

UNIVERSIDAD PARA LA COOPERACIÓN INTERNACIONAL
(UCI)

STRENGTHENING AGRICULTURAL PRODUCTIVITY THROUGH A PROJECT
MANAGEMENT PLAN FOR DASHEEN CULTIVATION AT WILSON FARM,
LAUDERS, ST. VINCENT AND THE GRENADINES

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DEDICATION

This work is dedicated to the Most High God, my husband, family, and friends who believed in me even when I could not see the path ahead; I am eternally grateful. Their continuous encouragement reminded me that perseverance, discipline, and faith are the cornerstones of success in every project. Your unwavering support motivated me to remain focused, overcome challenges, and complete this journey with purpose and determination.

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I am deeply grateful to the Most High God for His divine guidance, strength, and unwavering support throughout this journey.

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To my husband, family, and friends, your love and encouragement have been my foundation. I cannot thank you enough for always believing in me and reminding me of the value of perseverance. I also wish to acknowledge my colleagues for their insightful contributions and unwavering support along this journey.

Special thanks are extended to Kimisha, a classmate turned friend, for her continuous support, motivation, and encouragement. I would also like to express my sincere gratitude to Mr. Elroy Wilson, owner of Wilson Farm, for his collaboration, generosity, and commitment to the success of this project. His vision and dedication to sustainable farming served as a true source of inspiration.

Finally, I offer heartfelt appreciation to all those who, in various ways, have contributed to helping me reach this important milestone. Your support and kindness will never be forgotten.

ABSTRACT

The objective of this document is to develop a project management plan to strengthen dasheen production at Wilson Farm, a small agricultural enterprise located in Lauders, Marriaqua Valley, St. Vincent and the Grenadines. The farm aims to improve operational efficiency, resource management, and production quality to meet the growing local and export demand for dasheen. Currently, rising input costs, unpredictable weather, and the absence of structured planning tools have limited productivity and competitiveness in the agricultural market.

The final product of this project consists of a comprehensive project management plan designed to organize farm activities, improve coordination among stakeholders, and integrate environmentally responsible practices. This plan is composed of the management plans for scope, schedule, cost, quality, resources, communications, risks, procurement, stakeholders, and integration. To achieve this, a mixed-methods research design was used, combining primary data obtained through interviews, consultations, and field observations with secondary data from agricultural reports, academic publications, and official statistics. The analytical-synthetic methodology and the guide provided by the Project Management Institute were applied to evaluate current operations, identify performance gaps, and propose practical solutions.

As a result of the project, it was determined that the adoption of a structured project management plan will significantly enhance Wilson Farm's operational efficiency, sustainability, and resilience to environmental and market challenges. The implementation of this plan will increase productivity, reduce operational risks, and strengthen the farm's contribution to national food security. It is recommended that the farm apply the proposed plan in accordance with the defined management processes to ensure that all stages of planning, execution, monitoring, and closure are properly completed. The results also indicate that this model can be replicated by other smallholder farms in Saint Vincent and the Grenadines to improve agricultural performance, promote sustainability, and achieve long-term viability.

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ABBREVIATIONS AND ACRONYMS

CARDI: Caribbean Agricultural Research and Development Institute

ECTAD: Eastern Caribbean Training Agriculture and Development Organisation

ESG: Environmental, Social, and Governance

FAO: Food and Agriculture Organization

FGP: Final Graduation Project

GAP: Good Agricultural Practices

GPM: Green Project Management

IICA: Inter-American Institute for Cooperation on Agriculture

OECS: Organisation of Eastern Caribbean States

PMBOK: Project Management Institute Body of Knowledge

PMI: Project Management Institute

PMP: Project Management Plan

RAM: Responsibility Assignment Matrix

RD: Regenerative Development

SD: Sustainable Development

SDG; Sustainable Development Goal

SVG: Saint Vincent and the Grenadines

SWOT: Strengths Weaknesses Opportunities Threats

UBEC-CERC: Unleashing the Blue Economy of the Caribbean – Contingent Emergency
Response Component

WBS: Work Breakdown Structure

EXECUTIVE SUMMARY

This Final Graduation Project was conducted to develop a structured project management plan that strengthens the operations of Wilson Farm, a small agricultural enterprise in Lauders, St. Vincent and the Grenadines. Although agriculture remains vital to national food security and rural livelihoods, small farms like Wilson Farm often operate without formal management systems, limiting efficiency, productivity, and long-term resilience. The project addressed the central problem of the farm's lack of an organized framework to guide production activities, resource allocation, and stakeholder coordination. Without such a structure, the farm faced operational inefficiencies, reduced competitiveness, and increased vulnerability to environmental and financial challenges. The project was therefore justified by the need to improve internal organization, enhance stakeholder communication, and align farm operations with national goals of agricultural resilience and food security.

The general objective of the project was to design a comprehensive project management plan that improves dasheen production while ensuring sustainability. Specific objectives included developing the project charter, scope, schedule, cost management, stakeholder engagement, and communication plans. These components together provide a clear, organized framework for guiding future farm activities and decision-making.

A qualitative methodology was used, combining inductive and deductive approaches and drawing on interviews, consultations, institutional reports, academic literature, and government publications. The methodology followed the Project Management Institute (PMI) standards adapted to the agricultural context of Wilson Farm.

Overall, the resulting project management plan integrates social, environmental, and economic dimensions of sustainability. It demonstrates that small farms can benefit significantly from structured project management practices and, once implemented, the plan can serve as a model for strengthening resilience, efficiency, and community development among similar agricultural enterprises in St. Vincent and the Grenadines.

1 INTRODUCTION

The introduction provides an overview of the context, challenges, and purpose of the Wilson Farm Project Management Plan. It establishes the significance of dasheen production in St. Vincent and the Grenadines and explains the local and national factors that shape the project's relevance. The section outlines the background of the problem, presents the specific issues affecting Wilson Farm, and justifies the need for structured project management practices in agricultural operations. It also states the project's general and specific objectives, which guide the scope, methodology, and expected outcomes of the Final Graduation Project.

1.1. Background

Dasheen production is a cornerstone of agriculture in St. Vincent and the Grenadines, contributing to household income, rural employment, and export earnings. While demand continues to grow in regional and international markets, including recent shipments to the United States and other Caribbean nations, local production remains constrained by inefficiencies, low yields, and a lack of structured management systems (Cooke, 2023; Julien, 2021). These challenges are particularly evident in smallholder farms like Wilson Farm, where planning, resource coordination, and formal monitoring are limited.

Climate change further compounds these issues by disrupting rainfall patterns, increasing vulnerability to pests and diseases, and altering growing cycles. Small-scale producers must therefore adopt climate-resilient strategies to maintain productivity. As the OECS (2023) emphasized in designating dasheen the country's "Blue Gold," the national

agricultural strategy must evolve to unlock the crop's economic and food security potential through stronger coordination, resilience, and quality control.

The use of project management in agriculture offers a practical pathway to address these needs. Kholodova and Podgorskaya (2020) note that program target planning improves goal alignment, resource use, and measurable results, while Kimagut and Makokha (2023) show that planning, stakeholder engagement, and monitoring are directly linked to project success in resource-limited settings. At the farm level, these practices can improve crop care, optimize harvest timing, and ensure efficient input use.

George (2020) underscores that well-defined phases, risk anticipation, and role clarity are essential to prevent project delays or abandonment. Plattfaut (2022) adds that strong project management capabilities are critical for sustainable outcomes, particularly when balancing efficiency, technological change, and environmental pressures. Tools such as scheduling, quality assurance, and stakeholder alignment can help create systems that are both productive and resilient.

In this context, Wilson Farm reflects broader national challenges, including the absence of formal project management frameworks, limited climate adaptation, and inconsistent post-harvest practices. This Final Graduation Project addresses these gaps by proposing a structured, context-specific project management plan to strengthen dasheen production.

1.2. Statement of the problem

Agriculture is a vital part of the economy and food systems in St. Vincent and the Grenadines, particularly in rural areas like the Marriaqua Valley. However, despite its importance, many small farms continue to operate without formal planning tools, efficient management systems, or structured use of resources. In this context, Wilson Farm, a proposed dasheen farm in Lauders, faces similar constraints. At present, the farm lacks a project management plan to guide its operations, allocate resources, and set production goals. As a result, its potential for productivity, growth, and long-term sustainability remains limited.

Consequently, without a structured framework, Wilson Farm is likely to experience delays in tasks, inefficient use of labor and materials, and unclear responsibilities. In addition, the absence of a risk management strategy increases the farm's vulnerability to threats such as climate change, pest outbreaks, and input price fluctuations. These are not isolated concerns. According to Kimagut and Makokha (2023), many smallholder farms in the region face similar issues due to weak planning systems, resulting in low performance, inconsistent yields, and limited market access.

Moreover, the problem extends beyond daily operations. Without a stakeholder engagement plan, the farm risks overlooking the contributions of key actors such as laborers, suppliers, and buyers. This lack of coordination can weaken collaboration and reduce shared ownership of outcomes. Furthermore, poor communication may lower team morale and increase misunderstandings. In addition, the absence of environmental guidelines and quality control procedures can negatively impact soil health and reduce

consumer trust in the farm's produce. As noted by Pretty, Toulmin, and Williams (2018), inclusive participation and clear standards are essential for sustainable and effective agricultural systems.

Given these challenges, the broader national context further reinforces the urgency of intervention. Rising input costs and unstable food supply chains have heightened concerns around food security in St. Vincent and the Grenadines. According to Times Staff (2023), these pressures require local farms to adopt more resilient and organized approaches. Therefore, implementing a comprehensive project management plan based on globally recognized principles, such as those outlined by the Project Management Institute (2021), offers a viable solution to improving planning, execution, and monitoring in agricultural projects.

Therefore, Wilson Farm currently lacks the formal structure necessary to operate efficiently, manage risks, and contribute meaningfully to national agricultural goals. This Final Graduation Project seeks to address that gap by developing a context-specific project management plan that will strengthen the farm's operational capacity and long-term impact.

1.3. Purpose

The project management plan will support the structured development of Wilson Farm, a small dasheen farm located in Lauders, Marriacqua Valley, St. Vincent and the Grenadines. The research will explore how project management tools and methods can be used to improve the way the farm operates, including how resources are used, how

activities are planned, and how goals are achieved. This Final Graduation Project is based on the idea that a well-prepared project management plan can help Wilson Farm become more productive, efficient, and sustainable.

This project is being done to respond to the challenges that many small farms face in the country. These include rising costs for inputs like fertilizer and seeds, unpredictable weather due to climate change, and limited access to markets. Although national policies support agriculture, many farms lack proper planning tools and systems. The Wilson Farm project aims to fill this gap by showing how project management practices can help farmers better organize their work, manage risks, and involve key stakeholders.

The expected benefits of this project include a clear plan to improve farm productivity, better use of time and money, stronger communication with stakeholders, and strategies to handle risks. The project will also promote environmentally friendly practices and responsible purchasing of farm supplies. When utilizing a structured plan, the farm can play a stronger role in local food production and help support the community.

This project supports national efforts to improve agriculture and food security. It is also in line with the work of local groups like the Ministry of Agriculture and Eastern Caribbean Trading Agriculture and Development Organisation (ECTAD), which help farmers increase their food production and sales. The Wilson Farm Project Management Plan will add value by offering a farm-level example that shows how planning and good management can lead to real improvements in agriculture.

1.4. General objective

To develop a comprehensive project management plan aimed at improving the operational processes, resource utilization, and output of dasheen production at Wilson Farm.

1.5. Specific objectives

1. To create the project charter to elaborate key elements for developing the Final Graduation Project focused on enhancing dasheen production at Wilson Farm.
2. To create a detailed project scope management plan to clearly define the boundaries of the project, specify deliverables, and ensure all stakeholder expectations related to dasheen production are captured and controlled.
3. To design a schedule management plan that outlines timelines, task dependencies, and milestones to efficiently organize and monitor the farm's production activities within the project's duration.
4. To formulate a cost management plan that includes budget estimation, funding sources, and cost control mechanisms to ensure that all aspects of the dasheen production improvements are financially sustainable and completed within budget.
5. To construct a quality management plan that establishes standards, assurance procedures, indicators for quality measures, and mechanisms to guarantee the satisfaction of stakeholder expectations throughout all stages of dasheen production.

6. To develop a resource management plan that empowers the reference framework for the organization and allocation of human, material, and technological resources according to the expectations and operational requirements of the project.
7. To build a communication management plan to ensure timely, transparent, and effective engagement of stakeholders through appropriate channels, enabling active participation throughout project planning and implementation.
8. To create a risk management plan that identifies potential threats and opportunities, and provides appropriate strategies and tools for minimizing adverse impacts while enhancing resilience in farm operations.
9. To develop a procurement management plan that defines the policies and procedures for acquiring necessary inputs and services, emphasizing cost-effectiveness, timeliness, and the use of environmentally responsible (green) procurement practices.
10. To produce a stakeholder management plan that outlines strategies for identifying, analyzing, and engaging stakeholders who have influence over or interest in the success of the Wilson Farm project, fostering collaboration and shared ownership.
11. To develop a comprehensive project closure plan that defines clear criteria for evaluating deliverables, completing final reviews, and obtaining stakeholder acceptance, while also establishing a continuous lessons-learned process carried out throughout all project phases to ensure formal project completion and support Wilson Farm's long-term operational sustainability.

2 THEORETICAL FRAMEWORK

2.1 Company/Enterprise framework

This section provides an overview of Wilson Farm, including its background, mission, vision, organizational structure, and main products. It establishes the context of the enterprise for which the Project Management Plan will be developed.

2.1.1 Company/Enterprise background

Wilson Farm is a newly established agricultural enterprise located in Lauders, a rural community in the Marriaqua Valley of St. Vincent and the Grenadines. The farm spans approximately five acres of gently sloping volcanic terrain, with fertile soil and good natural drainage that make it highly suitable for the cultivation of dasheen (*Colocasia esculenta*), a culturally significant and economically valuable root crop in the region.

In recent years, there has been growing international demand for dasheen, especially in export markets such as the United States and Europe. In 2023, over 30,000 pounds of dasheen were exported from St. Vincent to Florida alone, reflecting the island's increasing competitiveness and the potential of dasheen as a major export crop (Cooke, 2023). Additionally, the Organization of Eastern Caribbean States (OECS) identified dasheen as a “blue gold” crop, citing its contribution to agricultural diversification and its role in supporting rural livelihoods in member states (OECS, 2023). This rise in demand is supported by regional initiatives aimed at improving the dasheen value chain, including technical support and training for farmers through partnerships with the Food and Agriculture Organization (FAO, 2023).

Wilson Farm was established in response to these market opportunities and the need to empower local farmers. It operates as a community-based initiative that seeks to strengthen food security and create sustainable employment in the Lauders area. The farm engages residents, particularly small-scale farmers and youth, by providing seasonal employment and informal training in environmentally sustainable techniques such as composting, and contour planting. This approach fosters knowledge-sharing within the community and promotes agricultural resilience in the face of climate change and market fluctuations.

Through the development of a structured project management plan, Wilson Farm aims to enhance its operational efficiency, scale its production to meet market demands, and serve as a model for sustainable, community-driven agriculture in the Eastern Caribbean.

2.1.2 Mission and vision statements

Mission: Wilson Farm is committed to cultivating high-quality dasheen using environmentally responsible and community-focused agricultural practices. Its mission is to promote sustainable food production, enhance local employment, and strengthen rural livelihoods through smallholder empowerment and knowledge-sharing in Lauders and the wider Marriagua Valley.

Vision: Wilson Farm envisions becoming a leading model of sustainable, small-scale dasheen production in the Eastern Caribbean, recognized for its operational

excellence, community engagement, and contributions to national food security and export growth.

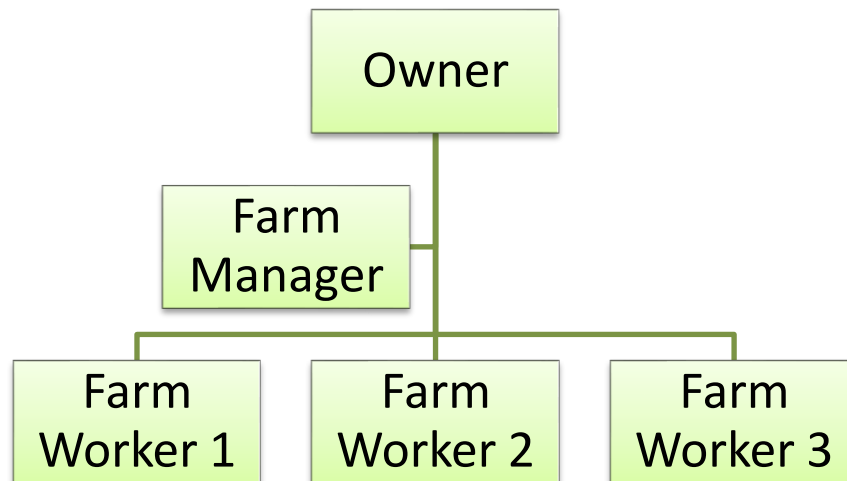
Note. The mission and vision statements were developed by the farm owner to reflect the strategic goals of Wilson Farm.

2.1.3 Organizational structure

Wilson Farm operates with a simple, functional organizational structure designed to support its small-scale, community-based agricultural operations. The farm is privately owned and managed directly by the Owner, who is responsible for overall strategic direction and decision-making. Day-to-day operations are overseen by a Farm Manager, who coordinates planting schedules, supervises labor, manages input use, and monitors crop performance.

Reporting to the Farm Manager are three general farm workers who carry out routine field tasks such as land preparation, planting, weeding, harvesting, and post-harvest handling. While roles are not highly specialized due to the farm's size, task assignments are distributed based on seasonal needs and worker availability. This structure allows for clear lines of authority, accountability, and communication.

The Final Graduation Project is expected to impact the organizational structure by strengthening the Farm Manager's role through the introduction of formal planning tools, task scheduling, and resource monitoring systems. Additionally, by standardizing operational processes, the project will help the Owner and Manager make more informed decisions and improve coordination with labor.

Figure 1*Organizational structure of Wilson Farm*

Note. Developed by the author in collaboration with the farm owner for the Final Graduation Project.

2.1.4 Products Offered

Wilson Farm offers two primary agricultural products derived from dasheen: dasheen tubers and dasheen leaves (commonly known as callaloo). The farm's main product is fresh dasheen tubers, which are harvested and sold to local markets and supermarkets. These starchy roots are a traditional staple in Vincentian cuisine and are increasingly in demand in regional and export markets. The tubers are harvested, cleaned, and prepared for direct sale, with potential for future value-added processing such as peeled, vacuum-sealed, or frozen formats to extend shelf life and reach new markets.

The leaves of the dasheen plant are also harvested and sold, typically fresh, for use in preparing callaloo, a popular local dish. This product provides an additional revenue stream for the farm while minimizing plant waste. Callaloo leaves are often purchased by

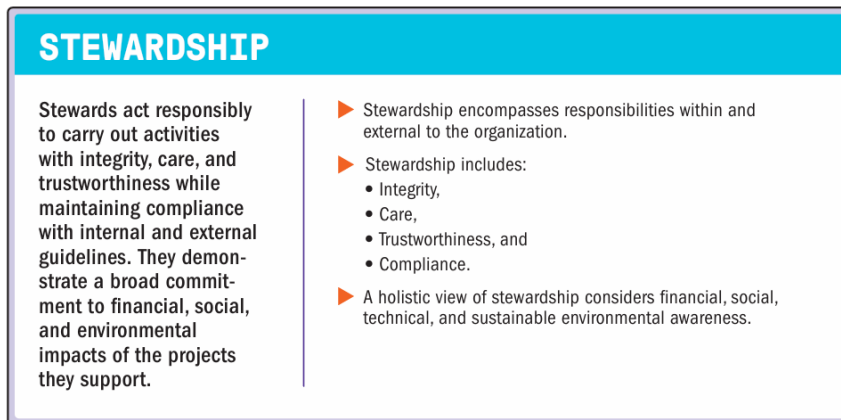
local vendors, small restaurants, and household consumers, contributing to food security and local nutrition.

2.2 Project Management concepts

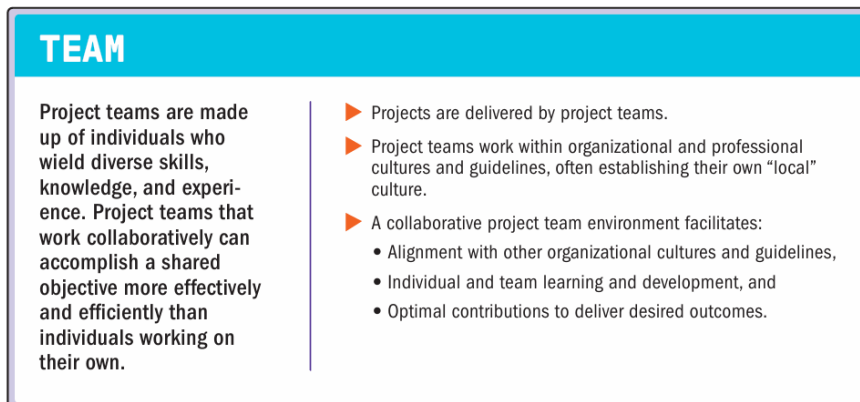
This section introduces the fundamental concepts of project management, which form the basis for the development and execution of the Project Management Plan for Wilson Farm. It outlines key definitions, principles, and methodologies that guide how projects are initiated, planned, executed, monitored, and closed. Understanding these concepts is essential to ensure that the proposed project is managed in a structured and effective manner, aligned with recognized standards and best practices in the field.

2.2.1 Project management principles

There are twelve core principles that serve as behavioral guidelines for effective project management. These principles include stewardship, team, stakeholders, value, systems thinking, leadership, tailoring, quality, complexity, risk, adaptability and resiliency, and change (PMI, 2021). Rather than proposing specific tools or techniques, these principles are intended to influence the behaviors and actions of individuals and teams in ways that promote project success and value delivery (PMI, 2021, p. 21). Following all twelve principles will contribute to a practical, resilient, and value-driven management plan that enhances dasheen production and overall farm performance. The following figures illustrate each principle and its relevance to the project's outcome.

Figure 2*Stewardship principle*

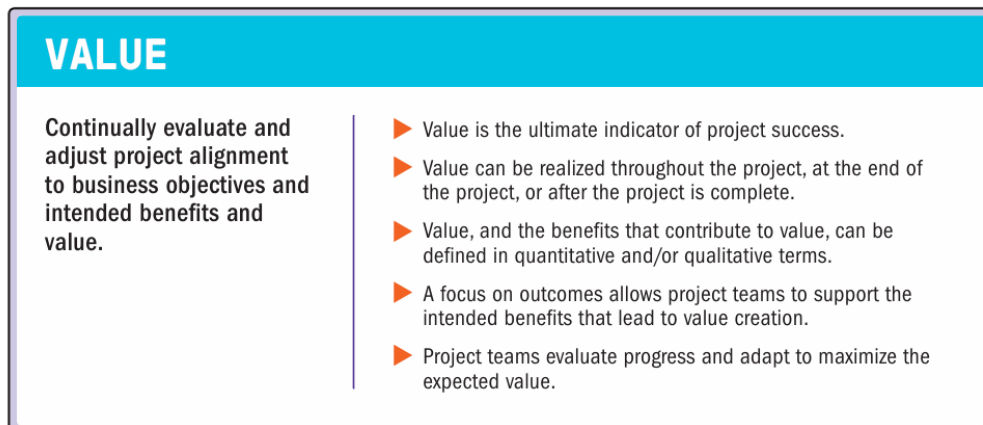
Note. Adapted from PMBOK guide 7th edition, 2021, p.24

Figure 3*Team principle*

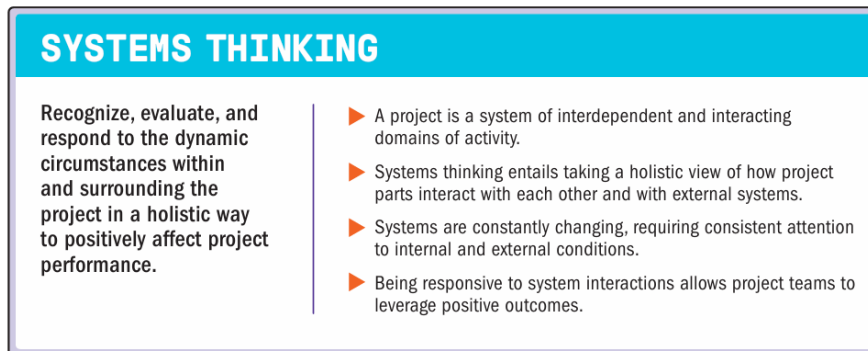
Note. Adapted from PMBOK guide 7th edition, 2021, p.28

Figure 4*Stakeholders principle*

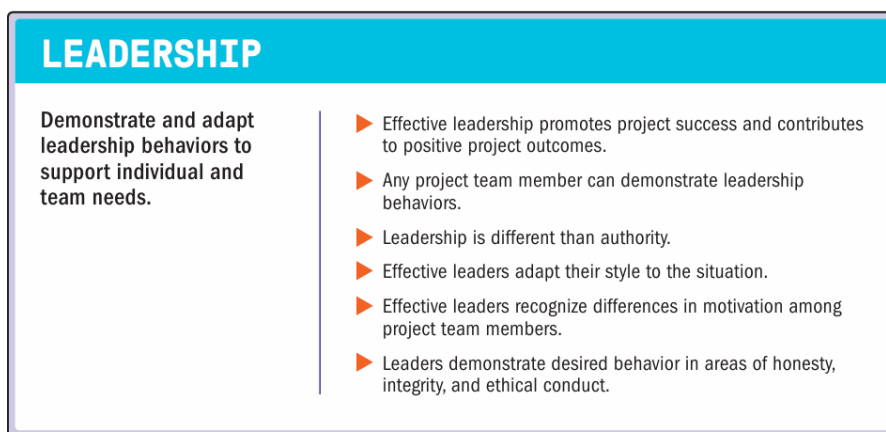
Note. Adapted from PMBOK guide 7th edition, 2021, p.3

Figure 5*Value principle*

Note. Adapted from PMBOK guide 7th edition, 2021, p.34

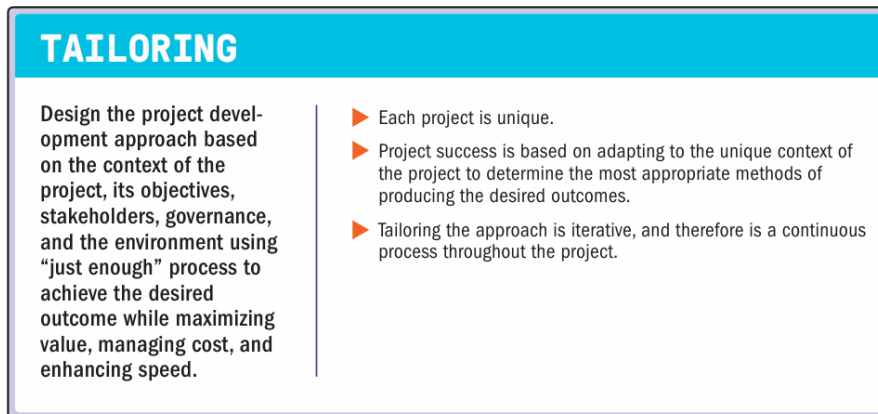
Figure 6*Systems thinking principle*

Note. Adapted from PMBOK guide 7th edition, 2021, p.37

Figure 7*Leadership principle*

Note. Adapted from PMBOK guide 7th edition, 2021, p.40

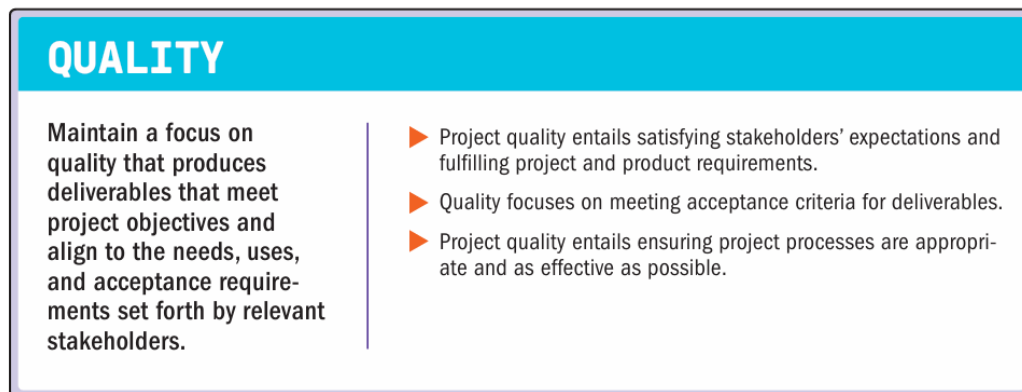
Figure 8*Tailoring principle*



Note. Adapted from PMBOK guide 7th edition, 2021, p.44

Figure 9

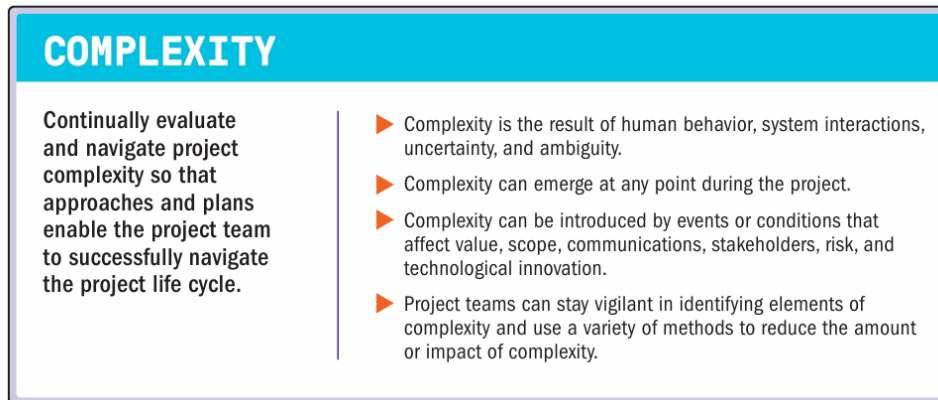
Quality principle



Note. Adapted from PMBOK guide 7th edition, 2021, p.47

Figure 10

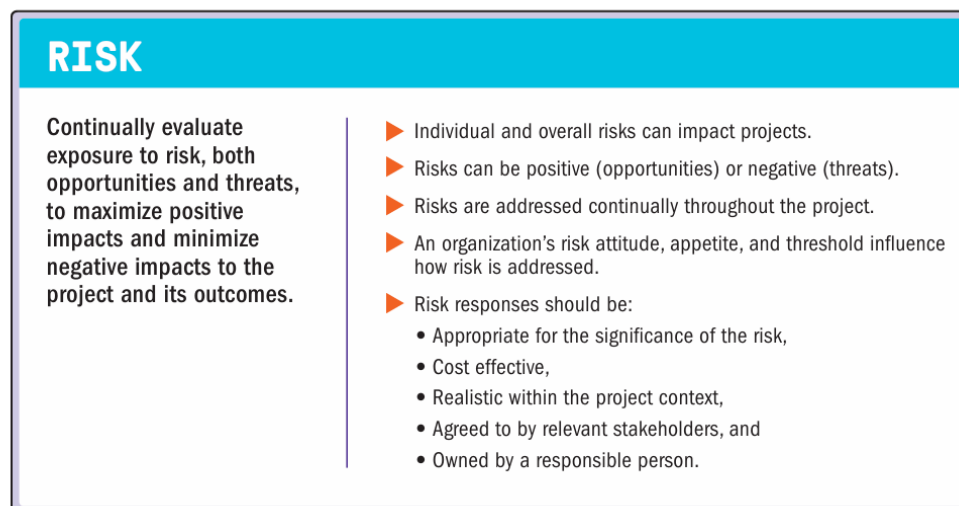
Complexity principle



Note. Adapted from PMBOK guide 7th edition, 2021, p.50

Figure 11

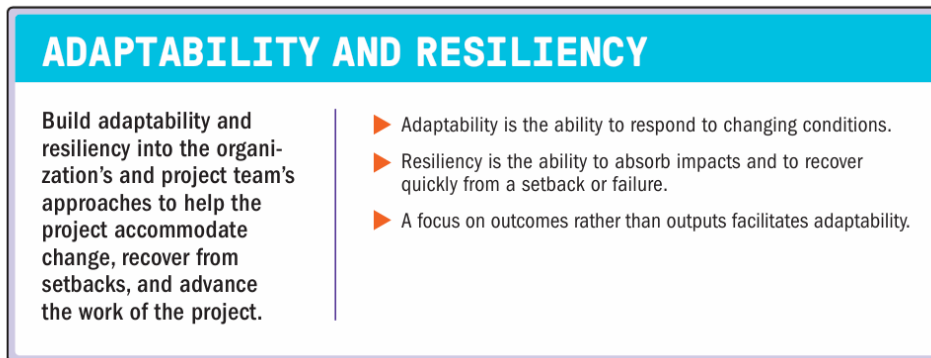
Risk principle



Note. Adapted from PMBOK guide 7th edition, 2021, p.53

Figure 12

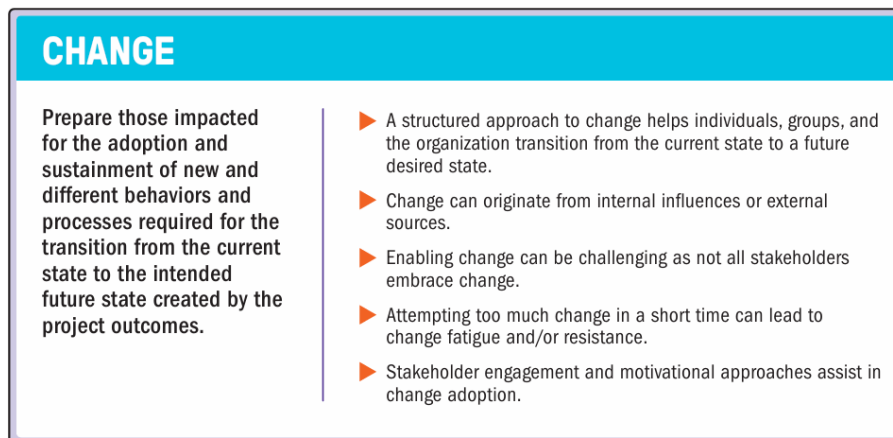
Adaptability and resiliency principle



Note. Adapted from PMBOK guide 7th edition, 2021, p.55

Figure 13

Change principle



Note. Adapted from PMBOK guide 7th edition, 2021, p.58

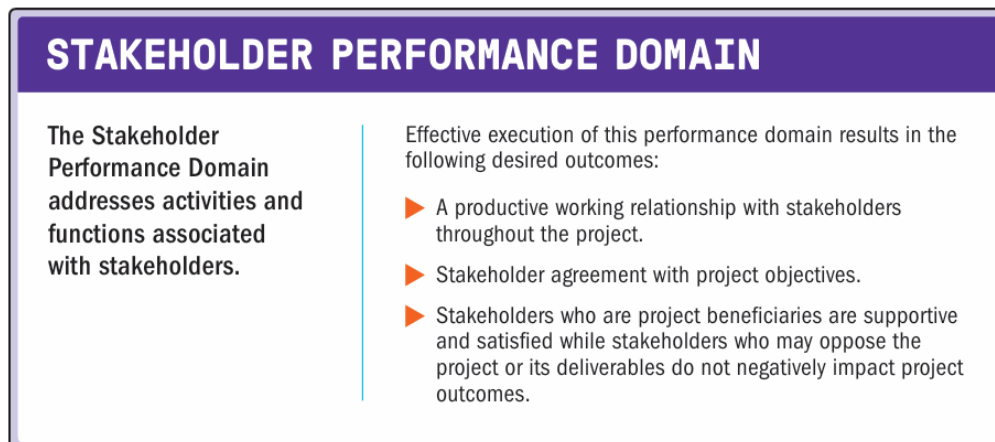
2.2.2 Project management domains

The PMBOK guide, 7th edition introduces a modern, flexible approach to project management by focusing on eight Project Performance Domains: Stakeholders, Team, Development Approach and Life Cycle, Planning, Project Work, Delivery, Measurement,

and Uncertainty (PMI, 2021). These domains represent groups of related activities that are essential to achieving effective project outcomes. According to the Project Management Institute (PMI), a project performance domain is defined as “a group of related activities that are critical for the effective delivery of project outcomes” (PMI, 2021, p.7). The eight project management domains are illustrated in the figures below for greater understanding.

Figure 14

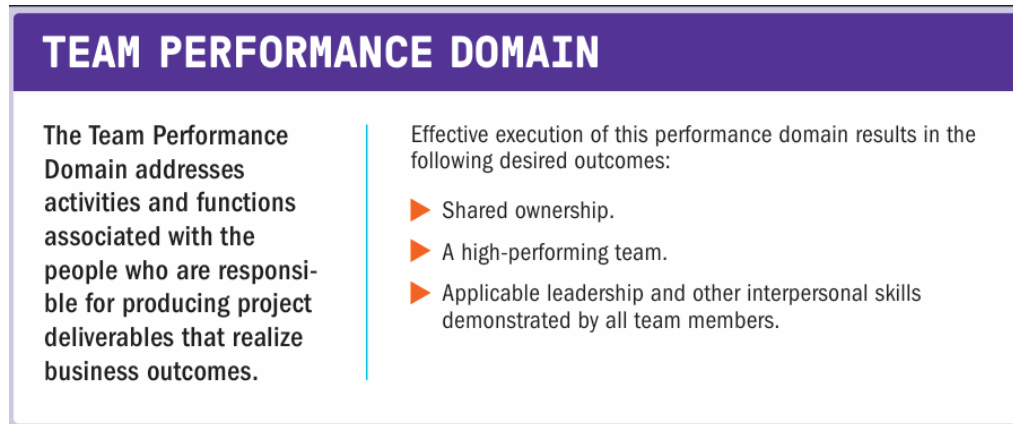
Stakeholder performance domain



Note. Adapted from PMBOK guide 7th edition, 2021, p.8

Figure 15

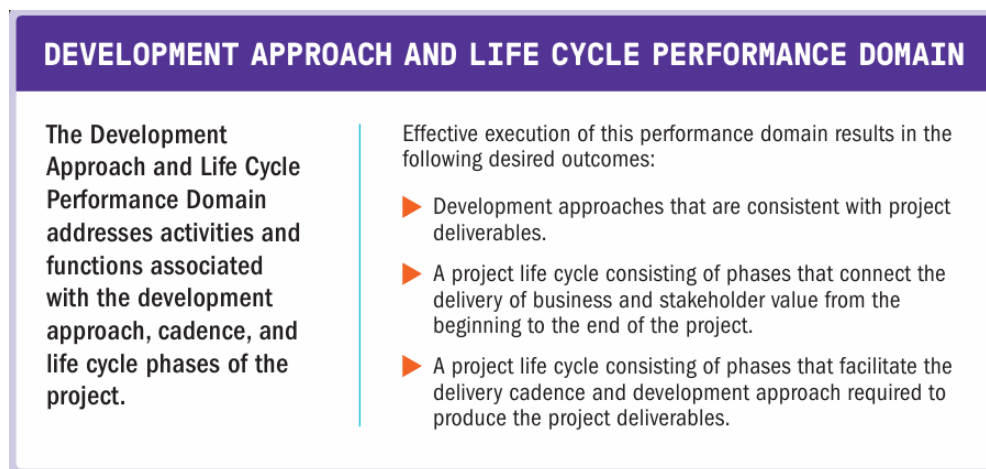
Team performance domain



Note. Adapted from PMBOK guide 7th edition, 2021, p.16

Figure 16

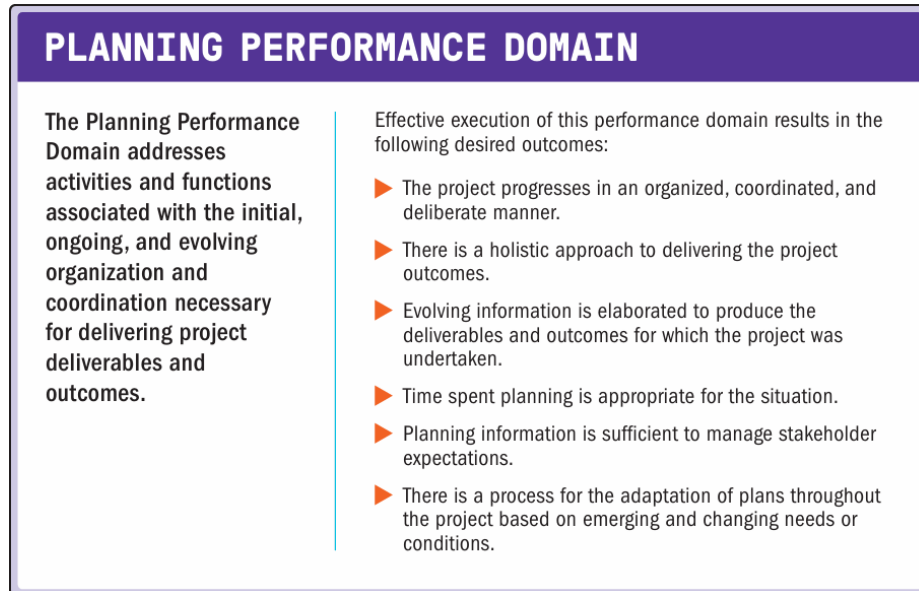
Development approach and life cycle domain



Note. Adapted from PMBOK guide 7th edition, 2021, p.32

Figure 17

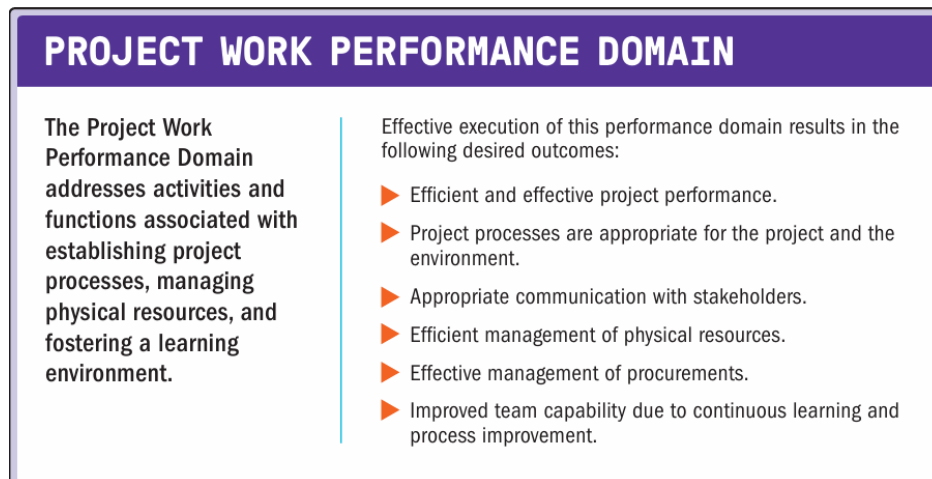
Planning performance domain



Note. Adapted from PMBOK guide 7th edition, 2021, p.51

Figure 18

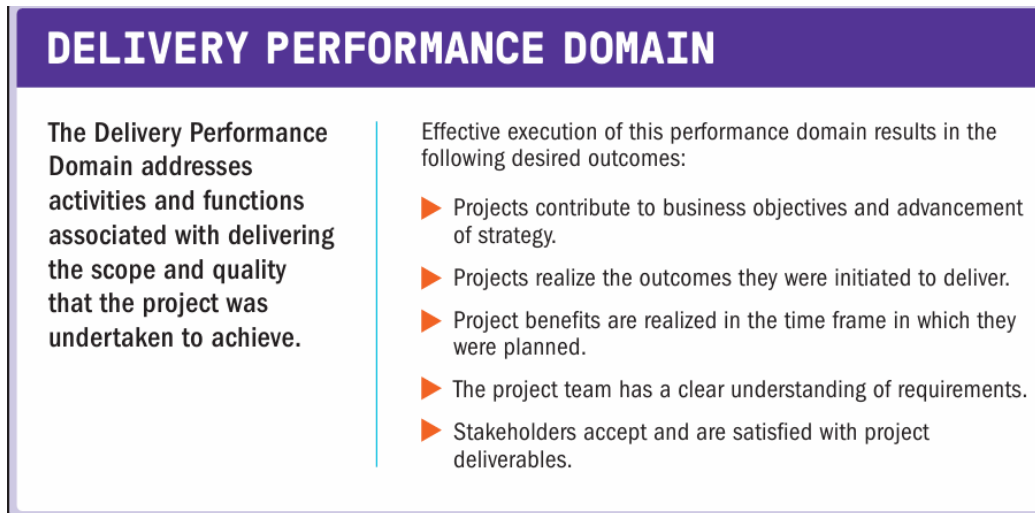
Project work performance domain



Note. Adapted from PMBOK guide 7th edition, 2021, p.69

Figure 19

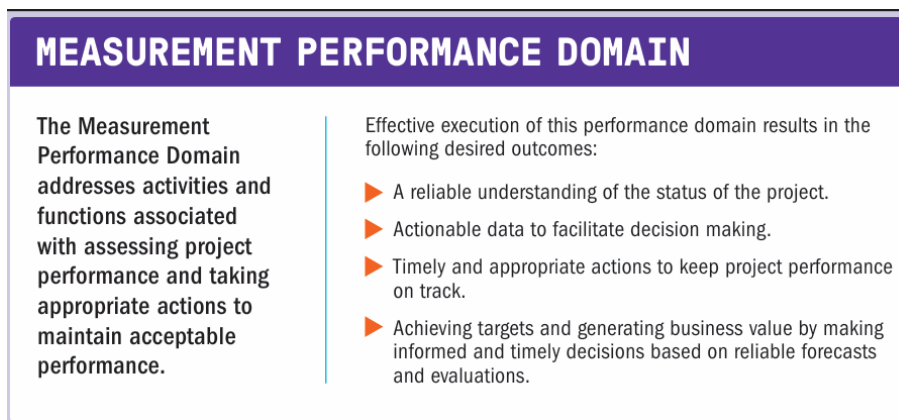
Delivery performance domain



Note. Adapted from PMBOK guide 7th edition, 2021, p.80

Figure 20

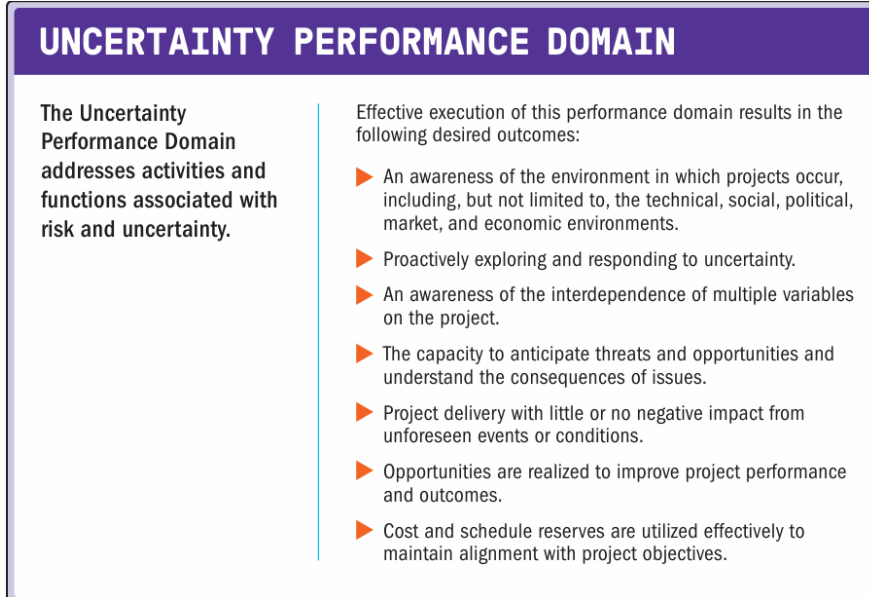
Measurement performance domain



Note. Adapted from PMBOK guide 7th edition, 2021, p.93

Figure 21

Uncertainty performance domain



Note. Adapted from the PMBOK guide 7th edition, p.116

The project performance domains are not linear; rather, they are interdependent and continuously interact throughout the project lifecycle. They operate alongside guiding principles that help teams make effective decisions and remain focused on project objectives. Marucci (2020) explains that these principles influence how individuals behave within each domain, as the domains represent key areas of activity that affect overall project performance. For a project like Wilson Farm, this integrated approach allows the project manager to coordinate resources, respond to challenges in agricultural operations, and guide the team toward improved efficiency and sustainable production outcomes.

2.2.3 Predictive, adaptative, and hybrid projects

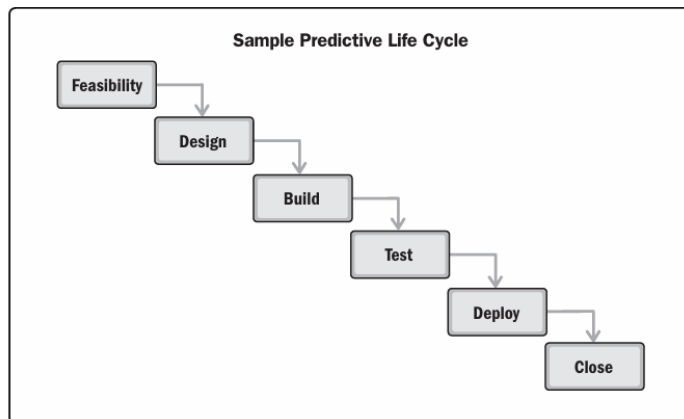
According to PMI (2021), the development approach refers to the method used to create and deliver project deliverables. This may include predictive (waterfall), adaptive (agile), hybrid, or other tailored methods, depending on the project's complexity, uncertainty, and stakeholder needs. The selected approach influences how work is planned, executed, and reviewed, shaping timelines, resource allocation, and team structure.

Huemann et al. (2024) expand on this by describing a development approach as a set of principles and guidelines that define how a specific project is managed, emphasizing that it extends beyond any single methodology. They explain that while predictive approaches focus on detailed upfront planning, adaptive methods allow for iterative development and flexibility, and hybrid models combine elements of both.

For a project like Wilson Farm's agricultural improvement initiative, selecting an appropriate development approach is crucial to striking a balance between structure and flexibility, supporting effective planning, risk management, stakeholder engagement, and sustained value delivery throughout the project lifecycle. Therefore, a hybrid development approach is best suited for the Wilson Farm project, as it combines the structured planning needed for infrastructure and resource management with the flexibility required to adapt to changing agricultural conditions and stakeholder feedback (Association for Project Management (APM), 2025). This balance allows the project manager to maintain control over fixed elements while remaining responsive to evolving needs throughout the project lifecycle. The following figures show the three approaches.

Figure 22

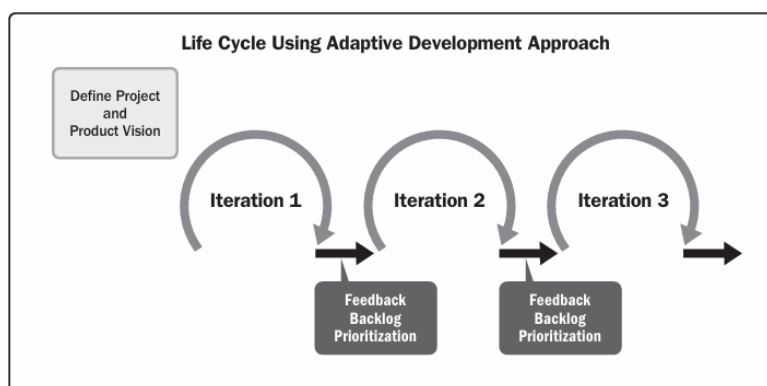
Example of a predictive project



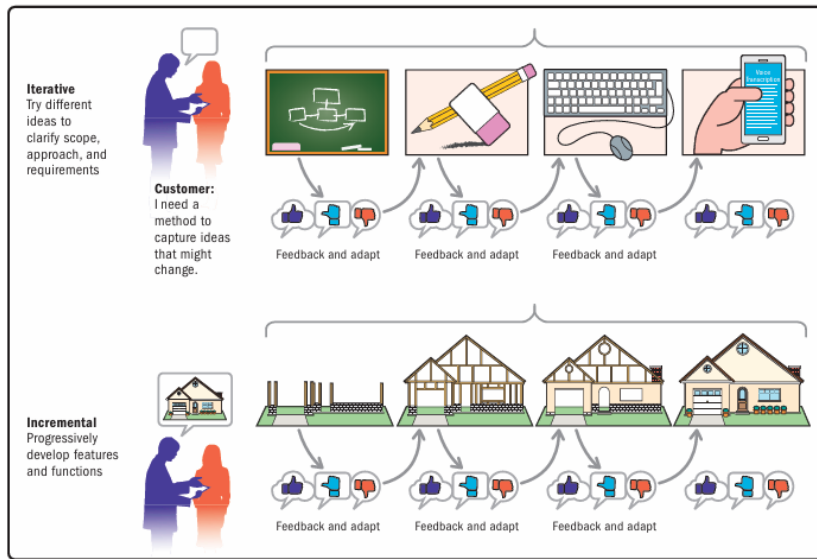
Note. Adapted from PMBOK guide 7th edition, 2021, p.43

Figure 23

Example of an adaptive project



Note. Adapted from PMBOK guide 7th edition, 2021, p.45

Figure 24*Example of a hybrid project*

Note. Adapted from PMBOK guide 7th edition, 2021, p.37

2.2.4 Project management

Project management is the application of knowledge, skills, tools, and techniques to project activities to meet the project requirements (PMI, 2021). Unlike regular operations, projects have a clear beginning and end, defined objectives, and work within time and resource limits. Project management helps teams organize and control activities so that the project can be completed successfully.

Guttermann (2023) explains that project management is a temporary structure created to accomplish a goal within a set time and with limited resources. This structure allows people from different departments or backgrounds to work together without interrupting normal business functions. Project management involves organizing tasks, assigning

responsibilities, tracking progress, and making sure the project aligns with the organization's goals.

Lewis (2022) describes project management as both a science and an art. The science includes planning tools like schedules, budgets, and risk analysis. These help break down the work into smaller parts and keep everything organized. The art of project management involves leadership, communication, and teamwork. Project managers need to motivate people, solve problems, and adjust to changes to keep the project moving forward.

Together, these two authors show that project management is about more than just planning. It also involves guiding people and adapting to challenges. A good project manager must be able to plan tasks and lead the team to reach the final goal.

For the Wilson Farm project, project management is especially important. Improving dasheen production requires careful planning, good use of resources, and teamwork among farm staff, suppliers, and community members. Applying project management principles allows the team to stay organized, avoid delays, and achieve their goals in a timely and cost-effective way.

2.2.5 Project management knowledge areas and processes

Project management knowledge areas are specialized fields that collectively support the successful planning, execution, and delivery of projects (PMI, 2023). There are ten knowledge areas, each encompassing key processes that guide project activities and decision-making throughout the project life cycle. These areas provide a framework for applying tools, techniques, and best practices in a consistent and structured manner. The project will utilize the following ten knowledge areas:

- I. Integration Management
- II. Scope Management
- III. Schedule Management
- IV. Cost Management
- V. Quality Management
- VI. Resource Management
- VII. Communication Management
- VIII. Risk Management
- IX. Procurement Management
- X. Stakeholder Management

According to the PMI (2023), a process in project management is defined as a set of interrelated actions and activities performed to achieve a specific result. These processes transform inputs into outputs using defined tools, techniques, and methodologies. They are grouped into five process groups that align with the natural flow of a project's life cycle: Initiating, Planning, Executing, Monitoring and Controlling, and Closing. Each knowledge area in project management is associated with specific processes that align with the five process groups: Initiating, Planning, Executing, Monitoring and Controlling, and Closing. For example, the Schedule Management knowledge area is primarily applied during the Planning group, where activities such as defining and sequencing tasks occur, but it also contributes to the Monitoring and Controlling group when updates and adjustments are

made to the project timeline (PMI, 2023). The following table outlines the processes as it relates to each knowledge area.

Figure 25

Project management process groups and knowledge areas

Project Management Process Groups				
Initiating Process Group	Planning Process Group	Executing Process Group	Monitoring and Controlling Process Group	Closing Process Group
4.1 Develop Project Charter 4.2 Identify Stakeholders	5.1 Develop Project Management Plan 5.2 Plan Scope Management 5.3 Collect Requirements 5.4 Define Scope 5.5 Create WBS 5.6 Plan Schedule Management 5.7 Define Activities 5.8 Sequence Activities 5.9 Estimate Activity Durations 5.10 Develop Schedule 5.11 Plan Cost Management 5.12 Estimate Costs 5.13 Determine Budget 5.14 Plan Quality Management 5.15 Plan Resource Management 5.16 Estimate Activity Resources 5.17 Plan Communications Management 5.18 Plan Risk Management 5.19 Identify Risks 5.20 Perform Qualitative Risk Analysis 5.21 Perform Quantitative Risk Analysis 5.22 Plan Risk Responses 5.23 Plan Procurement Management 5.24 Plan Stakeholder Engagement	6.1 Direct and Manage Project Work 6.2 Manage Project Knowledge 6.3 Manage Quality 6.4 Acquire Resources 6.5 Develop Team 6.6 Manage Team 6.7 Manage Communications 6.8 Implement Risk Responses 6.9 Conduct Procurements 6.10 Manage Stakeholder Engagement	7.1 Monitor and Control Project Work 7.2 Perform Integrated Change Control 7.3 Validate Scope 7.4 Control Scope 7.5 Control Schedule 7.6 Control Costs 7.7 Control Quality 7.8 Control Resources 7.9 Monitor Communications 7.10 Monitor Risks 7.11 Control Procurements 7.12 Monitor Stakeholder Engagement	8.1 Close Project or Phase

Note. Adapted from Process groups: A practice guide, 2023, p.22

2.2.6 Project life cycle

A project life cycle is a series of phases that a project passes through from its initiation to its closure (PMI, 2021). A typical project life cycle consists of five key phases that guide the project from beginning to end (PMI, 2023). The Initiation phase involves defining the project's purpose and obtaining formal authorization to begin. In the Planning phase, detailed plans are developed to outline the project's scope, schedule, budget, risks, and resource needs. The Execution phase focuses on carrying out the planned activities to produce the project deliverables. During Monitoring and Controlling, project performance is tracked and measured to ensure alignment with the plan, and necessary adjustments are made. Finally, the Closure phase involves completing all project work, obtaining approvals, and formally closing the Project (PMI, 2023).

For the development of the Wilson Farm Project Management Plan, the five-stage project life cycle model is appropriate and will be applied. As outlined by project management standards, this model provides a clear, step-by-step structure that aligns with both the academic and practical requirements of the Final Graduation Project (FGP). The first phase, initiation, begins with the creation of the project charter during the research seminar, which establishes the foundation and objectives of the project. In the second phase, planning, the project's scope, schedule, and resource needs are outlined and refined as part of the graduation seminar coursework.

The third phase, execution, involves the full development of the project management plan during the graduation course. This is followed by the fourth phase, monitoring and controlling, which includes tutor feedback and iterative improvements

based on evaluator input. The final phase, closing, culminates in the formal presentation of the completed plan to the academic board, marking the official end and delivery of the project.

2.2.7 Company strategy, portfolios, programs and projects

Business strategy refers to the coordinated set of long-term actions and decisions that guide an organization in achieving its goals and securing a competitive advantage. It outlines how a company positions itself in the market, manages its resources, and adapts to external challenges. According to Wheelen et al., (2018), strategy is central to shaping priorities across the organization, ensuring that efforts at all levels, whether in operations, innovation, or growth, are aligned with a clear vision.

A portfolio is a structured grouping of diverse programs, projects, and operational activities selected to achieve the organization's strategic objectives. The 2023 PMI Process Groups: A Practice Guide emphasizes that portfolio management ensures alignment between strategy and execution by enabling effective prioritization, resource allocation, and performance monitoring. Portfolios often include a mix of initiatives that may or may not be directly related but collectively support value delivery.

Programs consist of related projects that are coordinated together to gain efficiencies and benefits that would not be possible if managed separately. Program management focuses on integration, resource optimization, and achieving strategic outcomes that extend beyond individual project outputs (PMI, 2023). It ensures that

projects under the same program contribute to a broader goal, such as regional development or innovation.

Projects, in contrast, are focused and time-bound efforts aimed at producing specific deliverables. As defined by the PMI (2023), a project has a clear beginning and end and is undertaken to create a unique product, service, or result. Project management involves planning, executing, and controlling activities to meet defined objectives within constraints of scope, time, and budget. Projects are essential tools for implementing change and delivering measurable outcomes.

These components: strategy, portfolios, programs, and projects, are structured hierarchically. Projects often roll up into programs, which are then grouped within portfolios, all designed to support the overarching business strategy.

The initiative to develop a project management plan for Wilson Farm qualifies as a project. It is a standalone effort with a specific objective: improving dasheen production through better planning, scheduling, and resource use. While it aligns with larger strategic goals of food security and rural development in St. Vincent and the Grenadines, it is not currently part of a larger program or portfolio. However, its success could inform future agricultural projects and potentially be integrated into a broader program for sustainable farming practices.

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

This section explains the main ideas, theories, and past research that help guide the project management plan for Wilson Farm. It looks at the current situation in St. Vincent and the Grenadines, reviews studies about managing agricultural projects, and discusses how climate change affects farming in the Caribbean. The information comes from both international project management standards and local sources to make sure the plan fits the real needs of the area. Each part of this section includes definitions, useful studies, and practical ideas that support the methods used in the project.

2.3.1 Current situation of the problem or opportunity in study

St. Vincent and the Grenadines has identified dasheen as a priority crop for national development and export growth. In recent years, over 30,000 pounds of dasheen were exported to Florida, and exports have also resumed to European markets such as the United Kingdom (Cooke, 2023; CARDI, 2023). Additionally, regional trade with Trinidad and Tobago continues to expand (Julien, 2021). As a result of this growing demand, dasheen has been officially declared the “Blue Gold” crop due to its potential to increase farmer income and strengthen the rural economy (OECS, 2023).

However, despite this recognition, many small farms including Wilson Farm in the Marriaqua Valley still operate without structured production systems. These farms frequently experience challenges such as low productivity, inconsistent quality, and limited access to market-ready infrastructure. Without the necessary planning and management tools, farmers are often unable to meet market requirements or respond to the rising

demand from both regional and international buyers (CARDI, 2023). This limits their ability to benefit from dasheen's growing economic potential.

At the same time, while dasheen has received some institutional attention, most government-led and international development programs have focused on other crops such as hot peppers. For example, the Ministry of Agriculture, in collaboration with the FAO, has introduced structured plans to increase production, improve processing capacity, and support marketing for hot peppers (FAO, 2024; St Vincent Times, 2024). This initiative demonstrates how clear planning and coordinated support can drive agricultural success and offers a valuable model that could be applied to dasheen production.

Although some steps have been taken, such as post-harvest training sessions for local farmers (LaSur, 2023), these are not yet part of a broader, consistent strategy. Therefore, for farms like Wilson Farm, there is a timely opportunity to apply recognized project management practices such as those outlined in the PMBOK Guide (PMI, 2021). This can improve organization, efficiency, and quality control. Ultimately, implementing a structured and professional approach to dasheen production can enable smallholder farms to reduce waste, improve competitiveness, and contribute more meaningfully to the national goal of expanding agricultural exports.

2.3.2 Previous research done for the topic in the study

Several academic studies and publications have contributed to the development of this project. To begin with, the PMI (2021) provided a complete foundation for understanding how to plan, schedule, and manage projects using globally accepted standards. This source was particularly useful in shaping the structure of the project

management plan, including tools such as the Work Breakdown Structure (WBS), scheduling techniques, and risk assessment strategies.

Further support came from research specific to the agricultural sector. For example, Kholodova and Podgorskaya (2020) explored how project management methods can be successfully applied in farming contexts. Their study emphasized the importance of planning and organizing tasks in a way that suits the unique conditions of agricultural production. Similarly, Kimagut and Makokha (2023) examined how effective project planning and monitoring practices improve performance in agricultural projects. These insights directly informed the design of the Wilson Farm plan, ensuring it is both realistic and tailored to a small-scale farm setting.

In addition to academic literature, institutional studies have also contributed valuable insights to this project. The Food and Agriculture Organization (FAO, 2022) emphasized the importance of integrating climate risk management into smallholder farming strategies, particularly in the Caribbean. The report identified that without proper planning tools, small farms are more likely to experience losses due to extreme weather events, resource inefficiencies, and poor coordination.

It is recommended that farmers adopt structured systems for monitoring, evaluating, and adapting their practices to improve both resilience and productivity. These findings directly support the development of a formal project management plan for Wilson Farm, as such a tool can provide the structure and flexibility needed to respond to climate threats while maintaining efficient, profitable operations.

Furthermore, academic discussions on sustainability strengthened the project's long-term focus. Plattfaut (2022) argued that project management capabilities are essential for achieving sustainable business outcomes, while Voora et al. (2022) highlighted the importance of investing in sustainable agricultural practices. These studies supported the inclusion of environmentally responsible strategies within the project, aligning the plan with both local goals and global sustainability standards.

2.3.3 Other theories related to the topic in the study

Climate change and agricultural resilience in the Caribbean

Climate change refers to long-term shifts in weather patterns, including increased temperatures, unpredictable rainfall, and more frequent extreme weather events. These changes are largely caused by human activities such as greenhouse gas emissions (Makara, 2021). In the Caribbean, and particularly in St. Vincent and the Grenadines (SVG), climate change is already having serious impacts on the agricultural sector.

Agriculture plays an important role in SVG's economy. It accounts for around 9% of the country's GDP and employs over 10% of the labor force (IICA, 2022). However, farmers across SVG are now facing new challenges. These include prolonged droughts, intense hurricanes, soil erosion, and flooding, especially in low-lying and coastal areas like the Marriaqua Valley where Wilson Farm is located (RUAf, 2021).

SVG's agriculture is highly dependent on natural rainfall and is vulnerable to soil degradation due to steep terrain. In addition, the use of nitrogen fertilizers, livestock

manure, and poor soil management contribute to greenhouse gas emissions. In fact, agriculture accounted for nearly 18% of SVG's emissions in 2004, mostly from nitrous oxide (IICA, 2022).

To help farmers adapt, climate-smart strategies are being promoted. These include contour farming, rainwater harvesting, organic fertilization, and the use of nitrogen-fixing crops. Diversifying crops and installing drip irrigation systems can also help manage water use and reduce vulnerability to dry spells (IICA, 2022). These solutions are especially useful for small farms like Wilson Farm.

Despite these solutions, there are barriers to adoption. Many farmers lack the training, funding, or technical support to make the needed changes. The aging farming population, limited youth involvement, and weak extension services also slow progress (IICA, 2022). These factors must be considered when planning agricultural development projects.

In response, both national and regional agencies have recommended actions to improve resilience. These include providing structured farmer training, supporting youth and women in agriculture, and improving disaster risk financing. Integrating these strategies into local farm projects can increase resilience and productivity (IICA, 2022).

Furthermore, resilient food systems are essential. RUAF (2021) highlights the need for stronger urban-rural linkages, inclusive value chains, and agroecological practices to

build long-term food security in SVG. Reducing food imports and supporting local producers will also make the country less dependent on external supply chains.

For Wilson Farm, developing a clear and well-structured project management plan is essential. Such a plan will help organize farm activities, anticipate climate-related risks, allocate resources effectively, and support informed decision-making. Ultimately, the project management plan will guide the farm in managing climate conditions more efficiently while improving productivity and profitability over time.

Food security

Food security is defined as the condition in which all people, at all times, have physical and economic access to sufficient, safe, and nutritious food to meet their dietary needs for an active and healthy life (World Bank, 2025). In St. Vincent and the Grenadines (SVG), food security has become an urgent issue due to recurring natural hazards such as droughts, hurricanes, and volcanic eruptions, all of which have disrupted local food production and damaged major crops (Times Staff, 2024). These repeated shocks, combined with global food supply chain disruptions, have exposed the country's vulnerability and raised concerns about the stability of its food system.

The agricultural sector in SVG plays a vital role in supporting food availability, but it faces several challenges. According to IICA (2022), most small farmers still lack the resources and technical support necessary to ensure consistent, climate-resilient food production. Moreover, IICA further stated that the country's heavy reliance on food

imports, which is common across the Caribbean, makes SVG especially vulnerable to rising prices and global supply constraints. These factors put pressure on domestic food systems and limit food access for low-income households.

To address these problems, national initiatives have aimed to improve food production by supporting smallholder farmers with essential inputs. For example, under the UBEC-CERC Food Insecurity Project, over 1,300 farmers received farm tools and irrigation systems, while more than 500 others were supported with livestock, training, and backyard farming resources (Times Staff, 2024). These efforts aim to boost short-term agricultural productivity and improve household-level food availability.

However, these interventions must be complemented by strong planning and management practices at the farm level to be sustainable. Without a structured approach to organizing activities, tracking outputs, and managing risks, farms may not fully benefit from these resources. In this regard, a well-developed project management plan becomes essential. For Wilson Farm, it will help guide production, reduce inefficiencies, and align operations with national food security goals. It will also ensure that the farm contributes meaningfully to reducing import dependence and building a more stable, self-reliant food system in SVG.

3 METHODOLOGICAL FRAMEWORK

This chapter explains the approach used to develop the Wilson Farm project. It includes the sources of information, research methods, tools, assumptions, constraints, and deliverables that guided the planning process. To ensure a well-rounded understanding, a mixed-methods approach was adopted, combining both quantitative and qualitative research techniques.

In addition, simple and accessible tools were selected to match the rural context of the project. These tools and methods were carefully chosen based on their usefulness in supporting each project objective and improving decision-making. Finally, the chapter outlines the key deliverables, which reflect the main outputs expected from each planning activity and help measure the project's progress and success.

3.1 Information sources

According to the University of Minnesota (2025), information sources refer to materials used to collect data or support research. These sources are grouped based on how directly they relate to the original event or subject, and are typically categorized as primary, secondary, or tertiary.

3.1.1 Primary sources

According to the University of Minnesota (2025), primary sources are original materials that provide direct evidence or first-hand accounts of a subject. These include government publications, institutional reports, statistical data, and news articles created at the time of the event or issue. These sources will be used to present

real-world information on agricultural practices, dasheen production, climate impacts, and food security in St. Vincent and the Grenadines.

3.1.2 Secondary sources

Secondary sources, as defined by the University of Minnesota (2025), are materials that interpret, analyze, or summarize information from primary sources. These include scholarly books, academic journal articles, project management guides, and literature reviews. In the context of this project, secondary sources will support the development of the theoretical and methodological framework.

Table 1

Information sources

Objectives	Information sources	
	Primary	Secondary
1. To create the project charter to elaborate key elements for developing the Final Graduation Project focused on enhancing dasheen production at Wilson Farm	Reports, stakeholder consultation	Books and scholarly articles
2. To create a detailed project scope management plan to clearly define the boundaries of the project, specify deliverables, and ensure all stakeholder expectations related to	Stakeholder consultations	Books and scholarly articles

Objectives	Information sources	
	Primary	Secondary
dasheen production are captured and controlled.		
3. To design a schedule management plan that outlines timelines, task dependencies, and milestones to efficiently organize and monitor the farm's production activities within the project's duration.	Field observation	Books and scholarly articles
4. To formulate a cost management plan that includes budget estimation, funding sources, and cost control mechanisms to ensure that all aspects of the dasheen production improvements are financially sustainable and completed within budget.	Farm records	Books and scholarly articles
5. To construct a quality management plan that establishes standards, assurance procedures, indicators for quality measures, and mechanisms to guarantee the satisfaction of stakeholder expectations throughout all stages of dasheen production.	Field interviews	Books and scholarly articles
6. To develop a resource management plan which empowers the reference framework for the organization and allocation of human,	Farm records	Books and scholarly articles

Objectives	Information sources	
	Primary	Secondary
material, and technological resources according to the expectations and operational requirements of the project.		
7. To build a communication management plan to ensure timely, transparent, and effective engagement of stakeholders through appropriate channels, enabling active participation throughout project planning and implementation.	Meeting notes	Books and scholarly articles
8. To create a risk management plan that identifies potential threats and opportunities, and provides appropriate strategies and tools for minimizing adverse impacts while enhancing resilience in farm operations.	Reports, field interview	Books and scholarly articles
9. To develop a procurement management plan that defines the policies and procedures for acquiring necessary inputs and services, emphasizing cost-effectiveness, timeliness, and the use of environmentally responsible (green) procurement practices.	Purchase orders, farm reports	Books and scholarly articles

Objectives	Information sources	
	Primary	Secondary
10. To produce a stakeholder management plan that outlines strategies for identifying, analyzing, and engaging stakeholders who have influence over or interest in the success of the Wilson Farm project, fostering collaboration and shared ownership.	Stakeholder feedback, field interviews	Books and scholarly articles
11. To develop a comprehensive project closure plan that establishes clear criteria for evaluating deliverables, conducting final reviews, documenting lessons learned, and obtaining stakeholder acceptance, ensuring that all project activities are formally completed and that Wilson Farm can sustain operations beyond the project's conclusion.	Lessons learned register	Books and scholarly articles

Note. (Source: Hutchins, 2025)

3.2 Research methods

Research methods are the strategies, processes, or techniques used to collect and study data so that researchers can gain new understanding or meet the goals of a project (Newcastle University, 2024). In this project, a mixed-methods approach will be used. This

means combining quantitative, qualitative, and secondary data analysis methods to create a well-rounded and practical plan to improve dasheen production at Wilson Farm.

3.2.1 Quantitative method: Quantitative research focuses on collecting data in numerical form that can be measured and analyzed statistically. It helps identify patterns and relationships in data (Newcastle University, 2024). In this project, structured interviews will be used to gather measurable responses from farm staff, suppliers, and stakeholders. The results will help inform scheduling, budgeting, and procurement planning.

3.2.2 Qualitative method: Qualitative research involves collecting non-numerical data to understand people's experiences, behaviors, and social settings. It is useful for exploring complex issues in depth (Newcastle University, 2024). This project will use informal interviews, stakeholder discussions, and participant observation to gain insights into current farming practices, stakeholder concerns, and local cultural norms affecting dasheen production.

Secondary data analysis involves using existing sources of information such as reports, statistics, or research studies to support new research objectives (Newcastle University, 2024). In this project, agricultural policies, sustainability reports, and dasheen export data will be analyzed. Both inductive reasoning, which identifies patterns and deductive reasoning which applies theory to practice, will be used to support decision-making across all project knowledge areas.

Table 2*Research methods*

Objectives	Research methods		
	Quantitative	Qualitative	Qualitative-Inductive-deductive
1. To create the project charter to elaborate key elements for developing the Final Graduation Project focused on enhancing dasheen production at Wilson Farm.			Inductive analysis was used to compile background data on dasheen farming practices, challenges, and development trends.
2. To create a detailed project scope management plan to clearly define the boundaries of the project, specify deliverables, and ensure all stakeholder expectations related to dasheen production are captured and controlled.	Structured interviews were used to identify key stakeholder requirements and define project scope.	Observations were conducted to understand practical farm processes affecting scope boundaries.	Inductive and deductive analysis was used to interpret findings and inform the scope management plan.
3. To design a schedule management plan that outlines timelines, task dependencies, and milestones to efficiently organize and monitor the farm's production activities within the project's duration.	Structured interviews collected task duration and sequencing data.	Participant observation was used to understand workflow patterns.	Inductive and deductive analysis informed schedule design using observed and reported data.
4. To formulate a cost management plan that includes budget estimation, funding sources, and cost control mechanisms to ensure that all aspects of the	Structured interviews provided data on input costs, budget	Observations were conducted to understand on-farm spending patterns.	Inductive and deductive analysis supported the formulation of the cost plan.

Objectives	Research methods		
	Quantitative	Qualitative	Qualitative-Inductive-deductive
dasheen production improvements are financially sustainable and completed within budget.	expectations, and payment flows.		
5. To construct a quality management plan that establishes standards, assurance procedures, indicators for quality measures, and mechanisms to guarantee the satisfaction of stakeholder expectations throughout all stages of dasheen production.	Field interviews were used to understand quality expectations and issues from stakeholders.		Deductive analysis was applied to identify applicable quality standards, while inductive analysis helped shape appropriate quality indicators based on reviewed agricultural guidelines and case studies.
6. To develop a resource management plan which empowers the reference framework for the organization and allocation of human, material, and technological resources according to the expectations and operational requirements of the project.		Participant observations were used to understand how tasks and roles are currently distributed at Wilson Farm.	Inductive analysis provided insights on local labor and material usage, while deductive reasoning helped align those insights with best practices in resource planning.
7. To build a communication management plan to ensure timely, transparent, and effective engagement of	Structured interviews gathered stakeholder preferences for		Inductive and deductive analysis helped align communication

Objectives	Research methods		
	Quantitative	Qualitative	Qualitative-Inductive-deductive
stakeholders through appropriate channels, enabling active participation throughout project planning and implementation.	communication channels and feedback timing.		tools with stakeholder expectations and project requirements.
8. To create a risk management plan that identifies potential threats and opportunities, and provides appropriate strategies and tools for minimizing adverse impacts while enhancing resilience in farm operations.	Structured interviews to gather information from farm workers and local experts on the frequency and impact of common agricultural risks.	Observations from the field were used to see how late supplies, pest issues, and lack of workers affected farm activities.	Inductive and deductive analysis was used to categorize risks and suggest tailored mitigation strategies.
9. To develop a procurement management plan that defines the policies and procedures for acquiring necessary inputs and services, emphasizing cost-effectiveness, timeliness, and the use of environmentally responsible (green) procurement practices.	Structured interviews were used to collect information on local supplier reliability and procurement timelines.		Inductive and deductive analysis of procurement data and agricultural input reports informed sustainable sourcing procedures.
10. To produce a stakeholder management plan that outlines strategies for identifying, analyzing, and engaging stakeholders who have influence over or interest in the success of the Wilson Farm project, fostering collaboration and shared ownership.	Stakeholder interviews and local consultations were used to assess levels of interest, influence, and roles.		Inductive reasoning supported the classification of stakeholders, while deductive reasoning guided strategy alignment.

Objectives	Research methods		
	Quantitative	Qualitative	Qualitative-Inductive-deductive
11. To develop a comprehensive project closure plan that establishes clear criteria for evaluating deliverables, conducting final reviews, documenting lessons learned, and obtaining stakeholder acceptance, ensuring that all project activities are formally completed and that Wilson Farm can sustain operations beyond the project's conclusion.			Inductive and deductive analysis was applied for project closure

Note. (Source: Hutchins, 2025)

3.3 Tools

According to Landau (2024), project management tools are practical techniques or instruments that help teams carry out project tasks, solve problems, and monitor performance across different project stages. These tools are used to collect, organize, and analyze information, ensuring project goals are met effectively. For the Wilson Farm project, a small-scale agricultural initiative, only a few simple and accessible tools were selected to ensure the work remained manageable and relevant to the rural context.

The tools chosen reflect common recommendations from the PMBOK Guide and were matched to the objectives of the project. Key tools included checklists for tracking task completion, interviews to gather stakeholder input, mind mapping to define scope, and

estimation techniques to manage cost and schedule. Each tool was used based on its usefulness to a particular task or phase of the project and its ability to support better decision-making and planning.

For example, checklists were used during scope and quality planning to ensure that project requirements and performance indicators were clearly outlined and followed. Interviews were used to collect valuable feedback from stakeholders such as farm workers, buyers, and local extension officers. Mind maps helped organize ideas during scope development, while bottom-up estimating provided a realistic way to build the farm's cost plan using input from prior expenses and supplier rates. In more technical areas, simple tools like Gantt charts, milestone lists, and SWOT analyses helped guide scheduling and risk planning.

Table 3

Tools

Objectives	Tools
1. To create the project charter to elaborate key elements for developing the Final Graduation Project focused on enhancing dasheen production at Wilson Farm.	Checklists, Interviews, Document analysis
2. To create a detailed project scope management plan to clearly define the boundaries of the project, specify deliverables, and ensure all stakeholder expectations related to dasheen production are captured and controlled.	Benchmarking, Interviews, Mind mapping
3. To design a schedule management plan that outlines timelines, task dependencies,	Expert judgement, Gantt chart, Network diagram, Milestone list

Objectives	Tools
and milestones to efficiently organize and monitor the farm's production activities within the project's duration.	
4. To formulate a cost management plan that includes budget estimation, funding sources, and cost control mechanisms to ensure that all aspects of the dasheen production improvements are financially sustainable and completed within budget.	Bottom-up estimating
5. To construct a quality management plan that establishes standards, assurance procedures, indicators for quality measures, and mechanisms to guarantee the satisfaction of stakeholder expectations throughout all stages of dasheen production.	Checklists, Cost-benefit Analysis
6. To develop a resource management plan which empowers the reference framework for the organization and allocation of human, material, and technological resources according to the expectations and operational requirements of the project.	Responsibility assignment matrix (RAM), Resource histogram
7. To build a communication management plan to ensure timely, transparent, and effective engagement of stakeholders through appropriate channels, enabling active participation throughout project planning and implementation.	Stakeholder engagement assessment matrix
8. To create a risk management plan that identifies potential threats and opportunities, and provides appropriate strategies and tools for minimizing adverse impacts while enhancing resilience in farm operations.	Risk register, SWOT Analysis
9. To develop a procurement management plan that defines the policies and procedures for acquiring necessary inputs and services, emphasizing cost-effectiveness, timeliness, and the use of	Market research, Procurement statement of work

Objectives	Tools
environmentally responsible (green) procurement practices.	
10. To produce a stakeholder management plan that outlines strategies for identifying, analyzing, and engaging stakeholders who have influence over or interest in the success of the Wilson Farm project, fostering collaboration and shared ownership.	Stakeholder analysis, Power/Interest grid
11. To develop a comprehensive project closure plan that establishes clear criteria for evaluating deliverables, conducting final reviews, documenting lessons learned, and obtaining stakeholder acceptance, ensuring that all project activities are formally completed and that Wilson Farm can sustain operations beyond the project's conclusion.	Lessons learned register, project closure checklist

Note. (Source: Hutchins. 2025)

3.4 Assumptions and constraints

Assumptions are conditions or elements that are accepted as true or certain during project planning, even without full verification. These assumptions provide a basis for estimating time, cost, and resources (Malsam, 2025). In the context of project management, they are necessary for moving forward with planning despite uncertainties. Constraints refer to the limitations or boundaries that the project must operate within. These include fixed factors such as time, budget, scope, quality, or available resources, which restrict decision-making and affect project execution (Landau, 2024). Proper identification and management of constraints help prevent delays and scope creep. For the Final Graduation

Project of Wilson Farm, identifying both assumptions and constraints for each objective helped ensure a realistic and structured planning process aligned with the project's context.

Table 4

Assumptions and constraints

Objectives	Assumptions	Constraints
1. To create the project charter to elaborate key elements for developing the Final Graduation Project focused on enhancing dasheen production at Wilson Farm	The project charter will be developed before all other supporting project documents.	Limited time to finalize the charter before the planting season begins
2. To create a detailed project scope management plan to clearly define the boundaries of the project, specify deliverables, and ensure all stakeholder expectations related to dasheen production are captured and controlled.	The boundaries and activities of the farm remain unchanged during the planning phase	Scope must align with existing farm size and available labor
3. To design a schedule management plan that outlines timelines, task dependencies, and milestones to efficiently organize and monitor the farm's production activities within the project's duration.	Weather patterns will follow the expected seasonal norms, allowing activities to proceed on time	Project schedule must adhere to natural planting and harvesting cycles
4. To formulate a cost management plan that includes budget estimation, funding sources, and cost control mechanisms to ensure that all aspects of the dasheen production improvements are financially sustainable and completed within budget	Input costs (fertilizers, labor) will remain relatively stable	Budget is limited to existing financial resources and external funding

Objectives	Assumptions	Constraints
5. To construct a quality management plan that establishes standards, assurance procedures, indicators for quality measures, and mechanisms to guarantee the satisfaction of stakeholder expectations throughout all stages of dasheen production.	Buyers and stakeholders accept the current product quality as a baseline	Lack of on-site testing or quality control labs
6. To develop a resource management plan which empowers the reference framework for the organization and allocation of human, material, and technological resources according to the expectations and operational requirements of the project.	Adequate human and material resources will be accessible when needed	Small workforce and limited machinery availability
7. To build a communication management plan to ensure timely, transparent, and effective engagement of stakeholders through appropriate channels, enabling active participation throughout project planning and implementation.	All key stakeholders are reachable through preferred communication channels	Rural connectivity issues
8. To create a risk management plan that identifies potential threats and opportunities, and provides appropriate strategies and tools for minimizing adverse impacts while enhancing resilience in farm operations.	Previously observed risks will remain consistent	Natural disasters or new pests could unpredictably impact operations
9. To develop a procurement management plan that defines the policies and procedures for acquiring necessary inputs and services, emphasizing cost-effectiveness, timeliness, and the use of environmentally responsible (green) procurement practices.	Local suppliers will continue to offer necessary materials and services	Few suppliers meet green procurement or delivery timelines
10. To produce a stakeholder management plan that outlines strategies for identifying, analyzing, and engaging stakeholders who have influence over or interest in the success of the Wilson Farm project, fostering collaboration and shared ownership.	Community members will be interested in participating in the farm's development	Varying levels of commitment and availability among stakeholders
11. To develop a comprehensive project closure plan that establishes clear criteria for evaluating deliverables, conducting final reviews,	All project deliverables will be	Incomplete or delayed documentation

Objectives	Assumptions	Constraints
documenting lessons learned, and obtaining stakeholder acceptance, ensuring that all project activities are formally completed and that Wilson Farm can sustain operations beyond the project's conclusion.	substantially completed and meet the defined acceptance criteria prior to closure activities.	from earlier phases could hinder the efficiency of the closure process.

Note. (Source: Hutchins, 2025)

3.5 Deliverables

In project management, deliverables are the tangible or intangible outcomes produced as a result of project activities, and they are critical to achieving the project's objectives. According to Malsam (2025), deliverables serve as measurable outputs that help track progress, ensure accountability, and validate stakeholder expectations throughout the project life cycle. For the Wilson Farm Project, each deliverable corresponds to a specific objective and reflects a key component of the project management plan to guide the farm's transition toward more efficient, sustainable, and community-oriented agricultural practices.

Table 5

Deliverables

Objectives	Deliverables
1. To create the project charter to elaborate key elements for developing the Final Graduation Project focused on enhancing dasheen production at Wilson Farm.	Project Charter. Outlines the initial framework, purpose, objectives, and justification for improving dasheen production at Wilson Farm.
2. To create a detailed project scope management plan to clearly define the boundaries of the project, specify deliverables, and ensure all stakeholder expectations related to dasheen production are captured and controlled.	Scope Management Plan. Contains defined project deliverables, acceptance criteria, constraints, and scope control processes.
3. To design a schedule management plan that outlines timelines, task dependencies, and milestones to efficiently organize and monitor the farm's production activities within the project's duration.	Schedule Management Plan. Provides timeline, milestones, and task flow.
4. To formulate a cost management plan that includes budget estimation, funding sources, and cost control mechanisms to ensure that all aspects of the dasheen production improvements are financially sustainable and completed within budget.	Cost Management Plan. Details budget, estimates, and control tools.
5. To construct a quality management plan that establishes standards, assurance procedures, indicators for quality measures, and mechanisms to guarantee the satisfaction of stakeholder expectations throughout all stages of dasheen production.	Quality Management Plan. Sets standards, assurance, and quality controls.
6. To develop a resource management plan which empowers the reference framework for the organization and allocation of human, material, and technological resources according to the expectations and operational requirements of the project.	Resource Management Plan. Allocates roles, materials, and tools.
7. To build a communication management plan to ensure timely, transparent, and effective engagement of stakeholders through appropriate channels, enabling	Communication Plan. Outlines stakeholder communication methods.

Objectives	Deliverables
active participation throughout project planning and implementation.	
8. To create a risk management plan that identifies potential threats and opportunities, and provides appropriate strategies and tools for minimizing adverse impacts while enhancing resilience in farm operations.	Risk Management Plan. Identifies risks and defines response strategies
9. To develop a procurement management plan that defines the policies and procedures for acquiring necessary inputs and services, emphasizing cost-effectiveness, timeliness, and the use of environmentally responsible (green) procurement practices.	Procurement Plan. Details sourcing strategies and sustainability practices.
10. To produce a stakeholder management plan that outlines strategies for identifying, analyzing, and engaging stakeholders who have influence over or interest in the success of the Wilson Farm project, fostering collaboration and shared ownership.	Stakeholder Plan. Maps engagement strategies and responsibilities.
11. To develop a comprehensive project closure plan that establishes clear criteria for evaluating deliverables, conducting final reviews, documenting lessons learned, and obtaining stakeholder acceptance, ensuring that all project activities are formally completed and that Wilson Farm can sustain operations beyond the project's conclusion.	Project Closure Plan. Defines the procedures, responsibilities, and criteria for formally closing the Wilson Farm project.

Note. (Source: Hutchins, 2025)

4 RESULTS

4.1. Project Management Plan

According to the PMBOK Guide, Seventh Edition, every project is initiated in response to a clearly defined business need, which serves as the foundation for its planning, execution, and evaluation. These needs originate from preliminary business requirements that are formally documented in a project charter or equivalent authorization instrument (PMI, 2021). The project charter is therefore a critical governance tool, as it formally authorizes the project's existence and grants the project manager the necessary authority to allocate resources in pursuit of the stated objectives.

It also establishes the project's context and strategic alignment by outlining essential elements such as the business case, objectives, requirements, general project description, risks, assumptions, constraints, schedule summary, budget overview, deliverables, and the roles of the project manager, sponsor, and key stakeholders. The development of this document is a collaborative process that draws on structured techniques for data collection and dialogue, with stakeholder engagement sessions and planning meetings playing a central role in ensuring consensus and clarity (PMI, 2023).

Building on the foundation provided by the charter, the Project Management Plan (PMP) serves as a comprehensive and integrated framework that guides the project through all phases of its life cycle, including initiation, execution, monitoring, controlling, and closing. Furthermore, the PMBOK Guide emphasizes that projects are not only designed to deliver outputs but are integral components of a broader system for value delivery. This

perspective emphasizes the importance of linking project deliverables to tangible outcomes and measurable benefits, thereby ensuring that each activity creates value for stakeholders, contributes to organizational objectives, and enhances the sustainability of project investments (PMI, 2021).

Within the context of Wilson Farm, a smallholder agricultural enterprise in the Marriaqua Valley, the PMP is a response to pressing operational and strategic challenges. The farm currently operates without standardized project documentation, formal planning tools, or structured management processes, limiting its ability to increase productivity, manage risks, and achieve market resilience. By introducing a tailored project charter and management plan, this initiative addresses these gaps and outlines a clear path for improving farm operations, optimizing resource allocation, and enhancing the farm's capacity to adapt to climate variability, rising input costs, and shifting market demands.

The PMP is designed not only to establish governance structures and control mechanisms but also to create a blueprint for value creation at multiple levels: for the farm, which gains operational efficiency; for the local community, which benefits from improved food security and economic opportunities; and for the agricultural sector in St. Vincent and the Grenadines, which gains a replicable model for sustainable small-scale farming.

Moreover, it integrates planning with execution and embeds monitoring and evaluation tools to ensure accountability and facilitate continuous improvement. Through principles such as stewardship, stakeholder engagement, and adaptability, it reflects both the realities of a small Caribbean farm and the precision of global project management

standards. Therefore, the first milestone in this process is the creation of the project charter, which functions as the central reference for authorizing work, uniting stakeholders, and aligning objectives with the farm's long-term vision.

Document Tracking (Project Charter)

General Information

	Information
Document ID	001-WF-PC
Document Owner	Wilson Farm
Issue Date	September 11, 2025
Last Saved Date	September 11, 2025
File Name	Project Charter

Change Control

Version	Issue Date	Changes
1.0	September 11, 2025	None

Approvals

Role	Name	Signature©	Date
Project Sponsor	Elroy Wilson		
Project Manager	Cassica Hutchins		

4.1.1 Project Charter

	Project Charter	
Version 1.0	Document ID: 001-WF-PC	09/11/2025

Project Name:	
Company Name:	Wilson Farm
Date	September 11, 2025

Business Case	
Wilson Farm, located in Lauders, Marriacqua Valley, St. Vincent and the Grenadines, is a five-acre smallholder farm focused on dasheen (taro) production for local and regional markets, with plans for expansion through improved management systems and sustainable practices. Like many small Caribbean farms, it faces challenges such as limited planning tools, climate vulnerability, rising input costs, and unstable market access. However, dasheen remains a staple crop with strong potential for food security, community livelihoods, and export growth. This project introduces a comprehensive PMP to address these barriers by formalizing workflows, optimizing resource use, and integrating regenerative agriculture practices to boost soil health and efficiency. The plan aims to strengthen Wilson Farm's role in the Marriacqua Valley economy and position it as a model for small-scale, climate-resilient farming in St. Vincent and the Grenadines.	
Objectives	
To develop a comprehensive project management plan for Wilson Farm that integrates sustainable agricultural practices, structured operations, and strategic market development to improve dasheen production and farm resilience.	
Specific Objectives	
- To implement regenerative agriculture practices to enhance soil health and sustainability. - To increase production efficiency and reduce vulnerability to climate and market risks. - To strengthen market access and stakeholder partnerships for long-term growth.	
Stakeholders	
Direct Stakeholders	
Project Sponsor (Owner) Project Manager	
Indirect Stakeholders	
Marriacqua Community Members Consumers	

Manager and laborers Ministry of Agriculture Input Warehouse (Suppliers) Dasheen Cooperative Local Supermarkets and Hotels	Regional Export Partners
Preliminary Scope	
The project entails the creation of a comprehensive management plan for Wilson Farm to improve dasheen production, integrate sustainable farming practices, and strengthen the farm's role in local and regional markets.	
Requirements	
- Wilson Farm should be accessible via local roads for transport. - The farm should have a reliable nearby water source. - The farm should use regenerative methods like crop rotation. - The farm should adopt sustainable practices for soil and water. - The farm should have a post-harvest area and storage facilities. - The farm should be equipped with adequate tools and infrastructure. - The farm should maintain private ownership and be registered. - The farm should comply with safety and environmental standards. - The farm should have access to essential agricultural services. - The farm should be scalable to meet local and regional demand.	
Assumptions	
- Agricultural inputs and materials will be available when needed. - Local labor will be consistently available for farm activities. - Weather patterns will follow typical seasonal cycles. - Support and guidance from the Ministry of Agriculture will be accessible. - Tools and equipment will remain in working condition.	
Constraints	
- Limited project budget for farm improvements. - Unpredictable weather may disrupt planting and harvesting. - Rising input costs could affect production plans. - Limited access to advanced technology and infrastructure. - Geographic location may slow transport and market access.	
Risk	
- Extreme weather may damage crops or delay production. - Pest and disease outbreaks could reduce yields. - Rising input costs may affect farm profitability. - Limited market demand could lower sales. - Labor shortages may disrupt farm operations.	
Budget	

Cost Estimate	\$ 55,000.00	
Cost Baseline	\$ 57,750.00	
Total Project Budget	\$ 62,370.00	
Milestones		
Name	Start Date	Finish Date
Project Management	02/02/2026	03/20/2026
Land Registration and Compliance	03/23/2026	04/17/2026
Farm Infrastructure Development	04/20/2026	06/20/2026
Cultivation Planning	06/23/2026	08/22/2026
Harvest and Post-Harvest Activities	08/25/2026	09/08/2026
Training and Capacity Building	09/09/2026	09/20/2026
Monitoring and Evaluation	09/23/2026	10/06/2026
Project Approval		
Position	Name	Signature
Project Sponsor	Elroy Wilson	
Project Manager	Cassica Hutchins	

4.1.2 Business Case

The Wilson Farm Project focuses on improving dasheen (taro) production and advancing sustainable agriculture in St. Vincent and the Grenadines. Situated in Lauders, Marriaqua Valley, the farm cultivates around five acres of dasheen, a staple crop central to local diets and regional trade. Yet, like many smallholder farms in the Caribbean, Wilson Farm faces recurring challenges, including unpredictable weather patterns, high production costs, inadequate infrastructure, and fluctuating market access.

This project introduces a comprehensive plan to strengthen Wilson Farm's capacity and resilience. It will invest in critical infrastructure, such as upgraded irrigation and drainage systems, a modest post-harvest facility, and improved access roads to enable year-round operations. The approach emphasizes sustainable soil management, integrated pest control, and environmentally responsible practices to improve yields and safeguard natural resources. Through these efforts, Wilson Farm seeks to contribute to food security, create local employment, and support rural development in the Marriagua Valley. The project's outcomes are intended to demonstrate a practical, replicable model of regenerative farming for other smallholder operations, aligning closely with national priorities for sustainable agriculture and economic diversification.

4.1.3 Change Management Process

All proposed changes to the Wilson Farm Project will follow a structured management process to ensure that adjustments are well-documented, approved, and aligned with project goals. This process will guide the project team, farm owner, and stakeholders through a transparent decision-making workflow, minimizing risks and disruptions.

1. Request for Change:

All proposed changes must be formally submitted using the request form. Requests may originate from farm management, technical advisors, or key stakeholders and must include a clear description of the proposed change and its justification.

2. Impact Analysis:

The project manager will review the change request, analyzing its potential impact on project scope, cost, schedule, quality, resources, and overall objectives. This step ensures that all risks and benefits are clearly understood before a decision is made.

3. Approval or Denial:

The change request will be presented to the project sponsor or decision-making authority (farm owner) for evaluation. The sponsor will determine whether the change should be approved, denied, or deferred based on its feasibility, alignment with project goals, and resource availability.

4. Implementation:

If approved, the change will be scheduled and implemented in a controlled manner. Tasks and resource allocations will be updated in the project plan, and the project team will receive detailed instructions for execution.

5. Review and Documentation:

Once implemented, changes will be reviewed to ensure successful integration into the project. All approved change requests and their outcomes will be documented and archived as part of the official project records, providing a historical reference for future farm planning and development.

4.2. Project Scope Management

Plan Scope Management is the process of developing a plan that specifies how the project and product scope will be defined, validated, and controlled. Its primary purpose is to provide clear guidance and direction on how the scope will be managed throughout the life of the project (PMI, 2023).

Document Tracking (Scope Management Plan)

General Information

	Information
Document ID	002-WF-SMP
Document Owner	Wilson Farm
Issue Date	September 11, 2025
Last Saved Date	September 11, 2025
File Name	Scope Management Plan

Change Control

Version	Issue Date	Changes
1.0	September 11, 2025	Release

Approvals

Role	Name	Signature©	Date
Project Sponsor	Elroy Wilson		
Project Manager	Cassica Hutchins		

4.2.1 Scope Management Plan

	Scope Management Plan	
Version 1.0	Document ID: 002-WF-SMP	09/11/2025

Scope Statement

A project scope statement is a detailed document that outlines the project's boundaries, objectives, and deliverables. It acts as a central reference to ensure that both stakeholders and project teams share a clear understanding of what the project will achieve and what is excluded from its scope. Effective communication and continuous alignment with the scope statement are critical to achieving project success and ensuring stakeholder satisfaction.

Project Requirements

Requirements for the Wilson Farm Project are developed based on project management, farm operations, and agricultural sustainability needs. The chart below outlines the associated requirements:

Requirements
- Project duration does not exceed 12 months (Feb–Oct 2026)
- Project budget total is \$62,370.00
- Monthly progress reports submitted to farm management

- Change requests require approval from the farm owner (sponsor)
- Mid-term review and presentation of progress in July 2026
- Compliance with local agricultural and land-use regulations
- Adequate staffing for fieldwork, harvesting, and post-harvest activities
- Farm operations accessible to agricultural extension officers and local partners
- Irrigation system connected to water tanks for crop resilience
- Farm has safe pesticide and fertilizer storage areas
- Farm provides basic post-harvest facilities for cleaning, grading, and packaging
- Access paths maintained for vehicle entry (small trucks/tractors)
- Soil management practices applied (mulching, composting, organic inputs)
- Training sessions conducted on sustainable and regenerative farming practices
- Monitoring system in place for yields, crop quality, and environmental impact

The full list of activities are included below in the Requirements traceability matrix.

Table 6*Requirements traceability matrix*

Requirements Traceability Matrix								
Project Manager: Cassica Hutchins				Project ID: 001-WF-PC				
Project Sponsor: Elroy Wilson				Project Title: Wilson Farm Project, Marriagua Valley				
Requirement Information				Relationship Traceability				
ID	Category	Requirement	Priority	Source	Business Objective	Deliverables	Verification	Validation
REQ-001	Mandatory	Farm must be accessible via local roads for easy produce transport and supply delivery.	High	Farm Operations Team	Ensure smooth logistics and market access.	Farm Access Plan	Site inspection	Monthly Project Reviews
REQ-002	Mandatory	Irrigation and drainage systems must be operational year-round.	High	Farm Manager	Guarantee consistent water for dasheen cultivation.	Irrigation & Drainage Layout	Engineering plan and on-site checks	Field Inspection Reports
REQ-003	Mandatory	A small post-harvest facility with storage and grading space must be built.	High	Local Market Requirements	Protect product quality and support market distribution.	Facility Blueprint	Design approval	On-site Inspection
REQ-004	Mandatory	Farm practices must support soil restoration and sustainability.	High	Ministry of Agriculture Guidelines	Improve long-term farm productivity and soil health.	Soil Management Plan	Soil assessment	Annual Sustainability Review
REQ-005	Mandatory	Pest and disease management should minimize chemical use.	Medium	Ministry of Agriculture Recommendations	Promote food safety and environmental protection.	Pest Management Plan	Extension officer inspection	Quarterly Farm Audit
REQ-006	Mandatory	Farm staff must receive training in sustainable farming practices.	High	Farmer Training Program Requirements	Build capacity and increase farm efficiency.	Training Records	Training attendance verification	Post-training Evaluation

Requirements Traceability Matrix								
REQ-007	Mandatory	Rainwater harvesting tanks must be installed to support irrigation.	High	Farm Infrastructure Plan	Increase water security and reduce reliance on mains.	Water Harvesting System	Installation verification	Performance Test
REQ-008	Mandatory	Farm paths must allow safe movement of workers and equipment.	Medium	Occupational Safety Requirements	Improve safety and operational efficiency.	Pathway Design Plan	Field audit	Monthly Project Review
REQ-009	Mandatory	Project must be completed within 9 months (Feb–Oct 2026).	High	Project Charter	Deliver upgrades and activities on time.	Project Schedule	Schedule tracking	Monthly Progress Meetings
REQ-010	Mandatory	Total project budget is EC\$62,370.00.	High	Project Charter	Keep project within approved budget.	Cost Management Plan	Budget tracking reports	Quarterly Budget Review
REQ-011	Mandatory	Monthly progress reports are required.	Low	Project Management Best Practices	Maintain accountability and oversight.	Monthly Progress Reports	Report submission logs	Status Review Meetings
REQ-012	Mandatory	Any scope or plan changes require sponsor approval.	High	Project Management Best Practices	Prevent scope creep and ensure accountability.	Change Request Form	Sponsor sign-off	Monthly Reviews
REQ-013	Mandatory	Quarterly updates will be shared with stakeholders.	Low	Stakeholder Engagement Plan	Strengthen communication and collaboration.	Presentation Decks	Meeting records	Stakeholder Feedback
REQ-014	Mandatory	Drainage systems must handle heavy rainfall during rainy seasons.	High	Farm Infrastructure Assessment	Prevent flooding and reduce crop loss.	Farm Infrastructure Plan	Site inspection	Seasonal Performance Review
REQ-015	Mandatory	Organic waste composting and mulching to be implemented.	High	Farm Sustainability Practices	Reduce waste and improve soil fertility.	Sustainability Plan	Farm inspections	Sustainability Reports

Note. (Source: Hutchins, 2025)

Define Scope

The Project Manager and project team have compiled and documented the full scope requirements for the Wilson Farm Project as part of the scope management process. This involved gathering input from farm operations, local agricultural stakeholders, and community needs assessments to define the project's boundaries. The scope outlines all activities, deliverables, and infrastructure developments required to enhance dasheen production and improve overall farm operations. Clearly establishing what is included and excluded is essential to ensuring that the project is implemented efficiently and without unnecessary delays. Given the complexity and uncertainty often associated with agricultural development initiatives, a formal process for reviewing and approving scope changes will be applied. Any proposed changes submitted by project stakeholders will be documented and reviewed, with each request either approved, rejected, or returned for revision based on project priorities and available resources.

Project Exclusions

The Wilson Farm Project has defined exclusions that clarify the limits of its scope and execution. This initiative does not include the development of large-scale mechanized systems or industrial-level storage facilities, as the farm is focused on small-scale, climate-resilient production. Similarly, major land expansion beyond the existing five acres is not included within this phase of the project. While the project draws on research and best practices in sustainable agriculture, it does not seek to implement technologies beyond the farm's current financial or operational capacity. Furthermore, although this project

management plan provides a practical framework for implementing infrastructure upgrades, training programs, and cultivation improvements, it serves primarily as a guiding document for Wilson Farm’s development. Future adaptation or scaling of this plan may occur as funding opportunities and farm resources grow, but such extensions are beyond the scope of the current project.

Project Deliverables and Acceptance Criteria

The project deliverables and acceptance criteria represent the final outputs of the Wilson Farm Project, and both the project team and stakeholders are responsible for overseeing and approving these standards. A detailed list of acceptance criteria for the Wilson Farm Project is provided below.

Table 7

Project acceptance criteria

Criteria ID	Criteria Category	Description
Crit 1	Safety	Farm infrastructure (drainage, access paths, post-harvest shed) is safe for workers and equipment, with mitigation measures for flooding, heavy rains, and hurricanes.
Crit 2	Land Registry (Legal Ownership)	Farm boundaries are verified, and the property is officially registered with the Land Registry and Ministry of Agriculture in St. Vincent and the Grenadines.
Crit 3	Farm Accessibility	Farm is accessible by vehicles for produce transport and supplies. Roads and pathways support safe movement of people, small trucks, and farm equipment.
Crit 4	Infrastructure Readiness	Post-harvest storage facility, rainwater harvesting systems, and irrigation are fully installed, functional, and meet operational needs.
Crit 5	Sustainable Practices	Composting systems, soil management, and pest management plans are implemented according to Ministry of Agriculture best practices.
Crit 6	Training Completion	Farm staff complete all planned training and workshops on sustainable farming, safety, and equipment handling.
Crit 7	Monitoring & Evaluation	Project monitoring and yield assessment tools are in place, and baseline metrics (soil health, crop yield, storage capacity) are documented.

Crit 8	Compliance & Approvals	All required permits (agriculture, construction, drainage) are obtained, and final inspection reports are approved by local authorities.
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Note. (Source: Hutchins, 2025)

Project Constraints

The Wilson Farm Project is designed to operate within strict time and budget limits. The total project cost must not exceed EC\$62,370, and the full project timeline is limited to nine months (February to October 2026). These constraints are critical to ensuring that all improvements remain realistic and achievable for a small-scale farm.

Project Assumptions

The following assumptions are considered true for the Wilson Farm Project:

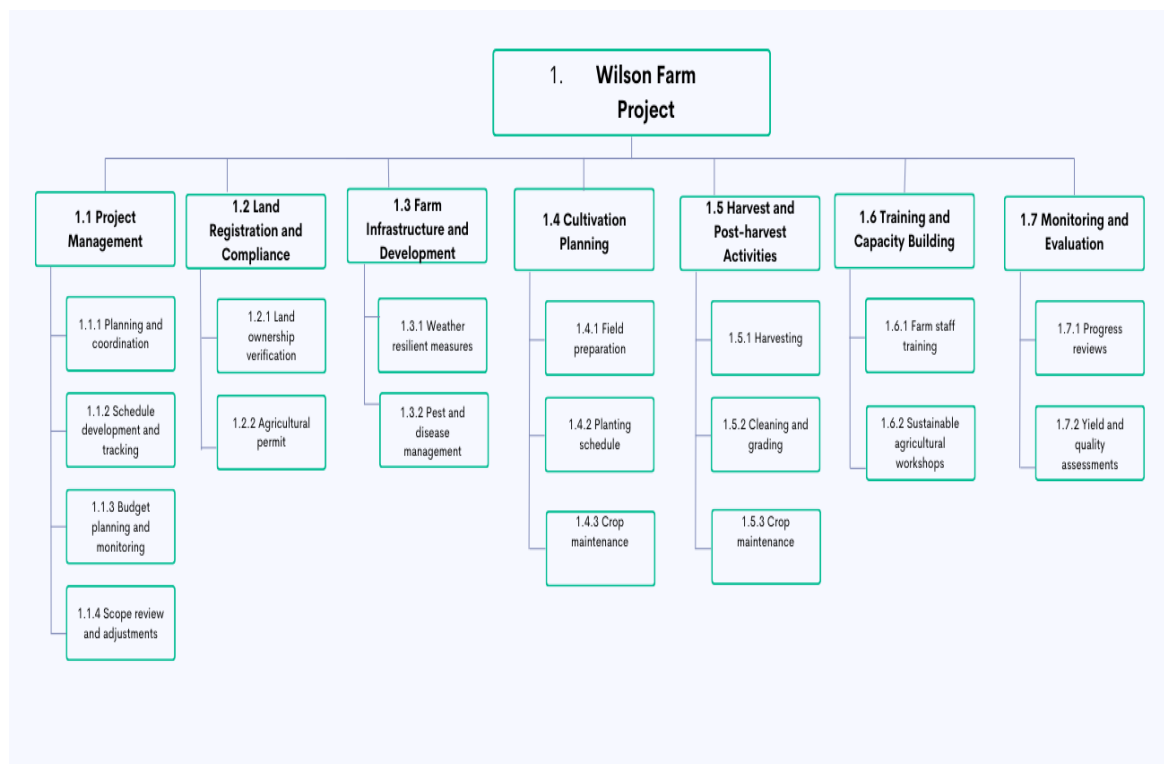
1. Material and equipment costs will remain stable throughout the project duration.
2. The scope of the project will remain consistent, with no significant changes to planned deliverables.
3. Key stakeholders, including the sponsor and farm management, will remain committed and ensure resources are available to complete the project successfully

Create WBS

The Work Breakdown Structure (WBS) for the Wilson Farm Project provides a visual and hierarchical breakdown of all major deliverables and project work into smaller, manageable components. This structure ensures that every aspect of the project is clearly defined, facilitating planning, execution, and monitoring throughout the project lifecycle.

For Wilson Farm, the WBS divides the agricultural development initiatives, such as irrigation and drainage upgrades, post-harvest infrastructure construction, cultivation planning, and training, into well-defined tasks and subtasks. This approach ensures that no element of the project is overlooked and that responsibilities are clearly assigned.

Both the WBS and the WBS Dictionary serve as essential tools in scope management. The WBS establishes a framework of all required deliverables, while the WBS Dictionary provides detailed descriptions, ownership, and success criteria for each component (PMI, 2023). Together, they support effective project planning, control, and communication by organizing the Wilson Farm Project into manageable work packages, promoting accountability, and reducing complexity.

Figure 26*WBS of Wilson Farm**Note.* (Source: Hutchins, 2025)

Wilson Farm Project WBS Dictionary

The WBS Dictionary offers a detailed description of each task, activity, and deliverable outlined in the Work Breakdown Structure. It is directly aligned with the project scope and serves as a reference for key project elements, including deliverables, timelines, costs, and other milestones.

Table 8

WBS dictionary

WBS ID	Task Name	Description of Work	Deliverables	Resources	Budget
1	Wilson Farm Project	Comprehensive project to improve dasheen production through infrastructure upgrades, planning, training, and evaluation.	Project Management Plan; Farm Development Plan	Project Manager (PM), Sponsor, Farm Team	EC\$62,370
1.1	Project Management	Coordination of all project planning, scheduling, and financial oversight activities.	Management documentation and reports	PM, Sponsor, Farm Manager, Farm Team	
1.1.1	Planning and Coordination	Planning and coordinating all project activities throughout the lifecycle.	Project Management Plan	PM, Sponsor, Farm Team	
1.1.2	Schedule Development and Tracking	Creating the schedule, assigning dates, and tracking progress.	Project Schedule/Gantt Chart	PM, Farm Team	
1.1.3	Budget Planning and Monitoring	Preparing financial estimates and monitoring project costs.	Budget Reports, Financial Records	PM, Sponsor	
1.1.4	Scope Review and Adjustments	Reviewing and documenting scope changes for approval.	Scope Change Reports	PM, Sponsor, Farm Team	
1.2	Land Registration & Compliance	Securing legal documentation and agricultural permits.	Compliance Records	Farm Owner, Ministry of Agriculture	
1.2.1	Land Ownership Verification	Confirming property ownership and boundaries.	Land Registration Certificate	Farm Owner, Land Registry	
1.2.2	Agricultural Permit	Obtaining permits for agricultural activities.	Agricultural Permit	Farm Owner, Ministry of Agriculture	
1.3	Farm Infrastructure Development	Upgrading farm infrastructure for climate resilience and efficiency.	Infrastructure Reports	PM, Farm Manager, Contractors	

WBS ID	Task Name	Description of Work	Deliverables	Resources	Budget
1.3.1	Weather-Resilient Measures	Installing drainage and protective measures against extreme weather.	Drainage Layout, Weather Mitigation Plan	PM, Contractors	
1.3.2	Pest and Disease Management	Implementing environmentally responsible pest control systems.	Pest and Disease Control Plan	Farm Manager, Extension Officers	
1.4	Cultivation Planning	Planning for seasonal planting and farm operations.	Cultivation Calendar, Farm Work Plan	Farm Manager, Laborers	
1.4.1	Field Preparation	Preparing land with plowing, mulching, and soil amendments.	Prepared Fields	Farm Manager, Laborers	
1.4.2	Planting Schedule	Organizing planting phases based on seasonal requirements.	Planting Calendar	Farm Manager, Laborers	
1.4.3	Crop Maintenance	Performing weeding, irrigation, and pest control activities.	Maintenance Logs	Farm Manager, Laborers	
1.5	Harvest and Post-Harvest Activities	Harvesting, cleaning, sorting, packaging, and transporting dasheen.	Harvest and Packaging Reports	Farm Manager, Laborers	
1.5.1	Harvesting	Harvesting crops at maturity according to quality standards.	Harvest Records	Farm Manager, Laborers	
1.5.2	Cleaning and Grading	Cleaning and sorting produce for market sale.	Grading and Sorting Records	Farm Manager, Laborers	
1.5.3	Packaging and Transport	Packaging and organizing transport for local and regional markets.	Packaging and Transport Plan	Farm Manager, Drivers	
1.6	Training & Capacity Building	Delivering training and workshops to farm staff and community members.	Training Materials and Attendance Records	PM, Trainers, Farm Team	
1.6.1	Farm Staff Training	Training farm team on sustainable agriculture practices and safety.	Training Attendance Sheets	Trainers, Farm Team	
1.6.2	Sustainable Agriculture Workshops	Providing workshops to build knowledge of regenerative agriculture.	Workshop Materials	Trainers, Extension Officers	
1.7	Monitoring & Evaluation	Evaluating project outcomes and tracking progress against objectives.	M&E Reports	PM, Sponsor	
1.7.1	Progress Reviews	Conducting progress reviews at set intervals.	Progress Reports	PM, Sponsor	
1.7.2	Yield & Quality Assessments	Measuring yields and analyzing quality for ongoing improvement.	Assessment Reports	PM, Sponsor, Farm Manager	

Note. (Source: Hutchins, 2025)

Validate Scope

Scope validation for the Wilson Farm Project will be carried out continuously throughout the project lifecycle to ensure that all deliverables meet the defined objectives and stakeholder expectations. This process will include reviewing completed work against the WBS to confirm alignment with project requirements and milestones. Regular assessments of the requirements traceability matrix will further verify that each deliverable reflects the agreed scope.

Progress results will be compiled into monthly reports and presented to the project sponsor and key stakeholders for review. Additionally, site visits will be conducted after the completion of each major phase, such as cultivation planning and training, to provide on-site verification of work quality and adherence to specifications.

Formal written acceptance from the project sponsor and stakeholders will be required for each milestone before proceeding to subsequent phases. In cases where changes are necessary, formal change requests will be submitted, reviewed, and documented in the issues log, following the established change control process. A standardized template will be used to document and communicate any issues or changes to ensure full transparency and accountability.

Table 9

Issue log of the Wilson Farm Project

Issues ID	Date Identified	Identified By	Details of Issues	Specific Actions and Resolutions	Agreed Owner	Date for Completion

Note. (Source: Hutchins, 2025)

Control Scope

Control scope for the Wilson Farm Project involves monitoring the status of both the project scope and product scope while managing any changes against the established scope baseline. This process critically evaluates all activities included in project implementation to ensure alignment with objectives and avoid scope creep that could disrupt timelines or deliverables.

The project team will apply variance and trend analysis, comparing planned progress to actual results, to track scope performance and address deviations promptly. While changes may be necessary, they will be carefully reviewed, documented, and approved only if essential. The project manager will maintain strict oversight, ensuring that decision-making is disciplined, the workflow remains efficient, and the project scope stays on track throughout the lifecycle.

Roles and Responsibilities

Each project management activity involves specific roles and responsibilities that are critical to guiding the Wilson Farm Project through its lifecycle. The table below outlines the key stakeholders, their roles, and their responsibilities in ensuring the project's successful implementation.

Table 10

Roles and responsibilities

Name	Role	Responsibilities
Cassica Hutchins	Project Manager	a. Oversees all planning, execution, and monitoring activities. b. Measures and verifies scope performance. c. Initiates and manages scope change requests. d. Coordinates meetings and communicates project updates. e. Tracks progress and prepares project reports. f. Updates project documentation after approvals.
Elroy Wilson	Project Sponsor	a. Provides overall project direction and funding. b. Approves or rejects change requests. c. Reviews progress reports and deliverables. d. Confirms alignment with farm vision and goals. e. Signs off on completed milestones.
Jimmy Black	Farm Manager	a. Oversees daily farm operations and resource allocation. b. Implements infrastructure improvements. c. Provides feedback on scheduling and resource needs. d. Supports monitoring and evaluation activities.
Extension Officers	Regulatory Advisor	a. Provides technical guidance and best practices. b. Ensures compliance with agricultural standards. c. Reviews pest management and cultivation plans. d. Advises on sustainability initiatives.
Farm Laborers and Workers	Operations Team	a. Execute field preparation, planting, and crop care. b. Assist in harvesting, grading, and packaging. c. Support construction and farm improvements. d. Provide feedback during evaluations.
External Trainers	Training Facilitators	a. Deliver sustainable agriculture workshops. b. Train farm staff on safety and best practices. c. Provide instructional materials and reports.
Contractor/Builder	Construction Team	a. Design and build post-harvest and farm infrastructure. b. Ensure safety and quality compliance. c. Deliver construction progress reports. d. Coordinate with PM for timelines and approvals.

Note. (Source: Hutchins, 2025)

4.3. Project Schedule Management

Project schedule management for the Wilson Farm initiative is a critical component of ensuring that activities related to dasheen production are executed in a timely and efficient manner. According to the PMBOK Guide, Seventh Edition (PMI, 2021), schedule management encompasses processes that establish the policies, procedures, and documentation required for planning, developing, managing, and controlling the project

schedule. For Wilson Farm, these processes are applied through five phases that collectively provide a structured approach to managing time-related aspects of the project.

Plan Schedule Management

Using the Work Breakdown Structure (WBS) established in the Scope Management Plan, the Wilson Farm Project schedule will adopt the same hierarchical structure to organize and manage activities. Each task will be monitored at the task level to ensure accountability and accuracy in execution. Microsoft Project software will be used to translate the WBS into a detailed project schedule that incorporates tasks, activities, and durations. The Project Manager will be responsible for ensuring that the schedule aligns with the nine-month project timeline and remains consistent with the objectives outlined in the Scope Management Plan. Overall, this schedule management approach provides a framework for effectively utilizing project resources while enabling the project team to monitor progress and control potential changes.

Schedule Management Plan

The Wilson Farm Project schedule will be developed using Microsoft Project, enabling the Project Manager to plan, organize, and track all project activities effectively. Once reviewed and agreed upon by the project sponsor and key stakeholders, the schedule will serve as the official timeline for project execution. Any modifications to the schedule will only be permitted through the established change control process, ensuring that all adjustments are formally reviewed and approved by stakeholders before implementation.

Document Tracking (Schedule Management Plan)

General Information

	Information
Document ID	003-WF-SCHMP
Document Owner	Wilson Farm
Issue Date	September 11, 2025
Last Saved Date	September 11, 2025
File Name	Schedule Management Plan

Change Control

Version	Issue Date	Changes
1.0	September 11, 2025	Release

Approvals

Role	Name	Signature©	Date
Project Sponsor	Elroy Wilson		
Project Manager	Cassica Hutchins		

4.3.1 Schedule Management Plan

	Schedule Management Plan	
Version 1.0	Document ID: 002-WF-SCHMP	09/11/2025

Roles and Responsibilities

The Wilson Farm Project's schedule management will be guided by the five phases outlined in the PMBOK Guide (PMI, 2021). Project activities will be defined, sequenced, and tracked through Microsoft Project, which will integrate task durations, dependencies, and milestones into a comprehensive schedule. To ensure effective implementation, each member of the project team has distinct roles and responsibilities that contribute to the successful management of the schedule.

Table 11

Roles and responsibilities

Name	Role	Responsibilities
Elroy Wilson	Project Sponsor	a. Approves the final project schedule. b. Provides guidance on schedule priorities. c. Reviews and accepts completed milestones.
Cassica Hutchins	Project Manager	a. Develops and maintains the project schedule in MS Project. b. Defines activity sequencing and dependencies. c. Monitors progress against the baseline. d. Reports schedule variances to stakeholders. e. Oversees schedule change requests.
Jimmy Black	Project Team	a. Provides input on task durations and resource availability. b. Ensures day-to-day activities are completed as scheduled. c. Communicates delays or risks to the project manager.
Farm Laborers	Project Team	a. Execute assigned fieldwork according to scheduled tasks. b. Report progress and challenges that may affect task completion.
Input Warehouse	External Stakeholder	a. Deliver farming inputs in line with the agreed schedule. b. Communicate any procurement or delivery delays.

Note. (Source: Hutchins, 2025)

Activities Definition, Sequence, and Duration

For the Wilson Farm Project, the list of activities was derived directly from the project WBS. These activities were carefully sequenced to establish a logical flow of work and to define the overall project timeline. The determination of activity order and duration relied on expert judgment, drawing on agricultural best practices and project management principles.

The sequencing process accounted for the key phases of the project cycle, including planning, infrastructure development, cultivation, harvesting, training, and monitoring and evaluation. This ensured that all critical tasks necessary for enhancing dasheen production were integrated into the schedule.

The defined activities were then organized and entered into Microsoft Project, which serves as the primary scheduling tool. This enabled the creation of a detailed project schedule, reflecting the sequence, dependencies, and durations of all tasks to ensure timely and efficient project completion.

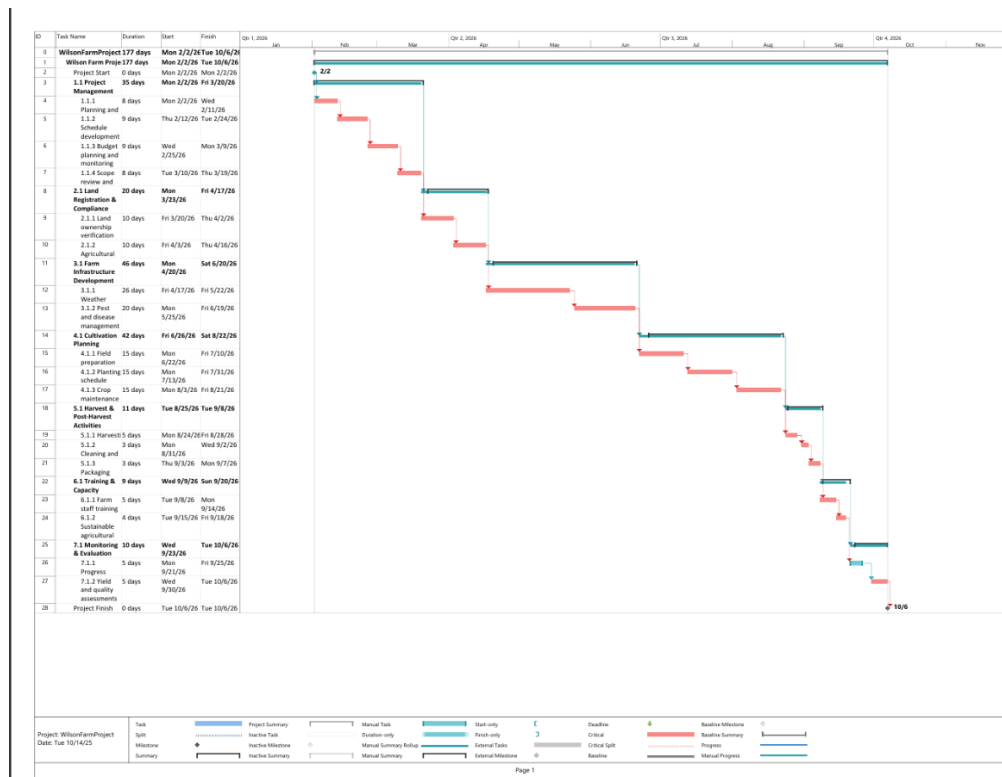
Develop Schedule

This process involves compiling and evaluating information related to activity sequencing, task durations, resource allocation, and schedule constraints in order to create a comprehensive project schedule. For the Wilson Farm Project, the schedule was developed using Microsoft Project, which provides a structured platform for defining dependencies,

visualizing timelines, and monitoring progress. In line with the guidance of the PMBOK Guide (PMI, 2021), the schedule integrates all essential project activities into a logical sequence that supports effective execution and control. The finalized schedule is illustrated in the Wilson Farm Project Schedule Chart.

Figure 27

Wilson farm project schedule



Note. (Source: Hutchins, 2025)

The Schedule Management Plan for the Wilson Farm Project may only be modified through the formal change management process initiated by the project sponsor. Any proposed adjustments must be fully documented using the approved change request format

and authorized by both the project manager and the project sponsor. In the absence of a formal submission, no changes will be considered, and the project manager reserves the right to decline such requests. Once a valid change request is submitted, the project sponsor will have three (3) working days to either approve or reject the request. All change requests will be recorded, and their approval will depend on the assessed priority and the overall impact on the timely completion of the Wilson Farm Project.

Project Activities

Table 12

Project activities

WBS	Task Name	Duration	Start Date	Finish Date	Predecessor(s)
-	WilsonFarmMSP	177 days	Mon 2/2/26	Tue 10/6/26	—
1	Wilson Farm Project	177 days	Mon 2/2/26	Tue 10/6/26	—
-	Project Start	0 days	Mon 2/2/26	Mon 2/2/26	—
1.1	Project Management	35 days	Mon 2/2/26	Fri 3/20/26	2
1.1.1	Planning and Coordination				
1.1.1.1	To plan and coordinate the project	8 days	Mon 2/2/26	Wed 2/11/26	2
1.1.2	Schedule Development & Tracking				
1.1.2.1	To schedule development and tracking	9 days	Thu 2/12/26	Tue 2/24/26	4
1.1.3	Budget Planning & Monitoring				
1.1.3.1	To conduct budget planning and monitoring	9 days	Wed 2/25/26	Mon 3/9/26	5
1.1.4	Scope Review & Adjustments				
1.1.4.1	To review the scope and apply adjustments	8 days	Tue 3/10/26	Thu 3/19/26	6
2.1	Land Registration & Compliance	20 days	Mon 3/23/26	Fri 4/17/26	3
2.1.1	Land Ownership Verification				
2.1.1.1	To verify land ownership	10 days	Fri 3/20/26	Thu 4/2/26	7
2.1.2	Agricultural Permit				
2.1.2.1	To acquire an agricultural permit	10 days	Fri 4/3/26	Thu 4/16/26	9
3.1	Farm Infrastructure Development	46 days	Mon 4/20/26	Sat 6/20/26	8
3.1.1	Weather-Resilient Measures				
3.1.1.1	To apply weather-resilient measures	26 days	Fri 4/17/26	Fri 5/22/26	10
3.1.2	Pest and Disease Management				
3.1.2.1	To manage pests and diseases	20 days	Mon 5/25/26	Fri 6/19/26	12
4.1	Cultivation Planning	42 days	Fri 6/26/26	Sat 8/22/26	11
4.1.1	Field Preparation				
4.1.1.1	To clear and prepare field for planting	15 days	Mon 6/22/26	Fri 7/10/26	13
4.1.2	Planting Schedule				
4.1.2.1	To develop a planting schedule	15 days	Mon 7/13/26	Fri 7/31/26	15
4.1.3	Crop Maintenance				
4.1.3.1	To maintain the dasheen crop	15 days	Mon 8/3/26	Fri 8/21/26	16

WBS	Task Name	Duration	Start Date	Finish Date	Predecessor(s)
5.1	Harvest & Post-Harvest Activities	11 days	Tue 8/25/26	Tue 9/8/26	14
5.1.1	Harvesting				
5.1.1.1	To harvest crop from the field	5 days	Mon 8/24/26	Fri 8/28/26	17
5.1.2	Cleaning and Grading				
5.1.2.1	To clean and grade dasheen	3 days	Mon 8/31/26	Wed 9/2/26	19
5.1.3	Packaging and Transport				
5.1.3.1	To package and transport dasheen from farm	3 days	Thu 9/3/26	Mon 9/7/26	20
6.1	Training & Capacity Building	9 days	Wed 9/9/26	Sun 9/20/26	18
6.1.1	Farm Staff Training				
6.1.1.1	To train farm staff	5 days	Tue 9/8/26	Mon 9/14/26	21
6.1.2	Sustainable Agriculture Workshops				
6.1.2.1	To attend sustainable agriculture workshops	4 days	Tue 9/15/26	Fri 9/18/26	23
7.1	Monitoring & Evaluation	10 days	Wed 9/23/26	Tue 10/6/26	22
7.1.1	Progress Reviews				
7.1.1.1	To conduct progress reviews	5 days	Mon 9/21/26	Fri 9/25/26	24
7.1.2	Yield & Quality Assessments				
7.1.2.1	To perform yield and quality assessments	5 days	Mon 9/28/26	Fri 10/2/26	26
-	Project Finish	0 days	Tue 10/6/26	Tue 10/6/26	26

Note. (Source: Hutchins, 2025)

Schedule Control

Once the Wilson Farm Project begins, team members will be responsible for reporting the completion status of their assigned activities directly to the project manager. Any delays in meeting scheduled activity deadlines will require the submission of a formal change request by the responsible team member. Such requests must outline corrective actions that will be taken to realign the work with the approved project schedule and WBS.

The project sponsor will engage through the established communication framework defined in the roles and responsibilities matrix. In addition, the sponsor will have access to ongoing schedule updates through the Gantt chart maintained in Microsoft Project.

To ensure that the Wilson Farm Project remains aligned with the established baseline schedule, the project manager and project team will carry out the following responsibilities: First, they will monitor and determine the current status of all scheduled

project activities. Next, they will analyze potential factors that could impact or cause changes to the schedule. Then, they will identify any deviations from the baseline schedule and communicate these to the project sponsor. Finally, they will manage and oversee approved schedule changes when they occur.

Reserve Analysis

The Wilson Farm Project schedule incorporates reserve time to account for local conditions that may affect dasheen production. Specifically, allowances are made for public holidays and the unpredictable rainy season in St. Vincent and the Grenadines, which often disrupts agricultural activities. A buffer of additional days has been included to mitigate delays caused by weather-related disruptions, ensuring that cultivation, harvesting, and training tasks can be completed under favorable conditions. As a result, major agricultural activities are planned outside of peak rainy periods, allowing for improved efficiency and reduced risk to the project timeline.

Table 13

Reserve analysis

WBS	Description	Duration	Extra Time (Reserve)	Total
2.1.1	Land Ownership Verification	20 Days	+2 Days	22 Days
3.1.1	Weather-Resilient Measures	26 Days	+5 Days	31 Days
3.1.2	Pest and Disease Management	20 Days	+5 Days	25 Days
4.1.1	Field Preparation	15 Days	+4 Days	19 Days
4.1.3	Crop Maintenance	15 Days	+4 Days	19 Days
5.1.1	Harvesting	5 Days	+4 Days	9 Days

Note. (Source: Hutchins, 2025)

Planned Progress

Project progress and activities for the Wilson Farm Project will be reviewed during regular status meetings. Given the project timeline, these meetings will provide sufficient opportunities to track progress and address any schedule variances. The activity list and project schedule developed in Microsoft Project will serve as the primary reference tools for these reviews.

Updates on project implementation will be documented through a monthly progress report, included in the appendix, which outlines completed tasks, delays, and corrective measures. The report will incorporate graphical representations of planned versus actual progress, allowing stakeholders to compare scheduled activities with actual achievements clearly. The planned progress for the Wilson Farm Project is presented in Table 14 and Figure 28.

Table 14

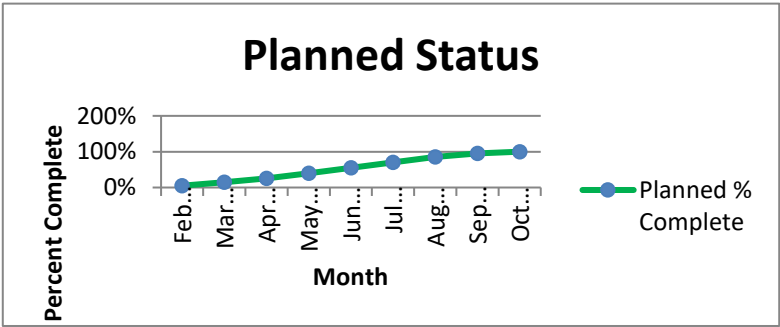
Project planned progress

Month	Date	Planned % Complete
1	Feb 2026	5%
2	Mar 2026	15%
3	Apr 2026	25%
4	May 2026	40%
5	Jun 2026	55%
6	Jul 2026	70%
7	Aug 2026	85%
8	Sep 2026	95%
9	Oct 2026	100%

Note. (Source: Hutchins, 2025)

Figure 28

Planned status



Note. (Source: Hutchins, 2025)

4.4. Project Cost Management

The Wilson Farm Project primarily involves costs related to farm infrastructure development, labor, and operational improvements. Key expenses include land registration and compliance, installation of irrigation and drainage systems, construction of a post-harvest storage shed, and investment in tools, equipment, and planting materials. Project management costs, such as planning, training, and monitoring activities, are estimated based on standard rates and average requirements for small-scale agricultural projects.

Labor costs are calculated according to the expected size of the farm operations team and the prevailing wage rates in St. Vincent and the Grenadines. Material costs are

estimated from local market prices for agricultural inputs, construction supplies, and infrastructure components.

To maintain financial discipline, any variance from the approved budget in the cost management plan will require the submission of a formal change request. Such requests will be reviewed through the established change control process, with the project sponsor retaining authority to approve or reject proposed adjustments. This approach ensures transparency, accountability, and alignment of costs with project objectives.

Document Tracking (Cost Management Plan)

General Information

	Information
Document ID	003-WF-CMP
Document Owner	Wilson Farm
Issue Date	September 11, 2025
Last Saved Date	September 11, 2025
File Name	Cost Management Plan

Change Control

Version	Issue Date	Changes
1.0	September 11, 2025	Release

Approvals

Role	Name	Signature©	Date
Project Sponsor	Elroy Wilson		
Project Manager	Cassica Hutchins		

4.4.1 Cost Management Plan

	Cost Management Plan	
Version 1.0	Document ID: 002-WF-CMP	09/11/2025

Project Cost

The costs of the Wilson Farm Project will be financed jointly through contributions from the project sponsor and targeted funding support from the Government of St. Vincent and the Grenadines, particularly through the Ministry of Agriculture. This public–private collaboration ensures that the project addresses national agricultural priorities while directly supporting the farm’s development.

As the project sponsor, Elroy Wilson, owner of Wilson Farm, will provide the core funding needed for operational expenses and farm management activities. The Ministry of Agriculture will contribute financial and technical support in areas such as infrastructure development, irrigation systems, and training programs, reflecting its mandate to strengthen smallholder farming capacity and promote food security.

Wilson Farm will be responsible for securing legal land registration and ensuring compliance with all regulatory requirements. The Ministry of Agriculture will oversee disbursement of public funding and provide monitoring to ensure accountability and

alignment with policy objectives. Contractors and suppliers will be selected collaboratively by the sponsor and ministry, with preference given to service providers who offer cost-effective, sustainable, and high-quality solutions.

Cost Estimate

The Wilson Farm Project primarily involves costs associated with farm infrastructure, cultivation, labor, and training. Key expenses include land registration and compliance, installation of irrigation and drainage systems, construction of a small post-harvest shed, purchase of planting materials and organic inputs, and labor costs for cultivation and harvesting. Project management costs such as planning, monitoring, and evaluation are estimated based on average local rates and farm operational needs.

A quantitative assessment was carried out to determine the cost of all activities included in the Work Breakdown Structure (WBS). To account for variability in costs, a three-point estimating method was applied, as illustrated in Table 15, with a particular focus on labor and input expenses.

1. Most Likely (cM): This cost reflects the realistic estimate of farm work under normal conditions, including the prevailing daily wage for agricultural laborers in St. Vincent and the Grenadines (EC\$65–75 per day) and average market prices for dasheen planting material and fertilizer.

2. Optimistic (cO): This represents the best-case scenario where input prices remain stable, weather conditions are favorable, and labor costs stay closer to the lower end of the wage scale.
3. Pessimistic (cP): This scenario accounts for potential cost increases caused by heavy rainfall and flooding, higher fertilizer and fuel prices, or shortages of available farm labor, which could push daily wages to EC\$85–90 per day.
4. The Expected Cost (cE) for each activity was calculated using the beta distribution formula:

$$c_E = \frac{c_O + 4c_M + c_P}{6}$$

Table 15*Cost estimate*

WBS	Task Name	Duration (days)	Optimistic	Most Likely (CM)	Pessimistic (CP)	Expected (CE)
1	Wilson Farm Project	177	\$50,000.00	\$54,000.00	\$64,000.00	\$55,000.00
1.1	Project Management	35	\$2,272.72	\$2,454.55	\$2,909.08	\$2,500.00
1.1.1	Planning & Coordination		0.00	0.00	0.00	0.00
1.1.1.1	To plan and coordinate the project	8	0.00	0.00	0.00	0.00
1.1.2	Schedule Development & Tracking		0.00	0.00	0.00	0.00
1.1.2.1	To schedule development and tracking	9	0.00	0.00	0.00	0.00
1.1.3	Budget Planning & Monitoring		0.00	0.00	0.00	0.00
1.1.3.1	To conduct budget planning and monitoring	9	0.00	0.00	0.00	0.00
1.1.4	Scope Review & Adjustments		0.00	0.00	0.00	0.00
1.1.4.1	To review the scope and apply adjustments	8	0.00	0.00	0.00	0.00
2.1	Land Registration & Compliance	20	\$2,272.73	\$2,454.55	\$2,909.07	\$2,500.00
2.1.1	Land Ownership Verification		0.00	0.00	0.00	0.00
2.1.1.1	To verify land ownership	10	0.00	0.00	0.00	0.00
2.1.2	Agricultural Permit		0.00	0.00	0.00	0.00
2.1.2.1	To acquire an agricultural permit	10	0.00	0.00	0.00	0.00
3.1	Farm Infrastructure Development	46	\$17,272.73	\$18,654.53	\$22,109.15	\$19,000.00
3.1.1	Weather-Resilient Measures		0.00	0.00	0.00	0.00
3.1.1.1	To apply weather-resilient measures	26	0.00	0.00	0.00	0.00
3.1.2	Pest & Disease Management		0.00	0.00	0.00	0.00
3.1.2.1	To manage pests and diseases	20	0.00	0.00	0.00	0.00
4.1	Cultivation Planning	42	\$13,409.09	\$14,481.82	\$17,163.63	\$14,750.00
4.1.1	Field Preparation		0.00	0.00	0.00	0.00
4.1.1.1	To clear and prepare field for planting	15	0.00	0.00	0.00	0.00
4.1.2	Planting Schedule		0.00	0.00	0.00	0.00
4.1.2.1	To develop a planting schedule	15	0.00	0.00	0.00	0.00
4.1.3	Crop Maintenance	12	0.00	0.00	0.00	0.00
4.1.3.1	To maintain the dasheen crop		0.00	0.00	0.00	0.00
5.1	Harvest & Post-Harvest Activities	11	\$7,500.00	\$8,100.00	\$9,600.00	\$8,250.00
5.1.1	Harvesting		0.00	0.00	0.00	0.00

WBS	Task Name	Duration (days)	Optimistic	Most Likely (CM)	Pessimistic (CP)	Expected (CE)
5.1.1.1	To harvest crop from the field	5	0.00	0.00	0.00	0.00
5.1.2	Cleaning & Grading		0.00	0.00	0.00	0.00
5.1.2.1	To clean and grade dasheen	3	0.00	0.00	0.00	0.00
5.1.3	Packaging & Transport		0.00	0.00	0.00	0.00
5.1.3.1	To package and transport dasheen from farm	3	0.00	0.00	0.00	0.00
6.1	Training & Capacity Building	9	\$3,863.64	\$4,172.73	\$4,945.44	\$4,250.00
6.1.1	Farm Staff Training		0.00	0.00	0.00	0.00
6.1.1.1	To train farm staff	5				
6.1.2	Sustainable Agriculture Workshops		0.00	0.00	0.00	0.00
6.1.2.1	To attend sustainable agriculture workshops	4	0.00	0.00	0.00	0.00
7.1	Monitoring & Evaluation	10	\$3,409.09	\$3,681.82	\$4,363.63	\$3,750.00
7.1.1	Progress Reviews		0.00	0.00	0.00	0.00
7.1.1.1	To conduct progress reviews	5	0.00	0.00	0.00	0.00
7.1.2	Yield & Quality Assessments		0.00	0.00	0.00	0.00
7.1.2.1	To perform yield and quality assessments	5	0.00	0.00	0.00	0.00
	Project End	0	0.00	0.00	0.00	0.00

Note. (Source: Hutchins, 2025)

Contingency Reserve Cost Analysis

The contingency reserve represents the additional budget allocated to address uncertainties that may arise during the execution of the Wilson Farm Project. This reserve is designed to cover known unknowns, such as potential rework, weather disruptions, pest outbreaks, or delays caused by competing assignments given to laborers or external service providers.

The contingency reserve was applied selectively to critical work packages that are more vulnerable to uncertainty. Extra time was added to each of these activities to reflect realistic risks, ranging from administrative delays in registration to unforeseen agronomic conditions affecting planting and harvesting.

The total contingency reserve for the Wilson Farm Project amounts to \$2,750, representing approximately 5% of the overall project cost estimate. This buffer provides the project team with flexibility to manage uncertainties without compromising the project schedule or exceeding the approved budget baseline. Please see Table 16 for further clarification.

Table 16

Contingency reserve

WBS	Description	Duration	Extra Time	Most Likely	Optimistic	Pessimistic	Expected
2.1.1	Land Ownership Verification	20 days	+2 days	\$221.78	\$177.42	\$310.49	\$229.17
3.1.1	Weather-Resilient Measures	26 days	+5 days	\$625.00	\$500.00	\$875.00	\$645.83
3.1.2	Pest and Disease Management	20 days	+5 days	\$548.39	\$438.71	\$767.75	\$566.67
4.1.1	Field Preparation	15 days	+4 days	\$447.58	\$358.06	\$626.61	\$462.50
4.1.3	Crop Maintenance	15 days	+4 days	\$447.58	\$358.06	\$626.61	\$462.50
5.1.1	Harvesting	5 days	+4 days	\$370.96	\$296.77	\$519.35	\$383.33
Totals			+24 days	\$2,661.29	\$2,129.03	\$3,725.81	\$2,750.00

Note. (Source: Hutchins, 2025)

Management Reserve

The management reserve is the portion of the budget set aside to address unforeseen conditions that may arise within the scope of the Wilson Farm Project. Unlike the

contingency reserve, which covers identified risks anticipated during planning, the management reserve is designed to handle unexpected events or delays that could not be predicted in advance.

For Wilson Farm, the management reserve is set at 8% of the cost baseline. With a cost baseline of \$57,750, the calculation is: Management Reserve = \$57,750 * 0.08 = \$4,620.

Thus, the management reserve equals \$4,620. This allocation ensures that the project team can respond to unforeseen challenges.

Project's Budget

Table 17

Project costs

Wilson Farm Project	Amount (XCD)
Project Management	\$2,500.00
Land Registration & Compliance	\$2,500.00
Farm Infrastructure Development	\$19,000.00
Cultivation Planning	\$14,750.00
Harvest & Post-Harvest Activities	\$8,250.00
Training & Capacity Building	\$4,250.00
Monitoring & Evaluation	\$3,750.00
Cost Estimate (CE)	\$55,000.00
Contingency Reserve (5%)	\$2,750.00
Cost Baseline	\$57,750.00
Management Reserve (8%)	\$4,620.00
Total Project Budget	\$62,370.00

Note. (Source: Hutchins, 2025)

Cost Control Process

Given the importance of completing the Wilson Farm project within the established timeframe and budget, the project manager and sponsor will continuously follow and assess the progress of activities as they are executed. Special emphasis will be placed on adhering to the dates defined in the project plan, since timely completion directly impacts the farm's ability to meet production and market demands.

To monitor this progress effectively, Earned Value Analysis (EVA) will be applied. EVA provides a structured method to measure both schedule performance and cost performance, ensuring that project activities remain aligned with the approved baseline. By comparing planned, actual, and earned values, the farm's management can identify deviations early and apply corrective actions to keep the project on track.

The following terms are fundamental to understanding EVA:

1. Planned Value (PV): The authorized budget assigned to complete specific project activities.
2. Earned Value (EV): The measure of actual work performed, expressed in terms of the budget authorized.
3. Actual Cost (AC): The real cost incurred for the work performed during a specific period, such as the actual expenses for inputs and labor.

To obtain these values and conduct the EVA, the project team will apply formulas such as Schedule Variance (SV), Cost Variance (CV), Schedule Performance Index (SPI), and Cost Performance Index (CPI). These measures provide insights into whether the project is ahead or behind schedule and whether it is under or over budget.

$$\text{Schedule Variance (SV)} = EV - PV$$

$$\text{Cost Variance (CV)} = EV - AC$$

$$\text{Schedule Performance Index (SPI)} = \frac{EV}{PV}$$

$$\text{Cost Performance Index (CPI)} = \frac{EV}{AC}$$

These indicators will be tracked and analyzed using the project's monthly performance reports and visualized in cumulative cost and percent complete charts. For Wilson Farm, this approach will ensure that dasheen production improvements are executed efficiently, resources are utilized responsibly, and stakeholders have a clear view of progress against both cost and schedule baselines.

Table 18

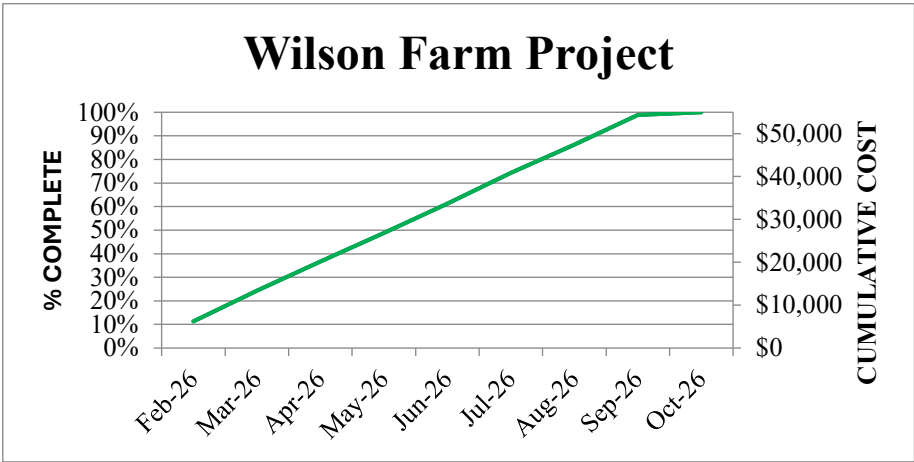
Planned value

Month	Date	Planned Value
1	Feb-26	\$6,213.19
2	Mar-26	\$7,166.41
3	Apr-26	\$6,769.61
4	May-26	\$6,685.96
5	Jun-26	\$6,826.49
6	Jul-26	\$7,195.49
7	Aug-26	\$6,600.00
8	Sep-26	\$6,914.29
9	Oct-26	\$628.57

Note. (Source: Hutchins, 2025)

Figure 29

Planned value



Note. (Source: Hutchins, 2025)

Performance Monitoring and Response

Based on the results obtained from the Schedule Performance Index (SPI) and Cost Performance Index (CPI), the Wilson Farm project manager will be able to evaluate the project’s current performance status and determine whether production activities are advancing as planned and within the allocated budget. These indices, as indicated in Table 19, will serve as an early warning system for deviations from the baseline schedule or cost estimates.

Table 19

SPI/CPI monitoring

Indicator	SPI/CPI Value
 Green	Value equal to 1
 Yellow	Values between 0.8 and 1 or values between 1 and 1.2
 Red	Values below 0.8 or above 1.2

Note. (Source: Hutchins, 2025)

Cost Management Plan, Change Process

The Cost Management Plan for the Wilson Farm project may only be modified through the formal change management process initiated by the project sponsor. Any proposed adjustment to the approved budget must be documented using the Change Request Format and authorized by both the project manager and the project sponsor. If a request is not submitted in this format, no change will be considered, and the project manager reserves the right to decline any informal alterations.

When a legitimate change request is submitted and satisfies all required conditions, the project sponsor will have two working days to either approve or reject the request. All requests must be properly recorded, and the final decision will depend on the request's priority and the extent to which the approval or denial may influence the project's timely completion and the delivery of Wilson Farm's dasheen production outcomes.

Roles and Responsibilities

Table 20

Roles and responsibilities

Name	Role	Responsibilities
Elroy Wilson	Project Sponsor	Approves any budget changes, provides funding, and ensures financial resources are available for project implementation.
Cassica Hutchins	Project Manager	Oversees cost planning, monitors expenditures, ensures activities are completed within the approved budget, and initiates change requests when needed.
Jimmy Black	Farm Manager	Manages daily operations, tracks actual costs for inputs and labor, and reports cost variances to the project manager.

Note. (Source: Hutchins, 2025)

4.5. Project Quality Management

Project Quality Management includes the processes for incorporating the organization's quality policy in planning, managing, and controlling project and product quality requirements to meet stakeholder objectives. For Wilson Farm, it ensures that all project deliverables meet defined agricultural and sustainability standards. The Quality Management Plan outlines the quality requirements, acceptance criteria, and procedures to demonstrate compliance through assurance and control. Using the Quality Control Template, deliverables are evaluated against expected standards, while continuous improvement is achieved through documented lessons learned and corrective actions to ensure consistency and stakeholder satisfaction.

Document Tracking (Quality Management Plan)

General Information

	Information
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Document Owner	Wilson Farm
Issue Date	September 11, 2025
Last Saved Date	September 11, 2025
File Name	Quality Management Plan

Change Control

Version	Issue Date	Changes
1.0	September 11, 2025	Release

Approvals

Role	Name	Signature©	Date
Project Sponsor	Elroy Wilson		
Project Manager	Cassica Hutchins		

4.5.1 Quality Management Plan

	Quality Management Plan	
Version 1.0	Document ID: 002-WF-QMP	09/11/2025

Project Quality

Project quality refers to fulfilling all characteristics, standards, and requirements established by the project sponsor and stakeholders as defined in the project charter, ensuring that all deliverables meet agreed expectations and contribute to the farm's overall objectives.

Quality Metrics

For the development of the Wilson Farm project, it is essential to monitor performance using key quality metrics throughout the project lifecycle. The Cost Performance Index (CPI) and Schedule Performance Index (SPI) will be measured monthly to evaluate cost efficiency and schedule adherence, with acceptable values ranging from 0.9 to 1.1. Additionally, change requests will be reviewed and addressed within three days to ensure timely decision-making, and overall project satisfaction will be maintained at a rate above 98%. These indicators will help the project team track progress, identify variances

early, and implement corrective actions to ensure that all deliverables meet quality expectations and stakeholder requirements. Table 21 illustrates the metrics.

Table 21

Quality metrics

Metrics	Indicator Scale
CPI	$0.9 \leq X \leq 1.1$
SPI	$0.9 \leq X \leq 1.1$
Change Request Attention	≤ 3 days
Project Satisfaction	$> 98\%$
C.V.	≥ 0
S.V.	≥ 0

Note. (Source: Hutchins, 2025)

To complement the quality metrics that evaluate the project management aspects of the Wilson Farm Project, an additional set of practical indicators has been established to assess the quality of work performed across the farm's operational areas. While the previous table focuses on cost, schedule, change control, and stakeholder satisfaction at the management level, the metrics below concentrate on the core agricultural and infrastructure activities that directly support the farm's development. Together, these two sets of indicators provide a balanced and comprehensive approach to quality management, ensuring that both administrative performance and on-the-ground activities meet the expected standards throughout the project lifecycle.

Table 22

Quality metrics for farm operational activities

No.	Area	Key Quality Metrics	Acceptance Criteria
1.	Land Registration & Compliance	Completion of required legal documents Permit approval timeliness	100% of documents obtained and valid Approval received within ≤ 20 working days
2.	Farm Infrastructure Development	Quality of completed infrastructure Construction timeliness	$\geq 90\%$ adherence to design specifications $\geq 90\%$ of work completed on schedule
3.	Cultivation Planning	Timeliness of planting and field preparation Accuracy of cultivation calendar	$\geq 90\%$ of activities completed on planned dates Calendar aligns 100% with seasonal cycles
4.	Harvest & Post-Harvest Activities	Post-harvest loss rate Market-grade produce quality	$\leq 5\%$ produce loss during handling $\geq 90\%$ of harvested dasheen meets market standards
5.	Training & Capacity Building (Farm Manager & Farm Workers)	Worker performance improvement Correct application of farm practices	$\geq 80\%$ of farm workers demonstrate improved efficiency or accuracy in tasks after instruction $\geq 85\%$ of workers consistently follow proper techniques taught by the Farm Manager (e.g., planting depth, spacing, weeding methods, crop handling)
6.	Monitoring & Evaluation	Timeliness of progress reports Accuracy of field data	Reports submitted within 5 days of review $\geq 95\%$ accuracy in yield and activity reporting

Note. (Source: Hutchins, 2025)

Roles and Responsibilities

Table 23

Quality roles and responsibilities

Name	Role	Responsibilities
Elroy Wilson	Project Sponsor	• Approves quality changes. • Reviews and accepts completed project deliverables. • Ensures quality aligns with stakeholder expectations.
Cassica Hutchins	Project Manager	• Oversees the Quality Management Plan. • Conducts quality assurance and control activities. • Ensures all quality requirements are met. • Schedules monthly review meetings to monitor performance.
Jimmy Black	Farm Manager	• Implements quality procedures in daily operations. • Ensures field activities meet quality standards. • Reports deviations and assists with corrective actions.
Labourers	Field Team	• Follow quality guidelines during planting, harvesting, and handling. • Maintain cleanliness and consistency in farm operations. • Report issues affecting product quality.

Name	Role	Responsibilities
Input Warehouse	Supplier	• Supplies quality-certified materials and inputs. • Provides documentation of product standards. • Responds promptly to quality concerns.

Note. (Source: Hutchins, 2025)

Quality Management Plan, Change Process

The Quality Management Plan established for the Wilson Farm project can only be modified through the formal change management process outlined in the project management section and must be requested by the project sponsor. Any proposed changes to quality requirements must be properly documented and authorized by both the project manager and project sponsor. If a formal Change Request Form is not submitted, no modifications will be implemented, and the project manager retains the right to reject the request. Once a valid request is submitted and meets all established criteria, the project sponsor will have three business days to review and either approve or deny the change. All change requests must be recorded, and their approval will depend on the level of priority and the potential impact on the project's completion and overall quality objectives.

Quality Control Process

To ensure that all project deliverables for the Wilson Farm Project meet the established quality standards and acceptance criteria, the following Quality Control (QC) process will be applied throughout the project lifecycle:

1. **Development of deliverables:** Each project deliverable is developed according to the specifications and quality requirements outlined in the Wilson Farm Quality Management Plan and respective work packages.
2. **Completion reporting:** Once a deliverable or requirement is completed, it must be formally reported to the project manager by the responsible team member or resource.
3. **Verification against acceptance criteria:** The Project Manager reviews each reported deliverable using the acceptance criteria defined in Table 24: Quality acceptance criteria.
 - If the deliverable meets all acceptance criteria, it is formally accepted.
 - If it does not meet the criteria, it will be returned for correction and resubmission following the corrective action plan.
4. **Progress updating:** Upon acceptance or correction, the project schedule and status reports are updated to reflect the current progress and quality status of each deliverable.
5. **Quality documentation:** Every quality control activity, including verifications, inspections, and corrections, must be recorded using the Quality Control Form located in the appendix. These records serve as evidence of compliance and support continuous improvement across the project.
6. **Continuous monitoring:** The project manager will conduct regular QC reviews to ensure consistency, accuracy, and adherence to the standards established in the

Wilson Farm QMP, contributing to the overall sustainability and operational efficiency of dasheen production.

Table 24

Quality acceptance criteria

Project Name:	Wilson Farm Project
Project Objective:	To develop a comprehensive project management plan for Wilson Farm that integrates sustainable agricultural practices, structured operations, and strategic market development to improve dasheen production and farm resilience.

I.D.	Requirement Description	Requested by	Responsible	Acceptable Criteria
1	Land Ownership and Registration	Project Sponsor	Project Manager	The farmland is legally owned or leased by the project sponsor and registered with local agricultural authorities.
2	Soil Quality and Preparation	Project Sponsor	Farm Manager	Soil tests confirm fertility suitable for dasheen (pH 5.5–6.5), with adequate drainage and minimal erosion risk. Land prepared using hand tools or small tiller; organic matter added before planting.
3	Water Access and Irrigation	Project Sponsor	Farm Manager	The farm has reliable access to a nearby stream, rainwater collection tank, or gravity-fed irrigation system; water is clean and available during dry periods.
4	Farm Infrastructure (Basic Facilities)	Project Sponsor	Project Manager	Simple, functional storage shed built from wood or galvanize sheets; tool rack organized; produce storage dry and ventilated; secure fencing installed to protect crops.
5	Safety and Environmental Practices	Project Sponsor	Project Manager	Basic safety measures in place (proper tool storage, labeled organic inputs, first-aid kit). No use of harmful chemicals; buffer zones maintained from waterways.
6	Crop Cultivation Standards	Project Sponsor	Farm Manager	Dasheen planted at proper spacing (1m x 1m), weed control maintained manually or with mulch, and compost or natural fertilizers applied; pest control uses organic methods.
7	Harvest and Post-Harvest Handling	Project Sponsor	Farm Manager	Harvest occurs when corms mature (8–10 months); produce handled carefully to avoid damage; washed with clean water; stored in shaded area before delivery.
8	Water and Sanitation Facilities	Project Sponsor	Farm Manager	Handwashing station available for workers; basic composting toilet or nearby shared facility available; waste disposed responsibly.
9	Energy and Power Use	Project Sponsor	Farm Manager	Small solar light or battery-powered lighting used for early morning or late evening work; no major electrical installation required.
10	Accessibility and Pathways	Project Sponsor	Project Manager	Farm accessible via small road or footpath for transport of inputs and produce; pathways kept clear and safe for workers.
11	Documentation and Reporting	Project Sponsor	Project Manager	Monthly logbook updated with planting dates, rainfall, expenses, harvest yield; quality control form filled for each deliverable.

4.6. Project Resource Management

The Resource Management Plan for the Wilson Farm Project ensures that all human and physical resources are effectively allocated and utilized within the constraints of scope, schedule, and cost. Emphasizing sustainability and community engagement, the project prioritizes the use of local manpower from the Lauders and Marriaqua Valley communities, thereby supporting rural livelihoods and knowledge sharing in dasheen cultivation.

Guidance and technical support will be sought from the Ministry of Agriculture to ensure alignment with national agricultural standards and best practices. All labor, including land preparation, planting, maintenance, and harvesting, will be performed by local workers, while specialized tasks such as soil testing or irrigation setup will engage local agricultural officers. Physical resources, including tools, planting materials, compost inputs, and small-scale irrigation systems, will be procured within St. Vincent and the Grenadines to minimize costs, reduce environmental impact, and strengthen local supply chains.

Oversight by the project manager will ensure efficient resource coordination, quality assurance, and adherence to the project's sustainability objectives.

Document Tracking (Resource Management Plan)

General Information

	Information
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Approvals

Role	Name	Signature©	Date
Project Sponsor	Elroy Wilson		
Project Manager	Cassica Hutchins		

4.6.1 Resource Management Plan

	Resource Management Plan	
Version 1.0	Document ID: 002-WF-RMP	09/11/2025

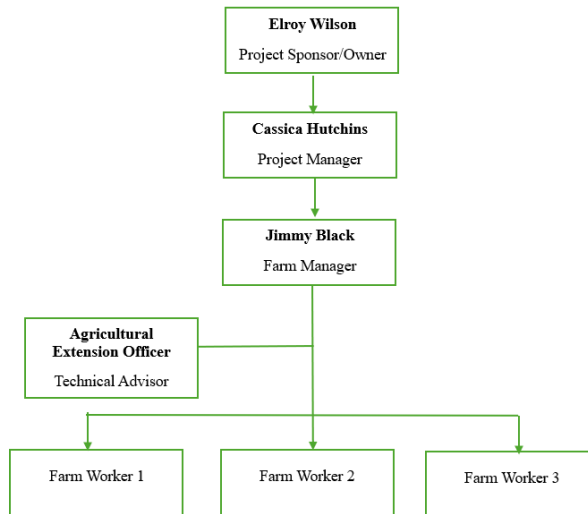
Project Resources

Project Resource Management at Wilson Farm involves systematic processes for identifying, acquiring, and managing human, material, and equipment resources needed for successful project execution. These processes ensure that the project manager and team have access to essential resources at the right time and location to efficiently meet the farm’s production and operational goals.

Project Team

Figure 30

Project team



Note. (Source: Hutchins, 2025)

Activity Resources Estimation

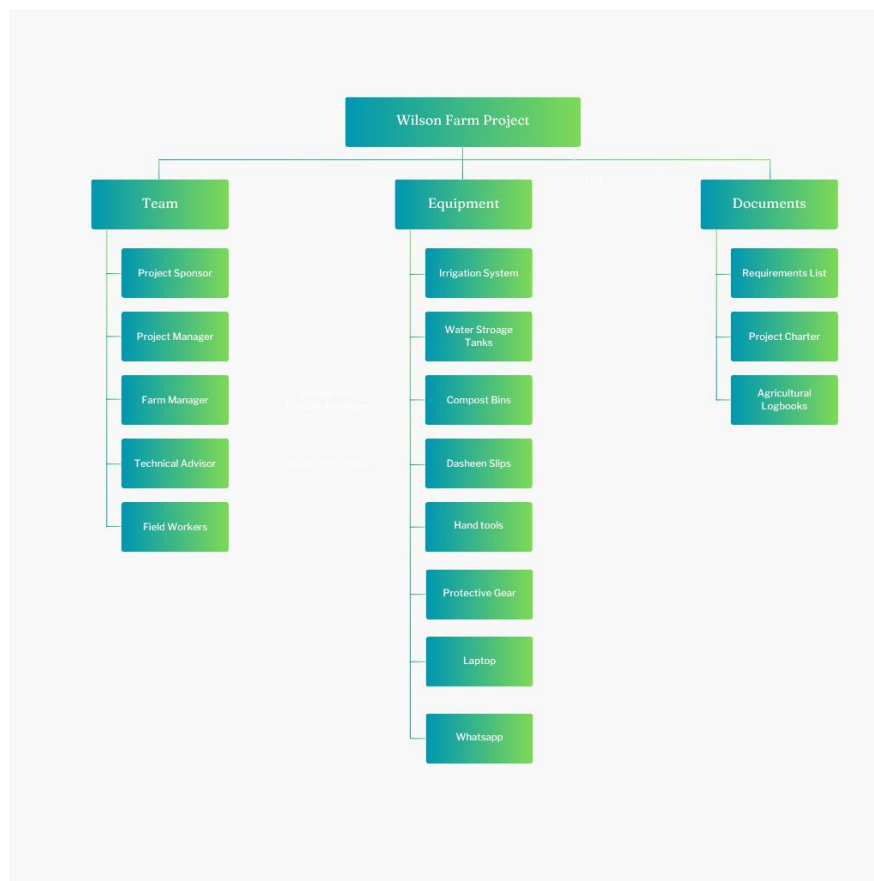
This process identifies and quantifies all the team members, materials, equipment, and supplies required to complete the Wilson Farm Project. The estimation was developed using a bottom-up approach, where resources were assigned to each work package based on the specific activities and their scope.

Resources Breakdown Structure

The organizational diagram below classifies all the resources required for the successful execution of the project throughout its life cycle. Figure 31 presents the Resource Breakdown Structure (RBS) for the Wilson Farm Project.

Figure 31

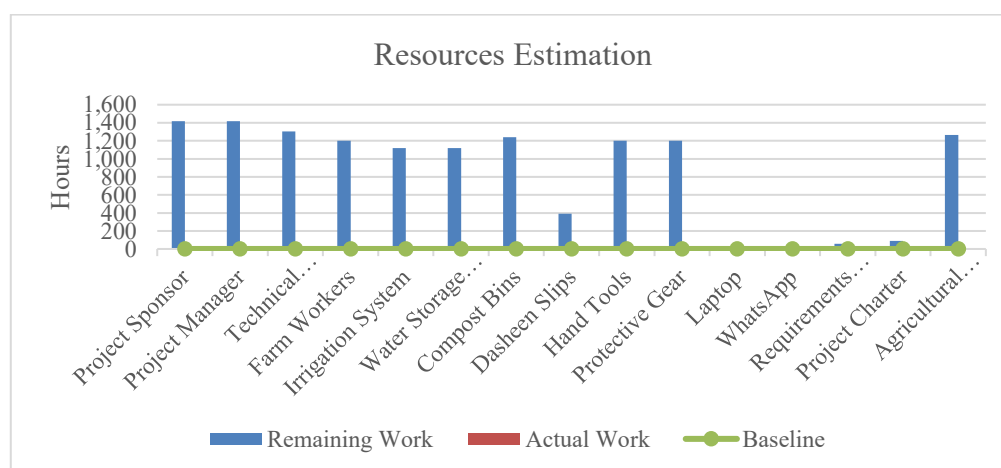
Resource breakdown structure



Note. (Source: Hutchins, 2025)

Table 25*Resources estimation*

Resource	Category	Start	Finish	Remaining Work
Project Sponsor	Team	02/02/2026	10/06/2026	1,416 hrs
Project Manager	Team	02/02/2026	10/06/2026	1,416 hrs
Farm Manager	Team	02/09/2026	10/06/2026	1,376 hrs
Technical Advisor	Team	02/16/2026	09/30/2026	1,304 hrs
Farm Workers	Team	02/23/2026	09/20/2026	1,200 hrs
Irrigation System	Equipment	03/09/2026	09/20/2026	1,120 hrs
Water Storage Tanks	Equipment	03/09/2026	09/20/2026	1,120 hrs
Compost Bins	Equipment	02/16/2026	09/20/2026	1,240 hrs
Dasheen Slips	Equipment	02/23/2026	04/30/2026	392 hrs
Hand Tools	Equipment	02/23/2026	09/20/2026	1,200 hrs
Protective Gear	Equipment	02/23/2026	09/20/2026	1,200 hrs
Laptop	Equipment	02/02/2026	10/06/2026	-
WhatsApp	Equipment	02/02/2026	10/06/2026	-
Requirements List	Documents	02/02/2026	02/10/2026	56 hrs
Project Charter	Documents	02/02/2026	02/16/2026	88 hrs
Agricultural Logbooks	Documents	02/23/2026	09/30/2026	1,264 hrs

Note. (Source: Hutchins, 2025)**Figure 32***Resources estimation chart**Note.* (Source: Hutchins, 2025)

Assumption of Estimates

- The project team will have consistent access to basic internet connectivity to facilitate communication, reporting, and coordination through digital tools such as WhatsApp and email.
- All farming equipment and materials will be sourced locally within St. Vincent and the Grenadines.
- Each team lead will have access to a smartphone equipped with WhatsApp for coordination.
- All required equipment will be acquired during the procurement phase, and associated costs are estimated based on local market prices as of 2025.
- The project is planned to be completed by October 6, 2026, with a three-week schedule reserve included to accommodate unforeseen delays or weather disruptions.
- Labor availability is expected to remain stable throughout the project, with no major turnover or shortage of local workers anticipated.
- Prices for key inputs are expected to remain relatively stable during the project period.

Team Development

The project team includes key personnel responsible for planning, coordination, and farm operations. The project manager oversees all activities, ensuring effective

communication and collaboration. The farm manager and field workers handle daily operations, while the agricultural extension officer provides technical guidance on sustainable farming practices. Given the interdisciplinary nature of the project, teamwork and clear communication are crucial for achieving the project's goals. The project manager will oversee the execution of the following process:

Team Interpersonal Communication Management

Collective Communication Platform

Project information will be shared primarily through email and WhatsApp. These tools will facilitate daily communication among the project manager, farm manager, and team members, ensuring timely updates, coordinating field activities, and documenting progress.

Email and WhatsApp Chat

Day-to-day communication will occur via WhatsApp, which is widely accessible and suitable for quick updates and task coordination. Email will be used for formal correspondence, reporting, and sharing project documents.

Staff Acquisition and Release

The project team consists of existing farm personnel and a technical advisor. No additional hiring is required. Once the project begins, all team members will focus on assigned tasks and project deliverables. Upon project completion, each member will return to their regular roles or ongoing farm operations.

Training Requirements

All team members must demonstrate competence in their respective roles before project initiation. The farm manager and farm workers will get training on sustainable practices, safe equipment use, and quality standards to ensure alignment with project objectives.

Meetings

Meetings will be scheduled to review progress, address challenges, and ensure alignment with the project plan.

- Weekly check-ins via WhatsApp for quick updates and coordination.
- Monthly in-person meetings led by the project manager for performance review and planning.

The project manager will determine meeting length and agenda based on project needs.

Resource Management Plan, Change Process

The Resource Management Plan established for the Wilson Farm Project may only be modified through the formal change management process, initiated at the request of the project sponsor. Any proposed adjustments to resource allocation, personnel, or equipment must be fully documented using the Change Request Form and authorized by both the project manager and project sponsor before implementation.

If a formal request is not submitted, no changes will be made, and the project manager reserves the right to deny unapproved modifications. Upon receipt of a valid change request, the project sponsor will review and either approve or reject the request within three working days.

All change requests will be recorded in the project's documentation system, and approvals will be granted based on the priority, justification, and impact of the proposed change on the project's schedule, cost, and successful completion.

Roles and Responsibilities

The roles and responsibilities of the project lifecycle are listed in the chart below.

Table 26

Roles and responsibilities

Name	Role	Responsibilities
Elroy Wilson	Project Sponsor / Owner	• Approves changes in scope and schedule. • Evaluates and authorizes resource adjustments. • Reviews and approves project deliverables. • Approves cost and quality changes. • Confirms alignment with farm's strategic goals. • Provides funding and ensures resource availability. • Approves procurement of new equipment or materials.
Cassica Hutchins	Project Manager	• Oversees resource allocation and usage. • Facilitates and documents change requests. • Organizes and leads schedule and progress meetings. • Communicates outcomes of schedule and resource changes. • Ensures that the project remains within scope, budget, and schedule. • Oversees quality control and reporting. • Coordinates with sponsor and team to approve schedule changes. • Ensures deliverables meet agreed standards.
Jimmy Black	Farm Manager	• Supervises day-to-day field operations. • Requests schedule or resource adjustments as needed. • Ensures proper use and maintenance of equipment. • Documents progress, delays, and issues.

		• Communicates daily updates to the project Manager. • Ensures quality standards in field tasks are maintained. • Supports training and safety compliance.
Feldmon Brown	Ministry of Agriculture (Extension Officer)	• Provides expert guidance on sustainable farming and dasheen production. • Validates technical feasibility of changes. • Monitors compliance with agricultural standards. • Reviews quality of farming processes. • Suggests resource improvements or best practices. • Participates in progress review meetings.
Farm Workers	Operations Team	• Execute assigned farm tasks (land prep, planting, maintenance, harvesting). • Report issues affecting schedule or quality. • Properly use tools and equipment. • Support the farm manager in achieving daily targets. • Comply with safety and quality requirements. • Participate in team meetings and follow directions.

Note. (Source: Hutchins, 2025)

Responsibility Assignment Matrix

The following chart outlines the distribution of responsibilities for the Wilson Farm Project at the level 1 work package. It identifies the specific roles of each team member in relation to key project activities.

The responsibility categories are defined as:

- **R (Responsible):** Performs the work to complete the task
- **A (Accountable):** Ultimately answerable for the task's completion and quality
- **C (Consulted):** Provides input, expertise, or guidance
- **I (Informed):** Kept updated on progress and decisions

Table 27

RACI chart

RACI CHART	Team Members				
Activity	Elroy	Cassica	Jimmy	Feldmon	Farm Workers
Project Management	A	R	C	C	I
Land Registration & Compliance	A	R	C	C	I
Farm Infrastructure Development	A	R	R	C	R
Cultivation Planning	I	A	R	C	R
Harvest & Post-Harvest Activities	I	A	R	C	R
Training & Capacity Building	I	A	C	R	R
Monitoring & Evaluation	A	R	C	C	I

Note. (Source: Hutchins, 2025)

Resource Control

Resource control in the Wilson Farm Project will focus on ensuring that all physical resources, including equipment, tools, materials, and facilities, are available when needed, used efficiently, and released once they are no longer required. The project manager will lead this process with support from the farm manager, ensuring that planned resources match actual usage throughout the project's lifecycle.

Regular monitoring will be conducted through weekly field inspections, progress meetings, and resource usage reports. Any variance between planned and actual resource utilization will be recorded, analyzed, and corrective actions will be implemented to maintain alignment with the project schedule and cost plan.

4.7. Project Communication Management

The Communication Management Plan establishes the authorized and formal channels through which all project stakeholders and team members will exchange information and remain informed throughout the Wilson Farm Project. It ensures that all communications are clear, consistent, and aligned with the project's objectives and stakeholder expectations. Pertinent information, including progress updates, decisions, and reports, will be documented, secured, and shared through accessible media such as email, scheduled meetings, and progress reports. This plan defines the frequency, format, and responsible parties for each type of communication to guarantee that stakeholders receive timely and accurate information. The key advantage of this plan is that it fosters transparency, enhances coordination, and ensures that all team members and stakeholders have access to the necessary information for making informed decisions and achieving project success.

Document Tracking (Communication Management Plan)

General Information

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Approvals

Role	Name	Signature©	Date
Project Sponsor	Elroy Wilson		
Project Manager	Cassica Hutchins		

4.7.1 Communication Management Plan

			Communication Management Plan		
Version 1.0		Document ID: 002-WF-CMMP		09/11/2025	

Project Communication

This plan establishes the formal communication structure for the Wilson Farm Project, ensuring that information is effectively gathered, developed, shared, and validated among team members and stakeholders to support clarity, accountability, and informed decision-making.

Roles and Responsibilities

Table 28

Communication management roles and responsibilities

Name	Role	Responsibilities
Elroy Wilson	Project Sponsor	• Approves key project communications and reports. • Reviews and authorizes major decisions and deliverables. • Ensures alignment with project goals.
Cassica Hutchins	Project Manager	• Develops and enforces the Communication Management Plan. • Coordinates and disseminates information to all stakeholders. • Schedules and leads meetings. • Prepares monthly progress reports and stakeholder updates.
Jimmy Black	Farm Manager	• Provides operational updates and field data to the project manager. • Communicates resource needs and task progress. • Ensures timely feedback from laborers.
Laborers	Field Team	• Report daily task completion and issues to the farm manager.

Name	Role	Responsibilities
		• Receive instructions and updates through team briefings.
Feldmon Brown	Ministry of Agriculture Extension Officer	• Receives project progress reports. • Provides technical advice and feedback. • Participates in quarterly review meetings.
Local Buyers / Cooperative	Key Stakeholders	• Receive production updates and delivery schedules. • Provide feedback on quality and changes in demand. • Participate in scheduled stakeholder briefings.

Note. (Source: Hutchins, 2025)

Stakeholders Identification Requirements

Table 29 shows the communication requirements expressed by the stakeholders.

Table 29

Stakeholders communication requirements

Stakeholders	Name	Key Concerns	Communication Method	Frequency	Contact Information
Project Sponsor	Elroy Wilson	Status reports, financial updates, schedule, deliverables, resource allocation	Email, WhatsApp, Phone Calls, Face-to-Face Meetings	Weekly	elroywilson@gmail.com
Project Manager	Cassica Hutchins	Overall coordination, status reports, schedule adherence, reporting, stakeholder satisfaction	Email, WhatsApp, Zoom, Monthly Reports, Team Meetings	Weekly	hutchins.cassica@gmail.com
Farm Manager	Jimmy Black	Daily operations, status reports, resource use, task completion, issue reporting	WhatsApp, Phone Calls, Daily Briefings, Face-to-Face	Daily	jimmy.black@gmail.com
Farm Workers	—	Task instructions, safety guidelines,	Verbal Briefings, Notice Board Updates, Team Meetings	Daily	—

Stakeholders	Name	Key Concerns	Communication Method	Frequency	Contact Information
		daily assignments			
Ministry of Agriculture (Extension Officer)	Feldmon Brown	Technical support, compliance, production standards, progress updates	Email, Phone Calls, Quarterly Review Meetings	Quarterly	feldmonbrown@agriculture.gov.vc
Local Buyers / Cooperative	Dasheen Cooperative	Harvest schedule, quality assurance, and delivery timelines	Email, Phone Calls, Stakeholder Meetings	Monthly	dasheencoop@gmail.com

Note. (Source: Hutchins, 2025)

Communication Matrix

Table 30

Communication matrix

Project Name:	Wilson Farm Project
Project Objective:	To develop a comprehensive project management plan for Wilson Farm that integrates sustainable agricultural practices, structured operations, and strategic market development to improve dasheen production and farm resilience.

I.D.	Deliverable	Description	Delivery Method	Frequency	Responsible	Audience
1	Project Updates	Regular communication on project status	Telephone Calls, WhatsApp, Emails	As needed	Project Manager	Project Sponsor, Farm Manager
2	Progress Reports	Summary of activities, risks, and progress	Email, Printed Report	Weekly	Project Manager	Project Sponsor, Ministry of Agriculture Officer
3	Stakeholder Meetings	Review of project milestones and issues	Face-to-Face Meetings, Virtual Meetings	Monthly	Project Manager	Project Sponsor, Farm Manager, Key Stakeholders

4	Field Briefings	Daily task assignments and updates	Verbal Briefings, Notice Board	Daily	Farm Manager	Field Workers
5	Presentation	Overall project performance and results	Virtual Meeting, Presentation	At Project Completion	Project Manager	Project Sponsor, Key Stakeholders

Note. (Source: Hutchins, 2025)

Communication Standards

The communication process for the Wilson Farm Project will follow a continuous and open flow of information between the sender and the receiver. This approach ensures that all team members and stakeholders remain informed, understand their responsibilities, and can work together effectively.

All information shared through official channels will be kept private and used only for project purposes. It will not be shared with the public without permission. The sender of any message must make sure the information is clearly communicated and understood by the receiver. The receiver should confirm that they have received and understood the message.

The communication process will follow these key points:

- **Clarity:** Messages must be simple, clear, and directly related to the project's goals. Team members should use plain language and confirm understanding when needed.
- **Feedback:** Replies to official messages should be given within 24 hours through the chosen communication channels (WhatsApp, phone calls, or email). Feedback helps keep everyone aligned and ensures tasks are completed on time.
- **Reports:** Weekly updates and monthly summary reports will be prepared by the Project Manager and shared with the project sponsor and other key stakeholders by email. These reports will show progress, challenges, and next steps.

- **Record Keeping:** All important messages and reports will be saved in a secure digital folder for future reference.

Authorized Communication Channels

Email: Gmail will serve as the main platform for official communication and sharing of project information. Key topics will include progress updates, task assignments, equipment needs, schedule changes, and meeting invitations. All official messages will be sent using the personal Gmail accounts of team members. Communication with external stakeholders, such as the Ministry of Agriculture and local buyers, will also be done through email to ensure clear and documented exchanges.

Written Material: Some physical documents, such as signed forms, invoices, and field reports, will be exchanged between the project manager, farm manager, and sponsor. Written communication will be limited, as email and mobile messaging will serve as the main methods for daily coordination.

Mobile Devices: Mobile communication using WhatsApp will be essential for fast and easy updates among the project manager, farm manager, and farm workers. This method will be used for sharing reminders, photos, or urgent messages related to daily farm operations. Team leaders are required to have a smartphone with messaging capabilities and internet access.

Virtual Meetings: Zoom will be used for online meetings when face-to-face sessions are not possible. These platforms will allow the project manager to meet with the sponsor, extension officers, or other stakeholders to review progress, address issues, and plan next steps.

Face-to-Face Meetings: Whenever possible, in-person meetings will be held on-site at Wilson Farm to discuss progress, resolve issues, and plan activities. These sessions help strengthen teamwork and ensure everyone fully understands project goals and tasks.

Monitoring Communication

Meetings will be the main method used to monitor and manage the flow of information between the project team and stakeholders. These sessions will ensure that all participants remain informed, that communication remains clear and effective, and that any new issues or requests are addressed promptly. Meetings may be held in person at Wilson Farm or virtually via Zoom, depending on availability and convenience.

During the initial planning phase, meetings will be held monthly to discuss progress, confirm deliverables, and plan upcoming activities. As the project moves into the implementation phase, meetings will occur weekly to ensure close coordination, track daily operations, and address emerging needs.

Meetings

Meetings will be used to:

- Share progress updates and upcoming tasks
- Resolve issues or challenges faced by the team
- Make decisions regarding changes or resource needs
- Review stakeholder feedback and agree on follow-up actions

Types of Meetings:

- **Weekly Meetings:** Held between the Project Manager and Farm Manager to review field activities, resource use, and any immediate concerns. These meetings ensure that the daily work aligns with the schedule and objectives.
- **Monthly Meetings:** Held between the Project Manager, Project Sponsor, and key stakeholders (such as the extension officer). These meetings will focus on overall progress, financial updates, risk management, and any proposed changes to the plan.

Project Reporting

Reports will summarize key project updates, decisions, and performance against planned targets. These reports help the team and stakeholders make informed decisions and maintain transparency.

- **Monthly Report:** This report will record decisions, actions, and agreements made during meetings. It will include updates on schedule, budget, resources, and project risks. The project manager will prepare and share the report by email with the sponsor and other relevant stakeholders.

- Any changes to the format or content of the reports must follow the change management process outlined in the project plan.

Communication Management Plan, Change Process

The Communication Management Plan for the Wilson Farm Project can only be modified through the formal change management process. Any proposed change must be requested by the project sponsor and properly documented using the official Change Request Form. All requests must be reviewed and authorized by both the project manager and project sponsor before implementation. If a change request is not submitted using the required format, it will not be processed, and the project manager has the right to refuse the change. Once a valid change request is submitted, the project sponsor will have three (3) working days to review and either approve or reject the request. Each request will be evaluated based on its importance and how it may affect the project's schedule, budget, and overall success. All approved changes must be recorded, and updates to the Communication Management Plan must be shared with all relevant stakeholders to ensure consistency and alignment throughout the project.

4.8. Project Risk Management

Risks associated with the Wilson Farm Project were initially identified during the preparation of the project charter and further refined throughout the project planning and development stages. The Risk Management Plan (RMP) documents potential uncertainties that may affect the project's objectives related to scope, schedule, cost, quality, and sustainability. Each identified risk was analyzed qualitatively to determine its likelihood and potential impact on project performance.

The plan establishes a structured response strategy to minimize the probability and consequences of high-priority risks. Given the moderate scale of Wilson Farm, a qualitative approach was deemed sufficient to monitor and address these uncertainties throughout the project life cycle.

This Risk Management Plan provides a clear approach to identify, assess, and manage risks, ensuring the project stays on track with its goals.

Document Tracking (Risk Management Plan)

General Information

	Information
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File Name	Resource Management Plan

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Approvals

Role	Name	Signature©	Date
Project Sponsor	Elroy Wilson		
Project Manager	Cassica Hutchins		

4.8.1 Risk Management Plan

	Risk Management Plan		
Version 1.0	Document ID: 002-WF-RMP	09/11/2025	

Identifying Risks

The process of identifying risks for the Wilson Farm Project will begin during the development of the project charter and will continue throughout all phases of project planning and execution. As the project progresses, new risks may emerge, and existing ones may be revised or removed based on changing conditions or management decisions. All updates will follow the established change management process. The risk register will be continuously updated to record any new or modified risks identified during the project's life cycle. This will ensure that all potential uncertainties affecting the farm's operations and project objectives are properly documented and managed.

Table 31

Risk breakdown structure

RBS Level 0	RBS Level 1	RBS Level 2	RBS Level 3
Project Risk	1. Management Risk	1.1 Project Management	1.1.1 Experience and decision-making
		1.2 Organization	1.2.1 Resource allocation
		1.3 Communication	1.2.2 Coordination of field activities
	2. External Risk	2.1 Regulatory	1.3.1 Information flow among stakeholders
		2.2 Environmental	2.1.1 Compliance with agricultural standards
		2.3 Economic	2.2.1 Weather variation
		3.1 Equipment	2.2.2 Pest and disease outbreaks
	3. Technical Risk	3.2 Cultivation Technology	2.3.1 Input price fluctuations
			2.3.2 Market demand shifts

RBS Level 0	RBS Level 1	RBS Level 2	RBS Level 3
			3.2.2 Post-harvest handling methods
	4. Commercial Risk	4.1 Customers	4.1.1 Changing customer requirements 4.1.2 Quality or delivery expectations
		4.2 Suppliers	4.2.1 Input availability 4.2.2 Supplier reliability

Note. (Source: Hutchins, 2025)

Risk Management Plan, Change Process

The Risk Management Plan for the Wilson Farm Project can only be changed through the formal change management process and with approval from the project sponsor. All proposed changes must be documented using the Change Request Form and reviewed by both the project manager and sponsor. If the form is not submitted, no changes will be made. The sponsor has three working days to approve or reject the request, and all decisions will be recorded. Approval depends on the change's urgency, impact, and effect on the project's successful completion.

Risk Analysis

Qualitative Risk Analysis

Each identified risk for the Wilson Farm Project will be evaluated using a qualitative approach. This method assesses the likelihood of each risk occurring and the potential impact it may have on the project's objectives. Risks are then classified according to their combined score, allowing the project team to prioritize response actions and allocate resources effectively.

Table 32

Qualitative risk analysis classification

			Impact				
			In Significant	Less Significant	Potentially Significant	Significant	Very Significant
		Score	LOW	→ HIGH			
		Score	1	2	3	4	5
	PROBABILITY	5	5	10	15	20	25
		4	4	8	12	16	20
		3	3	6	9	12	15
		2	2	4	6	8	10
		1	1	2	3	4	5

Note. (Source: Hutchins, 2025)

Risk Response

Based on the results of the qualitative analysis applied to each identified risk, the project manager of Wilson Farm will use the following chart to determine and implement the appropriate response actions.

Table 33

Risk response

Priority	Score	Strategy	Description
Very High Risk	$x \geq 15$	Escalate / Transfer	These risks require immediate attention and may be escalated to the project sponsor or transferred to a qualified specialist for resolution to prevent significant project delays or losses.
High Risk	$9 < x < 15$	Address	These risks must be actively managed through corrective or preventive actions to minimize their potential impact on project objectives.
Medium Risk	$4 < x \leq 8$	Mitigate	Actions will be developed to reduce the likelihood and impact of these risks through regular monitoring and adaptive management.
Low Risk	$x \leq 3$	Accept	These risks will be accepted and monitored, as their impact on the project's success is minimal. No immediate action is required unless conditions change.

Risk Monitoring and Controlling

For the Wilson Farm Project, risks will be monitored every week or as needed by the project manager. This process helps to check the current status of risks and identify any new issues that could affect the project. During weekly meetings, the project team will

review all known risks and update them in the risk register. This ensures that the team can respond quickly to any changes that may occur during the project. The project manager is responsible for reviewing risks each week and including the results in the monthly report. These reviews will also assess whether the actions taken to reduce risks are effective or need improvement.

Risk Identified

Table 34

Risks identified

Project Name:	Wilson Farm Project
Project Objective:	To develop a comprehensive project management plan for Wilson Farm that integrates sustainable agricultural practices, structured operations, and strategic market development to improve dasheen production and farm resilience.

RBS Code	Cause	Risk	Consequence
1.1.1	Limited management experience	Poor decision-making in planning or operations	Ineffective task execution and project delays
1.2.1	Uneven use of labor and materials	Misallocation of resources	Reduced productivity and higher project costs
1.2.2	Weak coordination between field workers and management	Poor supervision of activities	Delays in task completion and reduced efficiency
1.3.1	Lack of clear communication channels	Misunderstanding of project instructions	Rework, confusion, and scheduling conflicts
2.1.1	Changes in agricultural regulations	Noncompliance with required standards	Legal penalties or loss of certification
2.2.1	Unpredictable weather conditions	Flooding or drought affecting crops	Reduced yield and possible crop loss
2.2.2	Inadequate pest control measures	Pest or disease infestation	Damage to crops and loss of farm income
2.3.1	Fluctuating prices of inputs	Increase in production costs	Budget overrun and reduced profit margins
2.3.2	Changes in market preferences	Decline in market demand	Surplus production and unsold inventory
3.1.1	Old or faulty equipment	Machinery breakdown	Disruption of farm activities and repair costs

RBS Code	Cause	Risk	Consequence
3.1.2	Lack of regular equipment maintenance	Prolonged downtime	Schedule delays and productivity loss
3.2.1	Poor soil preparation or irrigation setup	Inefficient water use	Poor crop growth and lower yield
3.2.2	Inadequate post-harvest facilities	Ineffective product handling	Loss of product quality and market value
4.1.1	Shifting customer preferences	Customer dissatisfaction	Reduced sales and loss of market trust
4.1.2	Inconsistent quality control	Product not meeting standards	Rejection by buyers or reduced reputation
4.2.1	Shortage of local inputs	Delay in obtaining materials	Disruption in planting or harvesting schedule
4.2.2	Dependence on unreliable suppliers	Late or poor-quality deliveries	Delays in production and financial losses

Note. (Source: Hutchins, 2025)

Qualitative Risk Analysis

Table 35

Qualitative risk analysis

Project Name:	Wilson Farm Project
Project Objective:	To develop a comprehensive project management plan for Wilson Farm that integrates sustainable agricultural practices, structured operations, and strategic market development to improve dasheen production and farm resilience.

RBS Code	Cause	Risk	Consequence	Probability	Impact	P×I	Priority
1.1.1	Limited management experience	Poor decision-making in planning or operations	Ineffective task execution and project delays	2	3	6	Medium
1.2.1	Uneven use of labor and materials	Misallocation of resources	Reduced productivity and higher project costs	2	2	4	Medium
1.2.2	Weak coordination between field workers and management	Poor supervision of activities	Delays in task completion and reduced efficiency	2	3	6	Medium
1.3.1	Lack of clear communication channels	Misunderstanding of project instructions	Rework, confusion, and	2	3	6	Medium

RBS Code	Cause	Risk	Consequence	Probability	Impact	P×I	Priority
			scheduling conflicts				
2.1.1	Changes in agricultural regulations	Noncompliance with required standards	Legal penalties or loss of certification	1	3	3	Low
2.2.1	Unpredictable weather conditions	Flooding or drought affecting crops	Reduced yield and possible crop loss	3	5	15	Very High
2.2.2	Inadequate pest control measures	Pest or disease infestation	Damage to crops and loss of farm income	3	4	12	High
2.3.1	Fluctuating prices of inputs	Increase in production costs	Budget overrun and reduced profit margins	2	3	6	Medium
2.3.2	Changes in market preferences	Decline in market demand	Surplus production and unsold inventory	2	2	4	Medium
3.1.1	Old or faulty equipment	Machinery breakdown	Disruption of farm activities and repair costs	2	3	6	Medium
3.1.2	Lack of regular equipment maintenance	Prolonged downtime	Schedule delays and productivity loss	2	3	6	Medium
3.2.1	Poor soil preparation or irrigation setup	Inefficient water use	Poor crop growth and lower yield	2	3	6	Medium
3.2.2	Inadequate post-harvest facilities	Ineffective product handling	Loss of product quality and market value	2	2	4	Medium
4.1.1	Shifting customer preferences	Customer dissatisfaction	Reduced sales and loss of market trust	1	3	3	Low
4.1.2	Inconsistent quality control	Product not meeting standards	Rejection by buyers or reduced reputation	2	3	6	Medium
4.2.1	Shortage of local inputs	Delay in obtaining materials	Disruption in planting or harvesting schedule	2	3	6	Medium
4.2.2	Dependence on unreliable suppliers	Late or poor-quality deliveries	Delays in production and financial losses	2	3	6	Medium

Note. (Source: Hutchins, 2025)

Critical Risk Responses

Table 36

Critical risk responses

RBS Code	Cause	Risk	Consequence	P×I	Response
2.2.1	Unpredictable weather conditions	Flooding or drought affecting crops	Reduced yield and possible crop loss	15	Adopt simple low-cost weather adaptation methods, such as raised planting beds in low-lying areas and basic drainage channels to prevent waterlogging. During dry periods, use mulching and barrel-based water storage to retain soil moisture. Monitor local weather updates and adjust planting schedules when heavy rain or extended dry spells are expected. Maintain open communication with nearby farmers to share local weather experiences and solutions.
2.2.2	Inadequate pest control measures	Pest or disease infestation	Damage to crops and loss of farm income	12	Apply basic Integrated Pest Management (IPM) suited for small farms, using manual removal of pests and natural repellents (like neem or pepper sprays). Consider crop rotation. Conduct weekly crop checks to detect early signs of infestation. Engage support from the local agricultural office for technical advice. Keep simple pest tracking notes to guide when and how treatments should be applied.

Note. (Source: Hutchins, 2025)

4.9. Project Procurement Management

The Procurement Management Plan for the Wilson Farm Project has been developed under the guidance of the project sponsor, who is also the primary source of project funding. All procurement activities will be financed directly by the sponsor, ensuring timely acquisition of materials and services essential for project implementation.

Given the farm's small scale, most resources, such as planting materials, tools, fertilizers, and irrigation supplies, will be sourced from local suppliers to support community businesses and reduce delivery delays. When specialized services or materials are required, the project manager will obtain at least three quotations to evaluate quality, price, and reliability before making a final selection.

This plan outlines the procedures for identifying procurement needs, obtaining approvals, and monitoring deliveries to ensure that all purchases align with the project's schedule, cost, and quality objectives. The project manager will oversee the entire procurement process to maintain transparency and proper documentation of all transactions.

Document Tracking (Procurement Management Plan)

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Approvals

Role	Name	Signature©	Date
Project Sponsor	Elroy Wilson		
Project Manager	Cassica Hutchins		

4.9.1 Procurement Management Plan

	Procurement Management Plan	
Version 1.0	Document ID: 002-WF-PMP	09/11/2025

Procurement Plan Purpose

It defines the process for acquiring the goods and services needed for the Wilson Farm Project. It ensures that all materials and supplies funded by the project sponsor are purchased efficiently, transparently, and in alignment with the project's cost, schedule, and quality objectives.

Procurement Statement

The procurement process defined in this plan will be used to acquire the farming materials, tools, irrigation supplies, dasheen slips, and labor services needed to support the development and operation of the Wilson Farm Project. All items will be financed by the project sponsor and sourced primarily from local suppliers to ensure cost efficiency, reliability, and timely delivery throughout the project's implementation.

Procurement Description

If new materials or resources become necessary during project execution, their purchase will be reviewed individually and must receive the project sponsor's authorization before proceeding. These acquisitions will follow the established change management

process to ensure accountability and budget control. The project manager will seek competitive pricing from at least three local suppliers, selecting the option that offers the best balance of cost, quality, and timely delivery.

Procurement Management Plan, Change Process

The Procurement Management Plan for the Wilson Farm Project can only be modified through the formal change management process. Any proposed change must be initiated by the project sponsor and properly documented using the official Change Request Form. All requests must be reviewed and approved by both the project manager and project sponsor before any modification is implemented. If a request is not submitted in the required format, it will not be processed, and the project manager has the authority to decline the change. Once a valid request is submitted, the project sponsor will have three (3) working days to review and either approve or reject it. Each change request will be evaluated according to its importance, cost implications, and potential effect on the project's timeline and outcomes. All approved adjustments must be recorded, and updates to the Procurement Management Plan must be communicated to all relevant stakeholders to ensure transparency and alignment throughout the project.

Procurement Metrics for Procurement Activities

The performance of suppliers and service providers for the Wilson Farm Project will be evaluated based on the quality, reliability, and cost of their products or services. The

results of this evaluation will guide the selection of vendors who best meet the project's operational and financial requirements. The following table expresses the evaluation.

Table 37

Performance metrics

Vendor	Product Quality	Delivery Time	Documentation Accuracy	Service Reliability	Unit Cost	Total Cost	Score
1							
2							
3							

Note. (Source: Hutchins, 2025)

Scale:

1 – Unsatisfactory

2 – Acceptable

3 – Excellent

The procurement process will continue with selecting the vendor that receives the highest overall score, ensuring that the chosen goods or services provide the best value and support the project's quality, schedule, and budget objectives.

Monitoring and Controlling Procurement Activities

The monitoring and controlling process for procurement in the Wilson Farm Project ensures that all materials and services acquired align with approved specifications, quality standards, delivery timelines, and budgetary constraints. Continuous oversight is necessary

to guarantee that suppliers fulfill their contractual obligations and that any variances are promptly corrected to maintain project performance.

Monitoring will focus on verifying that each procurement activity, from quotation review to final delivery, is conducted in compliance with the procedures established in the Procurement Management Plan. The project manager, in coordination with the farm manager, will maintain close communication with suppliers to confirm shipment dates, product specifications, and delivery progress. Any noncompliance with quality standards, delays, or cost deviations will be documented and reviewed through the formal change control process.

A procurement management log will be maintained to record all purchase orders, delivery dates, payment status, and supplier performance scores. This log will allow the project manager to monitor progress in real time and identify potential risks such as late deliveries or incomplete documentation.

Table 38

Procurement monitoring log

Indicator	Description	Monitoring Frequency	Responsible Person
Delivery Timeliness	Percentage of goods and services delivered according to the agreed schedule.	Weekly	Farm Manager
Product Quality	Compliance of delivered materials with agreed specifications and farm standards.	Upon delivery	Farm Manager
Supplier Reliability	Ratio of successful to delayed or incomplete orders.	Monthly	Project Manager
Cost Variance	Comparison between estimated and actual costs per procurement.	Monthly	Project Manager
Documentation Accuracy	Verification of invoices, receipts, and quality certificates for completeness.	Each transaction	Project Manager

These additional monitoring and control policies will help to improve efficiency and transparency:

1. Upon delivery, the farm manager will inspect all goods to ensure they meet approved specifications, quantities, and quality standards. Any discrepancies will be reported immediately to the project manager for corrective action. Unsatisfactory deliveries will be documented for follow-up before future purchases.
2. Supplier performance will be reviewed quarterly based on delivery reliability, product quality, service responsiveness, and overall value. Evaluation results will guide future procurement decisions and strengthen collaboration with key suppliers.
3. Periodic reviews will be conducted to verify compliance with procurement procedures, documentation standards, and approval processes. The findings will be summarized in progress reports and presented to the project sponsor to ensure accountability and continuous improvement.
4. If procurement issues arise, such as delivery delays, cost variations, or material shortages, a formal procurement change request must be submitted. The project manager and project sponsor will review and approve all changes before implementation. Approved modifications will be recorded and communicated to maintain transparency and control.

Procurement Team Roles and Responsibilities

Table 39

Procurement team roles and responsibilities

Role	Name/Position	Responsibilities
Project Sponsor	Mr. Elroy Wilson	Provides financial resources for all procurement activities, reviews and approves supplier selections, and authorizes final purchase decisions.
Project Manager	Cassica Hutchins	Manages all procurement activities, ensures purchases align with the project plan and budget, evaluates supplier quotations, and maintains complete procurement documentation.
Farm Manager	Mr. Jimmy Black	Checks and verifies the quality, quantity, and suitability of goods upon delivery, reports discrepancies, and confirms that procured items meet farm requirements.
Supplier/Vendor	Local Agricultural Suppliers	Supplies approved goods and services, ensures timely delivery, and provides proper invoices and receipts for all transactions.

Note. (Source: Hutchins, 2025)

4.10. Project Stakeholder Management

The Stakeholder Management Plan for the Wilson Farm Project serves to identify, analyze, and engage all individuals and organizations with an interest in or influence over the project. Stakeholders are categorized into two main groups: direct and indirect. Direct stakeholders are those actively participating in project activities and decision-making processes, while indirect stakeholders are those affected by or benefiting from the project outcomes without having direct authority in the project.

This plan ensures that the needs, expectations, and levels of influence of each stakeholder are properly recognized and managed throughout the project life cycle. By maintaining effective communication, fostering collaboration, and addressing stakeholder concerns in a timely manner, the project increases its likelihood of success. Proper stakeholder management contributes to building trust, sustaining community support, and ensuring that Wilson Farm achieves its objectives of improving dasheen production and promoting sustainable agricultural practices.

Document Tracking (Stakeholder Management Plan)

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Approvals

Role	Name	Signature©	Date
Project Sponsor	Elroy Wilson		
Project Manager	Cassica Hutchins		

4.10.1 Stakeholder Management Plan

	Stakeholder Management Plan	
Version 1.0	Document ID: 002-WF-SHMP	09/11/2025

Project Stakeholders

Project stakeholders are individuals or organizations that can influence or be affected by the development, decisions, or outcomes of the Wilson Farm Project. These stakeholders have been classified into two main categories: direct and indirect stakeholders. Direct stakeholders are those actively involved in project activities and decision-making, while indirect stakeholders are those who may benefit from or be impacted by the project's results. The complete list of stakeholders is presented below.

Table 40

Stakeholder classification

Direct Stakeholders	Indirect Stakeholders
• Project Sponsor • Project Manager • Farm Manager • Laborers • Ministry of Agriculture • Input Warehouse • Dasheen Cooperative • Local Supermarkets • Hotels	• Marriaqua Community Members • Consumers • Regional Export Partners

Note. (Source: Hutchins, 2025)

Stakeholder Register

The stakeholder register serves as a comprehensive record of all individuals and organizations that may influence or be affected by the Wilson Farm Project. It provides essential information for managing stakeholder engagement and communication throughout the project's lifecycle. This document also functions as a reference point for identifying any new stakeholders that may emerge as the project progresses.

The register includes key details for each stakeholder (see Table 41):

- **ID:** A sequential number assigned to identify each stakeholder within the project.
- **Stakeholder:** The individual, group, or organization involved or affected by project activities.
- **Functional Area:** The specific area of the project where the stakeholder contributes or has influence.
- **Roles and Responsibilities:** A description of the stakeholder's main duties, authority, and contribution to achieving project objectives.
- **Main Expectations:** The stakeholder's anticipated benefits or outcomes from project implementation.
- **Power and Impact:** The degree of power and effect the stakeholder holds on project success.
- **Comments:** Additional observations to clarify the stakeholder's level of engagement or relationship with the project.

Stakeholder Register

Table 41

Stakeholder register

Project Name:	Wilson Farm Project
Project Objective:	To develop a comprehensive project management plan for Wilson Farm that integrates sustainable agricultural practices, structured operations, and strategic market development to improve dasheen production and farm resilience.

ID	Stakeholder	Functional Area	Roles / Responsibilities	Main Expectations	Power / Interest	Comments
1	Project Sponsor	Project Oversight	Provides funding, approves deliverables, and ensures alignment with strategic goals.	Timely completion within budget and expected quality.	High / High	
2	Project Manager	Project Coordination	Plans, executes, and monitors project activities.	Smooth coordination and successful delivery of objectives.	High / High	
3	Farm Manager	Operations	Oversees daily farm work and supervises laborers.	Improved productivity and sustainable farm operations.	Medium / High	
4	Laborers	Field Operations	Perform cultivation, maintenance, and harvesting tasks.	Fair compensation, safe working conditions, steady employment.	Low / High	
5	Ministry of Agriculture	Government Support	Provides technical guidance, monitoring, and compliance checks.	Compliance with national agricultural standards.	High / Medium	
6	Input Warehouse	Supply Chain	Supplies fertilizers, seeds, and tools for production.	Reliable and timely procurement process.	Medium / Medium	
7	Dasheen Cooperative	Marketing and Sales	Assists in marketing, aggregation, and export coordination.	Increased production and export-ready supply.	High / High	
8	Local Supermarkets & Hotels	Distribution	Purchase farm produce for resale or menu use.	Consistent quality and supply.	Medium / Medium	
9	Marriagua Community Members	Local Community	Benefit indirectly through employment and local development.	Job creation and community upliftment.	Low / Medium	
10	Regional Export Partners	Trade & Logistics	Facilitate export processes and quality compliance.	High-quality produce and reliable delivery schedules.	High / High	

Note. (Source: Hutchins, 2025)

Stakeholder Management Plan, Change Process

The Stakeholder Management Plan for the Wilson Farm Project can only be modified through the formal change management process. Any proposed change must be initiated by the project sponsor and properly documented using the official Change Request Form. All requests must be reviewed and approved by both the project manager and project sponsor before any modification is implemented. If a request is not submitted in the required format, it will not be processed, and the project manager has the authority to decline the change. Once a valid request is submitted, the project sponsor will have three (3) working days to review and either approve or reject it. Each change request will be evaluated according to its importance, cost implications, and potential effect on the project's timeline and outcomes. All approved adjustments must be recorded, and updates to the Stakeholder Management Plan must be communicated to all relevant stakeholders to ensure transparency and alignment throughout the project.

Power Interest Matrix

The Power–Interest Matrix (see Figure 33) categorizes stakeholders of the Wilson Farm Project according to their level of authority (power) and degree of concern or involvement (interest) in the project's outcomes. This matrix helps the project team identify appropriate engagement strategies for each stakeholder group, ensuring that communication

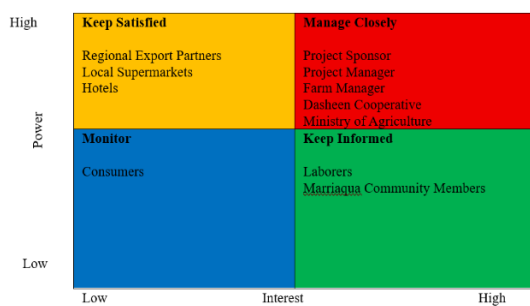
and decision-making efforts are aligned with their influence and expectations throughout the project lifecycle.

Stakeholders positioned in the Manage Closely quadrant, such as the Project Sponsor, Project Manager, Farm Manager, Dasheen Cooperative, and Ministry of Agriculture, possess both high power and high interest in the project. They require frequent updates and active participation in decision-making. Those in the Keep Satisfied quadrant, including Regional Export Partners, Local Supermarkets, and Hotels, hold significant authority but moderate interest; maintaining their satisfaction through performance reports and consistent quality is essential. Stakeholders in the

Keep Informed quadrant, such as the Laborers and Marriagua Community Members, have limited influence but high interest in project success and should receive regular updates and community engagement. Finally, Consumers, categorized under the Monitor quadrant, have minimal power and interest but should still be observed periodically to understand market trends and satisfaction levels.

Figure 33

Power interest matrix



Note. (Source: Hutchins, 2025)

Stakeholder Commitment and Strategy Matrix

The Stakeholder Commitment and Strategy Matrix provides an overview of the current and desired levels of stakeholder engagement in the Wilson Farm Project. It serves as a monitoring tool to assess how effectively the project management team manages relationships with key actors and guides them toward the desired level of participation. Each stakeholder's current (X) and desired (D) commitment levels are compared with their level of power and interest in the project to determine the most suitable management strategy.

Table 42

Stakeholder commitment and strategy matrix

Stakeholder	Unaware	Resists	Neutral	Supports	Leader	Power / Influence	Interest	Strategy
Project Sponsor				X	D	A	A	Manage Closely
Project Manager				X	D	A	A	Manage Closely
Farm Manager			X	D		A	A	Manage Closely
Dasheen Cooperative			X	D		A	A	Manage Closely
Ministry of Agriculture				X	D	A	A	Manage Closely
Regional Export Partners			X	D		A	B	Keep Satisfied
Local Supermarkets			X	D		A	B	Keep Satisfied
Hotels			X	D		A	B	Keep Satisfied
Consumers			X			B	B	Monitor
Farm workers	X			D		B	A	Keep Informed

Marriaqua Community Community			X	D		B	A	Keep Informed
X: Actual ; D: Desired ; A: High; Strategies: Manage Closely (A-A) ; Keep Satisfied (A-B) ; Monitor (B-B) ; Keep Informed (B-A);								

Note. (Source: Hutchins, 2025)

Power-Interest Matrix

Table 43

Stakeholders' power-interest matrix

ID	Stakeholders	Classification Low/High		Comments
		Power	Interest	
1	Project Sponsor	High	High	Provides overall financial and strategic direction. High power as project funder and strong interest in project success.
2	Project Manager	High	High	Oversees all project activities, schedules, and resources. High authority and direct interest in achieving objectives.
3	Farm Manager	Medium	High	Supervises daily field operations and manages laborers. High operational interest; moderate influence on strategic decisions.
4	Farm Workers	Low	High	Perform planting, maintenance, and harvesting. Limited decision power but highly interested due to employment benefits.
5	Ministry of Agriculture	High	Medium	Provides technical guidance, regulatory support, and oversight. High authority; moderate day-to-day interest.
6	Input Warehouse	Medium	Medium	Supplies tools, fertilizers, and inputs. Moderate power through supply reliability; average interest in outcomes.
7	Dasheen Cooperative	High	High	Coordinates marketing and export of produce. High power and high interest in consistent product supply.
8	Local Supermarkets & Hotels	Medium	Medium	Purchase dasheen and by-products. Moderate influence and interest in maintaining quality and timely supply.
9	Marriaqua Community Members	Low	Medium	Benefit from employment and farm development. Low influence but interested in social and economic improvements.
10	Regional Export Partners	High	High	Manage export logistics and compliance. High power over trade success and high interest in reliable supply.

Note. (Source: Hutchins, 2025)

Stakeholder Participation Level

The Stakeholder Participation Level Table presents the current (C) and desired (D) levels of engagement for each stakeholder involved in the Wilson Farm Project. This tool

4.11. Project Closure

The Project Closure Plan for the Wilson Farm Project ensures that all activities, deliverables, and documentation are formally completed before transitioning to regular farm operations. This process confirms that project objectives have been met, stakeholder expectations fulfilled, and resources released responsibly. Closure activities will also capture lessons learned to improve future agricultural projects and support the farm's sustainable development goals.

Project Closure Process

The closure process includes the following steps:

1. **Verification of Deliverables:** The project manager will review all completed deliverables against acceptance criteria defined in the Quality Management Plan. Any incomplete or non-conforming items will be corrected prior to acceptance.
2. **Formal Acceptance:** Upon completion, the project sponsor will sign the official acceptance form to confirm that the project results meet the agreed expectations.
3. **Contract and Procurement Closure:** The project manager will ensure that all supplier payments are settled, receipts are archived, and procurement records are filed.
4. **Lessons Learned and Final Report:** A closure meeting will be conducted to evaluate project performance, identify lessons learned, and document best practices.
5. **Transition to Operations:** Once approved, the farm's daily management will be transferred to the farm manager, marking the formal end of the project phase.

Document Tracking (Project Closure Plan)

General Information

	Information
Document ID	004-WF-PCP
Document Owner	Wilson Farm
Issue Date	September 11, 2025
Last Saved Date	September 11, 2025
File Name	Project Closure Plan

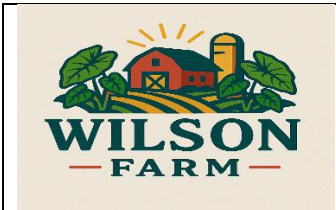
Change Control

Version	Issue Date	Changes
1.0	September 11, 2025	Release

Approvals

Role	Name	Signature©	Date
Project Sponsor	Elroy Wilson		
Project Manager	Cassica Hutchins		

4.11.1 Project Closure Plan

			Project Closure Plan		
Version 1.0		Document ID: 002-WF-PCP		09/11/2025	

Roles and Responsibilities

Table 45

Roles and responsibilities

Role / Position	Name	Responsibilities
Project Sponsor	Elroy Wilson	• Approves all final deliverables. • Signs official acceptance forms. • Authorizes financial closure and ensures alignment with farm goals.
Project Manager	Cassica Hutchins	• Leads and coordinates all closure activities. • Prepares the final project report and lessons learned document. • Oversees documentation archiving and ensures all closure deliverables are complete.
Farm Manager	Jimmy Black	• Supervises the operational transition of the farm after project completion. • Confirms receipt and functionality of transferred equipment and materials. • Ensures smooth handover of farm operations.
Suppliers & Laborers	Local Vendors & Farm Workers	• Finalize all contracted services and product deliveries. • Submit invoices and confirm receipt of payments. • Support inventory checks and final inspections before closure.

Note. (Source: Hutchins, 2025)

Lessons Learned

The lessons learned process for the Wilson Farm Project will be conducted throughout all phases of the project, rather than only at closure, to ensure continuous reflection and improvement. Key insights, challenges, and best practices will be

documented as they arise during planning, procurement, stakeholder engagement, implementation, and monitoring. This ongoing approach will strengthen decision-making during the project and provide richer information for final evaluation.

During the project closure phase, these collected insights will be consolidated, reviewed, and validated with the project sponsor, project manager, farm manager, and other key stakeholders. Each category within the lessons learned table will be finalized based on feedback gathered over the course of the project.

The purpose of this continuous lessons learned process is to capture actionable knowledge that can guide future agricultural initiatives, enhance management practices at Wilson Farm, and support more effective planning for subsequent projects. Responsibility for compiling and maintaining the lessons learned documentation will rest jointly with the project manager and farm manager. The following table presents the framework that will be used to record and analyze lessons learned, outlining the key categories, areas of evaluation, and responsible parties to ensure systematic learning and continuous improvement from project initiation to closure.

Table 46

Lessons learned register

Category	What Went Well	What Could Be Improved	Recommendations for Future Projects	Responsible Person

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Note. (Source: Hutchins, 2025)

5 CONCLUSIONS

After the development of all project objectives, the following conclusions were realized regarding the Wilson Farm Project:

1. The established Project Management Plan outlines all essential elements needed to improve operations and guide the farm's future implementation. It provides the structure required for coordinated planning, monitoring, and control of dasheen production activities. The plan demonstrates that project management practices can bring organization and accountability to a smallholder agricultural setting such as Wilson Farm in Lauders, Marriagua Valley.
2. The Scope Management Plan defines the project's parameters and clearly specifies its boundaries, deliverables, and limitations. It captures all relevant aspects of dasheen production improvement while recognizing the need for flexibility during execution. The scope has been designed as a theoretical framework that can be adjusted when financial resources and technical support become available for implementation.
3. The Schedule Management Plan presents the proposed sequence and duration of project activities required to enhance farm productivity. The timeline was created using realistic working conditions and seasonal considerations in St. Vincent and the Grenadines, such as rainfall patterns and planting cycles. The structured schedule will help the farm optimize its workflow and reduce downtime once the project moves to the implementation stage.

4. The Cost Management Plan estimates the total financial resources required for project execution. It identifies expected expenditures for materials, labor, and equipment, using bottom-up and three-point estimation techniques to improve accuracy. Although the project is still theoretical, the cost framework provides a strong foundation for budget planning and for seeking financial assistance from local or regional agricultural programs.
5. The Quality Management Plan establishes performance standards to ensure that production improvements meet both local and export market expectations. It emphasizes the importance of using healthy planting material, maintaining proper field sanitation, and implementing quality assurance during harvesting and post-harvest handling. The plan provides a clear system to guide farm workers in maintaining product consistency and sustainability.
6. The Resource Management Plan identifies the human, physical, and technological resources needed to carry out project activities effectively. It emphasizes the use of local labor and community participation, ensuring that employment benefits are retained within the Marriagua Valley. It also demonstrates how effective coordination of materials and manpower can improve productivity and minimize resource wastage.
7. The Communication Management Plan proposes a structured system to ensure regular information flow among stakeholders. Communication methods such as WhatsApp, email, and face-to-face meetings are suggested to maintain timely collaboration between the project manager, farm manager, suppliers, and buyers.

This will ensure that issues are addressed early and that all stakeholders remain informed and involved throughout the project's lifecycle.

8. The Risk Management Plan identifies the main threats and opportunities that could affect project success. Key risks include unfavorable weather, pest outbreaks, and fluctuating input prices. Qualitative analysis was used to assess each risk, and mitigation strategies, including contingency planning, improved communication, and monitoring of market conditions, were proposed. These proactive strategies will help the farm adapt to future uncertainties.
9. The Procurement Management Plan outlines how goods and services will be sourced, emphasizing transparency and the use of local suppliers. It includes guidelines for obtaining quotations, comparing quality and price, and maintaining proper documentation. This plan ensures that procurement decisions support both project efficiency and local economic development.
10. The Stakeholder Management Plan identifies and categorizes stakeholders by their level of influence and interest. It highlights the importance of collaboration among key parties such as the project sponsor (Elroy Wilson), the Ministry of Agriculture, the Dasheen Cooperative, and local buyers. The use of a Power-Interest Matrix helps visualize stakeholder relationships and promotes better coordination during project execution.
11. The overall PMP for Wilson Farm integrates social, environmental, and economic dimensions of sustainability. It demonstrates that structured project management practices can transform small farms into more efficient, resilient, and market-ready

enterprises. When implemented, the plan will serve as a model for other small agricultural businesses in St. Vincent and the Grenadines, showing how local farms can adopt sustainable management systems to support food security, employment, and community development.

6 RECOMMENDATIONS

The following recommendations are proposed to guide the future implementation of the Wilson Farm Project. They are based on the findings of the planning process and directed to the farm owner, project manager, and relevant agricultural stakeholders. Each recommendation aligns with the project's objectives and identifies areas that should be further developed as the project moves from planning to execution.

1. Wilson Farm's owner and project manager should begin the gradual implementation of the proposed project management plan when the project is approved for execution. Clear documentation, orientation sessions, and detailed task explanations should be provided to ensure that all team members understand their roles and responsibilities. This will establish a structured foundation and promote efficient coordination once the project begins.
2. The farm manager and workers should participate in regular training sessions on sustainable agriculture, basic project management, and record-keeping before and during project implementation. Building technical and organizational skills at this early stage will prepare the team to manage field activities effectively, monitor progress, and uphold production quality standards once the farm operations expand.
3. The Ministry of Agriculture should continue to provide advisory support to Wilson Farm, particularly in irrigation management, soil testing, and pest control practices. Collaboration with the Ministry during the initial implementation phase will help ensure that the farm's activities follow national agricultural guidelines and adapt effectively to changing environmental conditions.

4. The farm management team should strengthen communication with the dasheen cooperative, suppliers, and buyers by establishing a consistent schedule for progress updates and feedback sessions. Early engagement will help align market expectations, coordinate supply needs, and encourage active participation among stakeholders once production begins.
5. The farm owner and manager should adopt soil and water conservation techniques such as mulching and rainwater harvesting during the early cultivation phase. Emphasis should also be placed on the use of organic fertilizers and integrated pest management. As the farm develops, introducing crop diversification will reduce risks linked to market fluctuations and climate variability.
6. The project manager should establish a simple and effective monitoring and evaluation system to guide the implementation phase. Besides tracking cost, schedule, and quality performance, the system should include operational indicators that reflect Wilson Farm's core activities. These indicators might measure the timeliness of field preparation and planting, adherence to infrastructure standards, post-harvest loss rates, and the accuracy of field data recorded by the farm manager and workers. Adding these additional performance metrics, such as the percentage of market-grade produce, on-schedule completion of farm tasks, and improvements in worker competency, will enable the project team to spot emerging issues early, respond quickly to delays or inefficiencies, and maintain steady progress throughout implementation. Combining both project management indicators and operational

farm metrics will give the monitoring system a complete view of performance and support timely decision-making during all active phases of the project.

7. The farm owner, with support from cooperatives or financial institutions, should pursue funding opportunities to support future expansion and ensure financial continuity. Access to start-up capital will be essential for acquiring farm equipment, irrigation materials, and storage facilities once implementation begins. Financial partnerships can also offer technical assistance to strengthen long-term sustainability.
8. Once the management systems have been tested and proven effective during early implementation, Wilson Farm's owner and project manager should explore opportunities for small-scale post-harvest processing and value-added production. Activities such as cleaning, packaging, and labeling dasheen and callaloo could increase profitability and improve access to local and export markets.

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

7.1 Introduction

The FGP for Wilson Farm is grounded in the principles of Sustainable Development (SD) and Regenerative Development (RD), both of which are essential for ensuring that agricultural initiatives contribute positively to environmental integrity, social equity, and economic viability. While SD aims to meet present needs without compromising the ability of future generations to meet theirs, RD seeks to go further, actively restoring and enhancing the capacity of ecological, social, and economic systems to thrive over time (Mang & Reed, 2020; Müller, 2017). This dual framework is critical for a project such as Wilson Farm, where farming practices directly influence soil health, biodiversity, community livelihoods, and market resilience.

Sustainable Development operates on three interconnected pillars: environmental protection, economic viability, and social equity. In the context of Wilson Farm, environmental protection is addressed through measures such as integrated pest management, water-efficient irrigation systems, renewable energy adoption, and biodiversity conservation. Economic viability is strengthened by diversifying products, expanding market linkages, and prioritizing local procurement to reduce dependency on external suppliers. Social equity is promoted through fair labor practices, equal access to training opportunities, and inclusive decision-making processes that give all stakeholders a voice in the farm's strategic direction.

These actions, aligned with Good Agricultural Practices (GAP) standards, directly contribute to multiple Sustainable Development Goals (SDGs), including Zero Hunger (SDG 2), Decent Work and Economic Growth (SDG 8), Responsible Consumption and Production (SDG 12), Climate Action (SDG 13), and Life on Land (SDG 15). By embedding sustainability principles into every stage of the project, Wilson Farm reduces environmental risks, improves profitability, and fosters community resilience.

Regenerative Development builds upon the foundation of sustainability by aiming for net-positive outcomes, where project activities enhance rather than merely maintain system health. Mang and Reed (2020) emphasize RD as a co-evolutionary process between human and natural systems, while Müller (2017) identifies six interdependent layers that guide regeneration: restoring functional landscapes, strengthening communities, fostering well-being-centered economies, preserving cultural vitality, ensuring participatory governance, and embedding ethical and spiritual values.

At Wilson Farm, these layers are reflected in practices such as soil restoration through organic amendments, water conservation measures, agroforestry integration, and biodiversity enhancement. Social strengthening is achieved through capacity-building programs, fair labor practices, and community engagement initiatives, while economic resilience is promoted via local sourcing, diversified production, and value-added processing that reduce dependency on volatile markets. Cultural vitality is maintained by preserving traditional dasheen cultivation methods and indigenous agricultural knowledge, ensuring that modern efficiency gains do not erode heritage. Transparent governance

structures, stakeholder participation mechanisms, and Environmental, Social, and Governance (ESG) reporting further reinforce institutional integrity.

The relationship between the FGP and these development frameworks is not theoretical but measurable. Potential indicators for tracking environmental progress include percentage increases in soil organic matter through annual laboratory testing, changes in biodiversity based on field surveys, liters of water used per kilogram of dasheen produced as measured through irrigation meters, and tonnes of CO₂ equivalent reduced via carbon footprint assessments. Economic outcomes can be monitored through net farm income growth and the number of new market contracts, while social performance can be evaluated through job creation figures, participation rates in stakeholder meetings, and the proportion of products meeting GAP or export standards. Cultural preservation can be assessed by tracking the number of traditional practices maintained or reintroduced.

7.2 Relationship of the project to the Sustainable Development Goals.

The SDGs were established in 2015 by the United Nations as a comprehensive global framework to guide inclusive, equitable, and environmentally responsible development through the year 2030. Building on the foundation laid by the Millennium Development Goals, the SDGs represent a universal call to action to eradicate poverty, protect the planet, and ensure prosperity for all. These 17 interlinked goals serve as a blueprint for achieving sustainable development across economic, social, and environmental dimensions (Mensah, 2019). They encourage governments, private actors, and civil society to adopt integrated approaches that consider the long-term implications of

development choices. In this context, agriculture, particularly sustainable agriculture, plays a pivotal role in achieving many of these goals, especially in rural communities that depend on farming for livelihoods and food security (Atapattu et al., 2024).

The Wilson Farm project, which aims to develop a sustainable dasheen farming operation in Lauders, St. Vincent and the Grenadines, strongly aligns with the objectives of several SDGs. Through fostering environmentally sound farming practices, improving food production, and empowering rural stakeholders, the project represents a model for sustainable rural development. One of the most directly relevant goals is SDG 1: No Poverty. Through employment generation, skill-building, and improved market access for local farmers, Wilson Farm has the potential to uplift households in the Marriacqua Valley and reduce economic vulnerability. The project also aligns with SDG 2: Zero Hunger, as it aims to improve food availability and nutritional quality through increased production of dasheen, a culturally and nutritionally significant crop in the region.

In terms of health outcomes, the project supports SDG 3: Good Health and Well-being by promoting organic and low-input agricultural methods that reduce the risks associated with synthetic pesticide use. A cleaner farm ecosystem benefits both the health of workers and the consumers of dasheen. In addition, Wilson Farm integrates gender considerations into its operations by ensuring that women and youth have equal access to employment opportunities, training, and decision-making roles. This supports the achievement of SDG 5: Gender Equality, which recognizes the importance of inclusive participation in agriculture.

Water conservation techniques such as rainwater harvesting and efficient irrigation systems further connect the project to SDG 6: Clean Water and Sanitation. These measures are critical in protecting local water sources from contamination and ensuring responsible water use. Likewise, the project supports SDG 8: Decent Work and Economic Growth by fostering green employment in rural areas and promoting entrepreneurial opportunities through value-added processing and cooperative marketing strategies. Wilson Farm also contributes to SDG 10: Reduced Inequalities by offering capacity-building programs that empower smallholders and marginalized groups to engage more competitively in the agricultural sector.

The farm's commitment to low-waste production, composting, and resource efficiency aligns with the principles of SDG 12: Responsible Consumption and Production. Furthermore, Wilson Farm responds to the challenges of climate change under SDG 13: Climate Action by integrating climate-resilient techniques such as cover cropping, conservation tillage, and the selection of robust crop varieties. These practices enhance the farm's adaptive capacity and contribute to the broader goal of climate mitigation. Through careful land use, biodiversity preservation, and soil rehabilitation, the project also directly supports SDG 15: Life on Land. It reinforces the importance of ecosystem services in sustaining agricultural productivity and rural resilience.

An essential enabler of these efforts is collaboration, which relates to SDG 17: Partnerships for the Goals. The project engages local institutions, agricultural cooperatives, suppliers, and academic partners to ensure the long-term success and scalability of

sustainable farming practices. These partnerships facilitate knowledge-sharing, capacity-building, and policy alignment that extend the project's impact beyond the farm itself.

While Wilson Farm contributes meaningfully to a majority of the SDGs, certain goals are not directly addressed within the scope of the project. For instance, SDG 4: Quality Education focuses on formal educational outcomes, and although Wilson Farm offers informal training and skill development, it does not operate within the formal education system. Similarly, SDG 7: Affordable and Clean Energy is not a primary focus unless future investments are made in solar-powered or renewable energy systems for farm operations. SDG 9: Industry, Innovation and Infrastructure is only marginally relevant, as the project is not industrial in scale, although it may benefit from rural infrastructure improvements. SDG 11: Sustainable Cities and Communities relates more to urban development and planning, which are outside the scope of this rural farm initiative. Lastly, SDG 14: Life Below Water does not apply to Wilson Farm due to its land-based agricultural nature and lack of interaction with marine ecosystems.

The Wilson Farm project contributes directly to a wide range of SDGs, particularly those related to poverty reduction, food security, environmental protection, gender equality, and climate resilience. It demonstrates how localized agricultural initiatives can generate multi-dimensional benefits when aligned with global sustainability frameworks. The project also illustrates the need for integrated planning and collaborative partnerships to ensure that rural development contributes meaningfully to national and international sustainability targets.

7.3 Analysis of the project according to Standard P5

The P5 Standard, developed by Green Project Management (GPM), is a comprehensive sustainability assessment framework designed to integrate sustainable development principles into project management practices. It guides project managers in evaluating project impacts across five interdependent dimensions: People, Planet, Prosperity, Process, and Product. These dimensions correspond with the global objectives outlined in the United Nations Sustainable Development Goals (SDGs) and aim to ensure that projects contribute positively to social well-being, environmental integrity, economic viability, ethical governance, and stakeholder collaboration (GPM Global, 2020).

Impact analysis using the P5 Standard begins by identifying how a project interacts with its surrounding systems. The framework moves beyond the traditional scope of minimizing negative effects, encouraging project managers to design and execute initiatives that restore and enhance the systems they affect. In this way, the P5 approach supports a transition from sustainability to regenerative thinking. By promoting net-positive outcomes, it acknowledges the interconnectedness of ecological, economic, and social structures and enables project teams to manage complex challenges holistically.

Each of the five dimensions provides a distinct lens for impact assessment. The People dimension considers how the project affects individuals and communities, including aspects such as health and safety, education, cultural preservation, and inclusive labor practices. Projects that contribute to improved well-being, social equity, and the empowerment of marginalized groups demonstrate a higher positive impact in this area.

The Planet dimension evaluates environmental sustainability. It encompasses factors such as carbon emissions, biodiversity conservation, resource efficiency, and ecosystem protection. A project that prioritizes the responsible use of natural resources and enhances environmental quality can significantly advance sustainability goals in this category.

The Prosperity dimension focuses on economic resilience and inclusive growth. This includes the creation of decent jobs, support for local economies, ethical supply chains, and long-term financial sustainability. Projects that strengthen community livelihoods and support circular economic models contribute meaningfully to this dimension.

The Process dimension focuses on the efficiency, effectiveness, and transparency of how the project is managed. It evaluates whether project activities follow structured methods, use resources responsibly, and adhere to ethical and professional standards. Strong project processes ensure accountability, reduce risks, and support consistent decision-making throughout the project lifecycle.

The Product dimension evaluates the outcomes, deliverables, and long-term value created by the project. It considers whether the final outputs meet quality requirements, support user needs, and contribute to sustainability beyond the project's completion. Projects are assessed positively when their deliverables are durable, functional, safe, and capable of generating lasting economic or social benefits.

A distinguishing feature of the P5 impact analysis is the application of 'before' and 'after' scoring. This approach allows project teams to establish a baseline of existing conditions and compare them with the anticipated or actual results after implementing

project interventions. The 'before' score reflects the initial state of the project environment, providing context for identifying key risks, gaps, and areas for improvement. In contrast, the 'after' score captures the impact of strategies adopted during the project lifecycle and assesses the extent to which sustainability concerns have been addressed.

Scoring in the P5 framework uses a standardized scale ranging from 1 to 5. A score of 1 represents a very negative impact, 2 indicates a negative impact, 3 reflects a neutral outcome, 4 represents a positive impact, and 5 signifies a very positive sustainability contribution. These scores help quantify project performance in each dimension and create a benchmark for improvement. The criteria for assigning these scores include the magnitude and duration of the impact, the extent of stakeholder involvement, the reversibility of changes, and the equity of benefit distribution.

The P5 analysis offers several benefits that enhance project effectiveness. First, it supports integrated decision-making by ensuring that environmental, social, and economic considerations are addressed in tandem. This holistic approach is particularly relevant in contexts where projects can create unintended consequences if systems are not viewed in their entirety (GPM Global, 2020).

Second, the analysis improves risk management by identifying areas of potential harm or conflict early in the planning process. This enables project teams to develop proactive mitigation strategies and reduce exposure to reputational, legal, or operational risks. It also enhances transparency, allowing stakeholders to understand the rationale behind project decisions and encouraging ongoing dialogue.

Third, the before-and-after scoring mechanism creates a feedback loop that promotes continuous improvement. Teams can monitor performance, adapt their approaches, and incorporate lessons learned into future projects. This adaptive capability is critical in dynamic environments where social and ecological systems are in constant flux.

Furthermore, the P5 Standard is an effective tool for validating regenerative development outcomes (GPM Global, 2020). While sustainability aims to maintain existing systems, regenerative development seeks to improve them. When project teams apply the P5 framework, they can verify whether their initiatives contribute to the restoration of ecosystems, the empowerment of communities, and the development of resilient economies. For example, Wilson Farm in St. Vincent and the Grenadines may use the P5 model to measure improvements in rural employment (People), soil and water conservation (Planet), local entrepreneurship (Prosperity), efficient project processes (Process), and high-quality, sustainable project outputs (Product).

The P5 Standard is a valuable instrument for integrating sustainability into project design, execution, and evaluation. It ensures that projects are not only operationally efficient but also socially responsible, environmentally sound, and economically viable. Through its multidimensional assessment and scoring methodology, the framework facilitates meaningful impact tracking and supports the broader transition to regenerative and transformative development practices (GPM Global, 2020).

Table 47*People impacts*

Organization: Wilson Farm Project: PMP of Wilson Farm										
People Impacts										
Subcategory	Labor Practices and Decent Work	Lens	Scored ?	Description (Cause)	Potential Sustainability Impact	Initial Impact Score	Proposed Response	New Impact Score	Change	Comments (optional)
Element	Definition									
 Employment and Staffing	Employment and staffing is the process of obtaining the personnel needed to carry out the project. It includes identifying the skills required for successful completion of the project, recruiting potential individuals (internally or externally), managing their time and performance, training them when needed, and compensating them accordingly.	Lifespan	yes	Seasonal hiring limits employment duration and worker income stability.	Reduces long-term livelihood security for rural workers.	2	Introduce year-round roles through crop diversification and structured contracts.	4	2	
		Servicing	no							
		Effectiveness	yes	Lack of defined job roles and performance expectations.	Leads to inefficiencies and inconsistent output quality.	2	Establish clear job descriptions, performance metrics, and periodic reviews.	4	2	
		Efficiency	yes	Poor coordination of labor results in underutilization of available manpower during peak times.	Increased costs and missed productivity targets.	2	Develop a work schedule aligned with production stages and labor needs.	4	2	
		Fairness	yes	Informal recruitment process with no standard	Risk of bias and lack of equal opportunity.	2	Implement transparent hiring practices and	4	2	

				criteria for selection.			provide equal access to training.			
 Labor Management Relations	Labor/management relations in the project context means building trust, understanding, and cooperation among project and other managers, organizational staff, and project team members. It involves respecting each other's opinions, resolving conflicts proactively, communicating clearly, and ensuring that everyone is aware of their roles and responsibilities.	Lifespan	yes	Relationships are ad hoc with no standing meeting schedule or documented agreements.	Partnerships fade after disputes or busy periods, reducing continuity.	2	Set quarterly MoUs with roles, a standing monthly meeting, and a simple issues log.	4	2	
		Servicing	yes	No mechanism to maintain relationships or address grievances once work starts.	Unresolved concerns accumulate and damage cooperation.	2	Create a basic grievance process, assign a liaison, and track follow-ups to closure.	4	2	
		Effectiveness	yes	Roles and decision rights are unclear; messages pass informally.	Slow decisions, mixed messages, and avoidable conflict.	2	RACI matrix for key processes, meeting agendas/minutes, and conflict-resolution steps.	4	2	
		Efficiency	yes	Rework and delays from miscommunication between manager, field crew, and suppliers.	Lost time/costs and missed windows for planting/harvest.	2	Weekly 15-minute stand-ups, shared WhatsApp group for tasks/updates, and a simple workboard.	4	2	
		Fairness	yes	Worker and women/youth voices are rarely included in decisions.	Perceived bias, low morale, and weaker buy-in.	2	Include worker reps in monthly meetings; rotate speaking order; publish decisions.	4	2	
 Project Health and Safety	Project health and safety is the practice of creating safe	Lifespan	yes	Safety measures are ad hoc with no structured policy, leading to	Long-term risk of accidents and chronic injuries for workers.	1	Develop a written farm safety policy, conduct	4	3	

	working conditions for personnel involved in the project. It involves implementing measures such as hazard assessment, risk management, training, enforcement, and investigation. Its main goal is to ensure that workers are not exposed to any unnecessary risks while performing their work.			inconsistent application over time.			annual reviews, and keep records of incidents and improvements.			
		Servicing	no							
		Effectiveness	yes	Lack of training and awareness reduces workers' ability to identify and avoid hazards.	Higher probability of injury, work stoppages, and reduced productivity.	1	Conduct quarterly safety training, hazard identification exercises, and emergency drills.	4	3	
		Efficiency	yes	Unplanned responses to incidents waste time and resources.	Increased downtime, medical costs, and disruption to planting/harvest schedules.	2	Introduce a clear incident response protocol with designated roles and quick communication channels.	4	2	
		Fairness	yes	Safety resources are not equally distributed, and vulnerable workers may not have adequate PPE.	Higher accident risk for certain groups (e.g., new hires, youth, women).	2	Provide equal access to PPE, safety gear, and training for all workers.	4	2	
 Training and Qualifications	Training and qualifications is the process of ensuring that project team members have the necessary skills to effectively complete their work. It involves providing instruction,	Lifespan	yes	Training is sporadic, informal, and not integrated into long-term farm planning.	Skills gained are easily lost, and workers lack up-to-date knowledge for changing conditions.	2	Develop an annual training calendar covering planting, pest management, post-harvest handling, and climate resilience.	4	2	
		Servicing	no							

	assessing proficiency, monitoring performance, and offering guidance.	Effectiveness	yes	Workers are unfamiliar with best practices for yield improvement and quality control.	Reduced productivity, higher losses, and inconsistent product quality.	2	Partner with agricultural extension services to deliver targeted, hands-on training.	4	2	
		Efficiency	yes	Inefficient work methods due to lack of training waste time and inputs.	Increased costs and resource waste, lowering profitability.	2	Teach time-saving techniques, proper tool use, and efficient planting/harvesting methods.	4	2	
		Fairness	yes	Training opportunities are not consistently offered to all workers	Certain groups remain under-skilled, limiting their opportunities for advancement.	1	Ensure equal access to all training programs, including special sessions for underrepresented groups.	4	3	
 Organizational Learning	Organizational learning is a form of knowledge management in which organizational components and individual employees are encouraged to capture, share, and apply their knowledge. This enables the organization to adapt and improve its processes, products, and services over time.	Lifespan	yes	Training is ad hoc, with no continuity from season to season.	Skills fade quickly, reducing long-term benefits.	2	Schedule annual training cycles covering planting, pest control, and post-harvest handling.	4	2	
		Servicing	no							
		Effectiveness	yes	Workers lack exposure to proven techniques and modern tools.	Lower yields and inconsistent product quality.	2	Partner with extension services for targeted, hands-on instruction.	4	2	
		Efficiency	yes	Work is often performed using inefficient methods.	Wasted time, labor, and inputs.	2	Train workers on efficient field operations and resource use.	4	2	
		Fairness	no							

 Equal Opportunity	Equal opportunity is the practice of providing individuals with access to jobs, opportunities, and responsibilities based on their qualifications regardless of gender, race, age, or other characteristics. It seeks to eliminate any type of discrimination in the workplace and to ensure that all team members are treated fairly and given an equal chance to participate in an appropriate way.	Lifespan	yes	No structured system for documenting lessons learned.	Repeated mistakes and loss of institutional knowledge.	2	Create a farm log for documenting successes, failures, and process changes.	4	2	
		Servicing	no							
		Effectiveness	yes	Lack of feedback loops hinders the adoption of improvements.	Ineffective changes and stagnation.	2	Conduct seasonal review meetings to evaluate what worked and what didn't.	4	2	
		Efficiency	no							
		Fairness	no							
 Local Competence Development	Local competence development is the process of fostering and expanding skills, knowledge, and expertise in the localities in which the project operates. It can involve providing training or education to local individuals, as well as encouraging collaboration and the sharing of resources between the project organization and local organizations	Lifespan	yes	Limited efforts to share skills beyond the immediate workforce.	Missed opportunity to strengthen community farming capacity.	2	Host annual workshops for nearby farmers on dasheen cultivation techniques.	4	2	
		Servicing	no							
		Effectiveness	yes	Minimal knowledge transfer to other local producers.	Slower adoption of improved practices in the community.	2	Share best practices during farmer cooperatives' meetings.	4	2	
		Efficiency	no							
		Fairness	no							

	or local individuals.									
 Work Life Harmony and Mental Health	Work-life harmony and mental health refers to the ability of individuals to strike a balance between their professional goals and commitments within their personal lives. This involves taking regular breaks from work, developing healthy work habits, and engaging in activities that bring a sense of joy and contentment.	Lifespan	yes	Long work hours during peak seasons with no structured rest periods lead to burnout.	Reduced worker retention and long-term productivity.	2	Create seasonal schedules that include rest days and rotation of tasks.	4	2	
		Servicing	no							
		Effectiveness	yes	Fatigue from excessive workloads lowers concentration and work quality.	Increased errors and reduced effectiveness of farm operations.	2	Introduce shift systems during high-demand periods to manage workload.	4	2	
		Efficiency	no							
		Fairness	yes	Some workers shoulder more overtime and physically demanding tasks without rotation.	Perceptions of unfair treatment and unequal workload.	2	Rotate labor-intensive tasks evenly among team members.	4	2	
Subcategory	Society and Customers	Lens		Description (Cause)	Potential Sustainability Impact	Impact Score Before	Proposed Response	Impact Score After	Change	Comments (optional)
Element	Description									
 Community Engagement	Community engagement is the practice of treating local residents as stakeholders in the project. This is essential as it ensures that local needs and perspectives are taken into consideration when taking any action that affects the community. It also requires a	Lifespan	Yes	Engagement is often limited to informal conversations, with no structured plan.	Reduced long-term trust and participation from local residents.	2	Establish quarterly community meetings and feedback sessions.	4	2	
		Servicing	no							
		Effectiveness	yes	Lack of formal consultation can lead to farm decisions that don't match local needs.	Reduced relevance and local support for farm activities.	2	Use surveys and discussions to incorporate community input into farm planning.	4	2	
		Efficiency	no							

	two-way exchange of information and ideas between the project team and the community to make the project more effective, efficient, and beneficial for all involved.	Fairness	yes	Certain community groups may have less opportunity to provide input.	Unequal influence over farm decisions.	1	Ensure representation from women, youth, and marginalized groups in meetings.	4	3	
 Public Policy and Compliance	Public policy and compliance includes the steps taken by the project team to ensure that the project complies with all relevant laws and regulations. This involves researching relevant laws and regulations, understanding their implications for the project, and taking necessary steps to make sure these laws and regulations are respected throughout the project's duration.	Lifespan	yes	Farm practices are not fully aligned with formal environmental and agricultural regulations.	Risk of non-compliance penalties or operational disruptions.	1	Keep updated with Ministry of Agriculture guidelines and integrate them into operations.	4	3	
		Servicing	no							
		Effectiveness	yes	Lack of policy awareness can cause delays in meeting legal requirements.	Project interruptions and reputational risks.	1	Assign responsibility for monitoring and applying relevant policies.	4	3	
		Efficiency	no							
		Fairness	no							
 Protection for Indigenous and Tribal Peoples	Protection for indigenous and tribal peoples includes the measures taken to ensure the rights and wellbeing of affected populations over the course of the project. This includes protection of their culture,	Lifespan	no							
		Servicing	no							
		Effectiveness	no							
		Efficiency	no							
		Fairness	no							

	land use rights, language, religion, and other forms of recognition.									
 Customer Health and Safety	Customer health and safety includes the measures taken to ensure the physical and mental wellbeing of the end users of the project's results. This includes providing information about risks and hazards, proper customer handling during the project, and adherence to relevant safety standards, protocols, laws, and regulations.	Lifespan	yes	No documented food safety standards are currently in use.	Long-term risk of market rejection or customer illness.	2	Implement Good Agricultural Practices (GAP) and post-harvest sanitation protocols.	4	2	
		Servicing	no							
		Effectiveness	yes	Lack of clear handling procedures for harvested crops.	Higher spoilage and reduced market quality.	2	Train staff in hygienic handling, cleaning, and packaging methods.	4	2	
		Efficiency	yes	Poor handling increases rework and losses.	Higher costs and waste.	2	Streamline harvest-to-storage process to minimize damage.	4	2	
		Fairness	no							
 Product and Service Labeling	Product and service labeling includes procedures used to ensure that goods and services are accurately labeled according to legal and ethical standards. This includes properly disclosing potential risks, hazards, and side effects associated with the use of products and services as well as providing appropriate	Lifespan	no							
		Servicing	no							
		Effectiveness	no							
		Efficiency	no							
		Fairness	no							

	information about the origins of these products and services.									
 Customer Privacy and Data Protection	Customer privacy and data protection encompasses the measures taken to safeguard customer data such as personal information or financial details. It includes providing secure storage facilities and encryption technologies, implementing appropriate access controls and authentication procedures, and ensuring compliance with relevant laws and regulations.	Lifespan	no							
		Servicing	no							
		Effectiveness	no							
		Efficiency	no							
		Fairness	no							
Subcategory	Human Rights	Lens	Scored ?	Description (Cause)	Potential Sustainability Impact	Impact Score Before	Proposed Response	Impact Score After	Change	Comments (optional)
Element	Description									
 Harassment and Discrimination	Harassment and discrimination involves the measures adopted to ensure a safe, respectful, and non-discriminatory workplace environment. This includes developing policies that protect employees	Lifespan	yes	No written policy addressing harassment or discrimination exists.	Risk of long-term workplace tension, reduced morale, and turnover.	2	Develop and communicate a zero-tolerance harassment policy, including reporting procedures.	4	2	
		Servicing	no							
		Effectiveness	yes	Lack of awareness among workers about their rights	Issues go unreported, lowering	2	Train all workers on anti-harassment	4	2	

	from unjust treatment, creating an inclusive environment, implementing effective reporting procedures for instances of inappropriate behavior, and providing sufficient training for management on how to handle such issues.			and reporting channels.	productivity and trust.		measures and reporting procedures.			
		Efficiency	no							
		Fairness	yes	Inconsistent handling of disputes could lead to perceived favoritism.	Loss of trust among workers.	1	Apply equal investigation procedures for all complaints.	4	3	
 Age-Appropriate Labor	Age-appropriate labor means ensuring that children are not put in dangerous or exploitative situations while still allowing them to develop essential job skills. It is used to describe work suitable for a person's skill level and maturity.	Lifespan	no							
		Servicing	no							
		Effectiveness	no							
		Efficiency	no							
		Fairness	no							
 Forced and Involuntary Labor	Forced and involuntary labor means any work or service that is extracted from a person under the menace of punitive action against themselves or their families. It includes work where the payment is below subsistence levels, or where the payment is in goods which are	Lifespan	no							
		Servicing	no							
		Effectiveness	no							
		Efficiency	no							
		Fairness	no							

	not desirable. Forced and involuntary labor can take many forms including human trafficking, debt bondage, enslavement, and unjustly long working hours.									
 Talent Acquisition, Retention, and Empowerment	Talent acquisition, retention, and empowerment is the commitment to attracting, developing, and retaining needed talent while fostering a workplace that adapts to evolving needs, encourages collaboration, and provides access to growth opportunities.	Lifespan	yes	Employment opportunities are seasonal, limiting retention of skilled workers.	High turnover disrupts productivity and knowledge continuity.	2	Diversify farm activities to offer year-round work and growth opportunities.	4	2	
		Servicing	no							
		Effectiveness	yes	Limited empowerment opportunities reduce worker motivation.	Lower engagement and initiative from staff.	2	Offer leadership roles for experienced workers and involve them in decision-making.	4	2	
		Efficiency	yes	Loss of experienced workers forces repeated training of new hires.	Increased costs and slower operations.	2	Provide incentives for retention, such as bonuses or additional training.	4	2	
		Fairness	yes	Advancement opportunities are not clearly communicated to all workers.	Perception of bias in promotions or responsibilities.	2	Make criteria for advancement transparent and merit-based.	4	3	
Subcategory	Ethical Behavior	Lens	Scored ?	Description (Cause)	Potential Sustainability Impact	Impact Score Before	Proposed Response	Impact Score After	Change	Comments (optional)
Element	Description									
 Sustainable Procurement and Contracts	Sustainable procurement and contracts includes practices for obtaining goods,	Lifespan	yes	Current purchasing decisions are based mainly on price, with limited	Missed opportunity to promote environmental and socially	2	Implement procurement guidelines prioritizing certified	5	3	

	raw materials, and services that take into account environmental, economic, and social impacts. It means contracting for resources in an ethical manner. It requires establishing agreements which adhere to environmental, social, and human rights standards.			sustainability criteria.	responsible suppliers.		suppliers and local sourcing.			
		Servicing	yes	Supplier relationships are informal, with no system for ongoing sustainability evaluation.	Suppliers may backslide on environmental or ethical commitments.	2	Conduct annual supplier reviews to ensure compliance with sustainability standards.	4	2	
		Effectiveness	yes	Lack of sustainability requirements in contracts reduces impact on broader supply chain practices.	Limited influence on supplier behavior.	2	Add sustainability clauses to all contracts.	5	3	
		Efficiency	yes	Sourcing from multiple uncoordinated suppliers increases costs and transport emissions.	Higher costs and environmental footprint.	1	Consolidate orders and prioritize efficient logistics.	4	3	
		Fairness	yes	Lack of transparent supplier selection could unintentionally favor certain businesses.	Reduced fairness in procurement opportunities.	2	Use open calls for suppliers with clear selection criteria.	5	3	
 Anti-Corruption	Anti-corruption is the practice of rejecting both offers of and requests for gifts, payments, or other forms of benefits in order to influence the activities, results, or outcomes of the project. It involves making sure that the project is free of unethical practices such as	Lifespan	yes	No formal anti-corruption guidelines for procurement or sales.	Long-term risk of unethical practices.	1	Adopt a code of ethics with anti-bribery clauses.	5	4	
		Servicing	yes	Ongoing vendor relationships could expose firm to informal “favours” culture.	Reputational and legal risks.	1	Require suppliers to sign an anti-corruption statement annually.	5	3	
		Effectiveness	yes	Without training, staff may not recognize or report corruption attempts.	Missed prevention opportunities.	2	Provide annual anti-corruption awareness sessions.	5	3	

	bribery, money laundering, fraud, and embezzlement.	Efficiency	no							
		Fairness	yes	Corruption can create unfair supplier or employee advantages.	Unequal opportunities and distrust.	2	Enforce transparent processes for all business dealings.	5	3	
 Fair Competition	Fair competition is the practice of ensuring that all parties wanting to provide products or services to the project have an equal opportunity to compete and win. It requires taking measures to ensure that no individual party has an unfair advantage due to size, wealth, influence, or any other factor. This includes enforcing laws and regulations against anticompetitive behavior such as price-fixing and market manipulation. Additionally, fair competition calls for creating transparent processes for bidding and contract awards to ensure fair opportunities for businesses of all sizes and types.	Lifespan	yes	Supplier selection sometimes based on informal networks.	Reduced diversity of suppliers.	1	Implement an open bidding process for major purchases.	5	4	
		Servicing	no							
		Effectiveness	yes	Lack of competitive process can limit price and quality improvements.	Higher costs and lower product quality.	1	Introduce transparent tender evaluations.	5	4	
		Efficiency	yes	Single-source suppliers can cause delays and higher costs.	Reduced operational efficiency.	1	Pre-qualify multiple suppliers for key inputs.	5	4	
		Fairness	yes	Some potential suppliers excluded due to lack of information about opportunities.	Reduced equality in access.	2	Publicly share procurement opportunities.	5	3	
 Responsible Technology	Responsible technology is the practice of taking	Lifespan	no							
		Servicing	no							

	into account ethical, legal, and social implications when running projects that involve new or emerging technologies. This includes developing and adhering to frameworks and policies related to data privacy, intellectual property rights, environmental impact, diversity, and inclusion. Responsible technology also requires ensuring that technology is used in a safe and responsible manner.	Effectiveness	no							
		Efficiency	no							
		Fairness	no							
 Green Claims and Greenwashing	Green claims are statements made by an organization to indicate that a product or service has been designed and produced in a manner that is considered environmentally responsible. These claims typically relate to the organization's efforts to reduce its environmental impact such as using recycled materials, renewable energy sources, and	Lifespan	yes	No formal process to substantiate environmental claims about farm practices.	Risk of greenwashing accusations.	1	Develop documentation for all environmental claims, including input sources and methods.	4	3	
		Servicing	no							
		Effectiveness	yes	Unverified claims have limited influence on customer perception	Reduced market trust.	2	Obtain third-party verification for sustainability claims.	5	3	
		Efficiency	no							
		Fairness	no							

	efficient production processes. Greenwashing is the practice of making false or misleading claims in order to mislead consumers into believing that a product or service is more environmentally friendly than it actually is. This can be done through deceptive language, exaggerations, or omitting relevant information about an organization's true environmental practices.									
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Note. (Source: Hutchins, 2025)

Table 48*Planet impacts*

Organization: Wilson Farm Project: PMP of Wilson Farm										
Planet Impacts										
Subcategory	Transport	Lens	Scored ?	Description (Cause)	Potential Sustainability Impact	Initial Impact Score	Proposed Response	New Impact Score	Change	Comments (optional)
Element	Description									
 Local Procurement	Local procurement is the practice of purchasing products and services from local suppliers.	Lifespan	yes	Some inputs are sourced from outside the region, increasing transport emissions.	Higher carbon footprint and reliance on external suppliers.	2	Shift purchasing to local suppliers where possible.	5	3	
		Servicing	yes	No ongoing tracking of environmental benefits from local sourcing.	Missed opportunity to measure and improve.	2	Maintain records of sourcing distances and volumes.	4	2	
		Effectiveness	yes	Limited use of local suppliers for sustainable inputs.	Reduced potential to influence sustainable farming in the area.	2	Partner with local producers who follow eco-friendly practices.	5	3	

		Efficiency	yes	External sourcing increases delivery times and costs.	More fuel use and waste.	1	Consolidate orders and optimize local deliveries.	4	3	
		Fairness	no							
	Digital communication is the use of digital tools and platforms to communicate about the project. These tools can include websites, email newsletters, social media accounts, messaging applications, and other digital communication channels.	Lifespan	no							
		Servicing	no							
		Effectiveness	yes	Heavy reliance on printed materials for updates.	Paper waste and printing energy use.	2	Shift to primarily digital communications.	5	3	
		Efficiency	yes	Slow communications result in more in-person trips.	Increased fuel use.	2	Use messaging apps for updates to reduce travel.	4	2	
		Fairness	no							

 Traveling and Commuting	Traveling and commuting is the movement of project-related personnel between different locations. Traveling and commuting may include getting to the project site, attending off-site meetings, conducting off-site presentations, collecting data, and providing off-site support.	Lifespan	no							
		Servicing	no							
		Effectiveness	yes	Multiple trips for small tasks increase fuel usage.	Higher emissions.	1	Plan trips to combine multiple activities.	4	3	
		Efficiency	yes	Inefficient travel routes waste time and fuel.	Greater carbon footprint.	2	Optimize travel routes and schedules.	4	2	
		Fairness	no							
 Logistics	Logistics is the planning and execution of activities related to transporting goods, raw materials, and	Lifespan	yes	No long-term logistics strategy to minimize environmental impact.	Persistent high emissions from transport.	2	Adopt sustainable logistics practices such as route optimization and bulk shipping.	5	3	

	Energy consumption is the amount of energy used by the project throughout its duration. It encompasses all aspects of energy use from office lighting to the energy required for transportation.	Lifespan	yes	Farm operations (e.g., irrigation pumps, lighting, processing equipment) rely on electricity and fuel.	Higher operational carbon footprint and increased costs over the project's life.	1	Implement energy-efficient equipment and lighting.	5	4	
		Servicing	yes	No scheduled maintenance to ensure energy efficiency of equipment.	Equipment deterioration leading to higher energy use.	1	Establish regular servicing to maintain efficiency.	4	3	
		Effectiveness	yes	Energy use not tracked, making it hard to target savings.	Missed opportunities for energy reduction.	2	Install simple monitoring systems to track energy use.	4	2	
		Efficiency	yes	Old equipment consumes more energy than necessary.	Higher costs and emissions from outdated machinery.	2	Replace with high-efficiency models.	5	3	
		Fairness	no							
	GHG emissions are gases (mostly carbon dioxide and methane) released into the atmosphere as a direct result	Lifespan	yes	Use of diesel-powered machinery and transport vehicles.	Increased greenhouse gas contribution over the project's lifespan.	2	Transition to low-emission or hybrid options over time.	4	2	

	of activities associated with the project. This includes emissions as a direct result of project energy consumption as well as emissions from transport of procured goods, raw materials, and services. It also includes GHG emissions caused by the distribution, operation, and disposal of the project product.									
		Servicing	yes	Poor maintenance increases emissions from equipment.	Higher fuel consumption and more pollutants released.	2	Regular maintenance to reduce fuel consumption and emissions.	4	2	
		Effectiveness	yes	Lack of tracking of farm-related emissions.	No baseline to measure progress or implement reduction strategies.	2	Introduce annual emissions estimates and reduction targets.	4	2	
		Efficiency	yes	Unoptimized transportation increases fuel use.	Higher costs and more emissions per delivery.	1	Combine deliveries and optimize routes.	4	3	
		Fairness	no							

 Renewables and Clean Energy Return	Renewable energy, also called alternative energy, is energy generated from sources that are replenished at a faster rate than they are consumed. These sources include solar, wind, water, and geothermal power. Clean energy return (CER) refers to the amount of renewable energy generated by the project or the project's product that is in excess of the amount needed. CER is normally returned to the grid for use by others.	Lifespan	yes	Current operations rely entirely on non-renewable sources.	Ongoing dependence on fossil fuels and higher operational costs.	1	Install small-scale solar panels for irrigation or lighting.	4	3	
		Servicing	yes	Renewable systems need regular maintenance to stay effective.	Reduced efficiency and shorter lifespan of	2	Schedule servicing for solar and other systems.	4	2	

	also includes all genetic variations of those species.									
		Servicing	yes	Lack of ongoing monitoring of biodiversity health.	Gradual decline in species diversity without detection.	2	Schedule periodic biodiversity surveys and adapt farm practices based on results.	4	2	
		Effectiveness	yes	Farm operations do not currently integrate biodiversity protection into decision-making.	Missed opportunities to enhance ecosystem services (e.g., pollination, pest control).	2	Include biodiversity criteria in procurement, planting, and pest control decisions.	4	2	
		Efficiency	yes	Monoculture planting reduces ecological balance, increasing pest outbreaks and input needs.	Higher dependency on pesticides and fertilizers.	2	Use intercropping and crop rotation to maintain soil health and natural pest control.	4	2	
		Fairness	yes	Biodiversity loss affects surrounding communities that rely on ecosystem services (e.g., clean water, soil fertility).	Disproportionate harm to local households dependent on the land.	2	Involve local stakeholders in biodiversity protection strategies.	5	3	

 Air and Water Quality	Air and water quality involves measures of contamination in air and water sources.	Lifespan	yes	Use of fertilizers and pesticides in dasheen farming can lead to runoff and air contamination.	Long-term soil degradation and water pollution affecting ecosystems.	1	Adopt integrated pest management (IPM) and organic fertilizers.	5	4	
		Servicing	yes	Lack of regular checks on water quality near irrigation sources.	Undetected contamination of streams or groundwater.	2	Schedule quarterly water and air quality tests.	4	2	
		Effectiveness	yes	No formal policy to reduce air or water pollutants from farm operations.	Reduced compliance with environmental standards	2	Develop and enforce a farm environmental management policy.	4	2	
		Efficiency	yes	Overuse of water and chemicals increases pollution and costs.	Higher operational expenses and ecological impact.	2	Install drip irrigation and calibrate chemical applications.	4	2	
		Fairness	yes	Pollution can disproportionately affect downstream communities.	Unequal distribution of environmental risks.	2	Share monitoring results with communities and address concerns collaboratively.	4	2	
 Water Consumption	Water consumption is the usage of water during project activities. Although construction, manufacturing, and	Lifespan	yes	High irrigation needs during dry season.	Depletion of local water sources over time.	2	Use rainwater harvesting and water-efficient irrigation.	5	3	

	agricultural projects are probably the major users of water, all projects use water to some extent.									
		Servicing	yes	Leaks in irrigation infrastructure not regularly repaired.	Wasted water and higher costs.	2	Implement routine inspection and repair schedule.	4	2	
		Effectiveness	yes	No tracking of water use for different farm activities.	Inefficient allocation of resources.	2	Introduce water use metering for key operations.	4	2	
		Efficiency	yes	Overwatering due to manual irrigation methods.	Increased costs and soil nutrient loss.	2	Shift to automated drip systems.	5	3	
		Fairness	yes	Excessive farm water use can reduce supply for nearby households.	Strains on community water access.	2	Set withdrawal limits during dry season.	5	3	
 Water Displacement	Water displacement is the practice of diverting water sources that have been disrupted by the project away from areas that are prone to flooding and contamination. Methods include dam construction,	Lifespan	yes	Alteration of natural drainage patterns for farm expansion.	Increased flooding risk downstream	2	Preserve natural waterways and use permeable farm pathways.	5	3	

	rerouting flowing water, building artificial wetlands, landscaping with rain gardens, and installing flood barriers. Water displacement is mostly an issue with construction, manufacturing, and agricultural projects.									
		Servicing	yes	Lack of maintenance for drainage ditches.	Blockages leading to water stagnation.	2	Schedule regular clearing and inspections.	4	2	
		Effectiveness	yes	Poor design of irrigation and drainage systems.	Waterlogging in cultivated areas.	2	Redesign layout to balance irrigation with runoff control.	4	2	
		Efficiency	yes	Excessive use of pumps and diversion channels.	Wasted energy and water.	2	Optimize water movement systems.	4	2	
		Fairness	yes	Altered water flow impacts neighboring farms.	Unequal distribution of water benefits and risks.	2	Joint planning with neighboring farmers.	5	3	
	Soil erosion is the loss of topsoil due to human activities such as	Lifespan	yes	Intensive tillage on slopes increases erosion risk.	Long-term soil fertility loss.	1	Use contour farming and cover crops.	5	4	

 Soil Erosion and Regeneration	construction, road building, or agricultural practices. It can be exacerbated by changes in the natural land cover and can have significant negative effects on local ecosystems. As with water displacement, soil erosion is mostly an issue with construction, manufacturing , and agricultural projects. Regenerative design is a practice that draws on an understanding of how ecosystems function so that the project will regenerate resources rather than depleting them.									
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		Servicing	yes	Lack of upkeep for erosion control measures.	Gradual soil degradation.	1	Regular inspection and repair of terraces, cover crops.	4	3	
		Effectiveness	yes	No formal soil conservation policy.	Missed opportunities to restore degraded land.	2	Implement regenerative agriculture guidelines.	4	2	
		Efficiency	yes	Over-reliance on fertilizers instead of natural soil building.	Higher costs and lower long-term soil health.	2	Incorporate composting and organic amendments.	4	2	
		Fairness	yes	Soil loss can impact food security for the community.	Reduced yields affecting local food supply.	1	Share soil restoration training with neighboring farms.	5	4	
	Noise pollution is the creation of excessive, unpleasant, or disruptive sounds that can diminish quality of life. Noise pollution can be caused by activities such as blasting, heavy vehicle traffic, traffic jams, and operation of machinery or equipment.	Lifespan	yes	Use of machinery during planting and harvesting seasons.	Disturbance to nearby households and wildlife.	2	Limit noisy activities to designated hours.	4	2	
		Servicing	yes	Poorly maintained equipment	Increased sound pollution.	2	Maintain and service	4	2	

	the same item again and again or finding a new purpose for it.									
		Servicing	yes	No maintenance plan for reusable field equipment such as harvesting baskets.	Early breakage leading to unnecessary replacements.	2	Inspect and repair equipment after each harvest.	4	2	
		Effectiveness	yes	No record of how many farm materials are reused or recycled each season.	Missed opportunities to expand reuse and recycling.	2	Maintain a log of reused and recycled items (e.g., sacks, crates).	4	2	
		Efficiency	yes	Recyclable materials like fertilizer bags are often mixed with general waste.	Reduced recycling rates and increased landfill use.	2	Provide separate bins for recyclables in storage and packing areas.	4	2	
		Fairness	yes	Recycling responsibilities fall on a few workers rather than being shared.	Unequal workload and reduced participation.	2	Rotate recycling duties among staff.	3	1	
 Disposal	Disposal of assets is the process of getting rid of an item which has reached the end of its useful life. This includes everything from consumer electronics to	Lifespan	yes	Tools, tarpaulins, and irrigation parts are discarded before they are fully worn out.	Wasted resources and unnecessary costs.	2	Assess items for repair before disposal.	4	2	

	public infrastructure such as roads and bridges. Generally, assets should not be disposed of until they are no longer fit for use. Disposal of goods and materials is the practice of getting rid of items that are no longer needed or wanted for the project. This includes disposing of both hazardous and non-hazardous waste in accordance with relevant laws and regulations.									
		Servicing	yes	Lack of maintenance shortens the life of irrigation hoses and pumps.	Increased disposal and purchase of replacements.	2	Schedule servicing after each planting season.	4	2	
		Effectiveness	yes	No disposal plan for damaged sacks,	Improper disposal may cause soil and	2	Follow local agricultural	4	2	

				plastic mulch, and old tools.	water pollution.		waste disposal guidelines.			
		Efficiency	yes	Small, frequent disposal trips increase fuel use.	Higher transport emissions and costs.	2	Consolidate disposal loads.	4	2	
		Fairness	yes	Disposal work is handled by a small group of laborers.	Unequal workload.	2	Rotate disposal responsibilities .	3	1	
 Contamination and Pollution	Contamination and pollution is the release of waste materials or hazardous substances into the environment. It will almost always have a negative impact on ecosystems and human health. Contamination and pollution most often occurs due to neglectful practices in manufacturing , construction, agriculture, and related industries that generate waste	Lifespan	yes	Improper handling of fertilizer runoff near waterways.	Long-term soil and water degradation.	1	Use vegetative buffer strips around fields.	5	4	

	materials or hazardous chemicals, but it can also occur in other projects that do a poor job of disposal.									
		Servicing	yes	Fertilizer spreaders and sprayers not calibrated regularly.	Overapplication leading to chemical runoff.	2	Calibrate equipment before each use.	4	2	
		Effectiveness	yes	No monitoring of water quality in drainage areas.	Contamination may go unnoticed.	2	Test water at least twice a year.	4	2	
		Efficiency	yes	Use of broad-spectrum chemicals when targeted solutions would work.	Unnecessary chemical use.	2	Adopt integrated pest management (IPM).	4	2	
		Fairness	yes	Poor storage of dasheen before sale leads to spoilage.	Increased food waste.	2	Provide PPE and safety training to all workers.	4	2	
 Waste Generation	is the creation of any excess or unneeded materials or byproducts during the project. This includes everything from leftover supplies and materials to wasted energy.	Lifespan	yes	Over-ordering fertilizer and packaging materials.	Excess items go unused and become waste.	1	Base orders on accurate seasonal forecasts.	5	4	

		Servicing	yes	Poor storage of dasheen before sale leads to spoilage.	Increased food waste.	1	Improve storage facilities and ventilation.	5	4	
		Effectiveness	yes	No tracking of waste types (organic, packaging, equipment).	Missed opportunities for composting or recycling.	2	Keep waste logs and categorize waste streams.	4	2	
		Efficiency	yes	Poor cutting and processing practices increase offcuts and unusable produce.	Lower usable yield from harvest.	2	Train staff in efficient harvesting and trimming.	4	2	
		Fairness	yes	Waste management decisions are made by management only.	Workers may feel excluded from sustainability efforts.	2	Include workers in waste reduction planning.	4	2	

Note. (Source: Hutchins, 2025)

Table 49*Prosperity impacts*

Organization: Wilson Farm Project: PMP of Wilson Farm										
Prosperity Impacts										
Subcategory	Project Feasibility	Lens	Scored ?	Description (Cause)	Potential Sustainability Impact	Initial Impact Score	Proposed Response	New Impact Score	Change	Comments (optional)
Element	Description									
 Business Case Analysis	Business case analysis is the process of developing a business case that provides justification for the initiation or continuation of the project. It involves analyzing the underpinning logic of funding the project. This requires identifying the expected	Lifespan	yes	Farm's long-term viability depends on clear justification for resource investment and expected returns.	Stronger justification ensures long-term farm sustainability and reduces wasted investments.	2	Develop a comprehensive business case including market demand, cost-benefit, and risk analysis.	5	3	

	benefits and dis-benefits, likely costs and revenues, staffing requirements, major risks, schedule alternatives, and stakeholder impacts associated with a proposed project.									
		Servicing	no							
		Effectiveness	yes	Without a strong business case, farm operations may lack direction.	Misaligned activities can waste resources and lower profitability.	2	Link all project activities to the objectives in the business case.	5	3	
		Efficiency	yes	A clear plan allows better use of farm resources.	Reduces duplication of effort and unnecessary costs.	4	Align tasks and resource allocation with business case priorities.	5	1	
		Fairness	no							
 Financial Analysis	Financial analysis is the process of evaluating the project from a monetary perspective. Typically, it is used to analyze	Lifespan	yes	Ongoing financial review ensures farm profitability over time.	Avoids insolvency and supports steady operations.	1	Conduct quarterly cost and revenue reviews.	4	3	

	whether the project warrants initial or additional funding.									
		Servicing	yes	Without regular financial checks, costs may spiral.	Reduces risk of budget shortfalls.	2	Use simple farm budgeting software.	4	2	
		Effectiveness	yes	No tracking of revenue sources or expense categories.	Missed opportunities for savings or better investments.	2	Maintain detailed income and expense records.	4	2	
		Efficiency	yes	Inefficient spending on inputs or labor.	Higher production costs without yield gains.	1	Compare supplier costs and input efficiency regularly.	4	3	
		Fairness	no							
 Social Return on Investment	Social return on investment (SROI) is a framework for measuring and accounting for project results and outcomes by including social and environmental costs and benefits along with the traditional economic ones. It is	Lifespan	yes	The farm's impact on community health, employment, and environment continues over its life.	Ongoing value creation strengthens local resilience.	4	Include social and environmental outcomes in annual reporting.	5	1	

	based on the idea that projects create value in ways other than just financial returns. For example, a community development project may create value by improving the health and well-being of residents, reducing crime, and increasing social cohesion.									
		Servicing	yes	Without regular assessment, positive community impacts may decline.	Loss of community trust and support.	2	Annual review of social and environmental impact indicators.	4	2	
		Effectiveness	yes	SROI not integrated into farm decision-making.	Social/environmental benefits may be sidelined.	2	Incorporate SROI findings into planning.	4	2	
		Efficiency	yes	Inefficient programs for social/environmental support.	Wasted funds and reduced positive outcomes.	1	Target programs with highest measurable impact.	4	3	
		Fairness	yes	Some benefits may reach certain groups more than others.	Unequal distribution could cause community tension.	2	Design programs to reach marginalized groups.	4	2	

	unexpected challenges. Optionality means having multiple solutions or choices available. It means the project is not constrained by a single approach. Optionality means that the project is capable of supporting different outcomes with different results without having to start over.									
		Servicing	no							
		Effectiveness	yes	Limited contingency planning reduces ability to meet targets when unexpected issues arise.	Risk of missed harvest goals and revenue loss.	2	Develop scenario-based action plans for pest outbreaks, input shortages, or extreme weather.	5	3	
		Efficiency	yes	Without optionality, resources may be wasted pursuing	Avoids time and cost losses from trial-and-error responses.	3	Pre-identify alternative suppliers, transport	4	1	

				ineffective approaches.			routes, and markets.			
		Fairness	no							
	Resiliency is the ability of the project to recover from or adjust easily to adverse conditions such as extreme market fluctuations, political or economic instability, natural disasters, or health emergencies. Resiliency does not make problems go away: it means having the ability to cope with them despite the unexpected stress.	Lifespan	yes	Ability to recover from crop loss, market downturns, or environmental shocks ensures farm continuity.	Reduces long-term vulnerability to external risks.	3	Create emergency response funds and maintain crop insurance.	5	2	
		Servicing	no							
		Effectiveness	yes	Low preparedness for disasters or market disruptions can halt operations.	Protects farm productivity during crises.	2	Develop rapid response protocols for climate	5	3	

							events or supply disruptions.			
		Efficiency	yes	Without resiliency measures, recovery from disruptions is slow and costly.	Faster recovery reduces downtime and financial losses.	4	Train staff in disaster response and establish backup supplier contracts.	5	1	
		Fairness	no							
Subcategory	Market and Economic Stimulation	Lens	Scored ?	Description (Cause)	Potential Sustainability Impact	Initial Impact Score	Proposed Response	New Impact Score	Change	Comments (optional)
Element	Description									
 Local Economic Impact	Local economic impact includes the direct and indirect effects the project has on the economy of its local area. This can include job creation, increased spending in the local economy, or increased regional development.	Lifespan	yes	The farm's operations contribute to ongoing local employment and income generation.	Strengthens the rural economy and supports long-term community livelihoods.	2	Maintain consistent production cycles and expand supply agreements with local buyers.	5	3	
		Servicing	no							
		Effectiveness	yes	Limited local sourcing and employment	Maximizing local inputs increases	2	Prioritize local suppliers and	5	3	

				reduce economic benefits to the area.	multiplier effects in the community.		hire within the community.			
		Efficiency	yes	Inefficient market linkages reduce profitability and the scale of local benefits.	Better distribution systems increase profit and economic spillovers.	2	Develop partnerships with regional distributors and cooperatives.	4	2	
		Fairness	no							
 Indirect Benefits	Indirect benefits are the positive impacts that go beyond the immediate outcomes of the project and may not always be immediately visible. These benefits can include improved quality of life, increased economic activity in the local area, and environmental improvements such as cleaner air or water.	Lifespan	yes	Long-term improvements in community well-being from the farm's activities.	Supports food security, social cohesion, and rural development.	2	Integrate community outreach programs and knowledge sharing.	4	2	
		Servicing	no							
		Effectiveness	yes	Without targeted initiatives, secondary benefits	Increases community resilience and	2	Develop collaborations with	4	2	

				may be limited or delayed.	attractiveness for investment.		schools and local organizations for agricultural training.			
		Efficiency	no							
		Fairness	yes	Benefits may not reach all segments of the community equally.	Could widen inequalities if certain groups are excluded.	1	Ensure equitable access to training, jobs, and supply contracts.	3	2	
 ESG Disclosures and Sustainability Reporting	ESG disclosures are information about an organization's performance and practices related to environmental, social, and governance issues. Information from the project is used as input to the ESG disclosures of the sponsoring organization(s). Sustainability reporting	Lifespan	yes	Long-term reporting ensures accountability and continual improvement.	Maintains stakeholder trust and compliance with standards.	4	Implement annual ESG and sustainability reports shared with stakeholders.	5	1	

	provides information about an organization's policies, practices, and performance related to sustainability. It covers a wide range of topics such as energy efficiency, carbon emissions, resource conservation, human rights, labor practices, and community engagement. Information from the project is used as input to the sustainability reporting of the sponsoring organization(s).									
		Servicing	no							
		Effectiveness	yes	Poor reporting can reduce credibility and market access.	Strong reporting attracts investors and partners.	2	Use standardized reporting frameworks.	5	3	
		Efficiency	no							

		Fairness	yes	Transparent reporting allows all stakeholders equal access to information.	Improves decision-making and community trust.	2	Make reports publicly available in accessible formats.	4	2	
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Note. (Source: Hutchins, 2025)

The evaluation across the People, Planet, and Prosperity categories shows a consistent pattern of significant improvement potential, with most initial impact scores between one and three increasing to four or five after the proposed responses. This reflects a clear shift from underdeveloped or informal practices to more structured, policy-based, and proactive measures.

In the People category, the most notable gains were in labor practices, health and safety, training, and labor–management relations. Common weaknesses included informal approaches to staffing, safety, and skills development, which resulted in inefficiencies, low morale, and unequal opportunities. The proposed improvements, such as formalizing recruitment, establishing safety policies, and implementing structured training, directly address these gaps. These actions led to average increases of about two points in the impact scores and promote fairness, transparency, and equal access, all of which are essential for sustainable workforce retention.

In the Planet category, the improvements centered on reducing environmental impacts through local procurement, energy efficiency, biodiversity protection, water management, waste reduction, and the adoption of renewable energy. The data shows consistent increases of two to three points, reflecting significant progress in operational efficiency, emissions reduction, and conservation outcomes. Many of the recommended actions, including installing solar panels, adopting integrated pest management, and optimizing logistics, deliver both environmental benefits and cost savings, demonstrating the alignment between ecological and economic performance.

In the Prosperity category, the proposed changes enhanced the farm's financial viability, resilience, and contribution to the local economy. Initial weaknesses were associated with limited strategic planning, weak market linkages, and insufficient community benefit-sharing. The recommended actions, including the development of comprehensive business cases, implementation of ESG reporting, diversification of activities, and prioritization of local sourcing, resulted in notable score increases, often from two to five. These results indicate that economic sustainability can be achieved alongside social and environmental objectives.

Overall, the findings confirm that Wilson Farm can substantially strengthen its sustainability profile through targeted interventions that formalize processes, actively involve stakeholders, and integrate monitoring systems. The improvement trends across all categories suggest that the farm's baseline performance had considerable room for growth, and the proposed measures are both practical and transformative. To ensure these gains are maintained, the farm should institutionalize the changes through documented policies, regular training programs, inclusive decision-making, and transparent reporting, supported by measurable performance indicators over time.

7.4 Relationship of the project to the dimensions of Regenerative Development

Regenerative development is an approach that seeks not only to maintain but to actively restore and enhance the capacity of ecological, social, and economic systems to thrive. Mang and Reed (2020) describe it as a process in which human and natural systems co-evolve, resulting in continuous improvement over time. Müller (2017) frames regenerative development as the necessary shift away from degenerative patterns toward a holistic approach based on six interlinked layers: regeneration of functional landscapes, social strengthening, a new economic paradigm prioritizing well-being over markets, conservation of living culture, redesign of political structures for participatory governance, and fostering deep ethical and spiritual values that promote harmony with nature. In agricultural projects such as Wilson Farm, these principles translate into practices that restore soil fertility, protect biodiversity, strengthen community resilience, and build fair, transparent, and adaptive governance.

The project addresses ecological health through integrated pest management, agroforestry, water conservation, and soil restoration, all of which enhance ecosystem function and productivity. Social well-being is supported by fair labor practices, equal access to training, and inclusive decision-making, ensuring equitable participation in farm benefits. Economic prosperity is advanced through local sourcing, market diversification, and value-added processing, aligning with Müller's call for economies that measure success in well-being rather than solely in monetary terms. Cultural vitality is preserved by incorporating traditional dasheen cultivation techniques and engaging local knowledge

holders, while institutional integrity is upheld through ESG reporting, stakeholder engagement, and transparent governance.

Product validation plays a central role in ensuring that farm outputs meet both market standards and regenerative goals. Good Agricultural Practices (GAP) certification, quality control systems, and stakeholder feedback confirm that production methods contribute positively to environmental health, community well-being, and economic resilience.

In response to the unit's guiding questions, the project regenerates natural systems through biodiversity conservation and soil health improvement, strengthens social systems by fostering equitable employment and participatory governance, enhances economic resilience through diversified markets, preserves cultural values by embedding local knowledge, and ensures transparent, adaptive governance. Potential negative impacts, such as habitat disturbance or unequal participation, are mitigated through conservation zoning, inclusive leadership, and clearly documented processes.

The P5 analysis shows direct alignment with these dimensions. People-focused interventions correspond to social well-being, environmental measures address ecological health, and economic strategies enhance prosperity. Wilson Farm moves beyond sustainability to a regenerative model that actively restores the systems it depends on, creating lasting benefits for both the community and the environment.

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APPENDICES

Appendix 1: FGP Charter

CHARTER OF THE PROPOSED FINAL GRADUATION PROJECT (FGP)

1. Student name

Cassica Hutchins

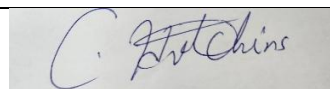
2. FGP name

Strengthening Agricultural Productivity through a Project Management Plan for Dasheen Cultivation at Wilson Farm, Lauders, St. Vincent and the Grenadines

3. Application Area (Sector or activity)

Agriculture

4. Student signature



5. Name of the Graduation Seminar facilitator

Carlos Brenes

6. Signature of the facilitator

7. Date of charter approval

8. Project start and finish date

Fill it in the tutorship

Fill it in the tutorship

9. Research question

What project management strategies can be implemented to improve the operational efficiency, productivity, and profitability of dasheen production at Wilson Farm?

10. Research hypothesis

The implementation of a structured project management plan can improve the efficiency, productivity, and profitability of dasheen production at Wilson Farm.

11. General objective

General Objective: To develop a comprehensive project management plan aimed at improving the operational processes, resource utilization, and output of dasheen production at Wilson Farm.

12. Specific objectives

Specific Objectives:

1. To create the project charter to elaborate key elements for developing the Final Graduation Project focused on enhancing dasheen production at Wilson Farm.
2. To create a detailed project scope management plan to clearly define the boundaries of the project, specify deliverables, and ensure all stakeholder expectations related to dasheen production are captured and controlled.
3. To design a schedule management plan that outlines timelines, task dependencies, and milestones to efficiently organize and monitor the farm's production activities within the project's duration.
4. To formulate a cost management plan that includes budget estimation, funding sources, and cost control mechanisms to ensure that all aspects of the dasheen production improvements are financially sustainable and completed within budget.
5. To construct a quality management plan that establishes standards, assurance procedures, indicators for quality measures, and mechanisms to guarantee the satisfaction of stakeholder expectations throughout all stages of dasheen production.
6. To develop a resource management plan which empowers the reference framework for the organization and allocation of human, material, and technological resources according to the expectations and operational requirements of the project.
7. To build a communication management plan to ensure timely, transparent, and effective engagement of stakeholders through appropriate channels,

enabling active participation throughout project planning and implementation.

8. To create a risk management plan that identifies potential threats and opportunities, and provides appropriate strategies and tools for minimizing adverse impacts while enhancing resilience in farm operations.
9. To develop a procurement management plan that defines the policies and procedures for acquiring necessary inputs and services, emphasizing cost-effectiveness, timeliness, and the use of environmentally responsible (green) procurement practices.
10. To produce a stakeholder management plan that outlines strategies for identifying, analyzing, and engaging stakeholders who have influence over or interest in the success of the Wilson Farm project, fostering collaboration and shared ownership.
11. To develop a comprehensive project closure plan that defines clear criteria for evaluating deliverables, completing final reviews, and obtaining stakeholder acceptance, while also establishing a continuous lessons-learned process carried out throughout all project phases to ensure formal project completion and support Wilson Farm's long-term operational sustainability.

13. FGP purpose or justification

Dasheen (taro) cultivation remains a critical income source for smallholder farmers in Lauders, St. Vincent and the Grenadines. However, inconsistent yields, poor planning, inefficient resource use, and climate variability have significantly impacted productivity at Wilson Farm. This project is essential to introduce a structured project management framework that addresses these inefficiencies and supports systematic improvements in agricultural output and income stability. Moreover, the absence of a formal project management approach in dasheen production means that activities such as land preparation, input procurement, irrigation scheduling, and pest control are often executed reactively rather than proactively. By implementing tools such as scheduling, budgeting, risk management, and monitoring mechanisms, the farm can better coordinate labor, time, and inputs. This would enhance overall efficiency and resilience to weather or market-related disruptions. Additionally, Wilson Farm has experienced a noticeable decline in dasheen production over recent growing seasons, attributed to inconsistent planning, inefficient resource allocation, and unpredictable weather patterns. By introducing a structured project management plan, the farm is expected to reverse this downward trend and gradually restore productivity to more optimal levels. These improvements would also contribute to greater income stability, making the intervention both strategically necessary and economically justified.

The Project Management Plan for improving dasheen production at Wilson Farm, located in Lauders, St. Vincent and the Grenadines, will include all subsidiary plans: 1. Project Charter, 2. Scope Management Plan, 3. Schedule Management Plan, 4. Cost Management Plan, 5. Quality Management Plan, 6. Resource Management Plan, 7. Communication Management Plan, 8. Risk Management Plan, 9. Procurement Management Plan, and 10. Stakeholder Management Plan. The Project Management Plan will adhere to the PMBOK® Guide – Seventh Edition and will incorporate sustainable and regenerative methodologies to strengthen the farm's operational resilience and contribute to local agricultural development.

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

1. FGP
 - 1.1 FGP profile
 - 1.1.1 Introduction
 - 1.1.2 Theoretical framework
 - 1.1.3 Methodological framework
 - 1.1.4 Preliminary bibliographical research
 - 1.1.5 Annexes (FGP schedule, FGP WBS, FGP Charter)
 - 1.2 FGP development
 - 1.2.1 Report on current operational practices and resource use
 - 1.2.1.1 Field observation study
 - 1.2.1.2 Semi-structured interview results
 - 1.2.1.3 Operational Analysis Report
 - 1.2.2 Scope Management Plan
 - 1.2.2.1 Requirements documentation
 - 1.2.2.2 Work Breakdown Structure (WBS)
 - 1.2.2.3 Scope statement and change control procedures
 - 1.2.3 Schedule Management Plan
 - 1.2.3.1 Activity list and network diagram
 - 1.2.3.2 Gantt chart and milestone schedule
 - 1.2.3.3 Schedule performance monitoring tools
 - 1.2.4 Cost Management Plan
 - 1.2.4.1 Cost estimates and budget breakdown
 - 1.2.4.2 Cost baseline and funding strategy
 - 1.2.4.3 Cost control and reporting mechanisms
 - 1.2.5 Quality Management Plan
 - 1.2.5.1 Quality criteria and standards definition
 - 1.2.5.2 Quality assurance and control procedures

- 1.2.5.3 Quality indicators and performance metrics
- 1.2.6 Resource Management Plan
 - 1.2.6.1 Resource requirement list
 - 1.2.6.2 Roles and responsibilities matrix (RACI)
 - 1.2.6.3 Resource allocation and utilization strategy
- 1.2.7 Communication Management Plan
 - 1.2.7.1 Stakeholder communication matrix
 - 1.2.7.2 Information flow chart and protocols
 - 1.2.7.3 Communication performance measures
- 1.2.8 Risk Management Plan
 - 1.2.8.1 Risk register with qualitative analysis
 - 1.2.8.2 Risk response strategies
 - 1.2.8.3 Risk monitoring and control mechanisms
- 1.2.9 Procurement Management Plan
 - 1.2.9.1 Procurement requirements and specifications
 - 1.2.9.2 Supplier evaluation criteria and green procurement strategies
 - 1.2.9.3 Contract management and performance monitoring
- 1.2.10 Stakeholder Management Plan
 - 1.2.10.1 Stakeholder identification and analysis
 - 1.2.10.2 Engagement strategies and influence mapping
 - 1.2.10.3 Conflict resolution and participation tracking
- 1.2.11 Project Closure
- 1.2.12 Conclusions
- 1.2.13 Recommendations
- 1.2.14 References
- 1.2.15 Annexes (Performance reports, charts, logs)
- 1.2.16 Tutor approval for reading
- 1.3 Reader's review
- 1.4 Board of Examiners evaluation

15. FGP budget

1. Printing and Stationery: Approximately \$150 XCD will be allocated for printing drafts and final copies, purchasing binders, notepads, pens, and other necessary materials.
2. Internet and Mobile Data: An estimated \$200 XCD will be used to cover internet and mobile data expenses for research, uploading drafts, and maintaining communication over four months (at \$50 per month).
3. Interview Incentives: \$200 XCD will be set aside as a token of appreciation for the farm owner and workers participating in interviews.
4. Transportation: Visits to the library (six in total) will cost about \$120 XCD, at \$20 per trip.

5. Meals: Meals during library visits are estimated at \$180 XCD.
 6. Assistant Travel: For support during interviews and field observations, \$200 XCD will be budgeted for four trips to and from Wilson Farm (at \$50 per trip).
 7. Editor's Fee: A professional editor will be paid \$400 XCD for reviewing formatting and language to ensure the document meets academic standards.
 8. Contingency: A 10% contingency of \$145 XCD will serve as a buffer for any unforeseen expenses.
- Altogether, these costs total an estimated \$1,595 XCD.

16. FGP planning and development assumptions

1. Stakeholders will be Willing and Available to Participate.
2. Digital Communication Tools Will Remain Accessible and Functional.
3. Farm Operations at Wilson Farm Will Continue During the Project Timeline.
4. Academic Resources and Support Will Be Available as Needed

17. FGP constraints

1. The student works full-time in Taiwan with long hours, leaving limited time for research and coordination.
2. A 12-hour time difference makes real-time communication with stakeholders in St. Vincent difficult.
3. The project has no external funding, restricting access to travel, support services, and tools.
4. The student is overseas and cannot visit Wilson Farm for on-site monitoring or data collection.
5. Communication depends heavily on digital platforms, which may be unreliable in rural areas.

18. FGP development risks

1. If key stakeholders become unresponsive, the project may lack critical data and local alignment.
2. Internet or device failures could delay communication, research access, and timely submissions.

3. A shift in Wilson Farm's crop focus may require changes to the project scope and objectives.
4. Delayed tutor or institutional feedback could compress timelines and affect final quality.
5. Limited access to current agricultural data may weaken the project's evidence base and relevance.

19. FGP main milestones

Deliverable	Finish estimated date
1.1 FGP profile	July 15, 2025
1.1.1 Introduction	July 18, 2025
1.1.2 Theoretical framework	July 22, 2025
1.1.3 Methodological framework	July 22, 2025
1.1.4 Preliminary bibliographical research	July 8, 2025
1.1.5 Annexes (FGP Schedule, FGP, WBS, FGP Charter)	July 15, 2025
1.2 FGP development	July 22, 2025
1.2.1 Report on the current operational practices and resource use	August 9, 2025
1.2.1.1 Field observation study	August 13, 2025
1.2.1.2 Semi-structured interview results	August 16, 2025
1.2.1.3 Operational Analysis Report	August 20, 2025
1.2.2 Scope Management Plan	August 24, 2025
1.2.2.1 Requirements documentation	August 25, 2025

1.2.2.2 Work Breakdown Structure (WBS)	August 25, 2025
1.2.2.3 Scope statement and change control procedures	August 27, 2025
1.2.3 Schedule Management	August 31, 2025
1.2.3.1 Activity list and network diagram	September 1, 2025
1.2.3.2 Gantt chart and milestone schedule	September 2, 2025
1.2.3.3 Schedule performance monitoring tools	September 3, 2025
1.2.4 Cost Management Plan	September 7, 2025
1.2.4.1 Cost estimates and budget breakdown	September 9, 2025
1.2.4.2 Cost baseline and funding strategy	September 14, 2025
1.2.4.3 Cost control and reporting mechanisms	September 16, 2025
1.2.5 Quality Management Plan	September 20, 2025
1.2.5.1 Quality criteria and standards definition	September 20, 2025
1.2.5.2 Quality assurance and control procedures	September 23, 2025
1.2.5.3 Quality indicators and performance metrics	September 24, 2024
1.2.6 Resource Management Plan	October 1, 2025
1.2.6.1 Resource requirement list	October 1, 2025
1.2.6.2 Roles and responsibilities matrix (RACI)	October 7, 2025
1.2.6.3 Resource allocation and utilization strategy	October 12, 2025
1.2.7 Communication Management Plan	October 17, 2025
1.2.7.1 Stakeholder Communication matrix	October 20, 2025
1.2.7.2 Information flow chart and protocols	October 25, 2025

1.2.7.3 Communication performance measures	October 27, 2025
1.2.8 Risk Management Plan	November 1, 2025
1.2.8.1 Risk register with qualitative analysis	November 1, 2025
1.2.8.2 Risk response strategy	November 4, 2025
1.2.8.3 Risk monitoring and control mechanisms	November 6, 2025
1.2.9 Procurement Management Plan	November 12, 2025
1.2.9.1 Procurement requirements and specifications	November 17, 2025
1.2.9.2 Supplier evaluation criterion and green procurement strategies	November 23, 2025
1.2.9.3 Contract management and performance monitoring	November 26, 2025
1.2.10 Stakeholder Management Plan	December 1, 2025
1.2.10.1 Stakeholder identification and analysis	December 5, 2025
1.2.10.2 Engagement strategies and influence mapping	December 8, 2025
1.2.10.3 Conflict resolution and participation tracking	December 12, 2025
1.2.11 Project Closure	December 20, 2025
1.2.12 Conclusions	January 5, 2026
1.2.13 Recommendations	January 5, 2026
1.2.14 References	January 6, 2026
1.2.15 Annexes (performance reports, charts, logs)	January 8, 2026
1.2.16 Tutor approval for reading	January 10, 2026
1.3 Readers review	January 15, 2026
1.4 Board of Examiners Evaluation	January 20, 2026

20. Theoretical framework

20.1 Estate of the “matter”

Dasheen cultivation plays a vital role in St. Vincent and the Grenadines’ agriculture sector, contributing to household income, rural employment, and national exports. Despite its growing regional and international demand, as evidenced by recent exports to the United States and other Caribbean markets, local production remains constrained by inefficiencies, low yields, and unstructured farm management practices (Cooke, 2023; Julien, 2021). These issues are particularly evident in smallholder farms like Wilson Farm, which lack systematic planning, resource coordination, and structured monitoring mechanisms.

Moreover, the emerging challenges in agricultural production have been further compounded by climate change, which affects rainfall predictability, increases vulnerability to pests and disease, and disrupts growing cycles. Consequently, small-scale farmers must incorporate climate-resilient planning into their operations to mitigate these impacts and sustain productivity. As the OECS (2023) noted in declaring dasheen the “Blue Gold” crop of the country, the national agricultural strategy must evolve to match the crop’s economic and food security potential through improved coordination, resilience, and quality control.

To address these evolving demands, the application of project management practices in agriculture has gained increasing attention. Kholodova and Podgorskaya (2020) argue that project management principles, when applied through program-target planning, enable better alignment of goals, resource allocation, and measurable outputs in the agricultural sector. This approach is particularly effective in structured interventions aimed at improving rural productivity and state-supported initiatives. Similarly, Kimagut and Makokha (2023) provide empirical evidence that project planning, stakeholder engagement, and monitoring and evaluation are directly linked to the success of agricultural projects in resource-constrained environments. These principles are applicable at the farm level, where structured coordination can enhance crop management, harvest timing, and input utilization.

Additionally, George (2020) emphasizes the importance of planning to prevent project failure or premature termination, highlighting that poorly managed projects are often subject to delays, inefficiencies, or abandonment. This underscores the need for well-defined project phases, risk anticipation, and clarity in roles and responsibilities, elements that are often missing in informal farming operations like Wilson Farm.

Sustainability considerations are also increasingly integral to project planning frameworks. As Plattfaut (2022) argues, project management capabilities are essential for ensuring sustainable business process outcomes, particularly when organizations face pressure to operate efficiently while adapting to digitalization and environmental challenges. The integration of project tools such as scheduling, quality assurance, and stakeholder alignment into agricultural planning helps create resilient systems that are both productive and environmentally sound.

In the current context, Wilson Farm's operations reflect broader national trends in agricultural development: the absence of formal project management frameworks, limited adaptation to climate variability, and ad hoc post-harvest handling practices. This FGP addresses these gaps by proposing a structured, context-sensitive project management plan specifically tailored to dasheen production.

20.2 Basic conceptual framework

1. Project Management
2. Agricultural Productivity
3. Climate Change
4. Sustainable Agriculture

21. Methodological framework

Objective	Name of deliverable	Information sources	Research method	Tools	Restrictions
1. To create the project charter to elaborate key elements for developing the Final Graduation Project focused on enhancing dasheen	Project Charter	Primary: Reports, scholarly articles, stakeholder consultation Secondary: Books, articles	Qualitative: Inductive - Deductive	Checklists, Interviews, Document analysis	Limited time to finalize the charter.

production at Wilson Farm.					
2. To create a detailed project scope management plan to clearly define the boundaries of the project, specify deliverables, and ensure all stakeholder expectations related to dasheen production are captured and controlled.	Scope management Plan	Primary: stakeholder consultations, scholarly journals Secondary: Books and articles	Quantitative: Structured interviews Qualitative: Observations Inductive–Deductive	Benchmarking, Interviews, Mind mapping	Scope must align with existing farm size and available labor
3. To design a schedule management plan that outlines timelines, task dependencies, and milestones to efficiently organize and monitor the farm's	Schedule Management Plan	Primary: Field observation Secondary: Books and articles	Quantitative: Structured interviews Qualitative: Participant Observation Inductive–Deductive	Gantt chart, Milestone list, Network diagram	Project schedule must adhere to natural planting and harvesting cycles

production activities within the project's duration.					
4. To formulate a cost management plan that includes budget estimation, funding sources, and cost control mechanisms to ensure that all aspects of the dasheen production improvements are financially sustainable and completed within budget.	Cost Management Plan	Primary: Farm records, Scholarly journal articles Secondary: Books and articles	Quantitative: Structured interviews Qualitative: Observation Inductive–Deductive	Bottom-up estimating	Budget is limited to existing financial resources and external funding
5. To construct a quality management plan that establishes standards, assurance procedures, indicators for quality	Quality Management Plan	Primary: Field interviews, Scholarly journal articles Secondary: Books and articles	Quantitative: Interviews Qualitative Inductive–Deductive	Checklists, Cost-benefit analysis	Lack of on-site testing or quality control labs

measures, and mechanisms to guarantee the satisfaction of stakeholder expectations throughout all stages of dasheen production.					
6. To develop a resource management plan which empowers the reference framework for the organization and allocation of human, material, and technological resources according to the expectations and operational requirements of the project.	Resource Management Plan	Primary: Farm records, Scholarly journal articles Secondary: Books and articles	Qualitative: Participant observations Inductive–Deductive	RAM, Resource histogram	Small workforce and limited machinery availability

7. To build a communication management plan to ensure timely, transparent, and effective engagement of stakeholders through appropriate channels, enabling active participation throughout project planning and implementation.	Communication Management Plan	Primary: Meeting notes, Scholarly journal articles Secondary: Books and articles	Quantitative: Structured interviews Qualitative: Inductive–Deductive	Stakeholder engagement matrix	Rural connectivity issues may hinder communication
8. To create a risk management plan that identifies potential threats and opportunities, and provides appropriate strategies and tools for minimizing adverse impacts	Risk Management Plan	Primary: Field interviews, reports Secondary: Books and articles	Quantitative: Structured interviews Qualitative: Field observations Inductive–Deductive	Risk register, SWOT analysis	Natural disasters or new pests could unpredictably affect operations

while enhancing resilience in farm operations.					
9.To develop a procurement management plan that defines the policies and procedures for acquiring necessary inputs and services, emphasizing cost-effectiveness, timeliness, and the use of environmentally responsible (green) procurement practices.	Procurement Management Plan	Primary: Farm reports, purchase orders, scholarly journal articles Secondary: Books and articles	Quantitative: Structured interviews Qualitative: Inductive–Deductive	Market research, Procurement statement of work	Few suppliers meet green procurement or delivery timelines
10. To produce a stakeholder management plan that outlines strategies for identifying, analyzing,	Stakeholder Management Plan	Primary: Stakeholder feedback, field interviews, Scholarly journal articles Secondary:	Quantitative: Stakeholder interviews Qualitative: Inductive–Deductive	Stakeholder analysis, Power/Interest grid	Varying levels of commitment and availability among stakeholders

and engaging stakeholders who have influence over or interest in the success of the Wilson Farm project, fostering collaboration and shared ownership.		Books and articles			
11. To develop a comprehensive project closure plan that defines clear criteria for evaluating deliverables, completing final reviews, and obtaining stakeholder acceptance, while also establishing a continuous lessons-learned process carried out throughout all project	Project Closure Plan	Primary: Interview Secondary: Books and articles	Qualitative: Structured interviews Qualitative: Inductive–Deductive	Lessons learned register	Limited availability of stakeholders for interviews and time constraints during the project's final phase.

phases to ensure formal project completion and support Wilson Farm's long-term operational sustainability.					
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22. Validation of the work in the field of regenerative and sustainable development.

Sustainable development is defined as development that meets present needs without compromising the ability of future generations to meet their own needs, balancing economic growth, environmental protection, and social equity (Mensah, 2019). This concept was operationalized through the Sustainable Development Goals (SDGs), established by the United Nations in 2015 as a comprehensive framework to guide inclusive, equitable, and environmentally responsible development through 2030. The 17 interconnected goals represent a universal call to action to eradicate poverty, protect the planet, and ensure prosperity for all (Atapattu et al., 2024). They encourage governments, private actors, and civil society to adopt integrated approaches that consider the long-term implications of development choices. In agriculture, sustainable development emphasizes efficient resource use, climate resilience, equitable livelihoods, and market access priorities that are especially important for rural communities dependent on farming for food security and income generation.

The Wilson Farm project, which aims to establish a sustainable dasheen farming operation in Lauders, St. Vincent and the Grenadines, demonstrates a strong alignment with these principles. It directly supports SDG 1 (No Poverty) by generating employment, building skills, and improving market access for local farmers. It addresses SDG 2 (Zero Hunger) by increasing the availability and nutritional quality of dasheen, a culturally significant crop, while also contributing to SDG 3 (Good Health and Well-being) through the use of organic, low-input farming methods that reduce exposure to harmful agrochemicals. The project integrates gender inclusivity in line with SDG 5 (Gender Equality), ensures responsible water use and pollution prevention consistent with SDG 6 (Clean Water and Sanitation), and advances SDG 8 (Decent Work and Economic Growth) through green jobs and value-added processing. By promoting equitable participation for marginalized groups, it also supports SDG 10 (Reduced Inequalities). Its waste reduction, composting, and resource efficiency initiatives address SDG 12 (Responsible Consumption and Production), while climate-resilient techniques such as cover cropping and conservation tillage contribute to SDG 13 (Climate Action). Efforts to protect biodiversity and rehabilitate soils strengthen alignment with SDG 15 (Life on Land), and collaboration with cooperatives, suppliers, and institutions reflects SDG 17 (Partnerships for the Goals).

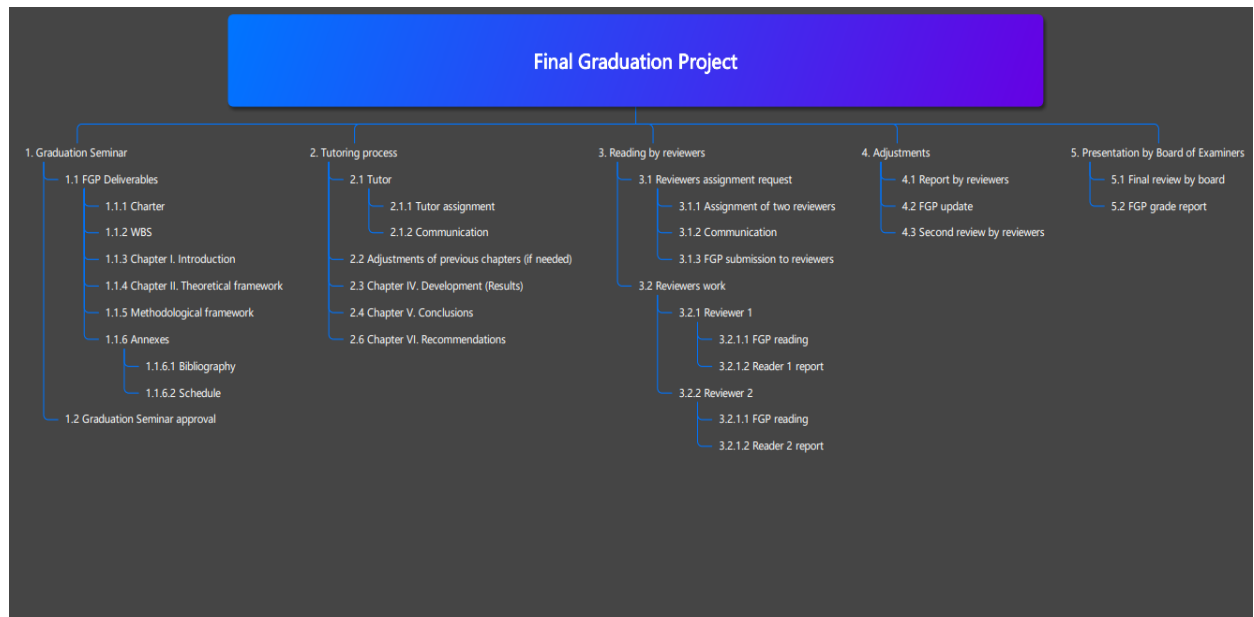
While sustainable development emphasizes maintaining systems in a viable state, regenerative development moves beyond this to actively restore and enhance the capacity of ecological, social, and economic systems to thrive. Mang and Reed (2020) describe it as a co-evolution of human and natural systems that fosters continuous improvement over time, while Müller (2017) identifies six interlinked

dimensions: regeneration of functional landscapes, social strengthening, well-being-oriented economies, conservation of living culture, participatory governance, and deep ethical values that promote harmony with nature. In agricultural contexts, regenerative development focuses on improving soil fertility, enhancing biodiversity, strengthening community resilience, and fostering transparent, adaptive governance.

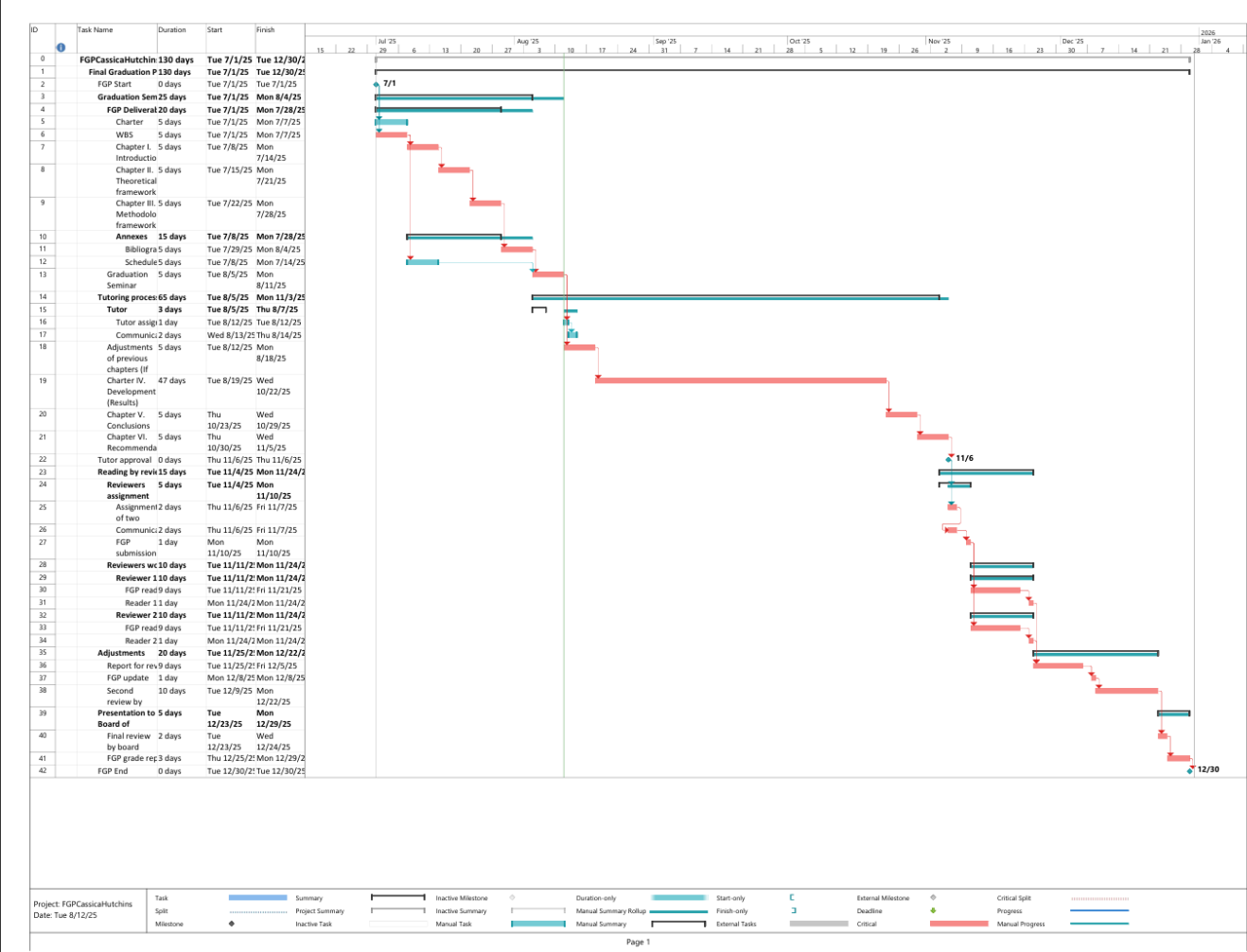
The Wilson Farm project embodies these regenerative principles through integrated pest management, agroforestry, water conservation, and soil restoration, all of which actively enhance ecosystem function. Social systems are strengthened through fair labor practices, inclusive decision-making, and equitable access to training opportunities. Economic resilience is fostered by diversifying markets, sourcing locally, and adding value through processing, in line with a well-being-oriented economic model. Cultural vitality is preserved by integrating traditional dasheen cultivation methods and engaging local knowledge holders, while governance integrity is ensured through environmental, social, and governance (ESG) reporting, stakeholder engagement, and transparent decision-making processes. Potential adverse impacts, such as habitat disturbance or unequal participation, are mitigated through conservation zoning, inclusive leadership, and documented procedures.

The project's progress toward sustainable and regenerative outcomes can be measured using simple, locally manageable indicators that reflect environmental health, social well-being, economic resilience, cultural vitality, and governance transparency. Environmental indicators could include visual and basic soil tests for organic matter, observation of pollinator presence as a proxy for biodiversity, and records of water use per crop yield. Social well-being may be tracked through the proportion of women and youth involved in farm activities and participation counts in informal training sessions or workshops. Economic resilience can be monitored by recording the number of market outlets supplied, the share of sales from value-added products, and the percentage of inputs sourced from local suppliers. Cultural vitality may be assessed by noting the extent to which traditional dasheen cultivation methods are maintained alongside modern techniques. Governance transparency can be evaluated through the frequency of community meetings, discussions with cooperative partners, and documented feedback from stakeholders.

Appendix 2: FGP WBS



Appendix 3: FGP Schedule



Appendix 4: Preliminary Bibliographical Research

Association for Project Management (APM). (2025). Agile and hybrid working: Best practices for sustainable delivery. <https://www.apm.org.uk>

Use: This guide supports the justification for using a hybrid project approach at Wilson Farm, combining structure and flexibility in project execution.

Atapattu, A. J., Ranasinghe, C. S., Nuwarapaksha, T. D., Udumann, S. S., & Dissanayaka, N. S. (2024). Sustainable agriculture and sustainable development goals (SDGs). In J. Garwi, R. Masengu, & O. T. Chiwaridzo (Eds.), *Emerging technologies and marketing strategies for sustainable agriculture* (pp. 1–27). IGI Global.

Use: This work focuses on the relationship between sustainable agriculture and the Sustainable Development Goals (SDGs).

CARDI. (2023). Post-harvest quality management and export recovery for dasheen. Caribbean Agricultural Research and Development Institute. <https://www.cardi.org>

Use: This institutional source provides data on efforts to restore export capacity for dasheen through improved post-harvest practices, relevant to Wilson Farm's operational improvements.

Cooke, E. (2023). Over 30,000 pounds of Dasheen exported from SVG to Florida. St Vincent Times. <https://www.stvincenttimes.com/st-vincent-exports-30000-lbs-taro-dasheen-florida-us/>

Use: This article demonstrates the growing international demand for dasheen from St. Vincent, reinforcing the economic incentive to improve productivity and reliability in local supply chains.

Cooke, J. (2023, August 19). Vincentian dasheen in demand across export markets. Searchlight Newspaper. <https://www.searchlight.vc>

Use: Used to highlight current market trends and international demand for dasheen, supporting the economic rationale for the project.

FAO. (2022). Climate risk management strategies for smallholder agriculture in the Caribbean. <https://www.fao.org>

Use: This report provides strategies for building agricultural resilience, relevant to climate adaptation practices proposed in the Wilson Farm plan.

FAO. (2023). Eastern Caribbean root crops program update. <https://www.fao.org>

Use: Supports regional efforts to strengthen dasheen value chains, validating institutional attention to root crop development.

FAO. (2024). Hot pepper production initiative in St. Vincent and the Grenadines. <https://www.fao.org>

Use: Provides a model for how strategic planning has helped other crops thrive, serving as a case study for the dasheen project.

George, C. (2020). Understanding the Concept of Project Termination in the Management of Projects. *International Journal of Science and Research (IJSR)*, 9(3), 107–111. <https://doi.org/10.21275/SR20302094445>

Use: This study explores challenges in closing poorly managed projects. It highlights the importance of planning for successful delivery and completion.

GPM Global. (2020). *Sustainable project management: The GPM practice guide* (3rd ed.). GPM Global.

Use: The sustainable project management practice guide.

Gutterman, A. (2023). *Essentials of project management*. Global Edge Publishing.

Use: Provides a comprehensive overview of project structures and roles, informing the basic framework of the Wilson Farm Project Management Plan.

Huemann, M., Keegan, A., & Turner, J. R. (2024). *Managing projects in a complex world*. Springer.

Use: This book helps explain the selection of appropriate project development approaches, especially for hybrid projects in uncertain environments.

IICA. (2022). *Agriculture and climate resilience in St. Vincent and the Grenadines*. <https://www.iica.int>

Use: Offers statistics and context on agriculture's contribution to GDP and the impact of climate change on farming systems in SVG.

Julien, C. (2021, September 4). OECS farmers expand dasheen trade with Trinidad. Searchlight Newspaper. <https://www.searchlight.vc>

Use: Used to support the growth of intra-Caribbean trade and the need for quality and supply chain control in dasheen production.

Julien, J. (2021). St Vincent dasheen for T&T market. <http://www.guardian.co.tt/news/st-vincent-dasheen-for-tt-market-6.2.1315076.76e074d997>

Use: Highlights regional demand and stresses the importance of supply consistency, which is addressed through structured planning in the project.

Kerzner, H. (2025). *Project Management: A Systems Approach to Planning, Scheduling, and Controlling*. John Wiley & Sons.

Use: A foundational resource for planning, scheduling, and cost control. It supports the development of the project's work plan and controls.

Kholodova, M., & Podgorskaya, S. (2020). Application of project management tools in agriculture. *International Journal of Agricultural Management*, 9(3), 102–110.

Use: Shows how project management methods can be tailored to agricultural settings, directly influencing the structure of the dasheen project.

Kimagut, A., & Makokha, G. (2023). Impact of project planning on performance of agricultural projects. *African Journal of Project Management*, 14(1), 23–34.

Use: Demonstrates how planning and monitoring improve agricultural project outcomes, reinforcing the rationale for applying formal management practices.

Kimagut, S., & Makokha, E. (2023). Project Management Practices on Success of Agricultural Projects at Sony Sugar Company.
<https://doi.org/10.5281/ZENODO.8383618>

Use: Offers data on the success factors in agricultural project management, helping to shape best practices for Wilson Farm.

Landau, L. (2024). *Project management tools: Types, benefits and examples*. ProjectManager. <https://www.projectmanager.com/blog/project-management-tools>

Use: Highlighted Project management tools.

LaSur, L. Y. (2023). St Vincent Dasheen exporters receive post-harvest management training. *St Vincent Times*. <https://www.stvincenttimes.com/fao-conducts-training-on-dasheen-post-harvest-handling-svg/>

Use: Covers institutional training for dasheen handlers, validating the importance of including post-harvest practices in the project scope.

Lewis, J. P. (2022). *Fundamentals of project management* (6th ed.). AMACOM.

Use: Clarifies both the scientific and human aspects of project management, including planning tools and leadership roles.

Makara, J. (2021). Climate change and agricultural sustainability in the Caribbean. *Journal of Climate Resilience*, 8(2), 45–59.

Use: Describes the challenges facing Caribbean farmers, helping to frame the environmental context of Wilson Farm's operations.

Malsam, W. (2025). *What are project deliverables? Definition, examples & tips*. ProjectManager. <https://www.projectmanager.com/blog/project-deliverable>

Use: Highlighted project deliverables.

Mang, P., & Reed, B. (2020). Regenerative development and design. In *Sustainable Built Environments* (pp. 115–141). Springer. https://doi.org/10.1007/978-1-0716-0684-1_303

Use: Discusses regenerative design.

Marucci, G. (2020). Linking behavior and performance: A project domain framework. *Project Perspectives*, 42, 29–34.

Use: Connects performance domains to project outcomes, reinforcing the use of PMI's 7th edition domains in managing Wilson Farm's FGP.

Mensah, J. (2019). *Sustainable development: Meaning, history, principles, pillars, and implications for human action: Literature review*. *Cogent Social Sciences*, 5(1), 1653531. <https://doi.org/10.1080/23311886.2019.1653531>

Use: It provides foundational information about sustainable development.

Müller, E. (2017). *Regenerative development, the way forward to saving our civilization* [PDF]. University for International Cooperation. Retrieved from https://www.ucipfg.com/Repositorio/GSPM/manuales/Regenerative_development_EM.pdf

Use: It focuses on regenerative development as a new paradigm of development.

Newcastle University. (2024). *Research methods*. Newcastle University Library Guides. <https://www.ncl.ac.uk/library/resources-and-study-support/subject-support/research-methods>

Use: The website provided information about research methods.

OECS, C. (2023, February 28). Dasheen declared the ‘Blue Gold’ Crop of St Vincent and the Grenadines. The Organisation of Eastern Caribbean States.
<https://pressroom.oecs.int/dasheen-declared-the-blue-gold-crop-of-st-vincent-and-the-grenadines>

Use: Affirms dasheen’s value for rural livelihoods and economic resilience, further justifying the creation of a professional project plan.

OECS. (2023). Dasheen declared Blue Gold crop in Eastern Caribbean.
<https://www.oecs.org>

Use: Recognizes dasheen as a strategic crop in the OECS, lending policy support to the farm’s mission and justification for structured management.

Plattfaut, R. (2022). On the Importance of Project Management Capabilities for Sustainable Business Process Management. *Sustainability*, 14(13), 7612.
<https://doi.org/10.3390/su14137612>

Use: Connects strong project management to sustainability, a core value of the Wilson Farm initiative.

Project Management Institute. (2021). A guide to the project management body of knowledge (PMBOK® Guide) (7th ed.). Project Management Institute.

Use: Core resource for principles and performance domains, guiding the design and implementation of the entire management plan.

Project Management Institute. (2023). Process groups: A practice guide. Project Management Institute.

Use: Explains how process groups align with execution phases, supporting the sequencing of the Wilson Farm project plan.

RUAF. (2021). Resilient urban and peri-urban agriculture for food security in the Caribbean. <https://www.ruaf.org>

Use: Provides strategies for building local food resilience and reducing reliance on imports, supporting the food security goals of the project.

St. Vincent Times. (2024, March 12). SVG on the brink of food insecurity—Minister of Agriculture. St. Vincent Times. <https://www.stvincenttimes.com>

Use: Highlights the urgency of food insecurity in SVG, reinforcing the relevance of Wilson Farm to national food security strategies.

Times Staff. (2024, March 12). UBEC CERC Food Insecurity Project supports small farmers. St. Vincent Times. <https://www.stvincenttimes.com>

Use: Provides examples of input support programs and training, emphasizing the importance of structured farm-level planning.

University of Minnesota. (2025). *Primary, secondary, and tertiary sources*. University Libraries. <https://libguides.umn.edu/primary>

Use: This website provided Information about sources.

Voora, V., Larrea, C., & Bermudez, S. (2022). Sustainability frameworks for agriculture. International Institute for Sustainable Development (IISD).

Use: Provides tools and frameworks to integrate sustainability into agricultural initiatives like Wilson Farm.

Voora, V., Larrea, C., Huppé, G., & Nugnes, F. (2022). Increasing Investments in Sustainable Agriculture (IISD's State of Sustainability Initiatives Review, pp. 1–8). International Institute for Sustainable Development (IISD). <https://www.jstor.org/stable/resrep40491.5>

Use: Promotes the long-term value of sustainability-focused agricultural investment, directly relevant to project goals.

Wheelen, T. L., Hunger, J. D., Hoffman, A. N., & Bamford, C. E. (2018). Strategic management and business policy: Globalization, innovation, and sustainability (15th ed.). Pearson.

Use: Defines business strategy and the relationship between strategy, portfolios, and projects. Helps categorize Wilson Farm's initiative appropriately.

World Bank. (2025). What is food security?

<https://www.worldbank.org/en/topic/agriculture/brief/food-security-update/what-is-food-security>

Use: Defines food security and its components, used to frame Wilson Farm's role in national food availability and stability.

Appendix 5: Change Request

		Change Request Format	
Version 1.0	Document	dd/mm/yyyy	

Project Name:			
Request by:			
Issue Date:		Change ID	

Change Request (Please explain the reasons why change requesting):	
Expected impact:	Priority ()
	High ()
	Medium ()

Areas Affected	

Comments

Resolution		Final Status
		Approved ()
		Denied ()
Project Manager Signature	Date:	
Decision Maker Signature	Date:	

Appendix 6: Monthly Report

		Monthly Report	
Version 1.0		Document ID	dd/mm/yyyy

Project Name:	
Issued by:	
Issue Date	

CPI		% Project Complete		AC	
SPI		Planned Completion		CV	

Description of Monthly updates	
Reason for Delays	
Corrective Actions	
Other Information	
Meeting Participants	
Name	Signature

Appendix 7: Project Quality Control

		Project Quality Control	
Version 1.0		Document ID:	Dd/mm/yyyy

Project Name:			
Project Objective:			
Date		Inspection No.	

Requirement id	
-----------------------	--

Description	Acceptable Criteria

Findings	Resolution
	Approved ☐
	Rejected ☐

Comments	
Supervised by:	PM approval

Appendix 8: Risk Register

		Risk Register	
Version 1.0		Document ID:	Dd/mm/yyyy

Project Name:			
Project Objective:			
Status	Approved ()	Denied ()	Change ID:

Please describe the risk found in the following table

RBS Code	Cause	Risk	Consequence	Probability	Impact	Pxl

Please assess the risk based on the results obtained in the Pxl and compare them within the following table

Priority	Score	Strategy	Description
Very High Risk			
High Risk			
Medium Risk			
Low Risk			

Does the risk require planning a response	Yes	No
If yes, please describe the response proposed:		

Appendix 9: Certificate of Review



NORTHERN CARIBBEAN UNIVERSITY

A Seventh-day Adventist Institution

MAIN CAMPUS
Manchester Rd. Mandeville P.O. , Manchester, Jamaica, W.I.

December 12, 2025

Academic Advisor,
Masters Degree in Project Management,
Universidad para la Cooperacion Internacional (UCI)

Dear Academic Advisor:

RE: Thorough Review and Proofreading of Final Graduation Project Submitted by CASSICA HUTCHINS in Partial Fulfilment of the Requirement for the Masters in Project Management (MPM) Degree

I hereby confirm that **CASSICA HUTCHINS** has made all the corrections to the Final Graduation Project document as I have advised. In my opinion, the document now meets the literary and linguistic standards expected of a student for a degree at the Masters level.

Respectfully,
Rhonda Kareen Harrison, PhD,
Acting Chair, Department of Humanities,
Assistant Professor, Literatures in English
Northern Caribbean University

Appendix 10: Credential



THE UNIVERSITY OF THE WEST INDIES

Rhonda Harrison

having completed the Course of Study approved
by the University and having satisfied the
Examiners, has this day been admitted by the
Senate to the Degree of

**DOCTOR OF PHILOSOPHY
IN
LITERATURES IN ENGLISH**

July 22, 2015

DATE

[Signature]

VICE-CHANCELLOR

[Signature]

UNIVERSITY REGISTRAR