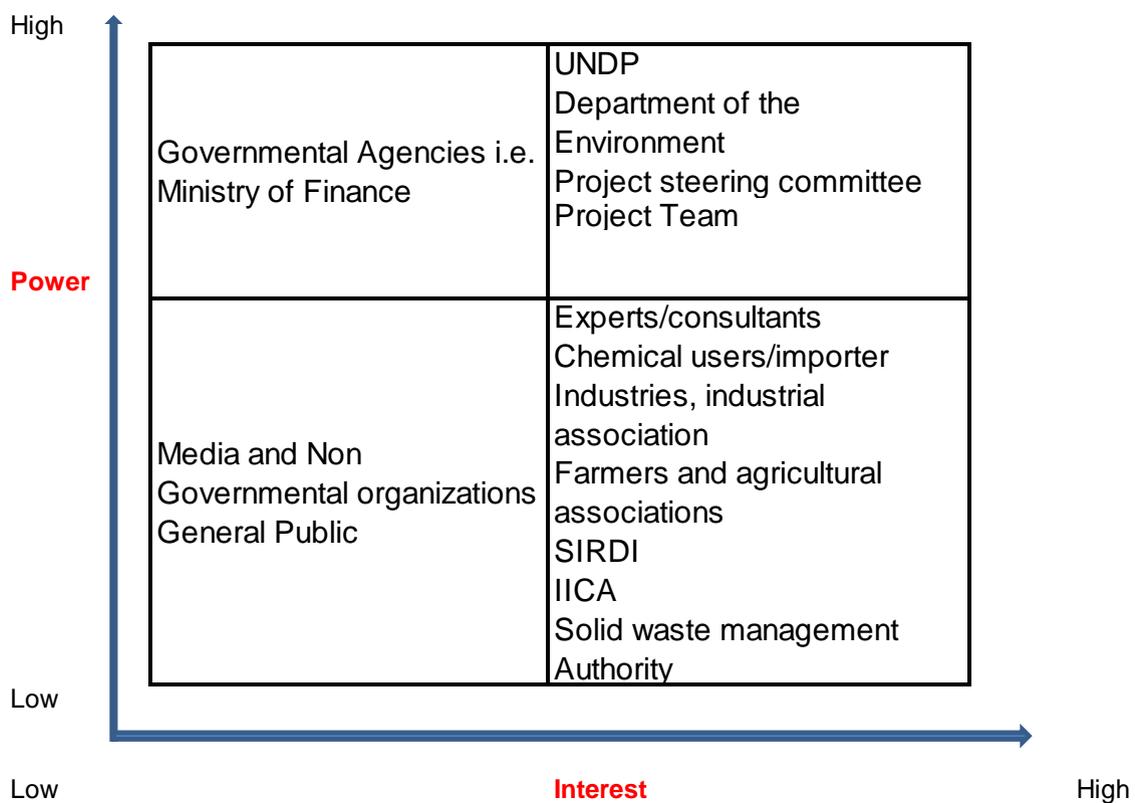


Figure 12 Power/Interest grid with stakeholders (Source: Author of the study)

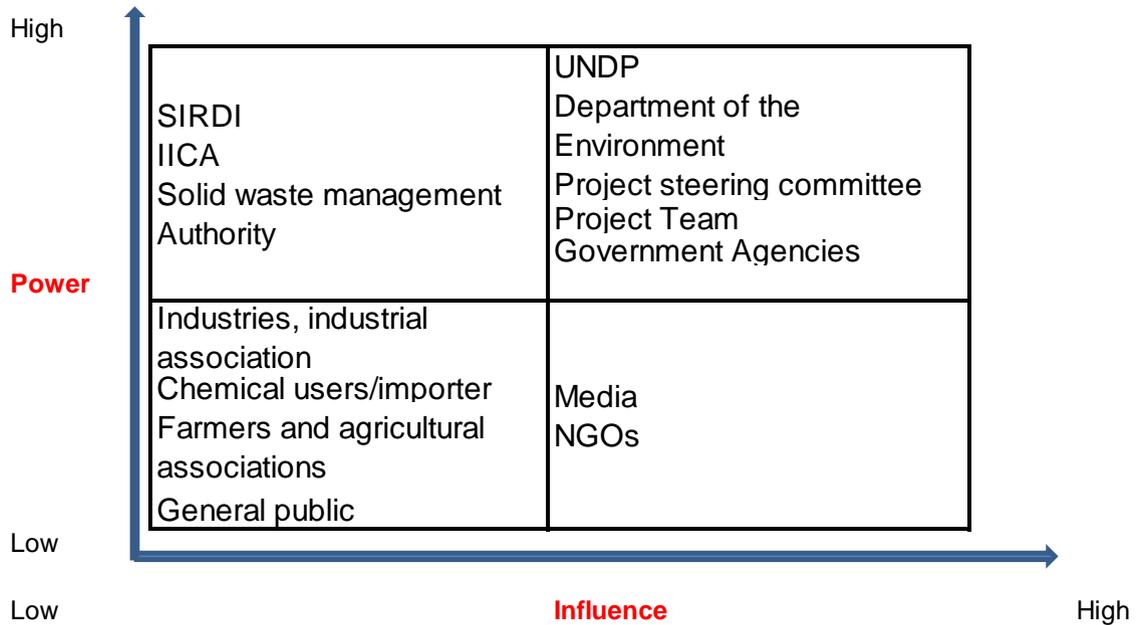


Figure 13 Power/Influence grid with stakeholders (Source: Author of the study)

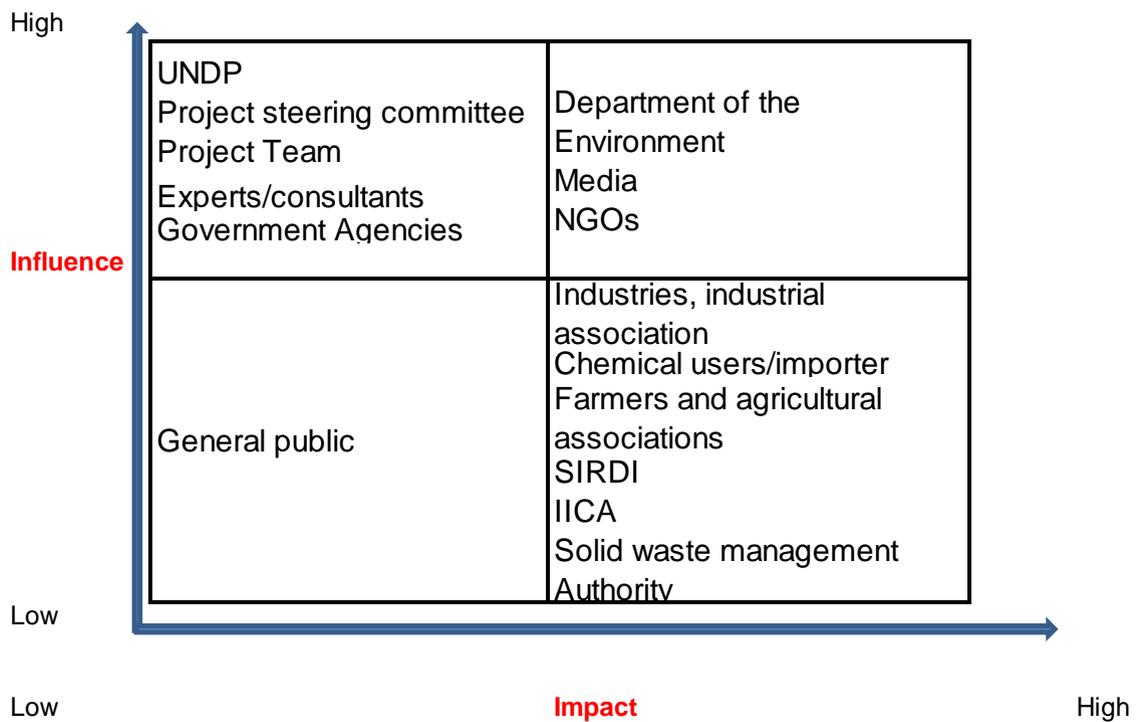


Figure 14 Influence/Impact grid with stakeholder (Source: Author of the study)

Chart 33 Stakeholder Register (Source: Author of the study)

Stakeholders	Organization	Position	Role	Contact Information	Requirements	Expectations	Influence	Classification
Percival Cho	Ministry of Agriculture, Fisheries, Forestry, Environment, Sustainable Development and Immigration	Chief Executive Officer	National implementing agency – High authority	ceo@environment.gov.bz	Project to be completed on time and the service to satisfy stakeholders	Project to be delivered on time and within budget	High (Project approval, government influence)	Internal Supporter
Martin Alegria	Department of the Environment	Chief Environmental Officer	Implementing Partner	doe.ceo@environment.gov.bz	Communication and Coordination	High project involvement, delivery	High	Internal Supporter

	ent (DOE)		and Chair of project steering committee			and efficient use of resources and funds.		
John Bodden	Ministry of Health	Principal Health Inspector	Regulator y and project steering committee		Communication and Coordination	Must be completed within budget and time.	High	Internal Supporter
Diane Wade-Moore	UNDP	Programme Analyst	Acting Project Sponsor / Responsible Partner. Allowing release of funds.	diane.wade@undp.org	Communication and Coordination	High project delivery, involvement and positive impact to key stakeholders	High	Internal Supporter
Gisel Correa	DOE	Project Manager	Planning, executing	chemicalwaste@environment.	Execution of required project	Complete the project	High influen	Internal Supporter

			and completing the project	gov.bz	management processes from initiation to project closure	within the given time and within the given budget.	ce as she is managing project implementation	r
Zena Waight	DOE	Project administrative assistant	Assist in the planning and execution of the project	chemicalwaste@environment.gov.bz	Timely and efficient execution of project activities	Better utilization of project funds	High influence for she helps in the costing and budgeting of the project	

4.9.2 Manage Stakeholder Engagement

The PMBOK® Guide – Fifth Edition defines manage stakeholder engagement as “the process of communicating and working with stakeholders to meet their needs and expectations, address issues as they occur, and foster appropriate stakeholder engagement in project activities throughout the life of the project.”

To effectively manage stakeholder engagement, the BCWM project will utilize the stakeholder identification and communication requirement analysis and communication matrix shown in Chart 18 and Chart 19, respectively. The communication matrix will be utilized to communicate project related information to key stakeholders in a proactive and timely manner.

4.9.3 Monitor Stakeholder Engagement

The overall stakeholder relationships will be monitored and the stakeholder engagement strategies and tactics will be adjusted in order to effectively engage with stakeholders.

Throughout the life of the project, individual stakeholders will be encouraged to participate and voice their issues or concerns. Each issue or concern that is raised will be documented in the issue log shown in Chart 34. The issues will be presented and discussed with the project team and the project steering committee during the status meetings and quarterly meetings. The best approach to resolve issues will be approved by the project steering committee.

The issue log is updated as new issues are identified and as the issues are resolved.

Chart 34 Issue Log (Source: PMI)

ISSUE LOG

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

Issue ID	Category	Issue	Impact on Objectives	Urgency

Responsible Partner	Actions	Status	Due Date	Comments

5 CONCLUSIONS

The project management plan has been developed using the analytical research method, the BCWM project document and considering the ten knowledge areas of project management covered in the PMBOK® Guide – Fifth Edition, thus, fulfilling the general objective and the specific objectives established for the Final graduation project (FGP).

As a result of the work carried out for the development of the nine (9) subsidiary management plans to complete the project management plan, the following conclusions are presented:

1. The scope management plan created, identifies the project requirements, the main deliverables, clearly defines the work to be carried out and provides a detailed description of the project, which is fundamental for the successful completion of the BCWM project.
2. The schedule management plan developed, identifies the activity list, schedule network diagram, schedule baseline, and schedule in Gantt chart. By means of this plan, a detailed timeline was established which will be a useful tool to monitor and ensure the timely execution of project activities. The project tasks and deadlines are reflected within the MS Project.
3. The cost management plan developed, defines the activity cost estimates and cost baseline. This plan allows the project team to have a clear budget cost of the project and a projected cash flow which is a tool that will assist in the control and monitoring of the project to avoid cost overruns.
4. The quality management plan developed, identifies the quality management approach, quality metrics, quality requirements/standards, quality checklist, and approved change requests review template. The project quality requirements were identified to ensure that the results meet expectations for approval. Likewise, activities were defined for quality assurance and control

that the project team can take into consideration to ensure compliance with the established quality requirements/standards.

5. The human resource management plan developed, determines the human resource required to complete the project. In addition, the project staff assignment, the staffing management plan along with the team performance appraisal templates. With this plan the project manager will be able to organize, manage and lead the project management team. By properly managing human resources, the probability of project success is improved since the management of the human resources on a project has a major impact on project's success or failure.
6. The communications management plan, which defines the communication requirements and the communication matrix, was developed to ensure the timely and appropriate collection, distribution, generation of project information. Based on the number of stakeholders, it was determined that this project has 78 communication channels that must be monitored by the project team. Several measures had to be established to respond to stakeholders' communication needs. With the use of this plan, key stakeholders will be kept regularly informed through project status reports, regular meetings or informal emails, which will help the project team and the external stakeholders to be focused on delivery and to provide the required support to deliver the project successfully.
7. The risk management plan, with risk management approach, risk breakdown structure and risk register was developed. In addition, the project's main risks and response for the most critical risks were identified in the risk register. The qualitative risk analysis process identified thirteen (13) risks, five (5) of which was high, six (6) moderate and two (2) low. The risk response strategy will require that most resources are dedicated to reduce the impact of the highest risk and the probability of its occurrence. With the use of this plan, throughout the project life cycle, the project management team will continuously identify and measure the unknowns; developing mitigation options; selecting, planning,

and implementing appropriate risk mitigations; and tracking the implementation to ensure successful risk reduction.

8. The procurement management plan was developed, specifying the procurement management approach, procurement statement of work, source selection criteria, procurement templates, types of contracts used and contract approval process. The use of this plan will help save time, and ensure transparency of the procurement process. In addition, this plan will guide the project management team in the achievement of any procurement to comply with both government and UNDP's policies to ensure a smooth and transparent process such as for the hiring of consultants/experts.
9. Lastly, the stakeholder management plan developed, identifies the project's key stakeholders through the use of a stakeholder register. An issue log template was identified to be used during the monitoring of stakeholder engagement. This plan identifies the stakeholder engagement approach, inclusive of the management of stakeholder engagement and monitoring of stakeholder engagement. The use of this plan will help the project management team understand the key stakeholders that will be affected by the project and enable the team to implement effective communication and engagement strategies to create a positive relationship with stakeholders so as to manage their expectations and needs and achieve the project goals
10. It is clear that with the use of the nine (9) subsidiary plan mentioned above, the DOE and the project management team will improve the probability of project success. Also, this project management plan is an important tool which provides a framework to manage and execute the BCWM project using best practices and principles which will serve as a conduit to achieving project success.

6 RECOMMENDATIONS

- The Department of the Environment (DOE) should implement formal Project Management practices and principles in order to increase the likelihood of project success.
- A project management team, using standard project planning documents specific to the project, should handle all projects executed by the DOE.
- A senior officer of the DOE should be assigned to ensure that the project management team is recruited prior to the initiation of the project and the team conducts all project planning to enhance the proper management of the project throughout the lifecycle.
- The project management team should exercise extreme care and caution during the development of each subsidiary plan of the Project Management Plan to ensure thoroughness and accuracy.
- The DOE should allow the project management team to use the project management plan created for the BCWM Project throughout the BCWM project lifecycle to successfully complete the project within time and budget.
- The DOE should implement the use of the project management plan created for the BCWM Project, as an organizational process asset and resource for future chemical related projects.
- Based on the qualitative risk analysis it is recommended to dedicate most of the resources to mitigate the occurrence of the “High” risks. A passive accept response for risks that are marked low considering that it is an external risk that is beyond the control of the project and preventative measures will not necessarily prevent such risks from happening. If it happens, ensure all documentation is properly filed and monitored.

7 BIBLIOGRAPHY

- Ajuwon. G. (n.d.). *MODULE ONE Information Sources*. Retrieved on July 22, 2017 from https://www.google.com.bz/url?sa=t&rct=j&q=&esrc=s&source=web&cd=2&ad=rja&uact=8&ved=0ahUKEwietanCg5_VAhVCSSYKHXOcCmsQFggmMAE&url=http%3A%2F%2Fkaribouconnections.net%2Fmedlibafrica%2Fdownloads%2Fppt_workshop_2011%2F01_GraceAjuwon.pptx&usg=AFQjCNEmcidqeOiKnNfaOLbPvP8mLDqOmA
- Babou. S. (n.d.). *Leadership & Project Management Champions*. Retrieved on July 19, 2017 from: <https://leadershipchamps.wordpress.com/project-management-mind-maps/>
- Research method. (n.d.). In *Cambridge Business English Dictionary*. (2017). Cambridge University Press. Retrieved on July 22, 2017 from: <http://dictionary.cambridge.org/dictionary/english/research-method>
- Department of the Environment. (2016). *DOE Annual Report 2015-2016*. Retrieved on July 9, 2017 from: <http://www.doe.gov.bz/index.php/services/publications/send/13-doe-publications/553-doe-annual-report-2015-2016-final>
- Department of the Environment. (2013). *2014-2024 National Environmental Policy and Strategy*. Retrieved on July 9, 2017 from: <http://www.doe.gov.bz/index.php/services/publications/send/13-doe-publications/48-2014-2024-national-environmental-policy-and-strategy>
- Department of the Environment. (2017). Organizational structure of the Department of the Environment. Unpublished Internal Documentation.
- Farlex Inc. (2003). Information Source. In *the Free Dictionary by Farlex*. Retrieved on July 22, 2017 from: <http://encyclopedia2.thefreedictionary.com/Information+Source>
- Florida Gulf Coast University. (2005). *INFORMATION SOURCES: Primary, Secondary, and Tertiary Sources, and Gray literature*. Retrieved on July 22, 2017 from: http://library.fgcu.edu/RSD/Instruction/handouts/handout-primary_secondary.pdf
- Government of Belize. (2000). *Performance Appraisal Template for Support Staff*. Belmopan City, Belize C.A.
- Government of Belize. (2000). *Performance Appraisal Template for Management*. Belmopan City, Belize C.A.

- International Organization for Standardization. (2003). *The international standard ISO 10006 Quality management systems - Guidelines for quality management in projects* (ISO 10006:2003(E)), Retrieved on July 16, 2017 from: <https://www.iso.org/obp/#iso:std:iso:10006:ed-2:v1:en>
- Tool. (n.d.). *In the Merriam-Webster Dictionary*. Retrieved on July 22, 2017 from: <https://www.merriam-webster.com/dictionary/tool>
- Muddha. R. (May 1, 2014). *Project Management – 47 Processes Mindmap*. Retrieved on July 19, 2017 from: <https://ravimuddha.blogspot.com/2014/05/project-management-47-processes-mindmap.html>
- Constraint. (n.d.). *In Oxford Dictionaries*. Oxford University Press. Retrieved on July 22, 2017 from: <https://en.oxforddictionaries.com/definition/constraint>
- Deliverable. (n.d.). *In Oxford Dictionaries*. Oxford University Press. Retrieved on July 22, 2017 from: <https://en.oxforddictionaries.com/definition/deliverable>
- Assumption. (n.d.). *In Oxford Dictionaries*. Oxford University Press. Retrieved on July 22, 2017 from: <https://en.oxforddictionaries.com/definition/assumption>
- Shenoy.S. (2013). *Developing a Project Charter*. Retrieved on November 17, 2017 from: <http://www.pmexamsmartnotes.com/develop-project-charter-process/>
- Project Management Institute. (2013). *Issue Log Template*. Retrieved on November 1, 2017 from: <https://www.google.com/bz/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&cad=rja&uact=8&ved=0ahUKEwjL3vqru4rYAhUCbSYKHRrXAfQQFggIMAA&url=https%3A%2F%2Fwww.pmi.org%2Flearning%2Ftools-templates&usq=AOvVaw1KmoSiHkrl0f-MINskommx>
- Project Management Institute. (2013). *A Guide to the Project Management Body of Knowledge (PMBOK® Guide)- Fifth Edition*. Newtown Square, PA: PMI
- What is analytical research. (2017). *In Reference.com*. Retrieved on July 22, 2017 from: <https://www.refernece.com/business-finance/analytical-research-94534a536bf446028#>
- Simple Quality Checklist Template. (2017). Retrieved on November 2, 2017 from: <https://www.template.net/business/checklist-templates/checklist-template/>
- Ten Six Consulting. (October 10, 2014). *Management and the Triple Constraints*. Retrieved on July 19, 2017 from: <https://tensix.com/2014/10/management-and-the-triple-constraints/>

United Nations Development Programme. (2014). *Project Document*. Retrieved on July 9, 2017 from: <https://info.undp.org/docs/pdc/Documents/BLZ/Belize%20Chemical%20Management%20PRODOC.pdf>

United Nations Development Programme. (n.d.). Project Lessons-Learned Report Template. Retrieved on September 1, 2017 from: https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=6&cad=rja&uact=8&ved=0ahUKEwif4pjIz4bYAhVK5SYKHUyqDvYQIAhEMAU&url=https%3A%2F%2Fwebcache.googleusercontent.com%2Fsearch%3Fq%3Dcache%3AuA_kLHOSZ1IJ%3Ahttps%3A%2F%2Fpopp.undp.org%2FUNDP_POPP_DOCUMENT_LIBRARY%2FPublic%2FPMP_Project%252520Management_Lessons-learned%252520Report%252520Template.docx%2B%26cd%3D6%26hl%3Den%26ct%3Dclnk%26gl%3Dbz%26client%3Dfirefox-b-ab&usg=AOvVaw0pd0xR7GrI9wUoUCNbOola

Primary, secondary, and tertiary sources. (n.d). *In Virginia Tech Libraries*. Retrieved on July 22, 2017 from: <http://www.lib.vt.edu/help/research/primary-secondary-tertiary.html>

Vreede. S. (April 12, 2012). *Think Job Search Management Lifecycle*. Retrieved on July 19, 2017 from: <https://stephenvanvreede.com/tag/project-management/page/3/>

8 APPENDICES

Appendix 1: FGP Charter

PROJECT CHARTER	
Formalizes the project start and confers the project manager with the authority to assign company resources to the project activities. Benefits: it provides a clear start and well defined project boundaries.	
Date	Project Name:
June 26, 2017	Development of a project management plan for the Belize Chemicals and Waste Management (BCWM) Project.
Knowledge Areas / Processes	Applicacion Area (Sector / Activity)
Knowledge areas: Project Integration Management, Project Scope Management, Project Time Management, Project Cost Management, Project Quality Management, Project Human Resource Management, Project Communication Management, Project Risk Management, Project Procurement Management, and Project Stakeholder Management. Process groups: Initiating, Planning, Monitorinng and Controlling.	Chemicals Management (Environment)
Start date	Finish date
June 26, 2017	February 7, 2017
Project Objectives (general and specific)	
<p>General objective: To develop a Project Management Plan to execute and manage the Belize Chemicals and Waste Management Project.</p> <p>Specific objectives:</p> <ol style="list-style-type: none"> 1. To create a scope management plan to identify the project requirements, main deliverables and subsequent activities in order to ensure that it includes all the work required to successfully complete the project. 2. To develop a schedule management plan in order to have a schedule baseline that can be used to measure project performance throughout the project life cycle 3. To develop a cost management plan in order to establish what the 	

project costs will be.

4. To develop a quality management plan in order to identify the project quality requirements in order to ensure results meet expectations for approval.
5. To develop a human resource management plan to identify and manage human resources effectively in order to complete the project within time, cost and scope constraints.
6. To develop a communications management plan in order to ensure the timely and effective communication of project status and other key information to stakeholders
7. To develop a risk management plan that identifies the project's main risks and plans a response for the most critical ones.
8. To develop a procurement management plan to be used to obtain goods and services required by the project.
9. To develop a Stakeholder Management Plan in order to identify the project's main stakeholders and plan how to effectively engage and manage them.

Project purpose or justification (merit and expected results)

The Department of the Environment within the Ministry of Agriculture, Fisheries, Forestry, Environment, Sustainable Development and Immigration is executing the project entitled "Belize Chemicals and Waste Management (BCWM) Project." This project is executed as a partnership initiative between the Global Environment Facility (GEF), the United Nations Development Programme (UNDP) and the Government of Belize. The BCWM project is a three-year project, which aims to assist Belize in implementing its relevant obligations under the Stockholm Convention, in particular to reduce the releases of Unintentional Persistent Organic Pollutants (UPOP's), as well as to build country's capacity to manage chemicals and waste.

Currently, the BCWM Project does not have a project management plan or framework and has been a challenge for the project manager to properly manage the BCWM project. This is clearly seen with the setbacks and delays encountered during the first year of the project. Although the BCWM project is at its last year of its execution, the purpose of this study is to develop a project management plan that integrates good practices and principles in order to effectively carry out the project management activities within the time frame, desirable quality and within budget. The project seeks to develop subsidiary plans to establish a project management plan to be used by the project management team throughout the BCWM project lifecycle to meet time, cost and quality constraints. The project management plan is supposed to allow for a smooth execution of the project since it is a central document of subsidiary plans for use as best practices throughout the project.

Some of the expected benefits are as follows:

1. Improvement opportunity for executing current project and other future projects.
2. The project will be successful completed within the planned timeframe

<p>and budget.</p> <ol style="list-style-type: none"> 3. The results and deliverables will meet stakeholders' requirements and expectations 4. The project performance will be measured throughout the project life cycle 5. Lessons learned will be documented
<p>Description of Product or Service to be generated by the Project – Project final deliverables</p>
<p>A Project Management Plan for the Belize Chemicals and Waste Management Project which integrates and consolidates nine (9) subsidiary management plans.</p> <p>The subsidiary plans are as follows:</p> <ul style="list-style-type: none"> • Scope Management Plan • Schedule Management Plan • Cost Management Plan • Quality Management Plan • Human Resource Management Plan • Communication Management Plan • Risk Management Plan • Procurement Management Plan • Stakeholder Management Plan

<p>Assumptions</p>
<p>Project Assumptions are as follows:</p> <ol style="list-style-type: none"> 1. That all information is readily available to complete the final graduation project. 2. That the deliverables are accomplished within the final project graduation timeframe. 3. That the project scope will not be changed during the project implementation.
<p>Constraints</p>
<p>Some project constraints are as follows:</p> <ol style="list-style-type: none"> 1. Time availability considering obligations to current full time employment. 2. Human resource constraint since the project is to be accomplished by one person.
<p>Preliminary risks</p>
<p>Main risks are as follows:</p> <ol style="list-style-type: none"> 1. If a natural disaster was to occur it may hinder the supply of electricity which may affect the timely execution of the project activities. 2. The project selected as the final graduation project does not fulfill all the requirements and might require to change the project which would affect

the scope of the project.		
Budget		
<p>The Budget constitute of the total cost for the printing, binding and shipping of copies of the Final Graduation Project to Costa Rica. Total Cost for printing, binding and shipping of copies of FGP : US \$350</p> <p>Printing of original and copy of Final graduation project – US \$250 Shipping Cost to Costa Rica – US \$100 The cost of the development of the baseline and subsidiary management plans are costless due to the fact that I will not be paid to develop this documents. – US \$0.00</p>		
Milestones and dates		
Milestone	Start date	End date
Graduation Seminar Approval (final version of FGP document profile)	July 24, 2017	July 31, 2017
Tutor's Approval of the FGP	December 14, 2017	December 15, 2017
Reading by Reviewers	December 16, 2017	January 11, 2018
Presentation to the Board of Examiners	February 1, 2018	February 7, 2018
Completion of Final Graduation Project	February 7, 2018	February 7, 2018
Relevant historical information		
<p>One of the objectives of the Department of the Environment (DOE) is to work closely with local, regional and international agencies and organizations on environmental issues. The DOE executes projects, which aid in complying with international Multilateral Environmental agreements (MEAs) such as the Vienna, Stockholm, Basel, and Rotterdam Conventions for which Belize is a party.</p> <p>The Government of Belize has been fully supportive of the Chemicals Agenda since 2006 with the execution of the persistent organic pollutants (POPs) project and the Mainstreaming sound management into Developing Planning funded by GEF. Another project geared at chemicals management is the project entitled "Belize/UNEP partnership on development of a coherent legal and institutional framework in Belize for the sound management of chemicals", which was funded by the United Nation Environment Programme (UNEP) through the Strategic Approach to International Chemicals Management (SAICM) Quick Start Programme (QSP) Trust Fund.</p> <p>All these projects were under the purview of the DOE, and have allowed for the strengthening of the national legal and Institutional capacities and the coordination mechanism for the sound management of chemicals throughout</p>		

the life cycle in Belize.

Stakeholders

Direct stakeholders:

1. The Department of the Environment (DOE)
2. The Project Management Office within the DOE
3. The Project Steering Committee of the Belize Chemicals and Waste Management Project
4. Project Manager
5. Tutors

Indirect stakeholders:

1. The Regulatory bodies involved in Chemicals management
2. Reviewers

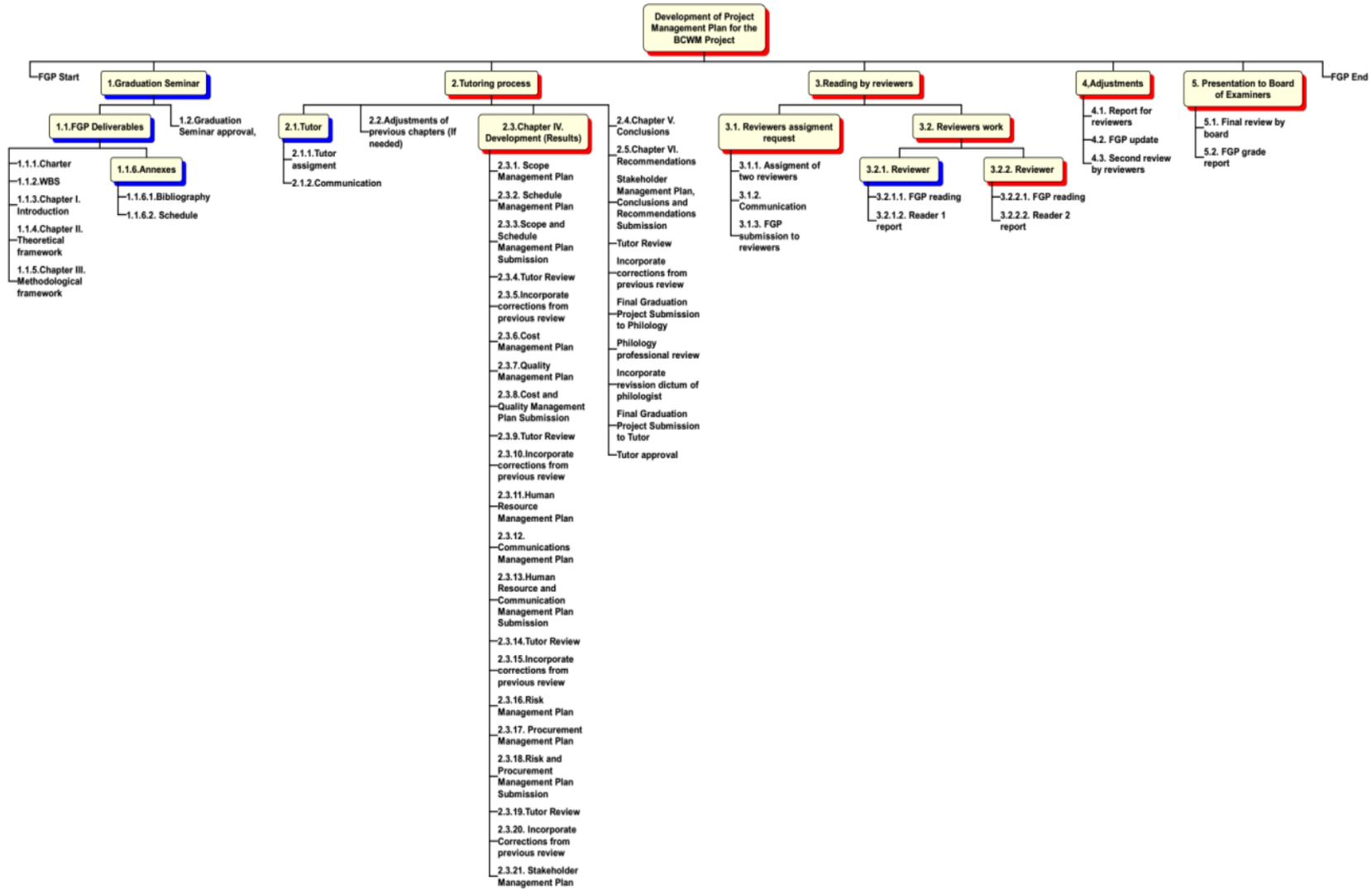
Project Manager: Gisel Maritza Correa

Signature: 

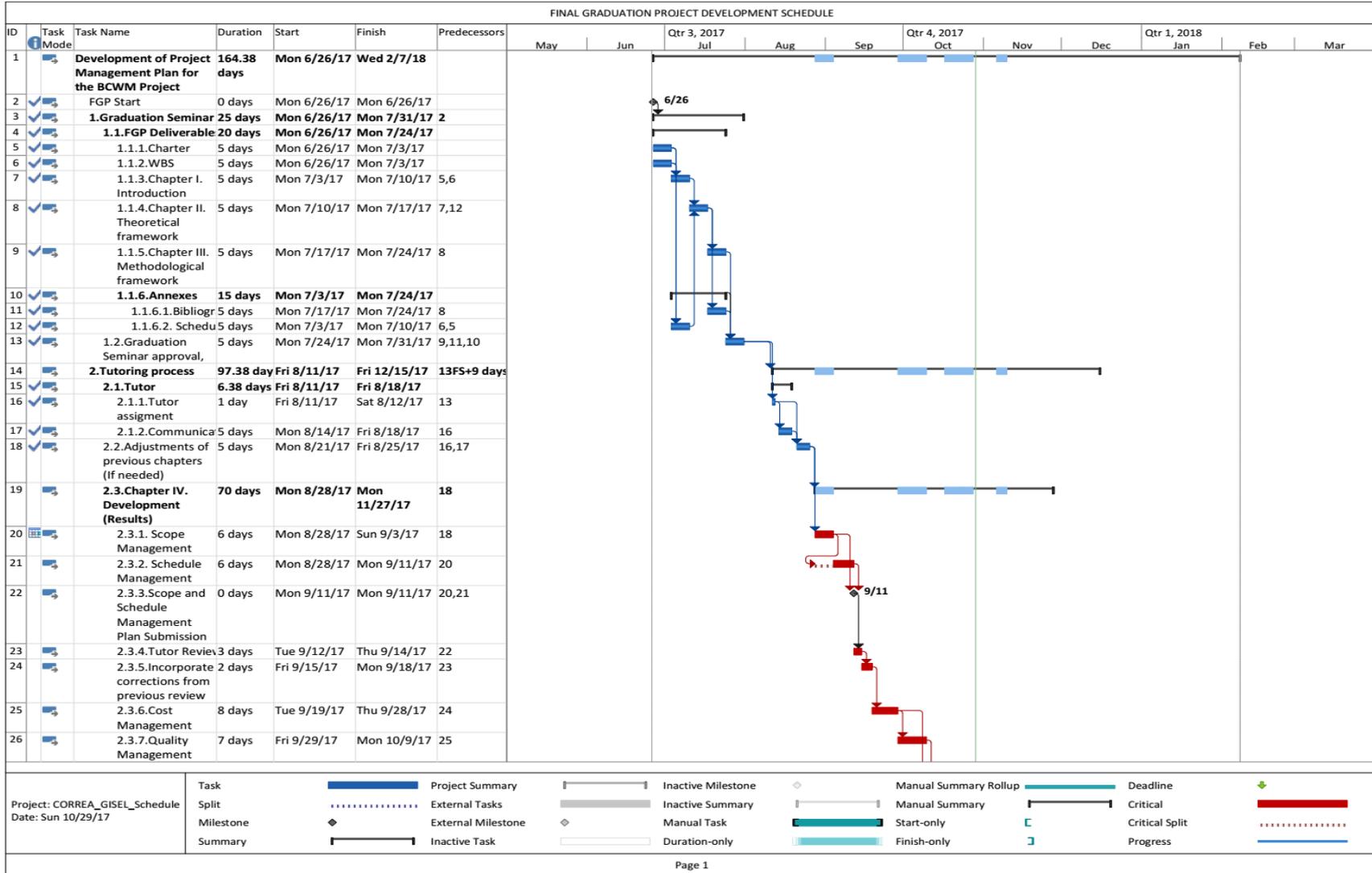
Authorized by:

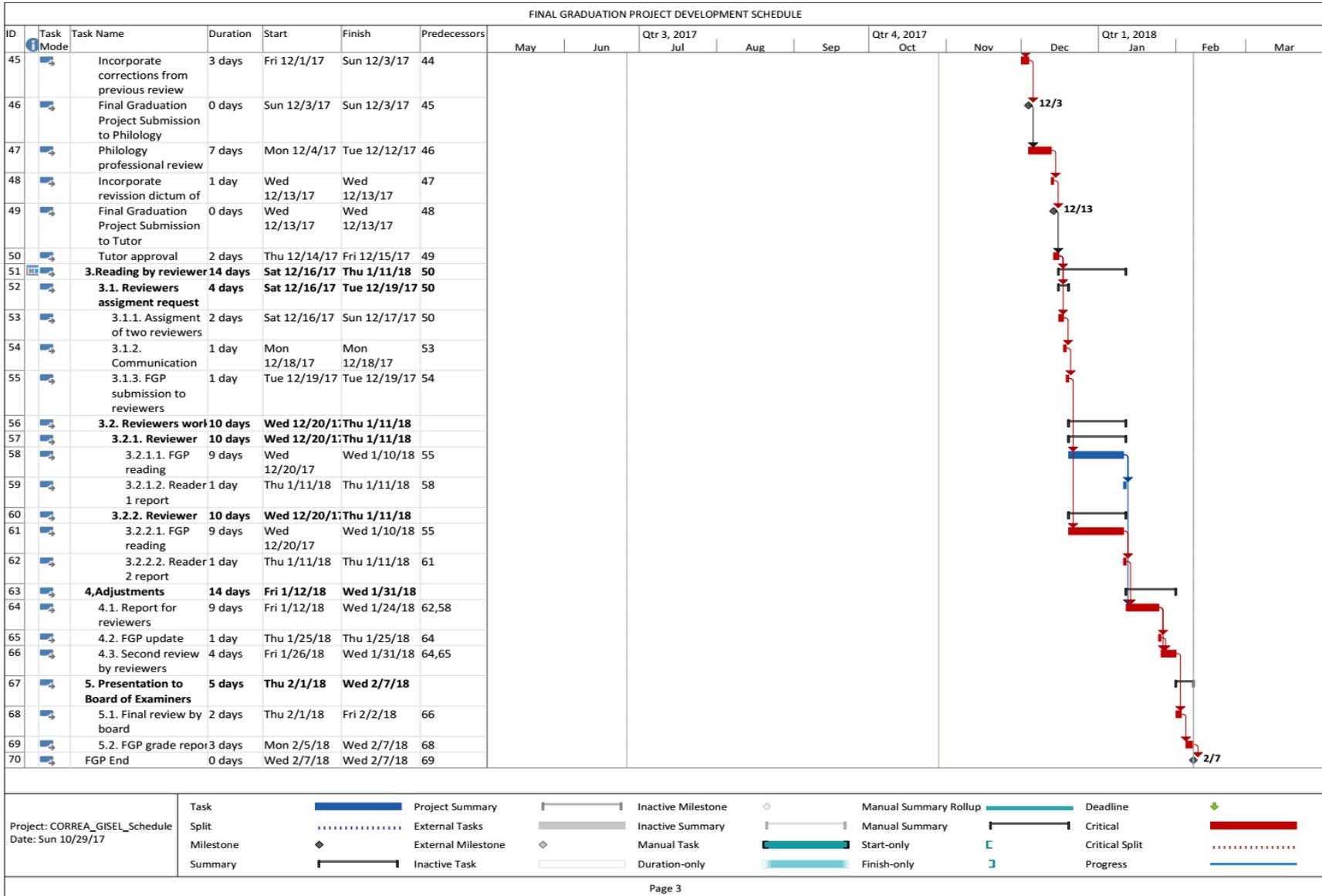
Signature:

Appendix 2: FGP WBS



Appendix 3: FGP Schedule





Appendix 4: Change Request Form (Source: PMI)

CHANGE REQUEST FORM

Project Title _____ Date Prepared: _____
 Person Requesting Change: _____ Change Number: _____

Category of Change:

- Scope Quality Requirements
 Cost Schedule Documents

Detailed Description of Proposed Change

Justification for Proposed Change

Impacts of Change

Scope	<input type="checkbox"/> Increase	<input type="checkbox"/> Decrease	<input type="checkbox"/> Modify
Description:			
Grade	<input type="checkbox"/> Increase	<input type="checkbox"/> Decrease	<input type="checkbox"/> Modify
Description:			

CHANGE REQUEST FORM

Requirements	<input type="checkbox"/> Increase	<input type="checkbox"/> Decrease	<input type="checkbox"/> Modify
Description:			
Cost	<input type="checkbox"/> Increase	<input type="checkbox"/> Decrease	<input type="checkbox"/> Modify
Description:			
Schedule	<input type="checkbox"/> Increase	<input type="checkbox"/> Decrease	<input type="checkbox"/> Modify
Description:			
Stakeholder Impact	<input type="checkbox"/> High risk	<input type="checkbox"/> Low risk	<input type="checkbox"/> Medium risk
Description:			
Project Documents			

Comments

CHANGE REQUEST FORM

Disposition Approve Defer Reject

Justification

--

Change Control Board Signatures

Name	Role	Signature

Date: _____

Appendix 5: Quality Checklist (Source: “Simple Quality Checklist Template, 2017)

Quality Checklist					
Project					Date:
Quality Item	Yes	No	N/A	Date	Comments
Does the project have an approved quality management plan?					
Has the quality management plan been reviewed by all stakeholders?					
Do all stakeholders have access to the quality management plan?					
Is the quality management plan consistent with the rest of the overall project plan?					
Have product quality metrics been established, reviewed, and agreed upon?					
Have process quality metrics been established, reviewed, and agreed upon?					
Do all metrics support a quality standard which is acceptable to the customer?					
Do all metrics have agreed upon collection mechanism?					

Other factors influencing performance

Employee: _____

Part 4: ASSESSMENT OF PERFORMANCE IN ACTIVITY ELEMENTS

In this part, the Officer's immediate Supervisor will assess the performance of the Officer according to agreed Activity Elements based on the Continuous Assessment during the Appraisal Period in relation to the tasks, goals and/or projects assessed in Part 3. Assessment will be based on a ten point system as follows:

Performance Rating A: 9 to 10 points
Performance Rating B: 7 to 8.99 points
Performance Rating C: 5 to 6.99 points
Performance Rating D: 1 to 4.99 points.

Guidance is given below in relation to each Element on how a rating may be determined.

Weighting will be given to each criterion according to the post of the Officer and the rating should be multiplied by the weight to obtain the assessment of the Officer on that activity element.

Element 4.1 PRODUCTIVITY RATING [] x WEIGHT [] = []
The weighting for all posts in this Element is 10.

- A - Consistently plans and organizes work to take care of more important tasks. Completes work quickly, efficiently and on schedule.
- B - Does a good job of scheduling work; usually completes work on time.
- C - Produces work that is occasionally behind time, but is showing progressive improvement.
- D - Tends to waste time; fails to meet deadlines and is showing no signs of improvement.

Element 4.2 JOB ATTITUDE RATING [] x WEIGHT [] = []
The weighting for all posts in this Element is 10.

- A - Sustains motivation to do best possible job. Does more than his share of work when required and comports himself well.
- B - Usually conscientious; enthusiastic in performing assigned tasks; makes a real effort toward overcoming difficulties.
- C - Reasonably satisfactory without sufficient interest, but makes effort to improve.
- D - No real interest; makes no effort to overcome difficulties.

Element 4.3 QUALITY OF WORK RATING [] x WEIGHT [] = []
The weighting for all posts in this Element is 10.

- A - Consistently meets standards; work is thorough, accurate and precise.
- B - Usually meets standards; seldom makes serious errors; seldom makes the same mistake twice.
- C - Some aspects of performance below standard, but makes effort to improve.
- D - Standard of performance poor and makes no effort to improve.

Element 4.4 DEPENDABILITY RATING [] x WEIGHT [] = []
The weighting for all posts in this Element is 10.

- A - Consistently carries out responsibilities without being checked on; but apprizes Supervisor on difficulties and action taken.
- B - Usually reliable and may need Supervisor's oversight on more complex aspects of work.
- C - Satisfactory but requires checking from time to time on routine matters, does not always keep Supervisor informed.
- D - Unreliable.

Element 4.5 INITIATIVE RATING [] x WEIGHT [] = []
The weighting for all posts in this Element is 5.

- Self-starter; improvises solutions; full of ideas which provide fresh insight and broader perspectives.
- B - Usually goes ahead on his own but does not always visualize what needs to be done; occasionally offers suggestions.
- C - Sometimes acts on his own but does not always visualize what needs to be done; rarely offers suggestions.
- D - Waits to be told what to do; has no ideas; never offers suggestions.

Element 4.6 PUBLIC RELATIONS AND COOPERATION RATING [] x WEIGHT [] = []
The weighting for all posts in this Element is 10.
(In relation to all Public Officers and the general public)

- A - Consistently cooperative, helpful and supportive in achieving objectives; goes out of his/her way to be constructive and helpful.
- B - Usually pleasant with others; cooperates willingly
- C - Usually cooperates, but prefers to work alone.
- D - Unfriendly, discourteous; unwilling to assist others.

Element 4.7 COMMUNICATION SKILLS RATING [] x WEIGHT [] = []
The weighting for all posts in this Element is 10.

- A - Consistently demonstrates effective interpersonal oral and written skills; and consistently utilizes appropriate channels of communications.
- B - Usually demonstrates effective interpersonal oral and written skills; and usually utilizes appropriate channels of communications.
- C - Sometimes demonstrates effective interpersonal oral and written skills; and sometimes utilizes appropriate channels of communications.
- D - Weak in interpersonal oral and written skills; and weak in utilizing appropriate channels of communications.

Element 4.8 PUNCTUALITY RATING [] x WEIGHT [] = []
The weighting for all posts in this Element is 10.

- A - Always punctual to work and begins work immediately.
- B - Usually punctual to work and usually begins work immediately.
- C - Occasionally late to work and but usually begins work promptly on arrival.
- D - Frequently late to work and does not begin work promptly on arrival.

Element 4.9 RELIABILITY UNDER PRESSURE RATING [] x WEIGHT [] = []
The weighting for all posts in this Element is 10.

- A - Unflustered, calm and reliable at all times; capable of dealing with crises and emergencies without losing balance.
- B - Usually able to cope with any situation; sometimes gets flustered in unusual crises.
- C - Can cope with normal day - to - day problems; unable to function effectively under heavy pressure.
- D - Easily excitable; unable to perform under pressure.

Element 4.10 APPRAISING ABILITY RATING [] x WEIGHT [] = []
The weighting for all posts in this Element is 10.

- A - Sets goals and assigns duties; does continuous supervision and assessment; keeps relevant notes on Employee's performance; gives fair and objective appraisal
- B - Sets goals and assigns duties; does supervision and assessment on an irregular basis; keeps relevant notes on Employee's performance; tries to be objective but is influenced by biases sometimes.
- C - Goals set and duties assigned duties not clearly defined; gives general advice occasionally but not continuous supervision and assessments; not truly objective and easily influenced by subjective considerations.
- D - Does not set goals and duties; does not perform supervision and assessment; does not keep notes; appraisal very subjective.

Part 5: OVERALL APPRAISAL (TO BE VERIFIED BY THE OFFICE OF THE SERVICES COMMISSION)

SCORING SECTION

- 1. Numerical Appraisal (brought down) =
- 2. Divided by total applicable weighting =
- 3. Equals overall numerical Appraisal Value =

- Category 1: OUTSTANDING (9 THRU 10) []
- Category 2: ABOVE AVERAGE (7.0 THRU 8.99) []
- Category 3: AVERAGE (5.0 THRU 6.99) []
- Category 4: BELOW AVERAGE (3.0 THRU 4.99) []
- Category 5: POOR (0 THRU 2.99) []

4. Increment Granted Yes [] No []

Full increment is to be granted for performance in category 1 thru 3 and no increment is to be granted for performance in category 4 or 5. Category 4 and 5 require mentoring and guidance in the first instance since a repeat of this performance could adversely affect the officer's career.

Part 6: TRAINING NEEDS AND PERSONNEL DEVELOPMENT
 (These elements are not part of the scoring section.)

Element 6.1 JOB KNOWLEDGE

- A - Well versed on unusual and complex aspects of the job. Frequently consulted by others.
- B - Above average knowledge of job; generally knows what to do and how to do it.
- C - Fairly good knowledge of job but could benefit form training.
- D - Job knowledge and skills are limited; lacks understanding of routine procedures; in desperate need of training

Element 6.2 ORGANIZATIONAL KNOWLEDGE

- A - Comprehensive knowledge of vision, mission, policies, programs and structure of the organization.
- B - Working knowledge of vision, mission, policies, programs and structure of the organization.
- C - Conversant with the vision, mission, policies, programs and structure of the organization.
- D - Unfamiliar with the vision, mission, policies, programs and structure of the organization.

Element 6.3 TRAINING NEEDS

- (i) Based on the foregoing Appraisal could the Officer's performance in his present post be improved by training?

YES [] NO []
- (ii) If the answer to (i) is yes specify nature of training required.

- (iii) If no training is required for the Officer in his present post is training required to qualify him for promotion to his next career level?

YES [] NO []
- (iv) If the answer to (iii) is yes specify nature of training required.

- (v) Can the training requirement specified above be provided by:
 - a) the officer's Ministry/Department/Division? YES [] NO []
 - b) the Office of Governance? YES [] NO []
 - c) Any organization or institution within the Country of Belize? YES [] NO []
- (vi) If the answer to (v) (c) is yes, specify:
 - a) the organization or institution: _____
 - b) whether the training will require full-time or part-time attendance with brief details;

 - c) the duration of time required to complete the training: _____

 - d) the degree, or other qualification to be received at successful completion of training.

- (vii) If the training is only available abroad, specify the duration required to complete the course of training and the qualification to be received on successful completion.

Element 6.4 DEVELOPMENT POTENTIAL

Based on the Performance Appraisal and the training needs, this section assesses the potential for advancement in the service and the Officer's promotability.

- 1. In the light of the Officer's training needs, does he possess the matriculation requirements (if applicable) to undertake the course of training specified?

NOT APPLICABLE [] YES [] NO []

- 2. If the answer to (1) is no, what arrangements if any, will the Officer make to acquire the necessary matriculation requirements?

- 3. What training courses or seminars have the Officer attended and/or what qualifications have the Officer obtained during the year prior to this Report?

- 4. Taking into account the total Appraisal so far what is the Officer's present fitness for promotion to the next career level?

(Specify post: _____)

WELL FITTED [] FITTED [] LIKELY TO BECOME FITTED []
NOT FITTED []

Part 7: CERTIFICATES

Element 7.1 CERTIFICATION OF THE FIRST REPORTING OFFICER

I hereby certify as follows:

- 1. I am the immediate Supervisor of the Officer to whom this Report relates;
- 2. I have supervised his work for at least three months and where part of the Appraisal Period has been under the supervision of another person, I have consulted with that other supervisor concerning the Officer's performance under his supervision before the Appraisal interview;
- 3. This report has been prepared with the full participation of the Officer reported on, and his particular attention has been drawn to the items of the Report showing his strengths and weaknesses.

Signature _____ Date of Signature _____

Print Name _____ Title of Post _____

Element 7.2 CERTIFICATION OF THE SECOND REPORTING OFFICER

I hereby certify as follows:

- 1. I am the immediate Supervisor of the First Reporting Officer.
- 2. I am in full agreement with the Appraisal of the First Reporting Officer;
YES [] NO []

- 3. **I am not in agreement with the Appraisal of the First Reporting Officer, and have therefore made emendations in red alongside the first Appraisal but without making any changes in the Appraisal itself.**

YES [] NO []

Signature _____ Date of Signature _____

Print Name _____ Title of Post _____

Element 7.3 CERTIFICATE OF CHIEF EXECUTIVE OFFICER/HEAD OF DEPARTMENT

- i. I have scrutinized the report and am of the view that it presents a balanced picture of the officer's performance during the period under review. OR
- ii. I am not in agreement with the Appraisal and am making my comments thereon.

Signature _____ Date of Signature _____

Print Name _____ Title of Post _____

Element 7.4 CERTIFICATE OF OFFICER UNDER APPRAISAL

The officer is required to sign the certificate indicating by marking an X in one of the blocks labeled "YES" or "NO" his response to the statements listed. Any comments from the Officer must be prepared separately and attached to the Performance Appraisal Report. No comments can be accepted from the Officer unless he has signed the Certificate to show that he has seen the Report.

I hereby certify as follows:

- 1. **The Appraisal was done during an interview in which I had full participations;**
YES [] NO []
- 2. **I consider the Appraisal to be objective and reasonable;**
YES [] NO []
- 3. **The Appraisal is generally acceptable, and although I have minor disagreements with some details I do not wish to make any comments thereon;**
YES [] NO []
- 4. **I have major disagreements with the Appraisal or find the Appraisal to be unacceptable, and am herewith attaching my comments in rebuttal.**
YES [] NO []

Signature _____ Date of Signature _____

Print Name _____ Title of Post _____

Other factors influencing performance

Part 4: ASSESSMENT OF PERFORMANCE IN ACTIVITY ELEMENTS

In this part, the Officer's immediate Supervisor will assess the performance of the Officer according to agreed Activity Elements based on the Continuous Assessment during the Appraisal Period in relation to the tasks, goals and/or projects assessed in Part 3. Assessment will be based on a ten point system as follows:

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Performance Rating B: 7 to 8.99 points
Performance Rating C: 5 to 6.99 points
Performance Rating D: 1 to 4.99 points.

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(In relation to all Public Officers and the general public)

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- B - Usually pleasant with others; cooperates willingly
- C - Usually cooperates, but prefers to work alone.
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- D - Easily excitable; unable to perform under pressure.

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- A - Sets goals and assigns duties; does continuous supervision and assessment; keeps relevant notes on Employee's performance; gives fair and objective appraisal
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- C - Goals set and duties assigned not clearly defined; gives general advice occasionally but not continuous supervision and assessments; not truly objective and easily influenced by subjective considerations.
- D - Does not set goals and duties; does not perform continuous supervision and assessment; does not keep notes; appraisal very subjective.

Element 4.11 MANAGEMENT OF FINANCIAL AND MATERIAL RESOURCES:
RATING [] x WEIGHT [] = []
The weighting for all posts in this Element is 10.

- A - Demonstrates excellent management of financial and material resources; uses very effective budgeting techniques; decentralizes management of resources and maintains high standards of transparency in accounting for resources.
- B - Demonstrates average management of financial and material resources; makes average use of effective budgeting techniques; management of resources is fairly decentralized and average transparency in accounting for resources is displayed.
- C - Management of resources not too strong, weak decision making capacity, budgeting and financial accountability.
- D - Very weak management of resources; indecisive, budgeting and financial accountability almost non-existent.

Element 4.12 MANAGEMENT OF STAFF: RATING [] x WEIGHT [] = []
The weighting for all posts in this Element is 10.

- A - Consistently empowers others; promotes organizational values and desired results, training and self development of staff; manages performance and change; plans and implements effective staff development strategies.
- B - Usually empowers others; promotes organizational values and desired results, training and self development of staff; manages performance and change; plans and implements effective staff development strategies.
- C - Sometimes empowers others; promotes organizational values and desired results, training and self development of staff; manages performance and change; plans and implements effective staff development strategies.
- D - Weak in empowering others, does not promote organizational values and desired results; does no training and self development; does not manage performance and change; does not plan and implement effective staff development strategies.

Part 5: OVERALL APPRAISAL (TO BE VERIFIED BY THE OFFICE OF THE SERVICES COMMISSION)

SCORING SECTION

1. Numerical Appraisal (brought down) =
2. Divided by total applicable weighting =
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- Category 3: AVERAGE (5.0 THRU 6.99) []
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- Category 5: POOR (0 THRU 2.99) []

- 4. Increment Granted** Yes [] No []

Full increment is to be granted for performance in category 1 thru 3 and no increment is to be granted for performance in category 4 or 5. Category 4 and 5 require mentoring and guidance in the first instance since a repeat of this performance could adversely affect the officer's career.

Part 6: TRAINING NEEDS AND PERSONNEL DEVELOPMENT

(These elements are not part of the scoring section.)

Element 6.1 JOB KNOWLEDGE

- A - Well versed on unusual and complex aspects of the job. Frequently consulted by others.
- B - Above average knowledge of job; generally knows what to do and how to do it.
- C - Fairly good knowledge of job but could benefit from training.
- D - Job knowledge and skills are limited; lacks understanding of routine procedures; in desperate need of training.

Element 6.2 ORGANIZATIONAL KNOWLEDGE

- A - Comprehensive knowledge of vision, mission, policies, programs and structure of the organization.
- B - Working knowledge of vision, mission, policies, programs and structure of the organization.
- C - Conversant with the vision, mission, policies, programs and structure of the organization.
- D - Unfamiliar with the vision, mission, policies, programs and structure of the organization.

Element 6.3 TRAINING NEEDS

- (i) Based on the foregoing Appraisal could the Officer's performance in his present post be improved by training?

YES [] NO []

- (ii) If the answer to (i) is yes specify nature of training required.

- (iii) If no training is required for the Officer in his present post is training required to qualify him for promotion to his next career level?
YES [] NO []
- (iv) If the answer to (iii) is yes specify nature of training required.

- (v) Can the training requirement specified above be provided by:
 - a) the officer's Ministry/Department/Division? YES [] NO []
 - b) the Office of Governance? YES [] NO []
 - c) Any organization or institution within the Country of Belize? YES [] NO []
- (vi) If the answer to (v) (c) is yes, specify:
 - a) the organization or institution: _____
 - b) whether the training will require full-time or part-time attendance with brief details;

 - c) the duration of time required to complete the training: _____
 - d) the degree, or other qualification to be received at successful completion of training.

- (vii) If the training is only available abroad, specify the duration required to complete the course of training and the qualification to be received on successful completion.

Element 6.4 DEVELOPMENT POTENTIAL

Based on the Performance Appraisal and the training needs, this section assesses the potential for advancement in the service and the Officer's promotability.

1. In the light of the Officer's training needs, does he possess the matriculation requirements (if applicable) to undertake the course of training specified?
NOT APPLICABLE [] YES [] NO []
2. If the answer to (1) is no, what arrangements if any, will the Officer make to acquire the necessary matriculation requirements?

3. What training courses or seminars have the Officer attended and/or what qualifications have the Officer obtained during the year prior to this Report?

4. Taking into account the total Appraisal so far what is the Officer's present fitness for promotion to the next career level?
(Specify post: _____)
WELL FITTED [] FITTED [] LIKELY TO BECOME FITTED []

2. I consider the Appraisal to be objective and reasonable; YES [] NO []
3. The Appraisal is generally acceptable, and although I have minor disagreements with some details I do not wish to make any comments thereon; YES [] NO []
4. I have major disagreements with the Appraisal or find the Appraisal to be unacceptable, and am herewith attaching my comments in rebuttal. YES [] NO []

Signature _____ Date of Signature _____

Print Name _____ Title of Post _____

Appendix 8: Stage Plan- Quarter 3+ 2017 (Source: Author of the study)

*Empowered lives.
Resilient nations.*

PROJECT DOCUMENTATION

Q3+ 2017 STAGE PLAN

Project: Belize Chemicals and Waste Management Project

Project ID: 00089331

Date: June 30, 2017

Author: Gisel Correa-Cobb

Owner: Department of the Environment

Client: Government of Belize (supported by Global Environment Facility and United Nations Development Programme)

Document Ref: BCWMP.Q3-2017-1

Version No:1.1

Stage Plan History

1.1 Document Location

This document is only valid on the day it is approved. The source of the document will be found on the computer of the National Project Manager and the Administrative Assistant at the office of the Department of the Environment in the Ministry of Agriculture, Fisheries, Forestry, Environment, Sustainable Development and Immigration in Belmopan, Cayo.

1.2 Revision History

Date of this revision: June 30, 2017

Date of Next revision: N/A

Revision date	Previous revision date	Summary of Changes	Changes marked

1.3. Approvals

This document requires the following approvals.

Signed approval forms are filed in the Management section of the project files.

Name	Signature	Title	Date of Issue	Version
Gisel Correa-Cobb		Project Manager	June 30, 2017	BCWMP.Q3-2017-1
Martin Alegria		Project Director	June 30, 2017	BCWMP.Q3-2017-1

1.4. Distribution

This document has been distributed to:

Name	Title	Date of Issue	Version
DOE: Project Team			
Martin Alegria	Chief Environmental Officer/ Project Director	30/06/17	BCWMP.Q3-2017-1
Gisel Correa-Cobb	Project Manager	30/06/17	BCWMP.Q3-2017-1
Jorge Franco	Head of the Projects Execution Unit	30/06/17	BCWMP.Q3-2017-1
Zena Waight	Project Administrative Assistant	30/06/17	BCWMP.Q3-2017-1

Name	Title	Date of Issue	Version
PEG			
Dr. Percival Cho	Chief Executive Officer- Ministry of Environment, GEF Focal Point	30/06/17	BCWMP.Q 3-2017-1
Diane Wade-Moore	Environmental Programme Analyst, United Nations Development Programme.	30/06/17	BCWMP.Q 3-2017-1
John Bodden	Ministry of Health	30/06/17	BCWMP.Q 3-2017-1
Miriam Serrut	Pesticides Control Board.	30/06/17	BCWMP.Q 3-2017-1
Manuel Gonzales	ADM Belize Mills Ltd.	30/06/17	BCWMP.Q 3-2017-1
Marcos Osorio	SIRDI	30/06/17	BCWMP.Q 3-2017-1
Jeffery Joseph	SIRDI	30/06/17	BCWMP.Q 3-2017-1
Kenrick Witty	BAHA	30/06/17	BCWMP.Q 3-2017-1
Lorin Frazer	Customs & Excise Department	30/06/17	BCWMP.Q 3-2017-1
Glenford H. Baptist	Fabrigas Belize Ltd.	30/06/17	BCWMP.Q 3-2017-1
Emerson Garcia	SWaMA	30/06/17	BCWMP.Q 3-2017-1
Albert Roches	BNE	30/06/17	BCWMP.Q 3-2017-1
Juliane Pasos	University of Belize	30/06/17	BCWMP.Q 3-2017-1
Beverley Westby	Ministry of Economic Development	30/06/17	BCWMP.Q 3-2017-1

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Stage Plan

3 Purpose

The purpose of this document is to identify and schedule the activities that should be initiated and/or completed during the last four months of the project (July 1, 2017 to October 31, 2017). It provides adequate information for the Project Manager (PM) and the Project Execution Group (PEG) to manage and direct the stage.

Project activities are directly managed by a dedicated Project staff and execution of actions will be carried out with the support of the Department of the Environment and/or UNDP support. The project Manager for the Belize Chemicals and Waste Management Project will serve as the initial point of project quality assurance. Quality of work programme delivery will be monitored and reported on a monthly basis to the governing project bodies set in place such as the DOE Chief Environmental Officer and the PEG.

This is the initial stage plan; project baseline is as suggested in the approved document.

4 Plan Description

1) **Updating the Legal framework for the sound management of chemicals to include POPs and Industrial Chemicals Regulations.**

- a. Drafting of industrial chemicals regulation consultancy
 1. Development of final draft regulations -
Incorporation of feedback from validation workshop

2) **Repackaging and disposal of obsolete PCB and DDT stockpiles as well as associated waste through export to a dedicated facility.**

- a. POPs disposal consultancy.
 1. Transport and shipping of POPs waste to final destination
 2. Destruction and decontamination of POPs waste.
- b. Creation and airing of documentary video regarding the packaging and management of existing POPs waste in Belize.

3) **Development of a mechanism to control and manage chemicals.**

- a. Development of a chemicals and waste management Strategy and Action Plan.
 1. Hold first meeting to approve detailed work plan, schedule of site visits and list of waste generators to be visited.
 2. Development of preliminary draft of chemicals and waste management strategy and action Plan.
 3. Hold consultation workshop with stakeholders to review the preliminary draft of the chemicals and waste management strategy and action Plan.
- b. Procurement of chemical spill response equipment (Drone, SCBA dragger and PPEs).
- c. Contribution to conduct a situational analysis of the recycling sector and the Returnable Containers Act and regional initiatives to ban and control the usage of plastics and “Styrofoam”.

4) Monitoring Framework and Evaluation

- a. Hold PEG meeting to review and approve 2017 Q3 end of stage report and present project accomplishments during project execution.
- b. Purchase Office supplies and sundries as support to Project Management Unit (PMU)
- c. Purchase Insurance for vehicle.
- d. DSA and hotel accommodation for project related activities.

5) Project Monitoring – Project document will be published for dissemination; develop a plan for Q3+-2017 and commence with its implementation.

Total funds for 2017 = US\$ 313,348.99 (US\$ 309,848.99 GEF Funds and US \$ 3,500 UNDP Co-Funding)

Funds for Q3 2017 = US\$ 181,065.84 (US \$180,212.84 GEF Funds and US \$853 UNDP CO-Funding)

Funds for Q4 2017 = US\$ 20,164.16 (US \$19,314.16 GEF Funds and US \$850 UNDP CO-Funding)

See point 12.3 and Annex 6 for a comprehensive listing of all the activities, responsible partner and the resources to be used.

Quality Plan

Component 1: Regulatory Strengthening and Environmentally sound management of chemicals and waste, including POP's.			
Outcome 1.1: Institutional capacities strengthened through enhanced policies and regulatory framework supporting sound management of chemical life cycle.			
Activity 1.1.1. Updating the Legal framework for the sound management of chemicals to include POP's and Industrial chemicals regulations.			
Activity Result: Final draft regulations developed -			Start Date: July 1, 2017 End Date: July 31, 2017
<i>To support effective implementation of approved project interventions</i>			
Quality Criteria: <i>How/with what indicators the quality of the activity result will be measured?</i>	Quality Method: <i>Means of verification. What method will be used to determine if quality criteria has been met?</i>	Date of Assessment: <i>When will the assessment of quality be performed?</i>	
- Final Draft regulations	- Draft Regulations	End of Quarter.	
Outcome 1.2: Management and disposal of existing POP's waste.			
Activity 1.2.1 Repackaging and disposal of POP's (PCB and DDT stockpiles) and other chemicals as well as associate waste through export to a dedicated facility.			
Activity Result: POPs waste transported to seaport and shipped to destruction facility in France			Start Date: July 1, 2017 End Date: August 31, 2017
<i>To support effective implementation of approved project interventions</i>			
Quality Criteria: <i>How/with what indicators the quality of the activity result will be measured?</i>	Quality Method: <i>Means of verification. What method will be used to determine if quality criteria has been met?</i>	Date of Assessment: <i>When will the assessment of quality be performed?</i>	
- Transportation of POPs waste to	- Transportation of wastes to port of disembarkation and received at destruction	End of Quarter.	

<i>seaport</i> - Shipment of POPs to destruction facility in France	<i>facility</i>	
Activity Result: POPs waste destroyed in an environmentally friendly manner		Start Date: July 1, 2017 End Date: August 31, 2017
<i>To support effective implementation of approved project interventions</i>		
Quality Criteria: <i>How/with what indicators the quality of the activity result will be measured?</i>	Quality Method: <i>Means of verification. What method will be used to determine if quality criteria has been met?</i>	Date of Assessment: <i>When will the assessment of quality be performed?</i>
- Destruction of POPs waste - Disposal of shipping containers	- Progress report - Destruction Certification and emissions documentation	End of Quarter.
Activity Result: Documental video created and aired in TV stations		Start Date: July 1, 2017 End Date: October 20, 2017
- <i>To support effective implementation of approved project interventions</i>		
Quality Criteria: <i>How/with what indicators the quality of the activity result will be measured?</i>	Quality Method: <i>Means of verification. What method will be used to determine if quality criteria has been met?</i>	Date of Assessment: <i>When will the assessment of quality be performed?</i>
- Documental video aired in TV stations	- Number of TV stations	- Upon airing document al video
Activity Result: Office Supplies purchased		Start Date: July 1, 2017 End Date: September 30, 2017
- <i>To support effective implementation of approved project interventions</i>		
Quality Criteria: <i>How/with what indicators the quality</i>	Quality Method: <i>Means of verification. What method will</i>	Date of Assessment:

<i>of the activity result will be measured?</i>	<i>be used to determine if quality criteria has been met?</i>	<i>When will the assessment of quality be performed?</i>
- Office equipment value for money	- Office equipment value for money	- Upon purchase

Component 2: UPOPs releases reduction in waste management operations and agriculture			
Activity 2.2. Development of a mechanism to control and manage chemicals			
Activity Result: Chemicals Management Expert selected		Start Date: July 1, 2017 End Date: July 31, 2017	
<i>To support effective implementation of approved project interventions</i>			
Quality Criteria: <i>How/with what indicators the quality of the activity result will be measured?</i>	Quality Method: <i>Means of verification. What method will be used to determine if quality criteria has been met?</i>	Date of Assessment: <i>When will the assessment of quality be performed?</i>	
- Review panel score sheet - Qualifications of consultant and Cost of services	- Review Panel report with recommendation of most suited option for consultancy. - Contracting of consultant for the chemicals and waste management Strategy and Action Plan.	End of Quarter.	
Activity Result: Successful execution of first meeting with chemicals management expert		Start Date: July 1, 2017 End Date: August 11, 2017	
<i>To support effective implementation of approved project interventions</i>			
Quality Criteria: <i>How/with what indicators the quality of the activity result will be measured?</i>	Quality Method: <i>Means of verification. What method will be used to determine if quality criteria has been met?</i>	Date of Assessment: <i>When will the assessment of quality be performed?</i>	
- Feedback from Expert review committee - Number of	- Approved detailed work plan, schedule of site visits and list of waste generators to	End of Quarter.	

attendees	be visited - Register of attendees - Minutes of meeting	
Activity Result: Preliminary draft of chemicals and waste management strategy and Action Plan developed -		Start Date: July 1, 2017 End Date: October 20, 2017
<i>To support effective implementation of approved project interventions</i>		
Quality Criteria: <i>How/with what indicators the quality of the activity result will be measured?</i>	Quality Method: <i>Means of verification. What method will be used to determine if quality criteria has been met?</i>	Date of Assessment: <i>When will the assessment of quality be performed?</i>
- Draft Strategy and Action Plan	- Letter approving deliverable	End of Quarter.
Activity Result: Successful execution of first consultation workshop with stakeholders		Start Date: July 1, 2017 End Date: October 20, 2017
<i>To support effective implementation of approved project interventions</i>		
Quality Criteria: <i>How/with what indicators the quality of the activity result will be measured?</i>	Quality Method: <i>Means of verification. What method will be used to determine if quality criteria has been met?</i>	Date of Assessment: <i>When will the assessment of quality be performed?</i>
- Feedback from stakeholders - Number of attendees	- Register of attendees - Minutes of meeting	End of Quarter.
Activity Result: Chemical spill response equipment purchased		Start Date: July 1, 2017 End Date: October 20, 2017
<i>- To support effective implementation of approved project interventions</i>		
Quality Criteria: <i>How/with what indicators the quality of the activity result will be measured?</i>	Quality Criteria: <i>How/with what indicators the quality of the activity result will be measured?</i>	Date of Assessment: <i>When will the assessment of quality be performed?</i>
- Chemical spill	- Chemical spill	- Upon purchase

response equipment value for money	response equipment value for money	
Activity Result: Successful contribution to the execution of Situational Analysis		Start Date: July 1, 2017 End Date: October 20, 2017
<i>To support effective implementation of approved project interventions</i>		
Quality Criteria: <i>How/with what indicators the quality of the activity result will be measured?</i>	Quality Method: <i>Means of verification. What method will be used to determine if quality criteria has been met?</i>	Date of Assessment: <i>When will the assessment of quality be performed?</i>
- Contribution carried out - Situational analysis	- Payment of contribution - Situational analysis report	End of Quarter.

Component 3: Monitoring, learning, adaptive feedback, outreach and evaluation		
Outcome 3.1: Project Monitoring and External Auditing		
Activity 3.1.2. Support to PMU		
Activity Result: Successful Project Execution Group Meeting.		Start Date: July 1, 2017 End Date: October 27, 2017
<i>To support effective implementation of approved project interventions</i>		
Quality Criteria: <i>How/with what indicators the quality of the activity result will be measured?</i>	Quality Method: <i>Means of verification. What method will be used to determine if quality criteria has been met?</i>	Date of Assessment: <i>When will the assessment of quality be performed?</i>
- Number of attendees to the 10 th PEG Meeting.	- Attendance Sheet - Minutes of meeting	Two weeks after the meeting.
Activity Result: Sundries purchased		Start Date: July 1, 2017 End Date: October 20, 2017
<i>To support effective implementation of approved project interventions</i>		
Quality Criteria: <i>How/with what</i>	Quality Criteria: <i>How/with what</i>	Date of Assessment: <i>When will the</i>

<i>indicators the quality of the activity result will be measured?</i>	<i>indicators the quality of the activity result will be measured?</i>	<i>assessment of quality be performed?</i>
- value for money	- value for money obtained	- upon purchase
Activity Result: Office Supplies purchased		Start Date: July 1, 2017 End Date: October 20, 2017
<i>To support effective implementation of approved project interventions</i>		
Quality Criteria: <i>How/with what indicators the quality of the activity result will be measured?</i>	Quality Method: <i>Means of verification. What method will be used to determine if quality criteria has been met?</i>	Quality Criteria: <i>How/with what indicators the quality of the activity result will be measured?</i>
- Supplies value for money	- Supplies value for money	- Supplies value for money

6 Plan Prerequisite

Sensitization of the various stakeholders about the general concepts and goals of the BCWMP that will allow for the necessary buy-in from stakeholders.

7 External Dependencies/ Linkages

8 Tolerances

Project Manager is allowed 20% deviation from approved stage plan budget. 75% budget delivery is considered acceptable. Deviations in project timeline must not exceed 1 month.

PMU can take decisions up to 5,000 USD without PEG approval.

Implementation Agency have a tolerance up to 10,000 USD without PEG approval.

9 Monitoring and Control

Monitoring and Evaluation of this stage plan will be accomplished by:

- Monthly meetings between/among project staff to track progress against approved stage plan.
- As per normal expenditure will be controlled primarily through UNDP's Request for Direct Payment mechanism for payment and close monitoring of the stage budget by the Project Manager.
- Preparation of Quarterly End of Stage Report and Submission to PMU, PEG and UNDP

Control of stage boundaries will be accomplished by:

- PEG Meeting to approve the plan.

- Production of risk logs, lessons learned log, & end of stage report.

10 Reporting

Plan will be reported upon at the end of each stage period.

11 Planning Assumptions

1. Lack of flow of communication from PEG members may result in delays.
2. Qualified Offerors will comply as per contract
3. Final disposal facility will accept the POPs waste
4. Consultants will comply as per contract.
5. Ability to reach quorum to hold meeting sessions.

12 Graphical Plan

- 12.1 Gantt or Bar Chart

[Show identified resources, activities, start and end dates]

- 12.2 Financial Budget

[See Annex 3]

12.3 Resource Requirement Table

Activity	Required Resources
<i>Drafting of regulations consultancy</i>	1. Consultancy services (3 rd payment to Legal Consultant)
<i>Consultation workshop with Stakeholders to review second draft regulations</i>	2. Venue 3. Catering services 4. Office Supplies
<i>Validation workshop for draft regulations</i>	1. Venue 2. Catering services 3. Office Supplies
<i>Repackaging and disposal consultancy</i>	1. 4 th payment to POYECO 2. 5 th payment to POLYECO 3. 6 th payment to POLYECO 4. Subsistence Allowance. 5. Hotel Accommodation
<i>Meeting to complement the disposal consultancy</i>	1. Catering service 2. Rental of Venue 3. Subsistence Allowances 4. Stipend for experts
<i>Public awareness on chemicals management</i>	1. Advertisement services 2. Office Supplies 3. Stipend for experts
<i>Evaluation of bids for chemicals and waste management strategy and action Plan consultancy.</i>	1. Venue 2. Catering services 3. Office Supplies

<i>Meeting with chemicals management expert and expert committee to review and approve the detailed work plan schedule of site visits and list of waste generators to be visited</i>	<ol style="list-style-type: none"> 1. Venue 2. Catering services 3. Office Supplies
<i>Development of chemicals and waste management strategy and action Plan</i>	<ol style="list-style-type: none"> 1. Consultancy services (1st and 2nd payment to Consultant)
<i>Consultation workshop to review preliminary draft of Chemicals and waste management Strategy and Action Plan</i>	<ol style="list-style-type: none"> 1. Venue 2. Catering services
<i>Procurement of chemical spill response equipment (Drone, SCBA dragger, PPEs and testing equipment for heavy metals).</i>	<ol style="list-style-type: none"> 1. Drone 2. SCBA dragger 3. PPEs 4. Testing equipment for heavy metals
<i>Contribution to conduct a situational analysis of the recycling sector and the Returnable Containers Act and regional initiatives to ban and control the usage of plastics and “Styrofoam”</i>	<ol style="list-style-type: none"> 1. Professional services
<i>Purchase of equipment for chemical spill responses</i>	<ol style="list-style-type: none"> 1. Purchase of Laptop
<i>Project Execution Group Meeting</i>	<ol style="list-style-type: none"> 1. Catering services 2. Supplies 3. Venue
<i>National Oversight and coordination for activity implementation</i>	<ol style="list-style-type: none"> 1. Project Manager; 2. Project Assistant;
<i>Support to PMU</i>	<ol style="list-style-type: none"> 1. Subsistence Allowance. 2. Hotel Accommodation 3. Sundries 4. Office Supplies

12.4 Risk Assessment

To provide a repository of information about risks, their analysis, countermeasures and status.

Risks:

Identifier	Description	Category	Impact	Probability	Counter-measures	Owner	Author	Date Identified	Date last updated	Current status
PMU	Call for general elections, elections held November 4, 2015 could delay approvals since signatories are occupied.	Organizational Political	Medium	High	Investigate provisions to have alternate signatories to avoid unnecessary delays.	PM	PM	Nov 2015		
PMU	Communication flow from PEG member	Organizational Political	High	Med	An agreement should be made that all approvals	PM	PM	July 2015		

	s result in delay.				or comments need to be submitted within a specified timeframe given. If there is no response it should be agreed that there is no objection to the request					
PMU	Termination of Project Manager has left a gap in the PMU.	Operational	High	High	Head of Unit is conducting the everyday management of the project. In liaison with the Ministry to fill the position with	PM	PM	August 2015		

					existing PMU personnel.					
PMU	Travels may result in delay of project deliveries.	Operational	Med	Med	Travels need to be indicated within a timeframe so that PMU is able to plan properly	PM	PM	July 2015		
PMU	Capacity being built in project staff, no measure is currently available to ensure capacity is not lost.	Operational	High	Low	Measures need to be put in place for capacity to stay within government	PM	PM	July 2014		
PMU	Delays caused by	Political	High	Med	Disposal Certificate	PM	Prodoc	July 2014		

	difficulties in finding a shipping line for disposal of existing POP's waste.									
PMU	Delay in adoption of the Chemicals Bill due to overlapping mandates of ministries.	Political	High	Med	It is encouraged that the Integrated Chemicals Management Bill will be sent to Cabinet and House of representatives as soon as possible so these challenges are addressed.	PM	Prodoc	July 2015		

Identifier	Description	Category	Impact	Probability	Counter-measures	Owner	Author	Date Identified	Date last updated	Current status
PMU	Insufficient financial resources available to continue national interventions for sound management of chemicals.	Political, Financial	Med	Low	Awareness raising among decision makers and resource managers within the context of the Stockholm Convention and wider sustainable chemical management is being further continued throughout the project, especially component	PM	Prodoc	July 2014		

13. Product Descriptions

Annex 1. Agenda for the 11th PEG meeting

**BELIZE CHEMICALS AND WASTE MANAGEMENT PROJECT
Project Execution Group Meeting
AGENDA**

1. OPENING REMARKS

9:00- 9:15A.M.

Welcome and introduction

 *Martin Alegria– ENVIRONMENTAL OFFICER*

2. ROVING COFFEE BREAK: ALL MORNING

3. REVIEW OF MINUTES OF THE TENTH PEG MEETING

9:15 – 10:00 A.M.

 *Gisel Correa-Cobb – BCWM PROJECT MANAGER*

4. MATTERS ARISING FROM MINUTES

10:00 - 10:15 A.M.

 *FLOOR*

5. END OF STAGE REPORT – 3RD QUARTER ACTIVITIES

10:15 -11:00 A.M.

 *Gisel Correa-Cobb – BCWM PROJECT MANAGER*

6. PRESENTATION 2015-2017 PROJECT ACCOMPLISHMENTS

11:00 -12:00 P.M.

 *Gisel Correa-Cobb – BCWM PROJECT MANAGER*

.....
12:00 P.M.

-----LUNCH BREAK-----

.....

Annex 2. Monthly Work and Expenditure Plan for Q3 2017

OUTPUTS	ACTIVITIES	INDICATIVE INDICATORS OF SUCCESS	Q3-2017			CODE	FUND	CODE DESCRIPTION	BUDGET NOTES	Q3-2017
			J	A	S					
COMPONENT 1.										
Outcome 1.1: Institutional capacities strengthened through enhanced policies and regulatory framework supporting sound management of chemical life cycle	Activity 1.1.1.1. <i>Drafting of industrial chemicals regulations consultancy.</i>	✓ Final draft regulations developed	X	X	X	71400	62000	Contractual Services - Individual	Refer to Stage Plan Annex 5: Procurement Plan	\$3,714.48
	Activity 1.1.1.2. <i>Workshops/meetings to obtain feedback from stakeholders</i>	✓ Validation workshop held				75700	62000	Workshop		\$1,280.68
Outcome 1.2: Management and disposal of existing POP's	Activity 1.2.1.1 <i>Disposal of POP's and other chemicals, purchase of</i>	✓ POPs waste transported and shipped to destruct	X	X		71200	62000	International Consultant		\$16,870

waste	<i>drums, chemical analysis, training, repackaging, shipping and disposal</i>	ion facility in France							
		✓ POPs waste destroyed	X	X		71200	62000		\$67,480
		✓ Destruction Certification and emissions documentation		X	X	71200	62000		\$33,740
	Activity 1.2.1.4. Public awareness on chemicals management	✓ Documental video created and aired in TV stations		X	X	74200	62000	Communications and publications Local Consultant	\$4,500

OUTPUTS	ACTIVITIES	INDICATIVE INDICATORS OF SUCCESS	Q3-2017			CODE	FUND	CODE DESCRIPTION	BUDGET NOTES	Q3-2017
			J	A	S					
COMPONENT 2.										
Outcome 2.2: Reduction of UPOPs releases from uncontrolled, open burning of agricultural and other waste	Activity 2.2.1. <i>National oversight and coordination for activity implementation</i>	✓ PM and PA in place.	X	X	X	71300	62000	National consultant	1,800/m (PM) 1000/m (PA)	\$11,800
	Activity 2.2.2.3. <i>Evaluation of bids for chemicals and waste management strategy and action plan</i>	✓ Evaluation report	X	X					Refer to Stage Plan Annex 5: Procurement Plan	\$0.00
	Activity 2.2.2.4. <i>Development of chemicals and waste management</i>	✓ Signing of contract ✓ Approved detailed work plan, schedule of site	X			71300	62000	National Consultant		\$2,400

<i>t strategy and action plan</i>	visits and list of waste generators to be visited ✓ Consultancy in progress and meeting timelines							
	✓ Preliminary draft of chemicals and waste management strategy		X	X	71300	62000	National Consultant	\$2,400
	✓ Preliminary draft of chemicals and waste management Action Plan		X	X	71300	62000	National Consultant	\$1,600
Activity 2.2.2.5. <i>Workshops/ stakeholder meetings</i>	✓ First meeting held ✓ Detailed work plan	X			75700	62000	Workshop	\$125

	<ul style="list-style-type: none"> ✓ Minutes of Meetings ✓ Stipend to experts 							
	<ul style="list-style-type: none"> ✓ Consultation meeting held ✓ Minutes of meeting for the Consultation Meeting to review the preliminary draft of chemicals strategy 				75700	62000	Workshop	\$1,500
	<ul style="list-style-type: none"> ✓ Validation workshop held ✓ Minutes of meeting for the Consultation Meeting to review the preliminary draft of chemicals strategy 		X	X	75700	62000	Workshop	\$1,500

<p>Activity 2.2.2.7. Develop and enhance DOE capacity in chemical spill response</p>	<ul style="list-style-type: none"> ✓ Drone purchased ✓ SCBA dragger purchased ✓ PPEs 	<p>X</p>	<p>X</p>	<p>X</p>	<p>72300</p>	<p>62000</p>	<p>General Operating Expenses</p>		<p>\$26,464.44</p>
<p>Activity 2.2.2.7. Contribution to conduct a situational analysis of the recycling sector and the Returnable Containers Act and regional initiatives to ban and control the usage of plastics and "Styrofoam"</p>	<ul style="list-style-type: none"> ✓ Signed contract ✓ Draft situational analysis of the recycling sector and the returnable containers Act and regional initiatives to ban and control the usage of plastics and "Styrofoam" 		<p>X</p>	<p>X</p>	<p>75700</p>	<p>62000</p>	<p>Workshop</p>		<p>\$1,810</p>

OUTPUT	ACTIVITIES	INDICATIVE INDICATORS OF SUCCESS	Q3-2017			CODE	FUND	CODE DESCRIPTION	BUDGET NOTES	Q3-2017
			J	A	S					
COMPONENT 3.										
Outcome 3.0: Monitoring, learning, adaptive feedback, outreach and evaluation	Activity 3.1.2.1 <i>PEG meetings</i>	✓ PEG meeting held meeting. ✓ Minutes of PEG meeting	X	X	X	75700	62000	Workshop	Refer to Stage Plan Annex 5:	\$400
	Activity 3.1.2.2. <i>Office Supplies</i>	✓ Office Supplies purchased	X	X	X	72500	62000	Office Supplies		\$1,000
	Activity 3.1.2.2. <i>Office Supplies</i>	✓ Office Supplies purchased	X	X	X	72500	04000	Office Supplies		\$390
	Activity 3.1.2.5. <i>Payment of Insurance</i>	✓ Vehicle Insurance renewed		X	X	74500	62000	Miscellaneous (Sundries)		\$1,400
	Activity 3.1.2.5. <i>Payment of Sundries</i>	✓ Sundries purchased		X	X	74500	62000	Miscellaneous (Sundries)		\$227.92
	Activity 3.1.2.6. <i>Payment for Travel expenses</i>	✓ Site inspection reports ✓ Accommodations ✓ DSA paid		X	X	71600	04000	Travel		\$463
TOTAL										\$181,065.84

Annex 3. Monthly Work and Expenditure Plan for Q4 2017

OUTPUTS	ACTIVITIES	INDICATIVE INDICATORS OF SUCCESS	Q4-2017			CODE	FUND	CODE DESCRIPTION	BUDGET NOTES	Q4-2017
			O	N	D					
COMPONENT 2.										
Outcome 2.2: Reduction of UPOPs releases from uncontrollable, open burning of agricultural and other waste	Activity 2.2.1. <i>National oversight and coordination for activity implementation</i>	✓ PM and PA in place.	X	X	X	71300	62000	National consultant	1,800/m (PM) 1000/m (PA)	\$2,805.65
		✓ PM and PA in place.	X	X		71300	04000	National consultant		\$850.00
	Activity 2.2.2.4. <i>Development of chemicals and waste management strategy and action plan</i>	✓ Final draft of chemicals and waste management strategy ✓ Preliminary draft of chemicals and waste management Action Plan	X			71300	62000	National Consultant	Refer to Stage Plan Annex 5: Procurement Plan	\$15,600

OUTPUTS	ACTIVITIES	INDICATIVE INDICATORS OF SUCCESS	Q4-2017			CODE	FUND	CODE DESCRIPTION	BUDGET NOTES	Q4-2017
			O	N	D					
COMPONENT 3.										
Outcome 3.0: Monitoring, learning, adaptive feedback, outreach and evaluation	Activity 3.1.2.1 <i>PEG meetings</i>	✓ PEG meeting held meeting. ✓ Minutes of PEG meeting	X	X	X	75700	62000	Workshop	Refer to Stage Plan Annex 5:	\$908.51
TOTAL										\$20,164.16

Annex 4. Q3+ Funding Authorization and Certificate of Expenditures

Funding Authorization and Certificate of Expenditures				UN Agency: UNDP				Date: 30-Jun-17	
Country: Belize SL V10 (BLZ) 48301		Programme Code & Title: Energy and Environment Programme						Type of Request:	
Project Code & Title: 00089331, Belize Chemicals and Waste Management		Responsible Officer(s): Martin Alegria						() Direct Cash Transfer	
Implementing Institution: Department of the Environment		Currency: USDS						() Reimbursement	
								(x) Direct Payment	

Activity Description from AWP with Duration	Coding for UNDP, UNICEF, UNFPA and WFP			REPORTING				REQUESTS / AUTHORIZATIONS		
	Fund	Donor	Account	Authorized Amount	Actual Project Expenditure	Expenditures accepted by Agency	Balance	New Request Period & Amount	Authorized Amount	Outstanding Authorized Amount
				April-June 2017				July-Sept 2017		
	A	B	C	D = A - C	F	G = D + F				
1.1.1.1. Drafting of industrial chemicals regulations consultancy.	62000	10003	71400	3,870.00	0.00	0.00	3,870.00	3,714.80		
1.1.1.2. Workshops/meetings to obtain feedback from stakeholders	62000	10003	75700	1,125.00	398.48	398.48	726.52	1,280.68		
1.1.1.2. Workshops/meetings to obtain feedback from stakeholders	62000	10003	72500	31.23	0.00	0.00	31.23	0.00		
1.2.1.1. Disposal of POPs and other chemicals, purchase of drums, chemical analysis, training, repackaging, shipping and disposal	62000	10003	71200	118,090.00	0.00	0.00	118,090.00	118,090.00		
1.2.1.2. Meeting sessions to complement the POPs disposal consultancy	62000	10003	75700	119.25	120.08	120.08	(0.83)	0.00		
1.2.1.2. Meeting sessions (travel)	62000	10003	71600	500.00	200.11	200.11	299.89	0.00		
1.2.1.2. Meeting sessions (Site Visit to transfer station)	04000	00012	71635	0.00	228.62	228.62	(228.62)	0.00		
1.2.1.3. Disposal Contingency	62000	10003	72100	0.00	5,472.88	5,472.88	(5,472.88)	0.00		
1.2.1.3. Disposal Contingency	62000	10003	72300	0.00	798.02	798.02	(798.02)	0.00		
1.2.1.3. Disposal Contingency	62000	10003	74500	0.00	803.59	803.59	(803.59)	0.00		
1.2.1.4. Public Awareness on Chemicals management (brokerage)	62000	10003	74500	0.00	126.33	126.33	(126.33)	0.00		
1.2.1.4. Public Awareness on Chemicals management (Office equipment)	62000	10003	72400	0.00	2,630.50	2,630.50	(2,630.50)	0.00		
1.2.1.4. Public Awareness on Chemicals management (Office supplies)	62000	10003	72500	39.56	0.00	0.00	39.56	0.00		
1.2.1.4. Public Awareness on Chemicals management (airing of documental video)	62000	10003	74200	4,500.00	0.00	0.00	4,500.00	4,500.00		
2.2.1. National oversight and coordination for activity implementation	62000	10003	71300	8,400.00	8,405.46	8,405.46	(5.46)	11,800.00		
2.2.2.1. Develop TOR for the chemicals management strategy consultancy.	62000	10003	75700	0.00	50.00	50.00	(50.00)	0.00		
2.2.2.2. Advertisement of consultancy notice for the development of the chemicals management strategy.	62000	10003	74200	0.00	263.68	263.68	(263.68)	0.00		
2.2.2.3. Evaluation of bids for chemicals and waste management strategy and action plan	62000	10003	75700	187.50	240.98	240.98	(53.48)	0.00		
2.2.2.4. Development of chemicals and waste management strategy and action plan	62000	10003	71300	6,400.00	0.00	0.00	6,400.00	6,400.00		
2.2.2.5. Workshop/ stakeholder meetings	62000	10003	75700	1,312.50	0.00	0.00	1,312.50	3,125.00		
2.2.2.5. Workshop/ stakeholder meetings (travel)	62000	10003	71600	500.00	0.00	0.00	500.00	0.00		
2.2.2.6. Develop and enhance DOE capacity in chemical spill response (brokerage)	62000	10003	74500	0.00	126.33	126.33	(126.33)	0.00		
2.2.2.6. Develop and enhance DOE capacity in chemical spill response (laptop)	62000	10003	72400	0.00	3,644.50	3,644.50	(3,644.50)	0.00		
2.2.2.6. Develop and enhance DOE capacity in chemical spill response	62000	10003	72300	25,956.49	0.00	0.00	25,956.49	26,464.44		
2.2.2.7. Contribution to conduct a situational analysis of the recycling sector and the Returnable Containers Act and regional initiatives to ban and control the usage of plastics and "styrofoam"	62000	10003	75700	1,850.00	0.00	0.00	1,850.00	1,810.00		
3.1.2.1. PEG Meetings	62000	10003	75700	250.00	0.00	0.00	250.00	400.00		
3.1.2.2. Office Supplies	62000	10003	72500	1,000.00	0.00	0.00	1,000.00	1,000.00		
3.1.2.2. Office Supplies	04000	00012	72500	0.00	0.00	0.00	0.00	390.00		
3.1.2.4. Miscellaneous expenses (Insurance)	62000	10003	74500	0.00	0.00	0.00	0.00	1,400.00		
3.1.2.5. Miscellaneous expenses (Sundries)	62000	10003	74500	600.00	707.76	707.76	(107.76)	227.92		
3.1.2.6. Travel	04000	00012	71600	1,000.00	277.67	277.67	722.33	463.00		
Total				175,731.53	24,494.99	24,494.99	151,236.54	181,065.84		

CERTIFICATION
The undersigned authorized officer of the above-mentioned implementing institution hereby certifies that

- The funding request shown above represents estimated expenditures as per AWP and itemized cost estimates attached.
- The actual expenditures for the period stated herein has been disbursed in accordance with the AWP and request with itemized cost estimates. The detailed accounting documents for these expenditures can be made available for examination, when required, for the period of five years from the date of the provision of funds.
- The progress report for the activities stated herein has been submitted.

Date Submitted: June 30, 2017 Signature: _____ Name: **Martin Alegria** Title: **Project Director**

NOTES: * Shaded areas to be completed by the UN Agency and non-shaded areas to be completed by the counterpart.

FOR AGENCY USE ONLY:	FOR UNICEF USE ONLY	FOR UNFPA USE ONLY
Approved by: _____	Account Charges	Liquidation Information
Signature: _____	CAG Ref. CRQ ref. Voucher ref.	CAG Ref. CRQ
Name: _____	CRQ CAG GL:	Activity 1
Title: _____	Training (762010) 0	0
Date: _____	Travel (762020) 0	Activity 2
	Mtms. & Confs. (762030) 0	0
	Sal. & Sup. Costs (76103) 0	
	Const. - Proj. Prem. (7611) 0	
	Other CAG (761010) 0	
	Total 0	Total 0

Appendix 9: End of Stage Report - Quarter 1 2017 (Source: Author of the study)



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PROJECT DOCUMENTATION
Q1-2017 END STAGE REPORT

Project: Belize Chemicals and Waste Management Project (00089331)

Release: Final

Author: Gisel Correa-Cobb

Owner: Department of the Environment (Ministry of Agriculture, Fisheries, Forestry, Environment, Sustainable Development and Climate Change)

Client: Government of Belize (Supported by the Global Environment Facility and the United Nations Development Programme)

Document Ref: BCWMP.Q1-2017-R1

Version No:1

End of Stage Report History

1.1 Document Location

This document is only valid on the day it was printed.

The source of the document will be found on the computer of the National Project Manager and the Administrative Assistant at the office of the Department of the Environment in the Ministry of Agriculture, Fisheries, Forestry, Environment, Sustainable Development and Climate Change in Belmopan, Cayo.

1.2. Revision History

Date of this revision: April 14, 2017

Date of next revision: N/A

Version Number	Previous revision Date	Summary Changes	of	Changes marked

1.3. Approvals

This document requires the following approvals.

Signed approval forms are filed in the Management Section of the Project Files.

Name	Signature	Title	Date of Issue	Version
Gisel Correa-Cobb		Project Manager	April 14, 2017	BCWMP.Q1-2017-R1
Martin Alegria		Project Director	April 14, 2017	BCWMP.Q1-2017-R1

1.4. Distribution

This document has been distributed to:

Name	Title	Date Issue	of	Version
DOE: Project Team				
Martin Alegria	Chief Environmental Officer/Project Director	14/04/17		BCWMP.Q1-2017-R1
Gisel Correa-Cobb	Project Manager	14/04/17		BCWMP.Q1-2017-R1
Jorge Franco	Head of the Projects Execution Unit	14/04/17		BCWMP.Q1-2017-R1
Zena Waight	Project Administrative Assistant	14/04/17		BCWMP.Q1-2017-R1
PEG				
Dr. Percival Cho	Chief Executive Officer- Ministry of Environment, GEF Focal Point	14/04/17		BCWMP.Q1-2017-R1
Diane Wade-	Environmental Programme Analyst,	14/04/17		BCWMP.Q1

Moore	United Nations Development Programme.		-2017-R1
PEG			
Name	Title	Date Issue	of Version
John Bodden	Ministry of Health	14/04/17	BCWMP.Q1-2017-R1
Miriam Serrut	Pesticides Control Board.	14/04/17	BCWMP.Q1-2017-R1
Juliane Pasos	University of Belize	14/04/17	BCWMP.Q1-2017-R1
Marcos Osorio	SIRDI	14/04/17	BCWMP.Q1-2017-R1
Jeffery Joseph	SIRDI	14/04/17	BCWMP.Q1-2017-R1
Kenrick Witty	BAHA	14/04/17	BCWMP.Q1-2017-R1
Lorin Frazer	Customs & Excise Department	14/04/17	BCWMP.Q1-2017-R1
Felipe Rivera	Customs & Excise Department	14/04/17	BCWMP.Q1-2017-R1
Glenford Baptist	H Fabrigas Belize Ltd.	14/04/17	BCWMP.Q1-2017-R1
Emerson Garcia	SWaMA	14/04/17	BCWMP.Q1-2017-R1
Kimberley Westby	Ministry of Economic Development	14/04/17	BCWMP.Q1-2017-R1
Albert Roches	Belize Natural Energy	14/04/17	BCWMP.Q1-2017-R1

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End Stage Report

3. Purpose

To provide an updated progress report of the overall project implementation to enable the Project Execution Group to make decisions on the way forward with the project. Information presented in the End Stage Report is used in tandem with the next Stage Plan to decide what action to take with the project: for example, authorize the next stage, amend the project scope, or stop the project.

4. Current Stage Plan

The status at the end of the Q1-2017 stage is:		
Expenditure USD		
Amount budgeted for 2017:	US\$ 313,348.99 (US\$ 309,848.99 GEF Funds and US\$ 3,500 UNDP Co-funding)	
Actual allocated to Q1 2017:	US\$ 79,300	
Actual amount spent in Q1 2017: March 10, 2017	US\$ 74,908.18	
Delivery rate:	94.5%	
Activities		
Activities on schedule as of March 10 th , 2017	9	64.3% of scheduled
Activities ahead of schedule as of March 10 th , 2017	0	0 % of scheduled
Activities behind schedule as of March 10 th , 2017	5	35.7% of scheduled
The spending of funds in Q1-2017 decreased due to the following activities:		
1. The Project Management Unit (PMU) was extremely busy supervising and monitoring the repackaging activities country wide and was unable to schedule a planning session for the development of a roadmap to addressing the impacts of petroleum based products in the month of February. Several PEG members have expressed that March is a busy schedule for them since they have either scheduled meetings or would be out of country in the month of March. This activity is transferred to Q2-2017.		

5. Project Plan Outlook

Under the DOE, the project is on the right direction to institutionalize it within. This will allow for sustainability of future reporting processes since the experienced technical government officers will be trained and will be able to provide feedback to the project.

6. Business Case Review

The business case for the project remains valid even though slight changes have occurred and have been amended during the stage. The project remains within agreed budget limits; however, it is too early to determine the benefits being delivered.

7 Risk Review

Risk No. 1. Delay in the approval of the project Authorized Spending Limit (ASL) due to UNDP administrative process.

Risk No. 1. Failure to deliver within contract terms.

Risk No. 2. Delay in obtaining acknowledgements and consent for the transboundary notifications.

Risk No. 3. Unable to get Quorum to hold meetings.

8 Project Issue Situation

The main Project activities remain as schedule however, some delays followed through from previous quarters.

9 Other Events

Events that affected Quarter Stage performance	<ol style="list-style-type: none"> 1. There were unforeseen delays in the approval of the project Authorized Spending Limit (ASL) by UNDP headquarters. The ASL was approved until the middle of February which affected the request of transfer of project funds to the Central Bank account for its subsequent transfer to the Chemicals Management Account. Hence in this first quarter, there is no payment for miscellaneous expense for bank charges. 2. The first payment made to POLYECO was for the accomplishment of the deliverables under Part B of the Contract. The Second payment was requested on March 28, 2017, upon POLYECO's accomplishment of all the deliverables under Part A of the Contract. On January 5, 2017, POLYECO initiated the Notification process for the transboundary movement of hazardous waste. Notifications BZ 222392, BZ 222393 and BZ 222394 obtained the French acknowledgement and consent and the consents of Guatemala, Costa Rica, Panama and UK, Italy and Spain.
---	---

10 Lessons Learned

Date	Description	Recommendation/Comments
August 15, 2016	There are certain activities such as the procurement process that the PMU has no direct control.	1. Schedule this activities with a time contingency so as to allow to accommodate this type of risk.

Annex 1. Budget Execution Q1-2017

CONCEPT	Plan	Real	Execution Rate (%)
Drafting of Industrial chemicals regulations consultancy	4,740	4,740	100%
Workshop/meetings to obtain feedback from stakeholders	675	1,091.70	161.7%
Disposal of POPs and other chemicals, purchase	50,610	50,610	100%
Meeting sessions (i.e. training and other meetings) to complement the POPs disposal consultancy	4,000	3,880.75	97%
Public Awareness on chemicals management	4,800	260.44	4.8%
National oversight and coordination for activity implementation	8,400	8,372.14	99.67%
Develop TOR for the chemicals and waste management consultancy	225	223.80	99.5%
Advertisement of consultancy notice for the development of the chemicals and waste management strategy	800	445.79	55.7%
Develop and enhance capacity in chemicals spill response	2,300	0	0%
Planning sessions for the development of a roadmap to addressing the impacts of petroleum products	750	0	0%
PEG Meetings	350	333.025	95.15%
Miscellaneous expenses (bank charges)	50	0	0%
Miscellaneous expenses (sundries)	600	567.14	94.5%
Travel expenses	1,000	1,296.99	129.7%
Total Q1 -2017	79,300	46,544.64	58.7%

Annex 2. Q1-2017 Funding Authorization and Certificate of Expenditure.

Funding Authorization and Certificate of Expenditures				UN Agency: <u>UNDP</u>				Date: <u>14-Apr-17</u>		
Country: <u>Belize SL V16 (BLZ) 48301</u>								Type of Request:		
Programme Code & Title: <u>Energy and Environment Programme</u>								() Direct Cash Transfer		
Project Code & Title: <u>00089331 Belize Chemicals and Waste Management</u>								() Reimbursement		
Responsible Officer(s): <u>Martin Alegria</u>								(x) Direct Payment		
Implementing Institution: <u>Department of the Environment</u>										
Currency: <u>USDS</u>										
Activity Description from AWP with Duration	Coding for UNDP, UNICEF, UNFPA and WFP			REPORTING				REQUESTS / AUTHORIZATIONS		
	Fund	Donor	Account	Authorised Amount Jan - March, 2017	Actual Project Expenditure	Expenditures accepted by Agency	Balance	New Request Period & Amount April - June, 2017	Authorised Amount	Outstanding Authorised Amount
	A	B	C	D = A - C	E	F	G = D + F			
1.1.1.1. Drafting of industrial chemicals regulations consultancy.	62000	10003	71400	4,740	4,895.52	4,895.52	-155.52			
1.1.1.2. Workshops/meetings to obtain feedback from stakeholders	62000	10003	75700	475	371.68	371.68	103.32			
1.1.1.2. Workshops/meetings to obtain feedback from stakeholders	62000	10003	72500	200	712.15	712.15	(512.15)			
1.2.1.1. Disposal of POPs and other chemicals, purchase of drums, chemical analysis, training, repackaging, shipping and disposal	62000	10003	71200	50,610	50,610.00	50,610.00	0.00			
1.2.1.2. Meeting sessions (i.e. training and other meetings) to complement the POPs disposal consultancy	62000	10003	75700	3,000	2,866.42	2,866.42	133.58			
1.2.1.2. Meeting sessions (i.e. training and other meetings) to complement the POPs disposal consultancy	62000	10003	72500	1,000	998.07	998.07	1.93			
1.2.1.3. Disposal Contingency	62000	10003	71200	0.00	89.64	89.64	(89.64)			
1.2.1.3. Disposal Contingency	62000	10003	71400	0.00	248.76	248.76	(248.76)			
1.2.1.3. Disposal Contingency	62000	10003	72300	0.00	2,646.75	2,646.75	(2,646.75)			
1.2.1.4. Public Awareness on Chemicals management	62000	10003	72200	4,500	0.00	0.00	4500			
1.2.1.4. Public Awareness on Chemicals management	62000	10003	72500	300	259.14	259.14	40.9			
2.2.1. National oversight and coordination for activity implementation	62000	10003	71300	8,400	8,372.14	8,372.14	27.86			
2.2.2.1. Develop TOR for the chemicals management strategy consultancy.	62000	10003	75700	225	222.69	222.69	2.31			
2.2.2.2. Advertisement of consultancy notice for the development of the chemicals management strategy.	62000	10003	74200	800	443.56	443.56	356.44			
2.2.2.6. Develop and enhance DOE capacity in chemical spill response	62000	10003	72200	2,300	0.00	0.00	2,300.00			
2.2.2.7. Planning sessions for the development of a roadmap to addressing the impacts of petroleum products.	62000	10003	75700	750	0.00	0.00	750			
3.1.2.1. PEG Meetings	62000	10003	75700	350	331.370	331.37	18.63			
3.1.2.3. Miscellaneous expenses (bank charges)	62000	10003	74500	50	0.00	0.00	50.00			
3.1.2.5. Miscellaneous expenses (Sundries)	62000	10003	74500	600	564.32	564.32	35.68			
3.1.2.6. Travel	04000	00012	71600	1,000	1,290.53	1,290.53	(290.53)			
Total				79,300.00	74,922.74	74,922.74	4,377.26			

CERTIFICATION

The undersigned authorized officer of the above-mentioned implementing institution hereby certifies that

The funding request shown above represents estimated expenditures as per AWP and itemized cost estimates attached.

The actual expenditures for the period stated herein has been disbursed in accordance with the AWP and request with itemized cost estimates. The detailed accounting documents for these expenditures can be made available for examination, when required, for the period of five years from the date of the provision of funds.

The progress report for the activities stated herein has been submitted.

Date Submitted: April 14, 2017 Signature: _____ Name: Martin Alegria Title: Project Director

NOTES: * Shaded areas to be completed by the UN Agency and non-shaded areas to be completed by the counterpart

FOR AGENCY USE ONLY:	FOR UNICEF USE ONLY	FOR UNFPA USE ONLY
Approved by: _____	Account Charges	Liquidation Information
Signature: _____	CAG Ref. CRO ref. Voucher ref.	CAG Ref. CRO ref. IV.
Name: _____	TRD CAG GL	
Title: _____	Training (762010) 0	DCT Amount 0
Date: _____	Travel (762020) 0	
	Mtg & Confs. (762030) 0	Less:
	Sal. & Sup. Costs (761030) 0	Liquidation
	Const. - Proj. Prem. (761040) 0	Amount 0
	Other CAG (761010) 0	
	Total 0	Balance 0
		Total 0
		Activity 1 0
		Activity 2 0

Appendix 10: Final Project Lessons Learned Report Template (Source: UNDP)

United Nations Development Programme



FINAL PROJECT LESSONS-LEARNED REPORT

Project Title:	
Country:	
Related CPAP Outcome	
Project Description and Key Lessons-Learned	
Brief description of context	<p>Please give a brief description of the country context.</p> <ul style="list-style-type: none"> ○ What were the main challenges being faced at the start of the project?
Brief description of project	<p>A short description of the project should be provided here.</p> <ul style="list-style-type: none"> ○ What were the issues the project tried to address? ○ What solutions the project tried to offer? What were its major outputs?
Key project successes	<p>Please describe what has worked well.</p> <ul style="list-style-type: none"> ○ What have been the key successes of this project? ○ What factors supported this success?
Project shortcomings and solutions	<p>Please describe what have been the main challenges of this project?</p> <ul style="list-style-type: none"> ○ What have been the main challenges/ shortcomings/ unforeseen circumstances of this project? ○ How were they overcome (if they were)? ○ Were the project results attained? If not, what changes need to be made to achieve these results in the future?
Lessons learned	<p>Please think about and describe the key lesson(s) learned from this project.</p> <ul style="list-style-type: none"> ○ What could have been done differently/ better? ○ What would you recommend to improve future programming or for other similar projects elsewhere? ○ What mistakes should be avoided if the initiative were to be replicated?

	<ul style="list-style-type: none"> ○ How easy would it be to replicate the successes in a different context/ country? Provide any other relevant information
Follow-up Actions	Based on the Final Project Review, include a brief record of decisions and conclusions related to follow-up actions

Project Information	
Award ID:	Atlas reference number
CO Focal Points:	Include the name(s) and email address(es) of the focal point(s) for this project in the Country Office
Partners:	Include the name of partner organizations involved in this project
Project resources:	Please feel free to provide weblinks to other project resources and information
Report prepared by:	Name & Title
Date:	Date of preparation of the report
Signature:	

PROGRESS TOWARD DEVELOPMENT OBJECTIVES

Description	Description of Indicator	Baseline Level	Target Level at end of project	Level at dd/mm/yy

**Appendix 11: Belize Chemicals and Waste Management Project Document
(Source: UNDP)**



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Resilient nations.*

United Nations Development Programme
Global Environment Facility
Country: Belize
PROJECT DOCUMENT

Project Title: Belize Chemicals and Waste Management Project

UNDAF Outcome (s): Environmental Sustainability: Outcome 6: By 2017, Public policies and development processes are mainstreamed with cross – cutting environmental, disaster risk reduction and climate change dimensions.

Expected CPAP Outcome (s): UNDP Country Programme 2013- 2017 Outcome 6: Public policies and institutional capacities are strengthened and capacitated to manage Belize’s natural resource base in a sustainable manner, and for a more effective and multi- sectoral preparedness and response to natural disaster and climate- induced events.

Expected CPAP Output (s): National compliance with multi-lateral environmental agreements strengthened.

Implementing Partner: Department of the Environment, Belize

Responsible Partners: United Nations Development Programme, Ministry of Forestry, Fisheries & Sustainable Development

The economy of Belize is based on the country's natural resource endowments. Based on a national realization that the country's development is intrinsically tied to the prudent management of the environment and the country's natural resource based, decision makers formally articulated the country's commitment to pursuing a sustainable development pathway in its long-term vision for the country. As part of the general development direction spelled out in Horizon 2030, environmental policy is in continuous development in Belize. Presently there is very limited amount of resources available for the integrated management of chemicals in Belize. The legislation related to the integrated management of chemicals is fragmented among various institutions with limited coordination occurring among them. This is because there is presently no comprehensive policy and legislation that allows for harmonization and uniformity among the various existing legal instruments and the dispersed efforts of the various responsible institutions. A systematic and phased approach to strengthen the policy and regulative framework when it comes to chemicals management is actively being undertaken supported by projects co-funded by SAICM Quick Start Program. The new regulative system is proposed to divide the chemicals on the market into three categories of chemicals i) Agricultural chemicals (pesticides, veterinary drugs, fertilizers), ii) Consumer chemicals (pharmaceutical drugs, poisons and cosmetics) and iii) Industrial chemicals. All these groups of chemicals are important from a POPs management perspective. Therefore, the detailed regulative and administrative structures as well as implementation of Consumer and Industrial Chemicals will be supported by the project, while the Agricultural chemicals work will be supported by a separate regional project in the realm of FAO. This project aims to assist the country in implementing its relevant obligations under the Stockholm Convention, in particular to reduce the releases of Unintentional POPs emissions, as well as to build country's capacity to manage chemicals and waste, in line with the GEF objectives. This will be accomplished through 2 principal project components.

<p>Programme Period: 2013- 2017 Atlas Award ID: 00079317 Project ID: 00089331 PIMS # 5094 Start Date 1/06/2014 End Date: 31/06/2017</p>	<p>Total resources required Total allocated resources</p> <ul style="list-style-type: none"> • Regular \$25,000 • UUNDP (GEF) \$ 990,000 • Other:
--	---

Agreed by the Ministry of Forestry, Fisheries & Sustainable Development of Belize:

22/07/2014 *Jalamilu*
Date/Month/Year Signature

Agreed by , UNDP Resident Representative in Belize:

22/07/2014 *Roberto J. Lopez*
Date/Month/Year Signature

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List of Acronyms

BEP/BAT — Best Environmental Practice / Best Available Techniques
FAO — Food and Agricultural Organization of the United Nations
GEF — Global Environment Facility

HZW — hazardous waste
MSW — municipal solid waste

NIP — National Implementation Plan for the Stockholm Convention
NGO — Non-Governmental Organization

PCDD/Fs — dioxins and furans

POPs — Persistent Organic Pollutants
RCU — Regional Coordinating Unit
TOR — Terms of Reference

UNDP — United Nations Development Programme
UNEP — United Nations Environment Programme

UPOPs — Unintentionally Produced Persistent Organic Pollutants

I. Situation analysis

Strategic environmental policy

The economy of Belize is based on the country's natural resource endowments. At Independence, export agriculture became the mainstay of the country's economy. Changes in the demands of traditional markets have also given rise to prominence of other natural resource based/ dependent industries such as tourism, the growth of marine products (fish and lobster in particular), and the development of shrimp farming for export. Based on a national realization that the country's development is intrinsically tied to the prudent management of the environment and the country's natural resource based, decision makers formally articulated the country's commitment to pursuing a sustainable development pathway in its long term vision for the country. Horizon 2030 recognizes the people and the environment as being at the core of the long-term development framework of the country.

As part of the general development direction spelled out in Horizon 2030, environmental policy is in continuous development in Belize. Plans with longer and shorter time spans are agreed to ameliorate the living and natural environment in the country. The Government of Belize in consultation with its stakeholders has prioritized the following environmental issues and has included these in their national environmental strategies and plans primarily the National Environmental Action Plan and the Belize Medium Term Development Strategy 2010 – 2013:

- a. Need to ensure the sustainable management of environmental resources so that the needs of future generations are not compromised by the current levels of resource use, including the strengthening of standards, quality of management and enforcement.
- b. Need to address unsustainable practices such as milpa farming, cultivation of steep slopes, pesticide use and unsustainable extraction of timber and other plant species as a means of mitigating against deforestation and erosion.
- c. *Need for review and strengthening of existing institutional management systems with emphasis placed on Belize's national chemical management framework and legislation to allow for greater coordination and collaboration among agencies and a need to ensure the enforcement of the occupation safety and health (OSH) Act.*
- d. Need to increase capacity building and information sharing to promote sound management of natural resources, and the

establishment of national policies with thematic foci that would assist in the negotiation of country and regional positions.

- e. Need to ensure that Belize's planning process recognizes the economic value of the natural resources and environmental goods and services and provide for greater incentives for the adoption of green technologies.
- f. Need to guard against adverse effects of petroleum production in this still relatively new industry.
- g. Need to address Belize's vulnerability to climate change in particular the impacts of tropical cyclones and sea level rise by focusing on the need for increased readiness and mitigation, and emphasis on an ex-ante, risk management approach to disasters rather than an ex-post, reactionary approach and Belize's ability to adapt to climate change.
- h. Need to integrate environmental education within the school system to allow Belizeans to develop an appreciation for Belize's Natural resources and its environment so that they could become involved in sustainable development practices.
- i. *Need to invest in technology and irrigation and provide technical support to farmers while promoting the use of greener pesticides. Provide —Go Greenll Incentives to businesses, schools and society e.g.: for recycling products.*

The above priorities are supported/constraint by following drivers:

- Insufficient or deficient enforcement of environmental laws and regulations;
- Poor environmental governance structure;
- Inadequate coordinating mechanisms to ensure full participation of all stakeholders in the planning and implementation process;
- Limited capacity – financial, human and training
- Limited economic option and job opportunities
- Over exploitation of and degradation of resources, in particular the fishing and marine resources, timber and other forest products;
- Policies are totally lacking, outdated or inadequate;
- Environmental management and natural resources planning remain sectoral although the results of this type of planning framework remains extremely limited;
- Lack of incentives for the adoption of —green policies and practices;
- Lack of awareness and education;

- Lack of recognition of the significant economic value of the natural resources and environmental goods and services;
- Belize's vulnerability to climate change and its adverse impacts.

National legislative framework on hazardous chemicals and wastes

Presently there is very limited amount of resources available for the integrated management of chemicals in Belize. The legislation related to the integrated management of chemicals is fragmented among various institutions with limited coordination occurring among them. This is because there is presently no comprehensive policy and legislation that allows for harmonization and uniformity among the various existing legal instruments and the dispersed efforts of the various responsible institutions.

Among the various pieces of existing legislation, the Environmental Protection Act Chapter 328 and its amendments of 2009 and the Pesticide Control Act Chapter 216, Revised Edition 2000 are perhaps the two single most important statutes related to the importation, production, use and disposal of chemicals. Both pieces of legislation have promulgated several important regulations to facilitate their implementation.

Because of the Environmental Protection Act's overarching responsibility for environmental protection and pollution control its mandate covers all classes of chemicals although there are other pieces of legislation that are specific to various groups of chemicals. Pesticides are specifically regulated by the Pesticide Control Act; explosives and petroleum products are regulated under the Dangerous Goods Act; and under the Belize Agricultural Health Authority (BAHA) Act (Chapter 211, Revised Edition 2003) the use and production of agro-chemicals other than pesticides, animal products, animal feeds and fertilizers is regulated.

There are several other pieces of legislation that do not specifically target the importation, production, transport, use and disposal of chemicals but which have provisions that are incidental and important to their integrated management.

The need of restructuring policy and re-organizing the chemicals policy and regulations as well as optimizing and strengthening the existing limited resources for management of chemicals with special emphasis on the importation, production, use and disposal of hazardous chemicals has been well recognized by the key government institutions.

A systematic and phased approach to strengthen the policy and regulative framework when it comes to chemicals management is actively being undertaken supported by projects co-funded by SAICM Quick Start Program. The projects, in cooperation with UNDP and UNEP, are supporting the mainstreaming of chemicals management into national and sector development plans as well as chemicals management policy and regulative infrastructures.

The projects have already improved the coordination among key stakeholders. In addition, proposal for a new national chemicals policy including National Integrated Chemicals Management Act as well administrative structures in form of National Integrated Chemicals Management Authority has been proposed.

The new regulative system is proposed to divide the chemicals on the market into three categories of chemicals i) Agricultural chemicals (pesticides, veterinary drugs, fertilizers), ii) Consumer chemicals (pharmaceutical drugs, poisons and cosmetics) and iii) Industrial chemicals. All these groups of chemicals are important from a POPs management perspective. Therefore, the detailed regulative and administrative structures as well as implementation of Consumer and Industrial Chemicals will be supported by the current project, while the Agricultural chemicals work will be supported by a separate regional project in the realm of FAO.

POPs management in Belize

The Stockholm Convention on Persistent Organic Pollutants (POPs) was adopted in May 2001 with the objective of protecting human health and the environment from toxic and hazardous POPs listed chemicals and wastes. It entered into force in May 2004.

The convention initially covered twelve (12) POPs chemicals – so called “dirty dozen”. At its fourth meeting of the Conference of Parties (COP) in May 2009, the Stockholm Convention was amended to include nine (9) new POPs in Annex A1 and Annex B2. The amendments entered into force for most of the Stockholm Convention Parties on 26 August 2010. Further, one additional amendment (endosulfan chemical listed in Annex A) was introduced in May 2011 at the fifth (5th) COP.

According to Article 7 of the Convention, Parties are required to develop National Implementation Plans (NIP) to demonstrate how they intend to implement obligations assumed under the Stockholm Convention. According to existing rules, each Party should develop and submit the NIP within two (2) years from ratification. In compliance to the above, Belize ratified the Stockholm Convention on November 9, 2007.

The first NIP, prepared with GEF assistance, addressing the inventories and strategic action plan for the initial twelve (12) POPs, was developed by the Department of Environment. After formulation works were completed in 2009, the NIP was officially transmitted to the Stockholm Convention’s Secretariat on December 8, 2009, which allowed for additional preparation of follow-up capacity building and investment programmes for safe POPs management in Belize.

The Initial National Implementation Plan (POPS NIP) submitted in March 2011 was based on the results of inventories of chemicals with POPs characteristics, which were carried out during 2005-2009 period, and those covered storages of

obsolete and unwanted pesticides, PCB- containing equipment, releases of dioxins and furans (calculated on the basis of production figures and the UNEP toolkit methodology) as well as POPs-polluted sites.

The NIP investigation revealed that despite of regulatory and capacity constraints in managing chemicals, POPs were not extensively used in Belize. Only a 15-metric ton stockpile of DDT was inventoried, and no PCBs were reported.

Waste incineration and uncontrolled burning as part of agricultural practices stood for the 95% of the estimated total of 84 g I-TEQ PCDD/Fs releases in Belize.

As a direct result of NIP formulation, the following priorities were identified for POPs in Belize:

1. Amendment of the Existing Legal Instruments and Strengthening Pesticides Law Enforcement
2. Strengthening the Capacity to Handle POPs Pesticides and Contaminated Sites
3. Raising Awareness of POPs Pesticides with Particular Reference to Waste and Contaminated Sites
4. Undertaking Ecologically Sound Measures to Eliminate Obsolete POP Pesticides

1 Listed chemicals in Annex A: Alpha hexachlorocyclohexane, Beta hexachlorocyclohexane, Chloredecone, Hexabromobiphenyl, Hexabromodiphenyl

ether and Heptabromodiphenyl ether, Lindane, Pentachlorobenzene (also listed in Annex C), Tetrabromodiphenyl ether and Pentabromodiphenyl ether.

2 Perfluorooctane sulfonic acid (PFOS), its salts and Perfluorooctane sulfonyl fluoride.

With respect to other wastes and unintentionally produced POPs (UPOPs; primarily dioxins and furans), the NIP noted the need for:

- I. Policy and Legal Framework for the Management of Unintentionally Produced POPs (UPOPs)
- II. Capacity Building and Technical Support
- III. Municipal and Hazardous Waste Management
- IV. Public Awareness and Technical Networking
- V. Landfills and Hazardous Waste Co-incineration
- VI. Inventory of Unintentionally Produced POPs
- VII. Medical Wastes Management

It should be noted that consequent work on POPs have identified that the DDT stockpile is totalling in 21 metric tons and have been transferred to drums stored for export disposal. In addition, one industrial company has in its possession a stockpile of 6-7 tons of low contaminated (assumedly around 100 ppm) PCB oil in drums. The oil is flush oil from a former PCB transformer, which was disposed long time ago.

Waste management

In addition to the specific POPs and chemicals waste issues, a significant part of municipal waste management, is challenging and gives raise to POPs emissions particularly from uncontrolled burning of waste dumps.

Solid waste management in Belize has been recognized for over two decades as an area of national attention. Yet, inadequate waste collection system, and improper discharge of wastes in open or partially controlled dumps lacking technical and environmental controls still persist.

The inadequacy of the waste disposal practices on the offshore islands has been become particularly worrisome due to their proximity to biodiversity-rich coral reefs and their importance to the eco-tourism market.

The technical challenges faced by Belize for managing its wastes stem from growing volumes of waste, insufficient waste collection services, inexistent waste separation and recycling programs, and insufficient capacity and inadequate management practices at the disposal sites.

To tackle the problem, the Government established the Solid Waste Management Authority (SWMA), the preparation of the Solid Waste Management Plan (SWMP), and institutional and financial sustainability assessments that would pave the ground for new investments. The on the ground action initially

tackles the geographic central part of the country, the Western Corridor, including the main islands or Keys in the barrier reef.

The total population served along the Western Corridor (Belize City, San Ignacio/Santa Elena and the islands of San Pedro and Caye Caulker) is 119,000 people, which accounts for 40% of the total population of Belize.

The total volume of waste generated in this area is estimated to 119 tons/day (around 70% of the total waste generation in Belize). Belize City generates 80 tons/day (based on 7 days/week count), accounting for 67% of total waste generated. The islands (San Pedro and Caye Caulker) generate almost 19 tons/day (16% of total waste). San Ignacio/Santa Elena generates 20 tons/day, (17% of total waste). Waste generation projections indicate that the volume of domestic solid waste that will be generated is expected to increase to 203 tons/day in 2023.

Waste collection in Belize City is carried out by one private operator who collects more than 90% of the solid waste generated. The operator also collects between 10% and 15% of the commercial garbage, as well as special wastes (e.g. healthcare waste, animal carcasses, etc.).

At least five illegal operators collect garbage from commercial users for a lower fee and, to avoid a fee at the gate of Mile 3, dump the collected garbage in random locations that are often burning.

To remediate the municipal waste management situation in the Western Corridor the MNR&A and the Solid Waste Management Authority are implementing a Solid Waste Management Project with a budget of US\$14,789,000. The project consists of:

1. Belize City Closure of open dumpsite at Mile 3/3.5 and construction of a transfer station.
2. Construction of a Regional Sanitary Landfill at Mile 24 on the Western Highway including municipal solid waste cell, hazardous waste cell, leachate ponds and lagoons, sedimentation ponds, weight bridge/wheel wash facility, administrative building, internal access road and ancillary facilities.
3. Closure of the open dumpsites serving San Ignacio/Santa Elena, Caye Caulker and San Pedro Ambergris Caye and construction of transfer stations.
4. Institutional Strengthening with staff development as well as consultancies on Design Build Engineer, Social Communication Strategy, Tariff Specialist, Auditing

While the overall Management of Solid Waste (MSW) management initiative along the Western Corridor has been successful so far there are some important gaps in the system particularly at semi-official waste sites/dumpsites at Belmopan and Boom that allows for dumping of waste (partly circumventing the official waste collection in Belize City) and continued releases of UPOPs. Proper waste disposal and discontinuation of uncontrolled waste burning with resulting UPOPs emissions at these sites will be supported by the project and the GEF co-financing.

Uncontrolled burning in Sugar Cane production

Together with uncontrolled burning of waste, agricultural practices linked with sugar cane cultivation constitute major UPOPs sources in Belize.

Sugarcane is cultivated in the northern districts of Belize around the towns of Corozal and Orange Walk. Altogether 66,000 acres are under cultivation resulting in a harvest of around 1.2 million tons of sugar cane. The cane is to a large extent is harvested by hand. Almost all (more than 90%) of cane fields are burned as a part of pre-harvesting field preparation practices. The reasons for pre-harvest burning can be summarized as labour productivity and efficiency gains as well as labour safety particularly in form of snake bite prevention. The post-harvest burning is done in order to clear land from debris as well as for pest management particularly management of the froghoppers, an insect that has caused up to 70% loss of harvest in some fields.

Since adoption of the NIP the UPOPs emission factors for sugar cane cultivation has been revised. With today's best knowledge the burning of 1,1 million tons of cane in post-harvest results in around 4.5 g I-TEQ/a UPOPs emission which, together with the biomass burnt for land clearing totals 5 g I-TEQ/a emissions.

The sugarcane cultivation is facing major serious economic and profitability challenges. The reasons for these are many fold including changes in European Union's sugar regime and increased input costs. To meet these challenge, the Belize Country Adaptation Strategy for the Sugar Industry 2006-2015 outlined various interventions geared towards increasing industry productivity and competitiveness; diversification within the sugar industry (including the BELCOGEN project) as well as diversification of the agricultural base; socio-economic interventions; and projects for sustainable industry development.

For example, in order to increase efficiency in cane production, the strategy proposes to start a crop rehabilitation programme to include irrigation and drainage, encourage mechanical harvesting and upgrading of agricultural equipment, activate the Belize Sugar Industry Research and Development Institute (SIRDI) and establish a revolving loan credit facility.

Mechanical harvesting without cane burning is already undertaken at Belize Sugar Industries (BSI) fields consisting of around 3,300 acres. There are several reasons that pressure small farmers and their harvest groups to adapt such green harvesting strategies. Apart from UPOPs control, the increased labour costs as well as the Fairtrade standards that are considering expelling sugar made through burn harvesting from its scope are encouraging farmers to find new techniques for harvesting and other agricultural practices.

II. Barriers

The main barriers which presently prevent sound management of POPs including Unintentional POPs releases, are considered to be the following:

- Limited regulatory framework: Despite recent and ongoing activities to strengthen the legal framework for chemicals including POPs, the regulations are not at a level that which would underpin a sustainable POPs management. The main deficiencies and consequent barriers lie in practically non-existent industrial chemicals regulations;
- Insufficient systemic and institutional capacity: lack of a coordinated, cross-cutting and comprehensive system for sound waste and chemicals management, limited collaboration between government authorities, private service providers, and stakeholders such as waste generators;
- Professional and Technical limitations: Sound chemicals management approaches and schemes are novelties in the Belize system. Therefore, there is a lack of expertise and experience in dealing with chemicals and POPs management from regulatory development and administrative angles. These limitations exist also in practical issues such as contracting of POPs disposal and associated procedures
- Financial limitations: With IABD financed solid waste initiative, some of the most urgent municipal solid waste issues have started to be addressed. Unfortunately, there are some gaps in the scheme that are not financially covered and give rise to high UPOPs emissions. Further, no finances are available for safe POPs disposal. Also, the green harvesting among small scale sugar cane farmers require some initial investments which are beyond current possibilities.
- Information and awareness barriers: scarce knowledge on UPOPs impacts, no register and monitoring of UPOPs releases to understand the scope of the problem, poor understanding of the linkages between problematic chemical management areas and human health/environmental quality, inadequate knowledge of socio-economic benefits associated with sound waste and chemicals management.

III. Stakeholder analysis

During the NIP development and the preparation of the current project, a stakeholder analysis was performed. The table below shows the analysis of jurisdiction mandates and of line ministries and other governmental bodies that

deal with and are responsible for various aspects of POPs management as per current legislation.

Responsibilities of the ministries and departments strongly depend on the Government determined mandates. Their functions and scope of competences are directed to certain areas of expertise, such as resource management, environment protection, agriculture, industrial safety and occupational health.

From the analysis made it became evident that from the list of government authorities the Department of Environment covers the largest number of POPs related functions, including external country reporting on the obligations under chemical related MEAs. This is in, addition to sector responsibilities in chemicals. It is the reason to select DOE as the prime coordinating institution for the project implementation stage. For implementation of technical components of the programme, coordination with the other line ministries such as Ministry of Economic Development and Industry, Ministry of Health and Ministry of Agriculture is imperative. Another essential aspect is ensuring involvement of the NGO community active in the area of work in the project implementation.

Table 1. Responsibilities of governmental institutions for inventory and control over the use of chemical substances.

Institution	Pesticide POPS	PCB	U-POPs	POPs of Industrial relevance
Department of the Environment	+	+	+	+
Ministry of Health	+			
Ministry of Economic Development Industry and Consumer Protection	+	+	+	+
Ministry of Agriculture	+		+	
Ministry of Labour and Social Protection				+
Customs & Excise Department under Ministry of Finance		+		
Ministry of Foreign Affairs				
Industries, industrial Association	+	+	+	+
NGOs	+	+	+	+
Farmer and Agricultural	+			

IV. Linkages with ongoing projects and country drivenness

The commitment of the Government of Belize to the principles of sound chemicals and hazardous waste management has been confirmed with the country's ratification of the Stockholm (2007), Basel (2003) and Rotterdam

(2007) Conventions. Belize also participates in the SAICM initiative and has a designated focal point for coordination of such activities.

Embedded in such forward-looking country positioning, the proposed initiative (current project) is also in line with current national environmental policies which focus on reducing pollution and eliminating related anthropogenic pressures and impacts to the natural and human environment.

The project is closely aligned with national environmental strategies and plans primarily the National Environmental Action Plan and the Belize Medium Term Development Strategy 2010 – 2013, particularly with

c. Need for review and strengthening of existing institutional management systems with emphasis placed on Belize's national chemical management framework and legislation to allow for greater coordination and collaboration among agencies and a need to ensure the enforcement of the occupation safety and health (OSH) Act.

i. Need to invest in technology and irrigation and provide technical support to farmers while promoting the use of greener pesticides. Provide —Go Green!! Incentives to businesses, schools and society e.g.: for recycling products.

More specifically, the project's approach is consistent and builds upon:

SAICM's Quick Start Programme (QSP) supported UNDP/UNEP Partnership Initiative for the Integration of Sound Management of Chemicals in Development Planning and Processes. It aims at improving cross-sector governance for achieving more effective management of chemicals priorities in the country.

Belize/UNEP partnership on development of a coherent legal and institutional framework in Belize for the sound management of chemicals aiming at development of a plan for introducing coherent legal and institutional infrastructures in Belize including sustainable funding of public chemicals management activities through economic instruments, where appropriate.

GEF/ UNIDO Regional Project on Development and Implementation of a Sustainable Management Mechanism for POPs in the Caribbean, which will provide training and capacity building through the Basel Convention Regional Centre for Training and Technology Transfer for the Caribbean Region (BCRC-Caribbean).

For POPs pesticides the coordination will be ensured with a recently proposed GEF/FAO regional project on Disposal of Obsolete Pesticides including POPs, Promotion of Alternatives and Strengthening Pesticides Management in the Caribbean. While the actual disposal of known POPs waste in Belize that contain DDT used in vector control and PCBs will be disposed through this

project, the remaining work on agricultural POPs pesticides such regulatory strengthening, capacity building, pesticide container management etc. will be in the realm of the regional project.

V. Strategy

This project aims to assist the country in implementing its relevant obligations under the Stockholm Convention, in particular to reduce the releases of UPOPs, as well as to build country's capacity, in line with the GEF objectives. This will be accomplished through 2 principal project components. The project will include information dissemination and awareness- raising on key aspects of the project's work.

Component 1: Regulatory Strengthening and Environmentally sound management of chemicals and waste, including POPs
(GEF \$ 249,000 finance; co-finance - \$300,000)

Outcome 1.1: Institutional capacities strengthened through enhanced policies and regulatory framework supporting sound management of chemical life cycle

The following activities will be carried out to deliver Outcome 1.1:

Activity 1.1.1: Development of a coherent Legal and Institutional framework for the sound management of chemicals in Belize

Activity 1.1.2: Industrial chemicals regulation developed in order to develop and incorporate enabling control regulations for Polychlorinated Biphenyls (PCB) and their standard operating procedures in the legal framework.

Activity 1.1.3: National regulatory instruments on consumer chemicals, including pharmaceuticals, cosmetics and pre-cursor chemicals revised and updated to address POPs waste, UPOPs, mercury and other hazardous chemicals

Activity 1.1.4. Regulations for rural solid waste stream management developed.

Activity 1.1.5. Chemicals regulation and solid waste management compliance promotion and enforcement rules legislated and capacities for enforcement enhanced

Outcome 1.2: Management and disposal of existing POPs waste

This outcome will work towards safe management and disposal of the identified intentionally produced POPs stockpiles in Belize. The stockpiles consist of both PCB and DDT that are in the ownership of private sector and Ministry of Health.

The DDT stockpile has been previously packed by a regional project for export disposal. The PCB containing oil needs however to be repacked before shipment. The activities to be undertaken under this project component consists of:

Activity 1.2.1. Training in buyer's competence for disposal services for hazardous waste, including POPs as well as safe practices for handling, packing and transportation.

Activity 1.2.2. Repacking and disposal of obsolete PCB and DDT stockpiles as well as associated waste through export to a dedicated facility.

The GEF co-finance will be mainly used for development of POPs specific regulations and guidelines as well as base regulation for these aligned with the Stockholm Convention requirements in order to guarantee that POPs issues become integrated in regulations and policies. The funding will be further used for technical assistance to raise capacities for chemicals management regulations and their enforcement as well as ensuring safe transport and disposal of the identified POPs chemicals in Belize

National finance will be used for development of framework chemicals management policies, Acts and Bills as well as institutional infrastructure for sound chemical management for providing a sound regulatory and administrative structure for POPs management. This will include, in addition to monetary funding, considerable professional input both from public and private sectors particularly when it comes to operationalizing the POPs regulations and re-packaging and disposing of POPs chemicals.

Component 2: UPOPs release reduction in waste management operations and agriculture

(GEF - \$ 610,000 finance; co-finance - \$5,160,000)

As envisioned in the project concept stage, this project component will work towards ensuring that the municipal waste management in the Western Corridor area will be upgraded to modern standards without uncontrolled burning and resulting Unintentional POPs emissions. The back bone of this will consist of the overarching Solid Waste Management Project complemented with key activities that will ensure that no gaps and possibilities for systematic uncontrolled burning can take place in the Western Corridor area and that potentially high POPs release resulting waste is clearly separated.

In the agricultural sector, green harvesting with underlying field improvements as well as expert, technical and technological assistance will enable smaller scale cooperative sugar cane farmers to stop burning of the cane fields pre-and post-harvest with increased yields and decreased inputs.

Outcome 2.1: Measureable reduction in dioxin release from formal and informal waste dumps

The main cluster of activities to contribute this outcome is the Western Corridor Solid Waste Management Project by the MNR&A and the Solid Waste Management Authority completed with additional activities in closure of the waste dumps in Belmopan and Boom. This, with corresponding measures at the waste sites to separate hazardous and high POPs releasing waste fractions such as electric and computing equipment casings at waste transfer centers will result in considerable POPs release reduction.

Activity 1.2.2. Will consist of i) Belize City Closure of open dumpsite at Mile 3/3.5 and construction of a transfer station. ii) Construction of a Regional Sanitary Landfill at Mile 24 on the Western Highway including municipal solid waste cell, hazardous waste cell, leachate ponds and lagoons, sedimentation ponds, weight bridge/wheel wash facility, administrative building, internal access road and ancillary facilities. iii) Closure of the open dumpsites serving San Ignacio/Santa Elena, Caye Caulker, San Pedro Ambergris Caye, Belmopan and Boom as well as construction of transfer stations and associated infrastructure. iv) Institutional Strengthening with staff development as well as consultancies on Design Build Engineer, Social Communication Strategy, Tariff Specialist, Auditing

Activity 1.2.2. Waste separation procedures for planned new solid waste management facilities, the transfer station and regional landfill, include consideration of POPs and other hazardous chemical wastes within the solid waste stream.

Outcome 2.2: Reduction of UPOPs releases from uncontrolled, open burning of agricultural and other wastes

This outcome will work towards a gradual shift among small scale cane growers towards agricultural practices that ends the need for burning of the cane fields before and after harvest. The approach will be initially tested in one sugar cane harvest group and is expected to be extended to cover one harvest branch, paving way for further replication by the end of the project.

The replication efforts supported by Activity 1.2.2. including agricultural and demand policy changes will result in permanent and sustainable switch from burning of sugar cane to Green harvesting.

Activity 2.2.1. Piloted alternatives to agricultural burning in sugar cane farming. This will entail technical assistance towards preparing fields suitable for such harvesting, the actual field preparation, introduction of small scale mechanical harvesting approaches and technologies, preferably by technologies recently developed in the LAC region as well as technical assistance and implementation of appropriate pest management approaches as well as post-harvest action.

Activity 2.2.2. Promotion of farmer voluntary programmes and guidelines regulating agricultural burning, will consist of action to replicate the approaches introduced in Activity.2.2.1. widely in the sugarcane farming community. The work will on develop guidelines of introducing Green Harvesting as well as discuss the inclusion of these in Fairtrade and other preferential trading schemes that are considering environmental benefits.

Component 3: Monitoring, learning, adaptive feedback, outreach, and evaluation (GEF - \$ 41,000 finance; co-finance - \$86,000)

The component aims at monitoring and evaluation of results achieved to improve the implementation of the project and disseminate lessons learnt domestically and internationally. The outputs of the component are:

- M&E and adaptive management are applied to provide feedback to the project coordination process to capitalize on the project needs; and
- Lessons learned and best practices are accumulated, summarized and replicated at the country level.

Further details are provided in chapter IX. Monitoring Framework and Evaluation.

VI. Incremental reasoning and benefits

The project is designed in a manner that supports both national development objectives as well as contributes towards global environmental benefits. The project is expected to lead to the following important results that are incremental for the global environment:

- Through capacity building, the authorities responsible for international agreement compliance are better positioned to manage POPs and report on progress;
- The country's legal and institutional framework is reviewed and updated to address both intentionally produced POPs as well as unintentional POPs releases;
- POPs releases and risks are reduced through technical assistance, dedicated investment support demonstrating waste approaches and technologies, improved regulatory framework as well as enforced technical guidelines.

Overall, the project reduces barriers to the implementation of the Stockholm Convention on Persistent Organic Pollutants and integrates POPs management into overall country environmental and health policies. Thus, this project would promote a more holistic approach to the issue of chemicals and waste management and, through this, promote environmentally sound and sustainable development in the country.

Incremental cost reasoning and global environmental benefits: In the baseline scenario, the awareness of decision-makers of the economic and social benefits for promoting sound POPs management is not high enough to lead to substantial improvements in the country.

Even though there is a will to update the chemicals regulatory framework, there is a concern that, without a comprehensive understanding of chemical safety aspects, such regulatory changes made would yet again be too narrow in scope and not comprehensive enough associated enforcement gaps, and leave certain sectors and chemicals such as POPs unaccounted for. GEF support is also incremental in improving the country's institutional capacity to address the UPOPs challenges.

The intentional POPs waste stockpile, consisting of DDT and PCB contaminated oils, would not be solved without the project interventions due to lack of technical expertise and financial assets.

In the Baseline scenario, there will be improvements to Belize municipal waste management but the approach is not comprehensive enough for allowing the UPOPs release reduction to be optimized. Indeed, without the project there would be several locations where uncontrolled burning would continue. Only through a concerted effort and financing from local and GEF resources all loopholes and gaps, particularly informal dumps, will be brought under control.

The small-scale sugar cane farmers would not get the push and incentives for introducing the Green Harvesting without the project. There may be some increase under non-burning agricultural practices as larger scale sugar estate owned areas would increase acreage under such cultivation.

The Global Environment Benefit from the project would consist of the safe disposal of 21 tons DDT and associated waste and the newly identified 7 tons of PCB contaminated oil as well as reduction of UPOPs into the global environment.

The GEB in form of UPOPs reduction will result from action stopping uncontrolled waste burning by integrating these into the overall waste management structure. During the project, it can be expected that 95 % of all uncontrolled burning in the Western Corridor can be integrated into the overall system through GEF and Baseline project action. Some minor burning of waste may still be happening in smaller municipalities without appropriate collection systems.

The initial UPOPs inventory had a very optimistic figure of the share of uncontrollably burnt waste at landfill sites. As the project will address both urban and rural waste in the Western Corridor it can be expected that (such actions will) correspond to (reduction of) approximately 5.7 g I-TEQ in air and 11.5 g I-TEQ in land releases of UPOPs. The contribution from changing agricultural practices towards non-burn practices is expected to reduce UPOPs releases with around 1

g I-TEQ both in air and land releases. Overall the project will reduce around 8 g I-TEQ of UPOPs releases to air and some 12 g I-TEQ to land per year.

VII. Replicability

The project activities are designed in a way that encourages replication. First of all, the project will support the Government of Belize in harmonization of its policies and legislative framework with international conventions and standards. While these are one-off activities they will require updates and applications in similar related fields. This will increase the sustainability of the regulatory system.

The increased capacity of managing hazardous POPs waste will provide a useful knowledge raising that can be replicated in if and when additional or new POPs waste are identified in the country. It should be noted that the capacity increase will be extremely useful in implementing Belize's other international obligations in the framework of Minamata and Basel Conventions.

The approaches tried out in ameliorating the municipal waste management and associated UPOPs release are directly replicable in other parts of the country particularly in the north and south where there are urban centers. The expansion and replication will require considerable additional financial resources but the approach used in the current project is technically valid.

The project activity area dealing with biomass burning as part of sugarcane cultivation is intentionally designed to be replicable. The project will start working with one harvesting group with the aim of having converted a district branch of harvesting groups into Green Harvesting by the end of the project. With the increased technical and scalability understanding coupled with Fairtrade and other financial resources a replication to full sugarcane growers' division can be achieved as well as a further replication to cover both sugar growing districts of Orange Walk and Corozal.

VIII. Management Arrangements

Department of Environment is primarily responsible for the national waste and chemicals management policy and standards; therefore, it will be the main executing and project coordinating agency.

It should be noted that project execution will be coordinated with the Solid Waste Management Authority, the Department of Agriculture, Ministry of Health and the Pesticide Control Board. The involvement of these entities is key to ensure the alignment of proposed actions with ongoing as well as planned policies and interventions.

The supporting entities mentioned above will constitute the Project Execution Group which provides specific guidance and direction to project implementation as well as provides oversight of technical elements of the proposed initiative.

Outside direction and oversight will be provided by a **Project Steering Committee** consisting of the National Project Director – customarily the Head of Environment Department, whom is the chairperson of the committee, as well as senior representatives of the Ministries, NGOs as well as UNDP. This committee will provide management decisions when guidance is required by the Project Manager. The Project Steering Committee will also have final authority on matters requiring official review and approval, including annual work plans, budgets, and key hires.

This broad constituency, initially assembled in context of the Belize-UNDP-UNEP Cooperation Project, will continue to be engaged by this project and serve as its Project Steering Committee. Its participation includes:

- Belize Agricultural Health Authority
- Belize Customs & Excise Department
- Belize SAICM Initiative
- Caribbean Agricultural Research & Development Institute
- Department of the Environment– (Chairperson)
- Fabrigas Belize Ltd.
- Ministry of Economic Development, Industry and Consumer Protection
- Ministry of Health,
- Pesticides Control Board
- Prosser Fertilizer and Agrotec Co. Ltd
- United Nations Development Programme

The day-to-day activities of the project will be carried out by a part-time Project Manager and full-time Project/Financial Assistant, to be hired immediately upon project initiation. They will work under the support and direct oversight of Department of Environment. National and international consultant services, including the contracted services of firms as well as individuals, will be engaged across all components in various technical areas, including policy and standards development, healthcare waste management program development and implementation, market assessment, education and outreach, and demonstration project design, implementation, and evaluation.

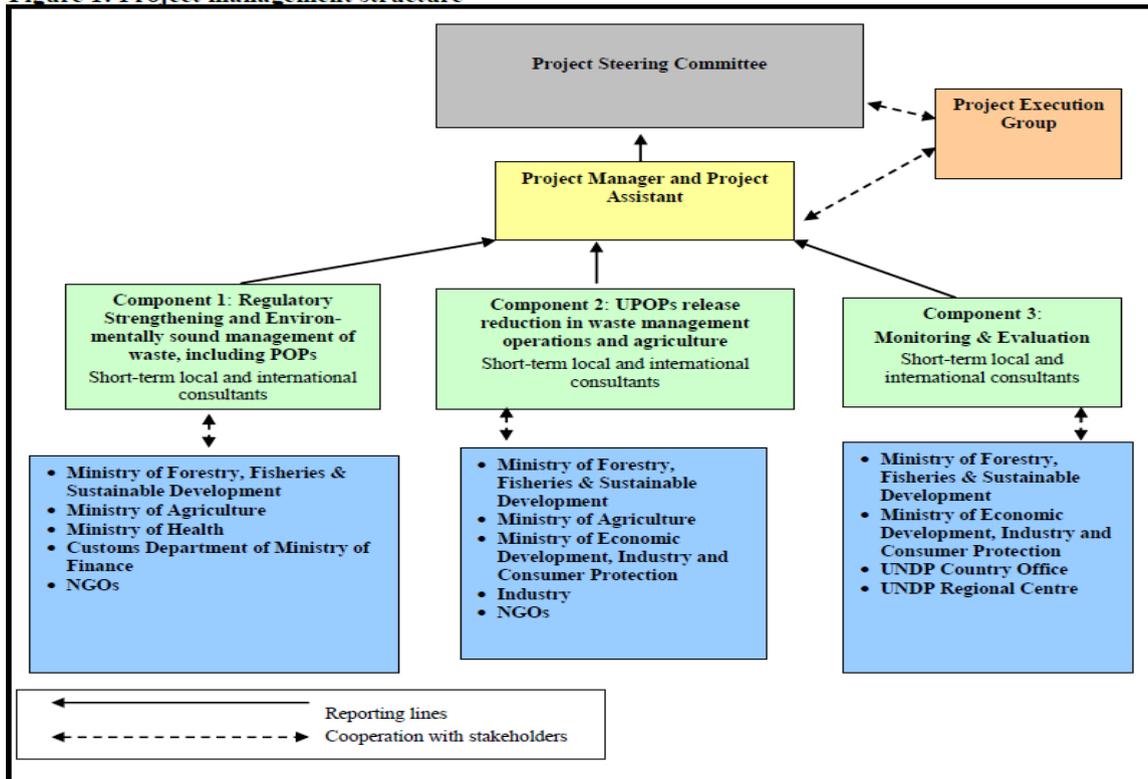
UNDP will act as GEF Implementing Agency for this Project. The project builds on UNDP's strong experience in Belize and in Central America with promoting environmental protection, and building capacity of governmental organizations and the general public. UNDP has conducted recent projects in Belize in diverse environment subject areas, including climate change; renewable energy; biodiversity protection; disaster risk reduction; integrated water resources management and sustainable land management; waste and chemicals management.

UNDP also supports national partners in areas related to inclusive development, democratic governance and other areas.

UNDP's Country Office in Belize will be responsible for ensuring transparency, appropriate conduct and financial responsibility. This office will oversee annual financial audits, as well as the execution of independent Project Midterm and Terminal Evaluations. All financial transactions and agreements, including contracts with staff and consultants, will follow the rules and regulations of United Nations. The UNDP Regional Coordinating Unit will provide regular programmatic and administrative oversight as well.

Figure 1: Project management structure

Figure 1: Project management structure



IX. Monitoring Framework and Evaluation

The project will be monitored through the following M&E activities. The M&E budget is provided in the table below.

Project start:

A Project Inception Workshop will be held within the first two months of project start with those with assigned roles in the project organization structure, UNDP country office and where appropriate/feasible regional technical policy and programme advisors as well as other stakeholders. The Inception Workshop is crucial to building ownership for the project results and to plan the first year annual work plan.

The Inception Workshop should address a number of key issues including:

- a) Assist all partners to fully understand and take ownership of the project. Detail the roles, support services and complementary responsibilities of UNDP CO and RCU staff vis-à-vis the project team. Discuss the roles, functions, and responsibilities within the project's decision-making structures, including reporting and communication lines, and conflict resolution mechanisms. The Terms of Reference for project staff will be discussed again as needed.
- b) Based on the project results framework and the relevant GEF Tracking Tool if appropriate, finalize the first annual work plan. Review and agree on the indicators, targets and their means of verification, and recheck assumptions and risks.
- c) Provide a detailed overview of reporting, monitoring and evaluation (M&E) requirements. The Monitoring and Evaluation work plan and budget should be agreed and scheduled.
- d) Discuss financial reporting procedures and obligations, and arrangements for annual audit.
- e) Plan and schedule Project Steering Committee meetings. Roles and responsibilities of all project organization structures should be clarified and meetings planned. The first Project Steering Committee meeting should be held within the first 12 months following the inception workshop.

An Inception Workshop report is a key reference document and must be prepared and shared with participants to formalize various agreements and plans decided during the meeting.

Quarterly:

- Progress made shall be monitored in the UNDP Enhanced Results Based Management Platform.
- Based on the initial risk analysis submitted, the risk log shall be regularly updated in ATLAS. Risks become critical when the impact and probability are high. Based on the information recorded in Atlas, a Project Progress Reports (PPR) can be generated in the Executive Snapshot.
- Other ATLAS logs can be used to monitor issues, lessons learned etc. The use of these functions is a key indicator in the UNDP Executive Balanced Scorecard.

Annually:

- Annual Project Review/Project Implementation Reports (APR/PIR):
This key report is prepared to monitor progress made since project start and in particular for the previous reporting period (30 June to 1 July). The APR/PIR combines both UNDP and GEF reporting requirements.

The APR/PIR includes, but is not limited to, reporting on the following:

- Progress made toward project objective and project outcomes - each with indicators, baseline data and end-of-project targets (cumulative)
- Project outputs delivered per project outcome (annual).
- Lesson learned/good practice.
- AWP and other expenditure reports
- Risk and adaptive management
- ATLAS QPR
- Portfolio level indicators (i.e. GEF focal area tracking tools) are used by most focal areas on an annual basis as well.

Periodic Monitoring through site visits:

UNDP CO and the UNDP RCU will conduct visits to project sites based on the agreed schedule in the project's Inception Report/Annual Work Plan to assess first hand project progress. Other members of the Project Board may also join these visits. A Field Visit Report/BTOR will be prepared by the CO and UNDP RCU and will be circulated no less than one month after the visit to the project team and Project Board members.

Mid-term of project cycle:

The project will undergo an independent Mid-Term Evaluation at the mid-point of project implementation (approximately end 2015). The Mid-Term Evaluation will determine progress being made toward the achievement of outcomes and will identify course correction if needed. It will focus on the effectiveness, efficiency

and timeliness of project implementation; will highlight issues requiring decisions and actions; and will present initial lessons learned about project design, implementation and management. Findings of this review will be incorporated as recommendations for enhanced implementation during the final half of the project's term. The organization, terms of reference and timing of the mid-term evaluation will be decided after consultation between the parties to the project document. The Terms of Reference for this Mid-term evaluation will be prepared by the UNDP CO based on guidance from the Regional Coordinating Unit and UNDP-GEF. The management response and the evaluation will be uploaded to UNDP corporate systems, in particular the UNDP Evaluation Office Evaluation Resource Center (ERC).

The relevant GEF Focal Area Tracking Tools will also be completed during the mid-term evaluation cycle.

End of Project:

An independent Final Evaluation will take place three months prior to the final Project Board meeting and will be undertaken in accordance with UNDP and GEF guidance. The final evaluation will focus on the delivery of the project's results as initially planned (and as corrected after the mid-term evaluation, if any such correction took place). The final evaluation will look at impact and sustainability of results, including the contribution to capacity development and the achievement of global environmental benefits/goals. The Terms of Reference for this evaluation will be prepared by the UNDP CO based on guidance from the Regional Coordinating Unit and UNDP-GEF.

The Terminal Evaluation should also provide recommendations for follow-up activities and requires a management response which should be uploaded to PIMS and to the UNDP Evaluation Office Evaluation Resource Center (ERC).

The relevant GEF Focal Area Tracking Tools will also be completed during the final evaluation.

During the last three months, the project team will prepare the Project Terminal Report. This comprehensive report will summarize the results achieved (objectives, outcomes, outputs), lessons learned, problems met and areas where results may not have been achieved. It will also lay out recommendations for any further steps that may need to be taken to ensure sustainability and replicability of the project's results.

Audit: The project will undergo annual audit by a certified auditor according to UNDP rules and regulations, policies and procedures.

Learning and knowledge sharing:

Results from the project will be disseminated within and beyond the project intervention zone through existing information sharing networks and forums.

The project will identify and participate, as relevant and appropriate, in scientific, policy-based and/or any other networks, which may be of benefit to project implementation though lessons learned. The project will identify, analyze, and share lessons learned that might be beneficial in the design and implementation of similar future projects.

Finally, there will be a two-way flow of information between this project and other projects of a similar focus.

Communications and visibility requirements:

Full compliance is required with UNDP's Branding Guidelines. These can be accessed at <http://intra.undp.org/coa/branding.shtml>, and specific guidelines on UNDP logo use can be accessed at: <http://intra.undp.org/branding/useOfLogo.html>. Amongst other things, these guidelines describe when and how the UNDP logo needs to be used, as well as how the logos of donors to UNDP projects needs to be used. For the avoidance of any doubt, when logo use is required, the UNDP logo needs to be used alongside the GEF logo. The GEF logo can be accessed at: http://www.thegef.org/gef/GEF_logo. The UNDP logo can be accessed at <http://intra.undp.org/coa/branding.shtml>.

Full compliance is also required with the GEF's Communication and Visibility Guidelines (the "GEF Guidelines"). The GEF Guidelines can be accessed at: http://www.thegef.org/gef/sites/thegef.org/files/documents/C.40.08_Branding_the_GEF%20final_0.pdf. Amongst other things, the GEF Guidelines describe when and how the GEF logo needs to be used in project publications, vehicles, supplies and other project equipment. The GEF Guidelines also describe other GEF promotional requirements regarding press releases, press conferences, press visits, visits by Government officials, productions and other promotional items.

Where other agencies and project partners have provided support through co-financing, their branding policies and requirements should be similarly applied.

Monitoring Framework and Evaluation, and Budget

<i>Type of M&E activity</i>	<i>Responsible Parties</i>	<i>Budget (US\$) excluding project staff time; all figures are indicative</i>	<i>Time frame</i>
Inception Workshop (IW) & associated arrangements	<ul style="list-style-type: none"> ▪ Project Manager (PM) ▪ UNDP CO 	2,000	Within first two months of project start up
Inception Report	<ul style="list-style-type: none"> ▪ Project Team ▪ UNDP CO ▪ National and international consultant support if needed 	0 (included in routine project staff activity)	Immediately following IW
APR/PIR	<ul style="list-style-type: none"> ▪ PM ▪ UNDP CO 	0 (included in routine project staff activity)	Annually
Meetings of Steering Committee and relevant meeting proceedings (minutes)	<ul style="list-style-type: none"> ▪ PM ▪ UNDP CO National implementing agency	1,000	Once a year, ideally immediately following Technical Advisory Board meetings
	<ul style="list-style-type: none"> ▪ UNDP CO 	Evaluation, above)	project
Compilation of lessons learned	<ul style="list-style-type: none"> ▪ Project team ▪ UNDP CO ▪ UNDP/GEF RCU 	0 (included in routine project staff activity)	Annually
Financial audit	<ul style="list-style-type: none"> ▪ UNDP CO ▪ Project team ▪ External auditors 	3,000	Annually
Visits to field sites	<ul style="list-style-type: none"> ▪ PM ▪ UNDP CO ▪ UNDP/GEF RCU (as appropriate) ▪ National implementing agency 	2,000	Annually or more frequently
TOTAL INDICATIVE COST	(Excluding project team staff time and UNDP staff and travel expenses)	41,000	

X. Legal Context

This document, together with the CPAP which was signed by the GOB and UNDP, and is incorporated by reference, constitutes a Project Document as referred to in the SBAA. All CPAP provisions apply to this document.

Consistent with the Article III of the SBBA, the responsibility for the safety and security of the Implementing Partner and its personnel and property, and of UNDP's property in the Implementing Partner's custody, rests with the Implementing Partner.

The Implementing Partner shall: a) put into place an appropriate security plan and maintain the security plan, taking into account the security situation in the country where the project is being carried out; b) assume all risks and liabilities related to the Implementing Partner's security and the full implementation of the security plan.

UNDP reserves the right to verify whether such a plan is in place, and to suggest modifications to the plan when necessary. Failure to maintain and implement an appropriate security plan as required herein shall be deemed a breach of this agreement.

The Implementing Partner agrees to undertake all reasonable efforts to ensure that none of the UNDP funds received pursuant to the Project Document are used to provide support to individuals or entities associated with terrorism, and that the recipients of any amounts provided by UNDP herein do not appear on the list maintained by the Security Council Committee established pursuant to resolution 1267 (1999). The list can be accessed via <http://www.un.org/Docs/sc/committees/1267/1267ListEng.htm>. This provision must be included in all sub-contracts or sub-agreements entered into under this Project Document.

Audit clause

The GOB will provide the Resident Representative with certified periodic financial statements, and with an annual audit of the financial statements relating to the status of UNDP (including GEF) funds according to the established procedures set out in the Programming and Finance manuals. The audit will be conducted according to UNDP's financial regulations, rules, and audit policies by the legally recognized auditor of the GOB, or by a commercial auditor engaged by the GOB.

XI. Annexes

Annex A. Project Results Framework

<p>This project will contribute to achieving the following Country Program Outcome as defined in CPAP or CPD: UNDP Country Program 2013- 2017 Outcome</p> <p>6: Public policies and institutional capacities are strengthened and capacitated to manage Belize’s natural resource base in a sustainable manner, and for a more effective and multi-sectoral preparedness and response to natural disasters and climate-induced events.</p>
<p>Country Program Outcome Indicators: 1. National compliance with multi-lateral environmental agreements strengthened. 2. Strengthened policy framework and institutional arrangements for integrated water and land resource management</p>
<p>Primary applicable Key Environment and Sustainable Development Key Result Area (same as that on the cover page circle one):</p>
<p>Applicable GEF Strategic Objective and Program: GEF-5 Chemicals Strategy: Objective 1: Phase out POPs and Reduce POPs Releases.</p>
<p>Applicable GEF Expected Outcomes: Outcome 1.3 POPs releases to the environment reduced. Outcome 1.4 POPs waste prevented, managed, and disposed of, and POPs contaminated sites managed in an environmentally sound manner. Outcome 1.5 Country capacity built to effectively phase out and reduce releases of POPs.</p>
<p>Applicable GEF Outcome Indicators: Indicator 1.3.1 Amount of un-intentionally produced POPs releases avoided or reduced from industrial and nonindustrial sectors; measured in grams TEQ against baseline as recorded through the POPs tracking tool. Indicator 1.4.1 Amount of PCBs and PCB-related wastes disposed of, or decontaminated; measured in tons as recorded in the POPs tracking tool. Indicator 1.4.2 Amount of obsolete pesticides, including POPs, disposed of in an environmentally sound manner; measured in tons. Indicator 1.5.1 Progress in developing and implementing a legislative and regulatory framework for environmentally sound management of POPs, and for the sound management of chemicals in general, as recorded in the POPs tracking tool.</p>

	Indicator	Baseline	Targets		Sources of verification	Risks and assumptions
			Mid-term	End of project		
Project Objective: To protect human health and the environment locally and globally by reducing releases harmful POPs substances and increasing the capacity for hazardous chemicals and waste management.						
Outcome 1.1: <i>Institutional capacities strengthened through enhanced policies and regulatory framework supporting sound management of chemical life cycle</i>	Chemicals Bill legally in force.	Draft National Integrated Chemicals Management Bill developed.	Chemicals Bill legally adopted.	Coherent legal and Institutional framework for the sound management of chemicals in Belize agreed.	Official Gazette. Meeting records of the National Integrated Chemicals Management Authority.	Risk: Delay in adoption as overlapping mandates of ministries not resolved Assumption: Project's multi-stakeholder coordination and frequent meetings will ensure coordination and agreement between the ministries.
	Number of official meetings of National Integrated Management Authority. Target: 3		National Integrated Chemicals Management Authority Secretariat operational			
	Number of base regulations and POPs specific guidelines adopted.	No specific chemicals and waste regulations or drafts exist.	Draft Industrial and Consumer Chemicals regulations and PCBs specific guidelines adopted.	Target: 5, POPs waste, UPOPs, pharmaceuticals, cosmetics and pre-cursor chemicals regulations and guidelines adopted	Official Gazette. Publications of Ministries of Health and Environment	Assumption. Chemicals Bill adopted
Number of inspections undertaken to enforce chemicals/POPs regulations. Training days of inspectors and authorities for	No specific Chemicals Bill inspections. Chemicals inspected as a part of inspections of industrial installations	10 chemicals emphasizing industrial inspections a year.	30 chemicals emphasizing industrial inspections a year. Target: 100 training man days in chemicals and POPs regulation enforcement and inspections.	Work records, attendance sheets and reports from Department of Environment	Assumption: Regional Caribbean POPs management project will provide additional capacity building and inspector training.	

	Indicator	Baseline	Targets		Sources of verification	Risks and assumptions
			Mid-term	End of project		
	enforcement of chemicals bill.					
<u>Outcome 1.2: Management and disposal of existing POPs waste</u>	Successful export disposal of existing POPs waste.	21 DDT and associated waste packed for disposal at KWCH hospital. 7 tons of PCB contaminated waste in barrels at private entity.	Capacity building undertaken and disposal contract awarded.	Safe disposal of all POPs in Belize undertaken	Project documentation. Disposal Certificate	Risks: Delays caused by difficulties in finding a shipping line for transport.
<u>Outcome 2.1: Measureable reduction in dioxin release from formal and informal waste dumps</u>	Tonnage of waste being uncontrollably burned at waste sites in the Western Corridor	20,000 tons of waste burnt at waste dumps and households both urban and peri-urban 6 g I-TEQ PCDD/Fs	Less than 10,000 tons burnt < 3 g I-TEQ PCDD/Fs	Less than 2,000 tons burnt < 0.6 I-TEQ PCDD/Fs	Transfer station and final landfill weighted data. Monitoring and evaluation estimates	
	Number of waste dumps closed and transfer centers built and operational	3 dumps closed and transfer station construction commenced	4 dumps closed and transfer operational; 3 Mile, San Ignacio, San Pedro, Caye Caulker	6 dumps closed and transfer operational; 3 Mile, San Ignacio, San Pedro, Caye Caulker, Belmopan, Boom	Solid Waste Management authority documentation. Visual verification of construction and operation.	Assumption: Full government funding allocation assumed and critical.
<u>Outcome 2.2: Reduction of UPOPs releases from uncontrolled, open burning of agricultural and other wastes</u>	Sugar Cane area under Green Harvesting (non-burning) among small holding farmers	0 acres	400 acres	6,000 acres	Sugar Cane Producer association reports SIDRI documentation	Assumption: Replication of project demonstration successful.

	Indicator	Baseline	Targets		Sources of verification	Risks and assumptions
			Mid-term	End of project		
	Tonnage of sugarcane Green Harvested (non-burning)	80,000 tons (BSI) Releases 5.0 g I-TEQ PCDD/Fs	100,000 tons Releases 4,9 g I-TEQ PCDD/Fs	300,000 tons Releases 4,0 g I-TEQ PCDD/Fs	Sugar Cane Producer association reports SIDRI documentation	Assumption: increase from small scale farmers.
	Price of Green Harvested sugarcane	Green Harvested cane does not fetch a higher price.	Proposals for including the green harvesting as requirement for premium price schemes developed	Green harvesting included as requirement for premium price schemes Price premium for green harvested cane > 10 \$ per ton.	Premium price schemes (Fairtrade) production standards. Sugar industry data for purchase price at gate.	Assumption: Premium price schemes, weights environmental over employment benefits in setting standards.
Outcome 3: Monitoring, learning, adaptive feedback, outreach, and evaluation.	M&E and adaptive management applied to project in response to needs, mid-term evaluation findings with lessons learned extracted.	No Monitoring and Evaluation system, nor evaluation of project output and outcomes.	Monitoring and Evaluation system developed during first year. Mid-term evaluation of project output and outcomes conducted with lessons learnt.	Final evaluation carried out.	Inception workshop report. APR/PIR. Independent mid-term evaluation report. Final evaluation report.	None.

Annex B. Total Budget and Work Plan

Award ID:	00079317	Project ID(s):	00089331
Award Title:	Belize Chemicals and Waste Management Project		
Business Unit:	SLV10		
Project Title:	Belize Chemicals and Waste Management Project		
PIMS no.	5158		
Implementing Partner (Executing Agency)	Department of Environment		

GEF Outcome/Atlas Activity	Responsible Party/Implementing Agent	Fund ID	Donor Name	Atlas Budgetary Account Code	ATLAS Budget Description	Amount Year 1 (USD)	Amount Year 2 (USD)	Amount Year 3 (USD)	Total (USD)	See Budget Note:
Component 1. Environmentally sound management and regulatory strengthening of chemicals and waste, including POPs	UNDP	62000	GEF	71200	International consultants	15,000	15,000	0	30,000	1
				71300	National consultants	23,000	24,000	20,000	67,000	2
				72100	Contractual services	20,000	75,000	0	95,000	3
				71600	Travel	8,000	8,000	2,000	18,000	4
				75700	Workshops	8,000	8,000	8,000	24,000	5
				74200	Communications and publications	5,000	5,000	5,000	15,000	6
					sub-total GEF	79,000	135,000	35,000	249,000	
	Total Outcome 1	79,000	135,000	35,000	249,000					
Component 2: Dioxin release reduction in waste management operations and agriculture	UNDP	62000	GEF	71200	International consultants	12,000	0	0	12,000	1
				71300	National consultants	10,000	20,000	20,000	50,000	2
				72100	Contractual services	90,000	50,000	0	140,000	3
				72100	Contractual services	150,000	100,000	100,000	350,000	
				71600	Travel	5,000	1,000	1,000	7,000	4
				75700	Workshops	12,000	12,000	12,000	36,000	5

				72100	Communications and publications (television, web, print, etc.)	3,000	5,000	7,000	15,000	6
					sub-total GEF	282,000	188,000	140,000	610,000	
					Total Outcome 2	282,000	188,000	140,000	610,000	
Component 3: Monitoring, learning, adaptive feedback, outreach, and evaluation	UNDP	62000	GEF	71200	International consultants	0	0	20,000	20,000	1
				71300	National consultants	0	8,000	5,000	13,000	2
					Audit	1,000	1,000	1,000	3,000	
				71600	Travel	500	1,000	500	2,000	
				75700	Workshops	1,000	1,000	1,000	3,000	
					sub-total GEF	2,500	11,000	27,500	41,000	
					Total Outcome 3	2,500	11,000	27,500	41,000	
Project management (This is not to appear as an Outcome in the Results Framework)	UNDP	62000	GEF	71300	National consultants	23,000	24,000	26,000	73,000	10
				72200	Equipment	5,000	0	0	5,000	11
				71600	Travel	1,000	1,000	1,000	3,000	4
				72400	Communications (phone, fax, internet)	1,000	1,000	1,000	3,000	
				72500	Office supplies	300	300	300	900	
				74500	Executive Group meetings	500	500	500	1,500	
				74599	UNDP Cost Recovery Charges	1,200	1,200	1,200	3,600	
					sub-total GEF	32,000	28,000	30,000	90,000	
			UNDP	71300	National consultants	8,000	8,000	9,000	25,000	
					sub-total UNDP	8,000	8,000	9,000	25,000	
							Total Management	40,000	36,000	39,000
PROJECT TOTAL (GEF only)						395,500	362,000	232,500	990,000	
PROJECT TOTAL (incl. UNDP)						403,500	370,000	241,500	1,015,000	

Budgetary Notes

1. International consultant rates are estimated at US\$ 700/daily.
2. National consultant rates are estimated at US\$ 120/day, and include DSA for local travel.
3. Services for partial repacking transport and final disposal of 21 tons DDT, 7 tons of PCB contaminated and associated waste. Including training by waste disposal company.
4. Travel costs for project staff and national experts within Belize are estimated at US\$ 100-400 per trip, depending on distance and duration.
5. Average costs of a full day workshop are estimated at US\$ 25 per participant, and include venue rent and catering.
6. Communications and publications include hard copies of the reports, workshop and educational materials to be disseminated via various media, including print, television, websites, and/or others.
7. These costs include the procurement of: small sugar cane harvester, spare parts for 5 seasons, training of use and maintenance by equipment provider.
8. Part-time project manager +20 % of the salary of a full-time project assistant
9. This item includes workstations for the Project Manager and Project Assistant plus shared printer and networking equipment.
10. This item includes phone, fax, and Internet service.
11. This item includes direct costs of Project Executive meetings, not including travel or paid staff or consultant time.

Summary of Funds: ¹	Amount	Amount	Amount	Total
	Year 1	Year 2	Year 3	
GEF	\$395,500.00	\$362,000.00	\$232,500.00	\$990,000.00
UNDP (Cash)	\$8,000.00	\$8,000.00	\$9,000.00	\$25,000.00
UNDP (In Kind/ TA)	\$10,000.00	\$16,000.00	\$10,000.00	\$36,000.00
Ministry of Forestry, Environment and Sus.Dev (In Kind)	\$115,000.00	\$110,000.00	\$100,000.00	\$325,000.00
Solid Waste Management Authority (Hard Loan)	\$1,500,000	\$2,500,000	\$1,000,000.00	\$5,000,000.00
Private Sector	\$5,000.00	\$5,000.00	\$0.00	\$10,000.00
NGOs	\$100,000.00	\$50,000.00	\$0.00	\$150,000.00
TOTAL	\$2,133,500.00	\$3,051,000.00	\$1,351,500.00	\$6,536,000.00
Private (2013 - 2017)	\$ Belize	U\$		
ADM Mills	20,000	10,000		
Total	20,000	10,000		

NGOs	\$ Belize	US\$
SugarCane Growers association	300,000	150,000
		0
Total	300,000	150,000

Annex C. Risk analysis

The table below shows the most significant risks to project implementation, with an outline of mitigation strategies.

Risk		Risk Mitigating measures
Insufficient financial resources available to continue national interventions for sound management of chemicals	Low	Awareness raising among decision makers and resource managers within the context of SAICM and the Stockholm Convention and wider sustainable chemical management is being further continued throughout the project, especially
Institutional weakness to implement regulations	Low	The project seeks to address those capacities and to augment current national programs designed to facilitate monitoring and enforcement.
Climate Risks are related to Belize classification as a SIDS in an area that is prone to tropical storms / hurricanes.	Low	The component 2 considering UPOPs releases from municipal and agricultural waste management improves the resilience to climate change by constructing adequate waste management infrastructure at a non-flooding prone area. The facility includes also surface water system for the control of flooding and leachate generation. While no landfill gas recovery is considered in the first phase the emissions should be neutral as a compared with current uncontrolled burning scenario.
Conflicting interests of key ministries in developing sound chemicals management policies, legal instruments and institutional responsibilities.	Low	Project's multi-stakeholder coordination and frequent meetings will ensure appropriate information exchange, coordination and venues for finding agreements between the ministries.

Risk of unsuccessful demonstration projects and low replication.	Low	The municipal waste management part will not suffer from unsuccessful demonstration as there is sufficient capacity and funding available. Demonstration stage risks are higher in Green Harvesting of sugar cane, where the acceptability and cultural traditions may be difficult to overcome. Due consideration for information and community outreach has been included in project approach to address this.
Risk of low replication for full project impact.	Mode rate	Replication of both sound municipal waste management and Green Harvesting of sugar cane will require considerable cash investments beyond the project's capabilities. For waste management tangible amelioration of local environment is expected to bring forward additional national resources. For green harvesting, working with premium trade schemes, like Fairtrade, is expected to bring in both the impetus as well as the financial resources to continue replication.

Annex D. Agreements and Letters of Support

Letter of Agreement for Direct Project Services

STANDARD LETTER OF AGREEMENT BETWEEN UNDP AND THE GOVERNMENT OF BELIZE FOR THE PROVISION OF SUPPORT SERVICES

1. Reference is made to consultations between officials of the Government of *Belize* (hereinafter referred to as "the Government") and officials of UNDP with respect to the provision of support services by the UNDP country office for nationally managed programs and projects. UNDP and the Government hereby agree that the UNDP country office may provide such support services at the request of the Government through its institution designated in the relevant Program support document or project document, as described below.
2. The UNDP country office may provide support services for assistance with reporting requirements and direct payment. In providing such support services, the UNDP country office shall ensure that the capacity of the Government-designated institution is strengthened to enable it to carry out such activities directly. The costs incurred by the UNDP country office in providing such support services shall be recovered from the administrative budget of the office.
3. The UNDP country office may provide, at the request of the designated institution, the following support services for the activities of the program/
/project:

- a) Identification and/or recruitment of project and program personnel;
 - b) Identification and facilitation of training activities;
 - c) Procurement of goods and services;
4. The procurement of goods and services and the recruitment of project and program personnel by the UNDP country office shall be in accordance with the UNDP regulations, rules, policies and procedures. Support services described in paragraph 3 above shall be detailed in an annex to the program support document or project document, in the form provided in the Attachment hereto. If the requirements for support services by the country office change during the life of a program or project, the annex to the program support document or project document is revised with the mutual agreement of the UNDP resident representative and the designated institution.
 5. The relevant provisions of the Special Standard Agreement between the Government of Belize and the United Nations Development Program in Belize, (the "SSA"), including the provisions on liability and privileges and immunities, shall apply to the provision of such support services. The Government shall retain overall responsibility for the nationally managed program or project through its designated institution. The responsibility of the UNDP country office for the provision of the support services described herein shall be limited to the provision of such support services detailed in the annex to the program support document or project document.
 6. Any claim or dispute arising under or in connection with the provision of support services by the UNDP country office in accordance with this letter shall be handled pursuant to the relevant provisions of the SSA and the project document.
 7. The manner and method of cost-recovery by the UNDP country office in providing the support services described in paragraph 3 above shall be specified in the annex to the program support document or project document.
 8. The UNDP country office shall submit progress reports on the support services provided and shall report on the costs reimbursed in providing such services, as may be required.
 9. Any modification of the present arrangements shall be effected by mutual written agreement of the parties hereto.
 10. If you are in agreement with the provisions set forth above, please sign and return to this office three signed copies of this letter. Upon your signature, this letter shall constitute an agreement between your Government and UNDP on the terms and conditions for the provision of support services by the UNDP country office for nationally managed programs and projects.

Yours sincerely,

Signed on behalf of UNDP
Resident Representative

For the Government
[Date]

DESCRIPTION OF UNDP COUNTRY OFFICE SUPPORT SERVICES

1. Reference is made to consultations between the Ministry of Forestry, Fisheries and Sustainable Development, the institution designated by the Government of Belize and representatives of UNDP with respect to the provision of support services by the UNDP country office for the nationally managed program or project **Belize Chemicals and Waste Management Project** “the Project”.
2. In accordance with the provisions of the letter of agreement signed on *Date of signature (LOA)* and the project document, the UNDP country office shall provide support services for the Project as described below.
3. Support services to be provided:

Support services* (insert description)	Schedule for the provision of the support services	Cost to UNDP of providing such support services (where appropriate)	Amount and method of reimbursement of UNDP (where appropriate)
1. Payments, disbursements and other financial transactions	During project implementation	Universal Price List	Support Services
2. Recruitment of staff, project personnel, and consultants	During project implementation	Universal Price List	Support Services
3. Procurement of services and equipment, and disposal/sale of equipment	During project implementation	Universal Price List	Support Services
4. Organization of training activities, conferences, and workshops, including fellowships	During project implementation	Universal Price List	Support Services
2. Travel authorizations, visa requests, ticketing, and travel arrangements	During project implementation	Universal Price List	Support Services
3. Shipment, custom clearance, vehicle registration, and accreditation	During project implementation	Universal Price List	Support Services

* UNDP direct project support services will be defined yearly, and for those executed during the period, direct project costs will be charged at the end of each year based on the UNDP Universal Pricelist (UPL) or the actual corresponding service cost

4. Description of functions and responsibilities of the parties involved:
The project will be conducted through the National Implementation modality of UNDP (NIM). The Ministry of Forestry, Fisheries and Sustainable Development, will act as the National Implementing Partner (National Execution partner under new

harmonized definition), through the Department of Environment, and with the support of UNDP as a GEF Implementing

Agency. The Department of Environment will be responsible for directing and managing the project and monitoring compliance with project work plans as a basis for project execution. Within the Department of the Environment, a Project Management Unit (PMU) will be created, which will be responsible for the daily implementation of activities, including direct supervision in coordination with UNDP, for all activities that are carried out by the project.

To ensure an effective assimilation of the Project in permanent institutional structures, the PMU will convene a Steering Committee. This committee will be part of the project supervision and is a continuance of the experience of the Preparatory Phase, which adopted this method with good results.

UNDP will provide technical and operational support necessary for the implementation of activities and the results of this project, with constant support from the PMU. The UNDP office will ensure that all consultant contracts, purchase orders and contracts for company services are in compliance with UNDP standards and procedures. In those cases, in which the UNDP Resident Representative has to sign the contracts mentioned above, UNDP will participate in the processes for selection and recruitment. UNDP will also provide advances payments to the project to make direct payments and maintain accounting and financial control of the project.

The project authorities will carry out the procurement and contracts for all purchases less than USD\$ 2,500. These minor operations shall comply with rules and procedures contained in the National Implementation Manual. According to the above, ownership of equipment, supplies and other property financed with project funds will be conferred to UNDP. Transfer of ownership rights shall be determined in accordance with the policies and procedures of UNDP. All goods will be considered UNDP property for the following five years since purchased.

UNDP will assist in the administration of funds provided by GEF and UNDP itself. UNDP will be able to assist in the management of any other additional fund for co-financing this project. These arrangements will be included in the relevant Memorandum of Understanding. Contributions will be subject to internal and external audits established in UNDP rules and financial regulations.

Annex E. Terms of Reference of Key Project Personnel**Position: National Project Manager****Project: Belize Chemicals and Waste Management Project****Type of Contract: Service****Place of Work: Belmopan, Belize****Period: July 2014 through December 2017****Brief description**

The Project Manager (PM) will be responsible for the daily management of all project activity at the national level. The PM will head the work of the Project Implementation Group, providing supervision of all consultants, contracted companies, and technical and administrative staff. The PM will work under the general oversight of the National Project Director and the Project Steering Committee, with supervision from the project coordinator at UNDP.

This is a part-time position. The PM is responsible for the following:

- Effective project planning and implementation, with participation of all interested parties, in accordance with the project document.
- Preparation, tracking, and implementation of annual work plans for the project.
- Organization and management of the work of the Project Implementation Group.
- Development of Terms of Reference and contracts for national and international consultants.
- Provision of effective interaction with relevant state agencies, private companies, NGOs and other interested parties.
- Development of relations with other relevant GEF programs or other regional programs on POPs mercury, and healthcare waste management.
- Dissemination of information of project activity and results to project partners and the general public (including the creation and updating of project web page).
- Supervision of internal processes for quality control, including creation of logs of risks, problems and quality indicators of project activity, monitoring and maintaining these logs, and making necessary changes.
- Provision of progress reports on project implementation in accordance with the project document.
- Delivery of needed information to independent outside project evaluators.
- Regular reporting and communication with the Project Board and UNDP about project status, including problems.
- Control of spending of project funds on intended purposes in accordance with the approved budget of each project outcome.
- Monitoring and coordination of the delivery of co-financing as stipulated in the project document. The overall goal for the PM's work is the successful implementation of the project in accordance with the goals, work plan and budget set forth in the project document.

Required qualifications

- Higher education (preferable Master Degree in a field related to environment protection, and/or environmental sanitation).
- Technical knowledge and work experience of not less than 5 years in waste and chemicals management.
- Experience in strategic planning and project management.
- Experience in supervision of employees and consultants.
- Excellent abilities to motivate and supervise a diverse team.
- Excellent computer skills.
- Familiarity with the structure and strategic priorities of UNDP and GEF projects is preferable.
- Familiarity with Chemicals Management issues in Belize, would be an asset.
- Fluency and excellent English presentation and drafting abilities.

Position: Project Assistant
Project: Belize Chemicals and Waste Management Project
Type of Contract: Service
Place of Work: Belmopan, Belize
Period: July 2014 through December 2017

Description

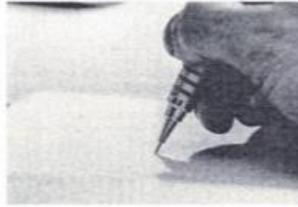
The Project Assistant (PA) will provide administrative and other support for the Project Manager (PM) and other project staff and consultants.

This is a full-time position, under the direct supervision of the PM. The PA's duties will include:

- Administrative activity and logistics in support of the project.
- Financial administration as per UNDP rules in force.
- General administration of the project office.
- Business correspondence, telephone calls, and other communication related to the project.
- Maintenance of business and financial documentation, according to requirements of the UNDP and donor organizations.
- Preparation of internal reports and recording of meetings
- Organizing and executing meetings and workshops
- Assistance to project manager in preparation of financial and other reports.

Required qualifications

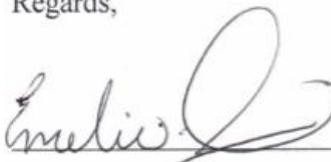
- Work experience and skills in office administration
- Ability to work effectively under pressure
- Perfect computer skills
- Fluency in English.

Appendix 12: Revision Certificate**Revision Certificate**

This is to certify that Gisel Maritza Correa has submitted the Final Graduation Project entitled, “DEVELOPMENT OF A PROJECT MANAGEMENT PLAN FOR THE BELIZE CHEMICALS AND WASTE MANAGEMENT PROJECT”, for revision.

I hereby confirm that this document has been carefully reviewed and all necessary corrections have been made. Minor grammatical corrections were made such as the restructuring of some sentences, the addition of necessary punctuation marks and also the restructuring of the introduction. However, I must comment that Mrs. Correa has impeccable writing skills. The document is rich in content and relevance. I give my full approval for submission.

Regards,

 13.12.17

Ms. Emelie Augustine

B.A. (University of Belize)

Appendix 13: Philologist Professional Credentials

University of Belize



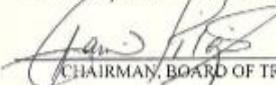
*The Board of Trustees of the University of Belize
upon recommendation of the Faculty of Education and Arts, has conferred on*

Emelie Stephanie Augustine

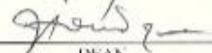
*who has completed the prescribed studies and fulfilled all requirements
thereof the degree of*

Bachelor of Arts in English

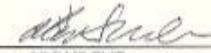
*with all the rights and privileges pertaining to that degree, given at
Belmopan, Belize, this seventh day of February, two thousand and fifteen*



CHAIRMAN, BOARD OF TRUSTEES



DEAN



PRESIDENT



REGISTRAR

University of Belize

Faculty of Education and Arts



This is to Certify that

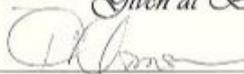
Emelie Stephanie Augustine

*has completed in a satisfactory manner the course of studies and thereby
qualifies for this award of*

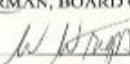
Associate Degree in English

*In witness whereof we the undersigned on behalf of the Board of Trustees
have subscribed our names and affixed the Seal of this Institution*

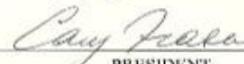
Given at Belmopan, Belize, this 16th day of June, 2012



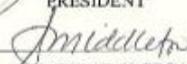
CHAIRMAN, BOARD OF TRUSTEES



DEAN



PRESIDENT



REGISTRAR (ACTG.)