

UNIVERSIDAD PARA LA COOPERACION INTERNACIONAL
(UCI)

PROJECT MANAGEMENT PLAN FOR THE SMALL RURAL FARMERS
DEVELOPMENT PROGRAMME IN PARAGUAY

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

Asunción, Paraguay

August 2020

UNIVERSIDAD PARA LA COOPERACION INTERNACIONAL
(UCI)

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

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DEDICATION

In the first place, I am thankful to God for giving me the opportunity to achieve my dream goal of a Master's Degree.

I also dedicate this work to my family: my parents, Berta and Guillermo, who always stand by me; and my brother and sister, Willy and Lore, who always encourage me in my endeavors.

Finally, I am deeply thankful to Jorge, my co-worker and partner, for supporting me in all my projects.

ACKNOWLEDGMENTS

I would like to acknowledge my tutor, Juan Camilo Delgado, of the Global School of Project Management of the University for International Cooperation, for his patience and guidance.

I am deeply grateful to the Organization of American States and the University for International Cooperation for their sponsorship and support throughout these two years of tireless work.

In like manner, I would not have been able to finish this work without the backing and advice of my UNOPS colleagues and supervisors, and the experience they have brought into the table. I specially thank my colleagues in Paraguay, who I dare to call my friends: Alejandro, Silvana, Pablo, Veronica, Diana, Ulises, Manuel, Ruben, Marcelo, Sara, Maggie, Beatriz, Cynthia, Jorge, Analía, and Don Julio (the boss). Moreover, I would like to extend my gratitude to colleagues in Latin America and the Caribbean and the reviewers from Headquarters that helped me with this task and taught me how to improve my work daily.

Working for UNOPS served to root my passion for Project Management. Without my team, I am sure I would not be where I am today.

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ABBREVIATIONS AND ACRONYMS

BAU	Business as usual
CAN	National Agricultural Census
DNCP	National Directorate of Public Procurement
FGP	Final Graduation Project
GVA	Gross Value Added
MAG	Ministry of Agriculture and Livestock
MIC	Ministry of Industry and Commerce
OPA	Organizational Process Assets
PGF	Project governance framework
PM	Project Manager
PMBOK® Guide	Guide to the Project Management Body of Knowledge
PMM	Project Management Manual of UNOPS
PRINCE2®	Projects in Controlled Environments
RBS	Risks Breakdown Structure
SDG	Sustainable Development Goal
STP	Technical Planning Secretariat
ToRs	Terms of Reference
TSs	Technical Specifications
UCI	University for International Cooperation
UGP	Union of Production Guilds
UN	United Nations
UNOPS	United Nations Office for Project Services
WB	World Bank
WBS	Work Breakdown Structure

EXECUTIVE SUMMARY (ABSTRACT)

The Small Rural Farmers Development Programme is a project led by the government of Paraguay, through the Ministry of Agriculture and Livestock, sponsored by ITAIPU and implemented by UNOPS. This Programme is focused on the development of plots of lands for small farmers and sowing labor, intended to expand the yield capacity of rural families that live under the poverty line.

The most prominent issue facing family agriculture projects in Paraguay is the lack of a project management plan. In essence, the scope management plan is not validated, and the requirements are subject to constant change. Resources are limited and, due to bureaucracy in the negotiations, funds are not normally timely disbursed. Consequently, the schedule varies and the implementation of activities are always “under construction”, leaving to one side the agricultural regular schedule of crops, and resulting in lower land productivity. Quality is severely affected; the project implementer is not able to plan or control quality, since human resources are the ones causing the changes that arise every week. Resources are not planned; they are allocated according to the need of the moment. There is no risk management, but a permanent evaluation of the mitigating actions required for the issues impacting project activities. Besides, there is lack of coordination among stakeholders to facilitate the commercialization of the agricultural products, because there is not a stakeholder’s management plan. The absence of a project management plan affects the efficiency and traceability of the intervention.

For that reason, this project aims to develop a comprehensive plan to allow for a coordinated, inter-institutional, efficient, and transparent implementation of the project, by the adoption of best project management and agricultural practices, and lessons learned. The goal of this plan is to increase the small rural farmers’ income and provide them with commercial tools for an upgrade to exit poverty.

The general objective of the project is to develop a comprehensive Project Management Plan for the Small Rural Farmers Development Programme in Paraguay to provide the MAG with an effective and efficient methodology to strengthen family agriculture on a sustainable and innovative manner. The specific objectives are the following: to create a project charter to formally authorize the project and develop a comprehensive project management plan; to construct a scope management plan to ensure that the cost planning, resource allocation, and stakeholder engagement are executed appropriately during the project life; to design a schedule management plan to ensure that the project planning fits the preapproved time frame; to create a cost management plan to ensure that the project has a sustainable cash flow and adequate funds are allocated to the project; to develop a quality management plan to ensure the project meets the acceptance standards of the project

stakeholders; to draft a resources management plan for the project to ensure a proper allocation of human resources and infrastructure; to identify the risks of the project and develop a risk management plan to better approach the possible issues and mitigate the risks the project team might encounter during the implementation of activities; to create a procurement management plan to establish a sustainable and efficient procurement of goods and services; to create a stakeholder management plan to ensure the proper identification, categorization, and participation of programme stakeholders; and to create a communication management plan to ensure a seamless communication among stakeholders and promote the project results publicly.

The primary research methodology for this project is a case study. The availability of previous similar cases provides know-how and a framework that aligns perfectly with this applied research. The explanatory method for research was followed. The main sources used to gather information included the PMBOK® Guide, and interviews and questionnaires to members from the wide variety of stakeholders. The information was analyzed from the best practices and lessons learned perspective in order to create each subsidiary plan of the Project Management Plan. With the Project Management Plan, ITAIPU and the MAG have a tool to deliver a multiyear project for poverty reduction successfully, on time and within budget, with minor adjustments, and without external assistance. According STP's forecast, after three years of implementation, the intervention would become sustainable and beneficiaries will no longer need government support. Beneficiaries will achieve independence and find their way out of the poverty and extreme poverty thresholds.

1. INTRODUCTION

1.1. Background

According to WB Country Diagnostic (2018), 41% of the Paraguayan population lives in rural areas and 39.7% is below the rural poverty line of the country (urban poverty in the same year was of 29.6%). These figures can be explained by the great inequality in income distribution and land tenure.

In Paraguay, there are approximately 264,000 farms dedicated to family farming, according to the latest National Agricultural Census (CAN, 2008). Agricultural land reaches 54% of the total national territory. This represents more than 80% of the total agricultural activity of the country. However, the value added per worker to agricultural activity in Paraguay is equivalent to 58% of the value in Brazil, 31% of the value in Uruguay, and 24% in Argentina, which sets the country's relative lag within the region.

The Paraguayan family farming subsector is characterized by low productivity and has very limited access to land, capital, and technology. Its main production items show, in general, stagnant yields, which are the product of erosion processes and loss of soil fertility, loss of biodiversity, and decrease in the quantity and quality of water resources. This has determined that the GVA of the family subsector grows at a rate 50% lower than the GVA of the agricultural business subsector.

In this context, the government of Paraguay, through the MAG, has started to invest in strengthening the small rural farmers' labor (UNOPS, 2017). Since 2014, the effort was focused on the development of plots of lands for small farmers and cleaning labors. Subsequently, the government sponsored farming diverse food crops, such as manioc, corn, bean, pea, and peanut. During the last three years, diversification, land regeneration, conservation agriculture, and reforestation have been encouraged.

Nonetheless, the Small Rural Farmers Development Programme in Paraguay has lately portrayed certain inefficiencies that have resulted in several operational setbacks.

The project location is defined in the map of the country in Figure 1. The project is implemented in the country at a national level, in 60 rural settlements, in 31 districts, in 6 departments of the country, with precarious accesses.



Figure 1. Map of project implementation regions. Source: Compiled by author.

1.2. Statement of the problem

The greatest obstacle facing family agriculture in Paraguay is the lack of clarity concerning public policies. The Ministry of Agriculture and Livestock does not have a long-term plan to address agricultural challenges. As a consequence, there is no project management plan to ensure the traceability and efficiency of interventions related to family agriculture.

Low availability of resources and delay in the disbursements of funds can be observed in government actions toward family agriculture. These factors affect the tight agricultural calendar the project must follow. In essence, the scope

management plan is not validated, and the requirements are subject to constant change.

In addition, resources are limited and, due to bureaucracy in the project negotiations, funds are not normally timely disbursed. Consequently, the schedule varies and the implementation of the activities are always “under construction”, leaving to one side the agricultural regular schedule of crops, and resulting in lower parcel productivity. The agricultural calendar is crucial to deliver quality products, since climate and soil conditions directly impact production.

As the scope management plan is not validated and requirements constantly change, cost also varies. Planned costs differ from the real cost at the time of implementation, considering the costs of the goods and supplies for planting crops are higher after the growing season. Procurement is performed according to the needs of the stakeholders and is not planned in advance, causing delays. Quality is severely affected year after year. The implementation office is not able to plan or control quality, since human resources are the ones causing the changes that arise every week.

Resources are not planned; they are allocated according to the need of the moment.

There is not a Risk management plan, but a permanent evaluation of the mitigating actions required for the issues impacting project activities.

Besides, there is lack of coordination to facilitate the commercialization of the agricultural products among the stakeholders, since there is not a stakeholder’s management plan. Although there is a “Commerce” department in the MAG, their role is incipient.

The MAG is only focused on the production of farm crops, but not on the formalization of SMEs or on supporting the commercialization of such products. Furthermore, there is no coordination among government institutions, as the Ministry of Industry and Commerce is not involved in the commercialization component of the project.

Lastly, the lack of accessibility restrains commercialization. Rural farmers are located in very distant areas and do not count with proper regular transportation

to commercialize their products. These products have a short lifespan and they perish before they can be sold.

The focus of this study will be to develop a project management plan to organize and improve the operational structure of the Small Rural Farmers Development Programme. Due to the project characteristics, it is necessary to provide a comprehensive management tool useful to justify any decision made by the national government to implement a given policy, covering all the knowledge areas.

1.3. Purpose

The project aims to design and develop a comprehensive plan for small rural farmers who practice family agriculture in order to ensure the traceability and efficiency of interventions related to family agriculture.

This project management plan will allow for a coordinated, inter-institutional, efficient, and transparent implementation of the project, by the adoption of best project management and agricultural practices, and lessons learned. The goal of this plan is to increase the small rural farmers' income and provide them with commercial tools for an upgrade to exit poverty.

The plan will provide stakeholders with a sustained action scheme to reduce risks and minimize the impact of the challenges that cause a reduction in family agriculture production. Additionally, the project will promote multiyear interventions to bolster agricultural production associations and SMEs, by integrating them to markets and regional value chains. This integration can be accomplished through services and inputs, and it can consolidate technological modernization, increase productivity, and improve income for rural families.

1.4. General objective

To develop a comprehensive Project Management Plan for the Small Rural Farmers Development Programme in Paraguay to provide the MAG with an effective and efficient methodology to strengthen family agriculture on a sustainable and innovative manner.

1.5. Specific objectives

1. To create a project charter to formally authorize the project and develop a comprehensive project management plan.

2. To construct a scope management plan to ensure that the cost planning, resource allocation, and stakeholder engagement are executed appropriately during the project life.
3. To design a schedule management plan to ensure that the project planning fits the preapproved time frame.
4. To create a cost management plan to ensure that the project has a sustainable cash flow and adequate funds are allocated to the project.
5. To develop a quality management plan to ensure the project meets the acceptance standards of the project stakeholders.
6. To draft a resources management plan for the project to ensure a proper allocation of human resources and infrastructure.
7. To identify the risks of the project and develop a risk management plan to better approach the possible issues and mitigate the risks the project team might encounter during the implementation of activities.
8. To create a procurement management plan to establish a sustainable and efficient procurement of goods and services.
9. To create a stakeholder management plan to ensure the proper identification, categorization, and participation of programme stakeholders.
10. To create a communication management plan to ensure a seamless communication among stakeholders and promote the project results publicly.

2. THEORETICAL FRAMEWORK

2.1. Company/Enterprise Framework

The Small Rural Farmers Development Programme is a project led by the MAG in Paraguay. The project is currently funded by ITAIPU Binacional and implemented by UNOPS. However, the National Government is gradually taking the responsibility of its implementation by strengthening local capacities.

2.1.1. Company/Enterprise Background

The MAG is the institution governing the country's agrarian policy. It manages all the projects and programmes related to agriculture and livestock funded by the National General Budget and international cooperation agencies.

2.1.2. Mission Statement

The mission statement of the MAG is to contribute to the sustainable agricultural development of the country by means of its efficient, innovative, and inclusive institutional services (MAG, 2019).

2.1.3. Vision Statement

As the governing institution of the country's agrarian policy, the vision of the MAG in relation to the Small Rural Farmers Development Programme is to acquire know-how based on best practices and the lessons learned from UNOPS, in order to allow the internal dependencies implement of all activities.

The adoption of a comprehensive Project Management Plan will allow the MAG to achieve its goal, by optimizing resources, improving quality, and reinforcing the internal competence of the institution.

2.1.4. Organizational Structure

The organizational structure—also known as the project governance framework—with defined roles and responsibilities is crucial for the successful implementation of the project. According to Aliza, Stephen, and Bambang (2011), the PGF ensures that the decision makers in a project are answerable and accountable to the involved stakeholders, and the decision making is transparent to avoid any ethical issues that could arise.

In this project, the organizational structure is comprised of a wide variety of stakeholders from different sectors. The MAG and ITAIPU Binacional, in their roles of client and sponsor, control the decision making.

The structure depicted in Figure 1, reflects how the MAG and ITAIPU Binacional are related to the other stakeholders.

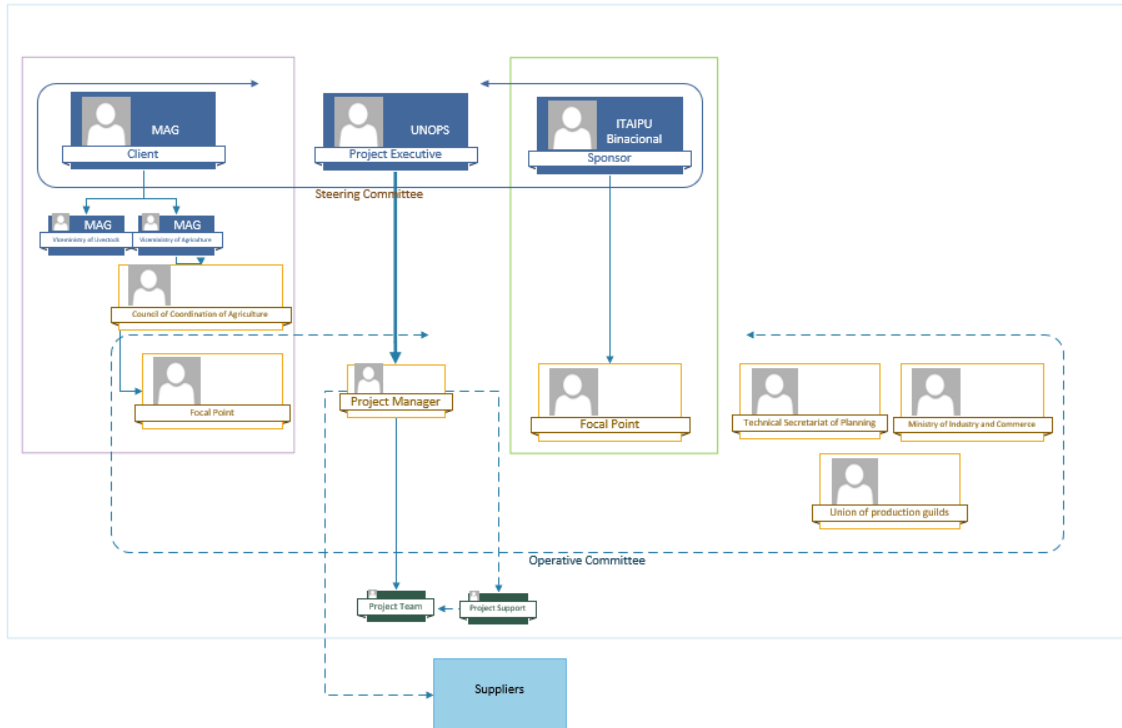


Figure 2. Organizational structure. Source: Compiled by author.

The directing authority is the Ministry of Agriculture and Livestock, which designated the Directorate of Agricultural Extension to represent the MAG and act as focal point. The Directorate of Agricultural Extension coordinates the activities among the local and departmental technicians in the field.

ITAIPU, the sponsor, participates via a Technical Focal Point appointed by the General Director. They monitor and control the expenditure and the implementation of the activities in the field.

UNOPS leads the Steering Committee and is responsible for the project plan. Besides, UNOPS implements the project activities in the field through the Project Manager and his/her team.

The Operating Committee is led by the Project Manager, with the participation of the MAG, ITAIPU Binacional, and other relevant stakeholders with technical expertise, such as the STP, MIC, and UGP.

2.1.5. Products Offered

Through the Small Rural Farmers Development Programme, the MAG offers a wide variety of products to the final users. The main interventions spearheaded by the MAG include:

- Mechanized seeding service by means of conventional soil conditioning services through liming, cross harrow, leveling harrow and mechanized seeding with fertilizer application.
- Mechanized seeding service of soils through conservation agriculture practices by means of elevation marking, elevation curves, knife roller, liming, herbicide application, and mechanized seeding applying fertilizer.
- Supply of goods for crops, such as seedlings, seeds, fertilizers, and tools.
- Services for SMEs' formalization and organizational strengthening.
- Land monitoring service.
- Services for diversification, such as forest conditioning, preparation, and farming of fast growing species, for biomass and wood production; planting and maintenance of native species; self-subsistence cropping, and green manure.

2.2. Project Management Concepts

To develop a comprehensive Project Management Plan for the Small Rural Farmers Development Programme, it is important to establish the conceptual framework of Project Management.

The key concepts outlined hereafter relate to Project Management, the project life cycle, process groups, and knowledge areas. Similarly, the concepts of Family Agriculture and Agricultural calendar will be addressed for the reader to gain a deeper understanding of the subject matter of this project.

2.2.1. Project

The PMBOK® defines projects as “a temporary endeavor undertaken to create a unique product, service or result” (PMI, p.4). In PRINCE2® (2009), a project is defined as “a temporary organization that is created for the purpose of delivering one or more business products according to an agreed Business Case” (Axelos, p. 15).

The key characteristics included in the concept of *project* are temporality; uniqueness of the products, service, or result; the idea of change, and the creation of value.

For the purposes of this research, the project shall be a Project Management Plan proposal for the MAG's Small Rural Farmers Development Programme.

- Temporality: The proposed Project Management Plan for the Small Rural Farmers Development Programme is time-bound for the period of one year, from August 2020 to July 2021, in accordance with the agricultural calendar (MAG, 2020).
- Uniqueness of products, service, or result: The result of this project is unique, since the Small Rural Farmers Development Programme does not have a Project Management Plan for its implementation.
- Idea of change: The successful implementation of the Project Management Plan for the Small Rural Farmers Development Programme will change the MAG's work methodology with regard to family agriculture.
- Creation of value: The successful implementation of the project will create value for the country, enabling families under the poverty line to produce and commercialize agricultural products, contributing to the improvement of their quality of life.

2.2.2. Project Management

Project management is defined as “the application of knowledge, skills, tools, and techniques to project activities to meet the project requirements” (PMI, 2017, p. 10).

Project management is possible through the synchrony of 47 project management processes during the five process groups of the project life cycle. Even though the project is currently being implemented through an organized office (UNOPS) with a clear methodology, the lack of organization of the main stakeholders (MAG and ITAIPU Binacional) and the constant changes cause a poor quality process. This Project Management Plan will serve as a guide for stakeholders on best practices and lessons learned, which, in turn, will foster

internal and interinstitutional cohesion, optimization of resources, and effectiveness.

Project management is different from management of business as usual (BAU) activity, which is an ongoing process. For PRINCE2® (2009) “it [project management] involves creating new work packages to achieve agreed ends or goals” (Axelos, p. 17).

2.2.3. Project Life Cycle

The project life cycle is defined as “the series of phases that a project passes through from its start to its completion” (PMI, 2017, p. 19).

According to the PMBOK® and PRINCE®, most projects follow the stages that are proposed in Figure 2. It is important to mention that the project stages are considered process groups for the PMI. Each process group shall be analyzed in the section Project Management Process.

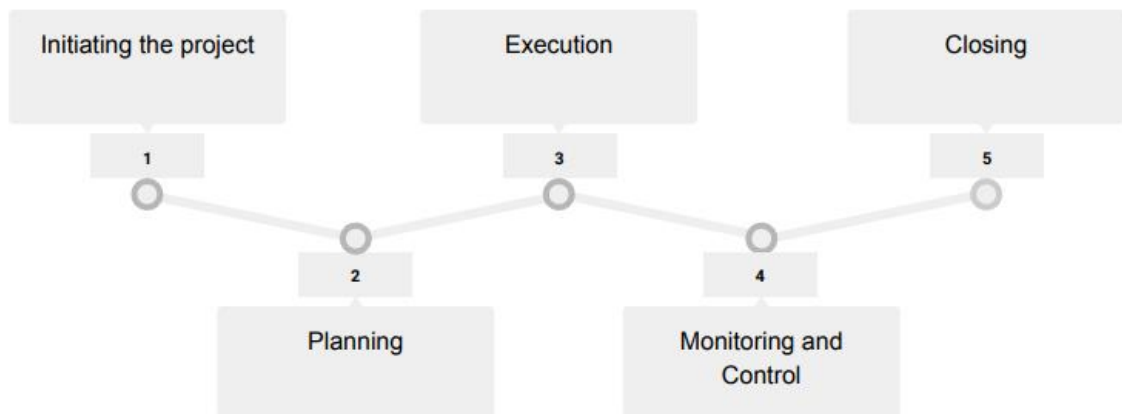


Figure 3. Project Stages (PRINCE®) or project processes (PMBOK®). Source: Compiled by author.

For the purpose of this study to create a Project Management Plan for the Small Rural Farmers Development Programme, the Initiating and Planning stages or processes shall be developed.

2.2.4. Project Management Processes

According to the PMBOK®, Project management processes fall into five groups (PMI, 2017, p.23):

2.2.4.1 Initiating: In this stage, the project manager defines what the project will achieve and realize, working with the project sponsor and stakeholders to agree on deliverables.

For this project, the author shall work together with the project sponsor and the other stakeholders to collect the requirements, establish the baseline, and develop the Project Management Plan.

2.2.4.2 Planning: During this phase, the project manager records the tasks and assigns deadlines for each, stating the relationships and dependencies between each activity. This will allow the PM to plan according to the needs of the project.

For this project, the author will develop a plan for each knowledge area, and will integrate the plans to provide a useful tool for the project implementation.

2.2.4.3 Executing: During execution, the project manager builds the project team and also collects and allocates the resources and budget available to specific tasks. All the implementation of the activities is performed.

2.2.4.4 Monitoring and Controlling: In this stage, the project manager oversees the progress of project work and updates the project plans to reflect actual performance.

2.2.4.5 Closing: Lastly, the project manager ensures the outputs delivered by the project are accepted by the business and closes down the project team.

The Executing, monitoring and controlling, and closing processes lie outside the scope of this project.

2.2.5. Project Management Knowledge Areas

Processes are categorized by time and knowledge areas. Knowledge areas are conceptualized by the PMBOK® Guide as “an identified area of project management defined by its knowledge requirements and described in terms of its component processes, practices, inputs, outputs, tools, and techniques”. (PMI, 2017, p.23):

Project management knowledge draws on ten areas:

2.2.5.1 Project Integration Management: This knowledge area includes the processes and activities to identify, define, combine, unify and coordinate the various processes and project management activities within the Project Management Process Groups.

2.2.5.2 Project Scope Management: This knowledge area includes the processes required to ensure that the project includes the work required, and only the work required, to complete the project successfully.

2.2.5.3 Project Schedule Management: This knowledge area includes the processes required to manage the timely completion of the project.

2.2.5.4 Project Cost Management: This knowledge area includes the processes involved in planning, estimating, budgeting, financing, funding, managing and controlling costs so the project can be completed within the approved budget.

2.2.5.5 Project Quality Management: This knowledge area includes the processes necessary to incorporating the organization quality policy regarding planning, managing and controlling project and product quality requirements, in order to meet stakeholders' expectations.

2.2.5.6 Project Resource Management: This knowledge area includes the processes to identify, acquire, and manage the resources needed for the successful completion of the project.

2.2.5.7 Project Communication Management: This knowledge area includes the processes required to ensure timely and appropriate planning, collection, creation, distribution, storage, retrieval, management, control, monitoring, and ultimate disposition of project information.

2.2.5.8 Project Risk Management: This knowledge area includes the processes of conducting risk management planning, identification, analysis, response planning, response implementation and monitoring risk on a project.

2.2.5.9 Project Procurement Management: This knowledge area includes the processes necessary to purchase or acquire products services, or results needed from outside the project team.

2.2.5.10 Project Stakeholder Management: This knowledge area includes the processes required to identify the people, groups, or organizations that could impact or be impacted by the project, to analyze stakeholders' expectations and

their impact on the project, and to develop appropriate management strategies for effectively engaging stakeholders in project decisions and execution.

Processes and knowledge areas interact to allow the PM to manage the project accordingly. In Table 1, the mapping of the interaction processes/knowledge areas can be observed.

In this research, the author shall develop a comprehensive project management plan that includes the ten knowledge areas.

Table 1. Project Management Process Group and Knowledge Area Mapping. Source: PMBOK® 2017

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

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

2.3.1. Family Agriculture in Paraguay

Family farming in Paraguay is the agricultural activity in which the basic resource of labor is the family group, its production is primarily for self-consumption and partially commercial. The family group completes their income by way of other artisanal or off-farm productions. (CDE, Decidamos, Oxfam y SEPA, 2011).

The National Government of Paraguay aims at the harmonious and integral development of family farming, through actions that seek to create conditions to develop rural communities, increase the competitiveness of farms in rural areas, and reactivate the peasant economy, in an environment of cooperation and good relations with business producers.

Last year, the government issued legal regulations that seek to link Paraguayan family farming production into the value chain generated by public procurement:

- Decree 3.000/2015. "By which the complementary modality of procurement named Simplified Process for Purchasing Agricultural Products from Family Agriculture is established and applicable criteria for the procurement and selection processes are set".

- DNCP Resolution 2915/2015. "By which the regulation that establishes the mechanism for the application of the qualification requirements for purchasing from family agriculture producers registered in the MAG established in article 17 inc. [sub-section] a) of Decree No. 3000 dated January 27, 2015 is approved".

These regulations are setting the foundation that will make it possible for rural farmers to market their products.

2.3.2. The Agricultural Calendar

In family-based agriculture, families observe the agricultural calendar to grow their crops. The agricultural calendar is studied and updated according to climate variations, year after year, by the MAG.

The Project Management Plan for the Small Rural Farmers Development Programme will adhere to the agricultural calendar in order to guarantee the plan applicability and effectiveness.

3. METHODOLOGICAL FRAMEWORK

3.1. Information Sources

The Merriam-Webster dictionary defines *information* as “knowledge obtained from investigation, study, or instruction”, and *source* as a point of origin or initiation (Merriam-Webster, n.d.). By extension, an information source is an investigation, study, or instruction that acts as a point of origin or initiation for knowledge.

For this research project, primary and secondary sources will be used.

3.1.1. Primary Sources

Primary Sources are “immediate, first-hand accounts of a topic, from people who had a direct connection with it” (Haeley Library, n.d.). Primary sources can include: texts of laws and other original documents; newspaper reports, by reporters who witnessed an event or who quote people who did; speeches, diaries, letters, and interviews—what the people involved said or wrote, original research, datasets, survey data, such as census or economic statistics, photographs, video, or audio that capture an event.

For the development of this project, the primary information sources that will be used are:

- Meeting minutes,
- Personal interviews with relevant stakeholders of the MAG, UNOPS, ITAIPU Binacional, the STP, the UGP, MIC, rural farmers, and providers of agricultural services, and;
- Documental research.

The specific primary sources that will be used are listed below in Table 2.

3.1.2. Secondary Sources

Secondary Sources are “one step removed from primary sources, though they often quote or otherwise use primary sources” (Haeley Library, n.d.). They can cover the same topic, but add a layer of interpretation and analysis. Secondary sources can include: most books about a topic, analysis or interpretation of data, scholarly or other articles about a topic, especially by people not directly

involved, documentaries (though they often include photos or video portions that can be considered primary sources).

For this project, the secondary sources consulted are:

- MAG and UNOPS databases,
- PMBOK® Guide and related literature studies on project management on internet.

The specific secondary sources that will be used are listed below in Table 2.

Table 2. Information sources. Source: Compiled by author.

Objectives	Information sources	
	Primary	Secondary
1. To create a project charter to formally authorize the project and develop a comprehensive project management plan.	Meeting minutes of interviews with MAG representative and the project sponsor (ITAIPU)	MAG and UNOPS databases of lessons learned, the PMBOK® Guide
2. To construct a scope management plan to ensure that the cost planning, resource allocation, and stakeholder engagement are done appropriately during the project life.	Meeting minutes of interviews with PM of UNOPS, and focal points from the project stakeholders (MAG, STP, UGP, MIC, and ITAIPU)	UNOPS agricultural closed project plans, the PMBOK® Guide
3. To design a schedule management plan to ensure that the project planning fits the preapproved time frame.	MAG agricultural calendar, agricultural experts' recommendations	UNOPS budget database, the PMBOK® Guide
4. To create a cost management plan to ensure that the project has a sustainable cash flow and adequate funds are allocated to the project.	Market research. Questionnaires and communications with focal points of the MIC, rural farmers and providers of agricultural services	MAG market records, the PMBOK® Guide
5. To develop a quality management plan to ensure the project meets the acceptance standards of the project stakeholders.	Meeting minutes of interviews with focal points from the MAG, ITAIPU, STP, the UGP, MIC, rural farmers and providers of agricultural services	UNOPS quality standards manual, the PMBOK® Guide

6. To draft a resources management plan for the project to ensure a proper allocation of human resources and infrastructure.	Meeting minutes of interviews with Regional HR experts. UNOPS Quality Management System	MAG and UNOPS lessons learned on previous agricultural projects, the PMBOK® Guide
7. To identify the risks of the project and develop a risk management plan to better approach the possible issues and mitigate the risks that the project team might encounter during activities implementation.	Brainstorming sessions with project team. Questionnaires and communications with providers of agricultural services	UNOPS risk logs of previous similar projects, the PMBOK® Guide
8. To create a procurement management plan to establish a sustainable and efficient procurement of goods and services.	UNOPS Procurement Manual	PMBOK® Guide
9. To create a stakeholder management plan to ensure the proper identification, categorization, and participation of programme stakeholders.	Meeting minutes of Operating Committee meeting in which focal points from the MAG, STP, MIC, UGP, and ITAIPU participated	PMBOK® Guide
10. To create a communication management plan to ensure a seamless communication among stakeholders and promote the project results publicly.	Meeting minutes of interviews with press specialists of UNOPS, ITAIPU, and MAG	UNOPS Branding manual, the PMBOK® Guide

3.2. Research Methods

The research method is a strategy of inquiry. According to Williams (2007), “the fundamental principles of posteriori and priori knowledge are the theoretical underpinnings to quantitative and qualitative research methods. Each research method is designed to explore specific research questions and attempts to address the postpositivist approach of challenging the traditional belief of absolute truth” (p. 65).

Quantitative research “describes, infers, and resolves problems using numbers. Emphasis is placed on the collection of numerical data, the summary of those

data and the drawing of inferences from the data” (Herbst, F. & Coldwell, D. (2004) p.15).

Qualitative research, on the other hand, is based on “words, feelings, emotions, sounds and other non-numerical and unquantifiable elements” (Herbst, F. & Coldwell, D. (2004) p.13).

Qualitative research is a holistic approach that involves discovery (Williams, 2007, p.67). The object of study is framed in a qualitative study and involves purposeful use for describing, explaining, and interpreting collected data. For the purposes of this research, qualitative methods such as, interviews and documental analysis will be used for data collection.

There are several approaches to qualitative research considering the nature of this project. However, considering the features of this project, the researcher opted for a case study approach.

With respect to research design, depending on the purpose of research, scientific research projects can be grouped into three types: exploratory, descriptive, and explanatory (Bhatacherjee, 2012). The present research is explanatory, since it aims at exploring a target research area and proposing a solution for an actual problem.

Also, quantitative analysis was performed when analyzing statistical data from previous similar projects implemented by UNOPS and data provided by the Government, such as, quantity of stakeholders, broken down by sex, income level, per area, and costs of services and supplies, hectares, services provided, and profitability.

3.2.1. Case Study

In a case study, the “researcher explores in depth a program, an event, an activity, a process, or one or more individuals” (Creswell. 2003. p. 15). According to Bhatacherjee (2012) “the case research method is particularly appropriate for exploratory studies for discovering relevant constructs in areas where theory building [is] at the formative stages, for studies where the experiences of participants and context of actions are critical, and for studies aimed at understanding complex, temporal processes rather than factors or causes” (p.94). This method is well-suited for studying complex organizational

processes that involve multiple participants and interacting sequences of events, such as organizational change and large-scale technology implementation projects.

In this research, the case study is a project named Small Rural Farmers Development Programme, that has a defined timeframe and it is located in a specific place. The researcher spends time interacting with the stakeholders and reports best practices and lessons learned that connect with theories. Previous projects related to agriculture, that were implemented by UNOPS, that were taken into consideration for the case study are “Soil preparation, mechanized planting and training of small producers for family farming” (2015-2016), “Soil preparation and mechanized sowing of small producers for family farming Third Stage” (2016-2017), “Modernization and Technification of Family Farming with a Conservation Agriculture Approach, Stage 4” (2017-2018), “Modernization of Family Farming with a Conservation Agriculture Approach, integration to value chains and financial strengthening” (2018-2019) and “Integral development of the paraguayan family farming-DIAFPA / ITAIPU” (2019-2020).

3.2.2. Explanatory Research

Explanatory research seeks to explain observed phenomena, problems, or behaviors. While descriptive research examines the what, where, and when of a phenomenon, explanatory research seeks answers to why and how types of questions. It attempts to “connect the dots” in research, by identifying causal factors and outcomes of the target phenomenon. (Bhatacherjee, 2012, p.5).

In this case, the phenomenon of interest is a project implemented by the MAG. The researcher aims to detail the processes and activities that best fit the Small Rural Farmers Development Programme, optimizing the resources.

Table 3. Research Methods. Source: Compiled by author.

Objectives	Research methods	
	Qualitative research	
	Qualitative	Quantitative
1. To create a project charter to formally authorize the project and provide the project manager with the	Interviews with the PM and analysis	Compared study between interviews with the PM and

authority to apply organizational resources to the project and develop the project management plan.		project charter of past agricultural projects
2. To construct a scope management plan to ensure that the cost planning, resource allocation, and stakeholder engagement are executed during the project life.	Observations, interviews with stakeholders, and documents from previous similar projects analyzed according to the case	Analysis of the proposed scope and the actual capacities of the stakeholders to implement the project. Statistical data from previous similar projects implemented by UNOPS and data provided by MAG and STP, such as, quantity of stakeholders, broken down by sex, income level, per area, and costs of services and supplies, hectares, services provided, and profitability
3. To create a cost management plan to ensure that a more sustainable cash flow and adequate funds are allocated to the project.	Budget, market study and documents from previous similar projects' analysis	Compared study between the budget and the funds available. Statistical analysis of land use, agricultural services and profitability of the land
4. To draft a schedule management plan to ensure that the project planning fits the preapproved time frame.	Schedule interviews and with beneficiaries analysis	Study of the schedule and proposed activities in relation to the agricultural calendar
5. To develop a quality management plan to ensure the project meets the acceptance standards of the project stakeholders.	Stakeholders' expectations collected by surveys	Analysis of expectations against scope
6. To draft a resources management plan for the project to ensure a proper human resources and infrastructure allocation.	Interviews with the PM and analysis	Analysis of resources available

7. To draft a risk management plan to better approach the possible issues and risks of the project activities.	Interviews with the PM and analysis	Quantitative risk analysis
8. To create a procurement management plan to establish a sustainable and efficient procurement of goods and services.	Interviews with the PM and analysis	Procurement analysis in relation with funds available and schedule
9. To create a stakeholder management plan to ensure that the proper identification, categorization, and participation of programme stakeholders.	Stakeholders' interviews	Study of stakeholders' expectations. Statistical analysis of data from previous projects, of quantity of stakeholders, broken down by sex, income level and land availability
10. To create a communication management plan to ensure a seamless communication among stakeholders and promote the project results publicly.	Interviews with the PM and analysis	Study of communication expectations

3.3. Tools

When referring to tools and techniques in Project Management, Milošević, D. & Ieşwongcharoen, B. (2004) cite the Merriam-Webster's definition: "something (as an instrument or apparatus) used in performing an operation or necessary in the practice of a vocation or profession". In this context, they define tools and techniques as "systematic procedures or practices that are used for producing specific project management deliverables (Milosevic, 2003)". The use of proper tools highly impacts project success. In order to guarantee the utility of the project results, this project uses the tools recommended by the PMBOK® Guide. The tools used for this research are identified for each objective in Table 4.

Table 4. Tools. Source: Compiled by author.

Objectives	Tools
1. To create a project charter to formally authorize the project and provide the project manager with the authority to apply organizational	<ul style="list-style-type: none"> • Expert judgement, • data gathering, • meetings, • Project Charter template, and

resources to the project and develop the project management plan.	<ul style="list-style-type: none"> • Project Management Plan template
2. To construct a scope management plan to ensure that the cost planning, resource allocation, and stakeholder engagement are executed during the project life.	<ul style="list-style-type: none"> • Expert judgement, • data gathering, • meetings, • product analysis, • Requirements traceability matrix template, • Requirements Documentation template, • Requirements Management Plan template, • Work Breakdown Structure, and • Scope Management Plan template
3. To create a cost management plan to ensure that a more sustainable cash flow and adequate funds are allocated to the project.	<ul style="list-style-type: none"> • Expert judgement, • data gathering, • meetings, • project management information system, • historical information, • funding, • data analysis, • Cost Management Plan template, • Budgeting template, and • Cost Baseline template
4. To draft a schedule management plan to ensure that the project planning fits the preapproved time frame.	<ul style="list-style-type: none"> • Expert judgement, • data gathering, • meetings, • decomposition, • project management information system, • data analysis, • Schedule Management Plan template, and • Activity List template
5. To develop a quality management plan to ensure the project meets the acceptance standards of the project stakeholders.	<ul style="list-style-type: none"> • Expert judgement, • data gathering, • meetings, • Quality Management Plan template, and • Quality Management tools (Checklists)
6. To draft a resources management plan for the project to ensure a proper human resources and infrastructure allocation.	<ul style="list-style-type: none"> • Expert judgement, • data gathering, • meetings, • project management information system, • Human Resource Management template, and • Responsibility Assignment Matrix

<p>7. To draft a risk management plan to better approach the possible issues and risks of the project activities.</p>	<ul style="list-style-type: none"> • Expert judgement, • data gathering, • meetings, • data representation, • Risk breakdown structure, • Risk Management Plan template, and • Risk Register template
<p>8. To create a procurement management plan to establish a sustainable and efficient procurement of goods and services.</p>	<ul style="list-style-type: none"> • Expert judgement, • data gathering, • meetings, • data representation, • source selection analysis, and • Procurement Management Plan template
<p>9. To create a stakeholder management plan to ensure that the proper identification, categorization, and participation of programme stakeholders.</p>	<ul style="list-style-type: none"> • Expert judgement, • data gathering, • meetings, • data representation, • Stakeholder Management Plan template, • Stakeholder Analysis Chart, • Stakeholder Register template, and • Stakeholder Engagement Assessment Matrix
<p>10. To create a communication management plan to ensure a seamless communication among stakeholders and promote the project results publicly.</p>	<ul style="list-style-type: none"> • Expert judgement, • data gathering, • meetings, • Communication Management Plan template, and • Communication Matrix

3.4. Assumptions and constraints

Assumptions are “factors that, for planning purposes, are considered to be true, real, or certain without proof or demonstration” (PMI, 2008, p. 148). For Kinser (2010), the PMI confirms a relation between assumptions and risks with the technique “Assumptions Analysis in the Identify Risks” process, which is said to “explore the validity of assumptions based on inaccuracy, instability, inconsistency, and incompleteness”.

A constraint is “the state, quality, or sense of being restricted to a given course of action or inaction. An applicable restriction or limitation, either internal or external to the project, that will affect the performance of the project or a

process” (PMI, 2008, p. 421). For Kozy (2010), constraints are different from risks because the causes of each constraint are certain and have either a 100% probability of occurring or no probability of occurring. Even though the PMBOK® Guide proposes a triple constraint “time – cost – scope”, Siegelaub (2007) includes quality, benefits, and risk in an enhanced constraints/tolerances model for project control, based on PRINCE2®.

The assumptions and constraints for the project in this study are related to scope, time, cost, risk, and quality. They are identified for each objective in Table 5.

Table 5. Assumptions and constraints. Source: Compiled by author.

Objectives	Assumptions	Constraints
1. To create a project charter to formally authorize the project and provide the project manager with the authority to apply organizational resources to the project and develop the project management plan.	PM will be available to cooperate.	Limited time and budget
2. To construct a scope management plan to ensure that the cost planning, resource allocation, and stakeholder engagement are executed during the project life.	The project scope will be defined and accepted by the stakeholders.	Limited time and budget
3. To create a cost management plan to ensure that a more sustainable cash flow and adequate funds are allocated to the project.	Funding source is interested in the project.	Limited budget
4. To draft a schedule management plan to ensure that the project planning fits the preapproved time frame.	Project is developed on time.	Tight agricultural calendar
5. To develop a quality management plan to ensure the project meets the acceptance standards of the project stakeholders.	Stakeholder requirements are clearly defined.	Highly demanding requirements from stakeholders

6. To draft a resources management plan for the project to ensure a proper human resources and infrastructure allocation.	Roles and responsibilities are assigned to project team to cover all the project activities.	Reduced team to implement project
7. To draft a risk management plan to better approach the possible issues and risks of the project activities.	Lessons learned guarantee low probability of occurrence of risks.	Limited contingencies to approach issues
8. To create a procurement management plan to establish a sustainable and efficient procurement of goods and services.	All goods and services will be procured locally.	Limited supplier availability in the field due to remote location
9. To create a stakeholder management plan to ensure the proper identification, categorization, and participation of programme stakeholders.	All stakeholder requirements will be identified along with their level of interest.	Stakeholders' requirements and level of interest may change.
10. To create a communication management plan to ensure a seamless communication among stakeholders and promote the project results publicly.	Communication is effective among stakeholders.	Some communication methods may not be available.

3.5. Deliverables

The PMBOK® Guide (2017) defines a Deliverable as “any unique and verifiable product, result or capability to perform a service that is required to be produced to complete a process, phase, or project” (p.154).

The Deliverables of this research are the operational plans of the comprehensive project management plan for the Small Rural Farmers Development Programme, related to the 10 knowledge areas: integration, scope, cost, time, quality, resources, risk, procurement, stakeholders, communication. The detailed list of deliverables is below in Table 6.

Table 6. Assumptions and constraints. Source: Compiled by author.

Objectives	Deliverables
1. To create a project charter to formally authorize the project and develop a comprehensive project management plan.	Project Charter

<p>2. To construct a scope management plan to ensure that the cost planning, resource allocation, and stakeholder engagement are executed appropriately during the project life.</p>	<p>Scope management plan: stakeholders' identification, Roles and Responsibilities, Requirements management plan, Traceability matrix, Scope Statement, Work Breakdown Structure (WBS) and WBS Dictionary.</p>
<p>3. To design a schedule management plan to ensure that the project planning fits the preapproved time frame.</p>	<p>Schedule management plan: activity list, activity attributes, milestone list, detailed project schedule, and rules of performance measurement.</p>
<p>4. To create a cost management plan to ensure that the project has a sustainable cash flow and adequate funds are allocated to the project.</p>	<p>Cost management plan: cost estimates, basis of estimates and cost baseline, and rules of performance measurement.</p>
<p>5. To develop a quality management plan to ensure the project meets the acceptance standards of the project stakeholders.</p>	<p>Quality management plan: quality metrics, quality report system, and Traceability matrix.</p>
<p>6. To draft a resources management plan for the project to ensure a proper allocation of human resources and infrastructure.</p>	<p>Resources management plan: team charter, resources requirements, resource breakdown structure, resources calendar, and recruitment plan.</p>
<p>7. To identify the risks of the project and develop a risk management plan to better approach the possible issues and mitigate the risks the project team might encounter during the implementation of activities.</p>	<p>Risks management plan: risk breakdown structure, risk strategy, methodology, probability/impact matrix, risk register, and roles and responsibilities.</p>
<p>8. To create a procurement management plan to establish a sustainable and efficient procurement of goods and services.</p>	<p>Procurement management plan: procurement timetable, procurement metrics, roles and responsibilities, procurement strategy, bid documents, and source selection criteria.</p>
<p>9. To create a stakeholder management plan to ensure the proper identification, categorization, and participation of programme stakeholders.</p>	<p>Stakeholder engagement plan: stakeholder register, classification, and expectations matrix.</p>
<p>10. To create a communication management plan to ensure a seamless communication among stakeholders and promote the project results publicly.</p>	<p>Communication management plan: stakeholder communication requirements, methods, and communications in crisis.</p>

4. RESULTS

In order to successfully implement the Small Rural Farmers Development Programme, this project will include a comprehensive Project Management Plan proposal, which will comprise all the processes of the Initiating and Planning process groups.

The Executing, Monitoring and Controlling, and Closing process groups exceed the nature of the project and will not be covered.

The approved Project Charter is in Appendix 1.

4.1. Scope Management Plan

ITAIPU Binacional has contracted UNOPS to deliver the Small Rural Farmers Development Programme for the MAG. After the meetings with the main stakeholders (ITAIPU Binacional and MAG), it has been agreed that the project scope statement shall be drafted by the Project Developer assigned by UNOPS. The project scope statement shall be submitted for review to the Operating Committee of the Project, and the final version, submitted for approval to the Steering Committee.

MAG requires UNOPS to develop the WBS according to the field needs communicated by the Field Managers in a Lessons Learned workshop. The WBS proposal will be validated by the Operating Committee of the Project.

The purpose of the Scope Management Plan is to detail the structured and repeatable process that is used to define, monitor, control, and verify the scope of the work components identified in the Work Breakdown Structure.

4.1.1. Roles and Responsibilities

The stakeholders and their roles are agreed as in Table 7. The main stakeholders are ITAIPU, MAG and UNOPS, who guide the project for the small rural farmers carrying out family agriculture.

Table 7. Roles and responsibilities of stakeholders. Source: Compiled by Author.

Entity	Role	Responsibilities
ITAIPU Binacional	Sponsor	Finance the project Make business decisions for the project Approve the project budget Ensure availability of resources Communicate the project actions

MAG	Client	Define TS and ToRs for goods and services to be procured Monitor and report field situation Receipt of goods and services as quality comptrollers of the project deliverables Provide feedback
UNOPS	Implementer	Develop project plan Manage deliverables according to the plan Recruit human resources Lead work packages' implementation Manage and control project schedule, risks, quality, and scope Provide regular updates to other stakeholders
UGP	Technical/political assistance	Contribute to overall project objectives with technical assistance Provide expertise Quality assurance
MIC	Technical assistance	Contribute to overall project objectives with technical assistance Provide expertise Quality assurance
STP	Technical assistance	Contribute to overall project objectives with technical assistance Provide expertise Quality assurance
Suppliers	Providers	Provide goods and services to the project
Rural Farmers	Beneficiaries	Receipt of services as final users of the project deliverables Provide feedback

In order to ease the decision-making process, the governance structure of the project in Figure 1 is validated by the stakeholders.

The Operating Committee of the Project is the entity in charge of approving the baseline and changes that are proposed during the project life cycle. It is agreed that exceptional changes that exceed the agreed tolerances would require the approval of the Steering Committee.

The acceptance of the deliverable will be performed by the Operating Committee of the Project on a quarterly basis, after the submission of the UNOPS's Report. The final formal acceptance is the responsibility of the Steering Committee after the submission of the final Report of the project.

With regard to the specific activities of the project, the roles and responsibilities agreed are detailed in Tables 7 and 8.

Table 8. Roles and responsibilities and interpretation guide. Source: Compiled by author.

Guide of Roles and Responsibilities	
R	Responsible
A	Accountable
C	Consult
I	Inform
Q	Quality Assurance

1	Contracting services process	ITAIPU	MAG	UNOPS
1.1	Preparation of ToRs		R	
1.2	Finalization of ToRs	I	I	R
1.3	Preparation of Book of Terms and Conditions			R
1.4	Receipt and evaluation of tender bids			R
1.5	Recommendation of award			R
1.6	Communication of Recommendation of award	I	I	R
1.7	Award and contract signature			R
1.8	Administration of the contract			R
1.9	Monitoring and technical evaluation	Q	Q	R
1.10	Approval of reports	Q	A	R
1.11	Payments			R
2	Procurement of goods	ITAIPU	MAG	UNOPS
2.1	Preparation of the list of goods		R	
2.2	Preparation of detailed technical specifications		R	
2.3	Finalization of technical specifications	I	I	R
2.4	Preparation of Book of Terms and Conditions			R
2.5	Receipt and evaluation of tender bids			R
2.6	Recommendation of award			R

2.7	Communication of Recommendation of award	I	I	R
2.8	Award and contract signature			R
2.9	Inspection and logistics		C	R
2.10	Customs transit			R
2.11	Follow up to destination			R
2.12	Receipt of goods	Q	A	R
2.13	Payments			R
3	Trainings	ITAIPU	MAG	UNOPS
3.1	Preparation of Training Plan	I	R	
3.2	Selection of candidates for training	I	R	
3.3	Identification of appropriate programmes	I	R	
3.4	Colocation			R
3.5	Transportation			R
3.6	Financial arrangement for institution			R
3.7	Supervision of academic performance	I	R	
3.8	Logistic support and insurance			R
4	Financial State and General Administration	ITAIPU	MAG	UNOPS
4.1	Deposit of the funds required to cover the costs according to the Agreement, including administrative fee	R		I
4.2	Maintaining the separate ledger account for Project funds			R
4.3	Registration of interest and payments			R
4.4	Review of progress against the work plan and agreement on the necessary revisions to the Project	I	I	R
4.5	Final Financial Statement	A		R
4.6	Closure of accounts and return of unused balance	I		R

4.1.2. Requirements Management Plan

For the Requirements Management Plan requested by ITAIPU and MAG, there are project requirements and product requirements. The project requirements

were identified by the Operating Committee of the Project to ensure its completion and success criteria, and are included in this section.

The product requirements that are identified to meet the technical specifications of each project product will be covered afterwards in section 4.4 Quality Management Plan.

4.1.2.1. Requirements Activities

MAG requires UNOPS to develop the requirement activities based on the WBS validated by the Operating Committee of the Project. Besides, the members of the Steering Committee shall be consulted in order to align the success criteria to the institutional mission and vision.

All activities related to configuration management, such as changes initiation, impacts analysis, impacts trace and reporting should be developed by the Project Manager in consultation with the Operating Committee of the Project.

The documentation of the project is kept in the Drive Folder for its version control. All the stakeholders have access to the folder. The versions with changes must be identified by dates and proponent of the change.

Prior to its submission to the Operating Committee of the Project, the Project Manager must submit to change control of the quality reviewers assigned by UNOPS, if are likely to impact project scope, time, and/or cost.

Requirements prioritization would be performed by the Operating Committee of the Project on a monthly basis, considering the Project Manager proposal.

4.1.2.2. Metrics and Rationale for its Use

The Metrics of the requirements of the management plan are dynamic and may vary upon request and approval of the Project's Operating Committee. Initially, they are chosen according to the proposed goals and objectives by the main stakeholders (ITAIPU Binacional and MAG) in Table 9.

Table 9. Metric Requirements. Source: Compiled by author.

N°	Metric	Type of Metric	Review method	Frequency	Acceptance criteria	Responsible
1	Quantity of supplies acquired and	Product	FieldSight	Once, after award of contract at moment of	Purchase supplies for sowing 10,000 ha.	Supervisors

	distributed (seeds, fertilizers, herbicides, lime, and others)			delivery		
2	Quantity of hectares sowed per item	Product	FieldSight	Daily	Sow 10,000 ha. of crops.	Supervisors
3	Quantity of hectares cleared through topping, for the application of mechanized seeding of new plots	Product	FieldSight	Daily	Clear 4,000 ha.	Supervisors
4	Quantity of hectares mechanized through the application of conventional practices and conservation agriculture	Product	FieldSight	Daily	Mechanize 6,000 ha.	Supervisors
5	Amount of the Budget allocated per assigned line	Project	ERP + GoogleData Studio	Weekly	Spend a maximum of USD 4,922,000 in total	PM

6	Activities implemented according to Schedule	Project	Our Project	Monthly	Implement 100% of planned activities within 12 months of project.	PM
7	Quantity of rural farmers and total number of families benefited from the Project	Product	FieldSight	Weekly	Support 10,000 small rural farmers with agricultural services.	PM
8	Quantity of women involved in rural labors benefited from the project	Project	FieldSight	Weekly	Involve at least 5,000 women in agricultural works.	PM
9	Percentage of the group of extreme poverty and poverty after 1 year of sustained assistance in the project	Project	FieldSight	Every six month	Provide commercial tools to 2,500 "graduated" beneficiaries	PM
10	Quantity of rural MSMEs trained and formalized	Product	FieldSight	Every six month	Train and formalize at least 2,500 rural MSMEs.	Supervisors
11	Quantity of MSMEs integrated	Product	FieldSight	Every six month	Integrate at least 2,500 rural MSMEs	Supervisors

	into value chains				into the market.	
12	Quantity of participants in technical training of the stakeholders involved in the project	Product	FieldSight	Monthly	Train at least 1,000 technicians of MAG	Supervisors

4.1.2.3. Requirements Traceability Matrix

As a result of a joint analysis, the Requirements Traceability Matrix is developed in Table 10. The Project Manager is responsible of monitoring and controlling the progressive achievement of the goals reflected in the requirements traceability matrix, with the support of the supervisors and local field monitors.

Tolerances are the acceptable deviation from planned parameters, and in the Small Rural Farmers Development Programme, the accepted deviation of the planned parameters is of 5%.

Table 10. Requirements Traceability Matrix. Source: Compiled by author.

N°	Requirement Description	Measure unit	Goal	Tolerance
1	Percentage of supplies acquired and distributed	%	10,000	+/-5%
	Seeds	Ha	10,000	+/-5%
	Fertilizers	Ha	10,000	+/-5%
	Herbicides	Ha	10,000	+/-5%
	Lime	Ha	10,000	+/-5%
2	Quantity of hectares cleared through topping, for the application of mechanized seeding of new plots	Ha	4,000	+/-5%
3	Quantity of hectares mechanized through the application of conventional practices and conservation agriculture	Ha	6,000	+/-5%

4	Amount of the Budget allocated per assigned line	\$	4,922,000	-5%
5	Percentage of activities implemented according to Schedule	%	100	+/-5%
6	Quantity of rural farmers' families benefited from the Project	Unit	10,000	+/-5%
7	Quantity of people benefited from the Project	Unit	40,000	+/-5%
8	Quantity of women involved in rural labors benefited from the project	Unit	5,000	+/-5%
9	Percentage of the extreme poverty and poverty groups after 1 year of sustained assistance from the project	%	25	+/-5%
10	Quantity of rural MSMEs trained and formalized	Unit	2,500	+/-5%
11	Quantity of MSMEs integrated into value chains	Unit	2,500	+/-5%
12	Quantity of people involved in the training	Unit	1,000	+/-5%

4.1.3. Scope Definition

As a result of planning the scope management and collecting requirements, the Project Scope Statement is drafted in Table 11. It is important to mention that the scope of the project is to elaborate the plan, based on best practices and lessons learned of the. The plan might suffer changes and adapt according the circumstances during the different stages of the implementation.

For the MAG point of view, by providing better productive conditions with sustainable practices of agriculture, the quality of life of rural farmers will be improved. The services provided include clearing of parcels and sowing, with a complete technological package of supplies (fertilizers, coal, seeds, among others) and machinery suitable for the works, within the proper time of the agricultural calendar.

The follow up of the growing process is responsibility of the farmers who receive the project assistance. Farmers should monitor the growing process and alert the technicians of MAG in case of issues.

Besides, the project will provide the tools to develop capacities by training and formalization of the rural farmers association, to allow them to commercialize legally their production and start sustainable MSMEs. Also, technicians of MAG will have training on agricultural techniques while monitoring the works in the field.

During harvest, the new MSMEs will be encouraged to commercialize and engagement will be facilitated through exhibitions and socialization, with the assistance of MIC and UGP.

Table 11. Project Scope Statement. Source: Compiled by author.

Product Scope Description	The Small Rural Farmers Development Programme aims to improve the quality of life of 10,000 small rural farmers practicing family agriculture in rural areas of Paraguay, by promoting better production conditions that allow for the application of sustainable agricultural practices and integration into value chains for poverty reduction.	
Project Deliverables	<ol style="list-style-type: none"> 1. Clearing 4,000 hectares through topping, for the application of mechanized seeding of new plots. 2. Mechanized planting of 6,000 hectares through the application of conventional practices and conservation agriculture. 3. Training and formalization of 15 rural MSMEs for their integration into value chains. 4. Capacity development of the stakeholders involved in the project through technical training days. 	
Project Acceptance Criteria	Procurement contracting	Supplies (seeds, fertilizers, herbicides, lime, and others) for planting 10,000 hectares
	Services contracting	10,000 hectares cleared and farmed with inputs purchased by the project
	Beneficiaries	10,000 families benefited, encompassing a population of 40,000 inhabitants
	Training and Formalization	2,500 new MSMEs with trained personnel for commercialization activities
	Poverty reduction	Exit of 2,500 families out of the extreme poverty and poverty groups
	Empowerment of women	At least 50% of the beneficiaries are women

Project Exclusions	<ul style="list-style-type: none"> • The Project does not include the procurement or legal process of recognition of lands. • The Project does not include an academic or university programme for the participants. • The Project does not include the direct commercialization of goods derived from the Project activities, but support for rural farmers to access the value chain.
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4.1.4. Work Breakdown Structure

The Work Breakdown Structure is a preliminary proposal of the work packages and activities of the Small Rural Farmers Development Programme, for the implementation from the approval of the donor to the closure stage.

Table 12. Work Breakdown Structure. Source: Compiled by author.

1	Improvement of the quality of life of 10,000 small rural farmers implementing family agriculture in rural areas of Paraguay, by promoting better production conditions that allow the application of sustainable agricultural practices and integration into value chains for poverty reduction.
1.1	Project Management
1.1.1	Project approval
1.1.2	Disbursement follow up
1.1.3	Human resources recruitment
1.1.4	Baseline research
1.1.5	Assessments and reports
1.1.6	Operating Committee Meetings
1.1.7	Final assessment
1.2	Clearing 4,000 hectares through topping, for the application of mechanized seeding of new plots.
1.2.1	List of beneficiaries' review
1.2.2	ToRs receipt and approval
1.2.3	Solicitation to contract land clearing and mechanized seeding services
1.2.4	Solicitation to purchase supplies for land clearing and mechanized seeding
1.2.5	Verification of plots and machinery
1.2.6	Distribution of supplies for land clearing and mechanized seeding
1.2.7	Field work
1.2.8	Verification of land clearing and mechanized seeding
1.2.9	Payment
1.2.10	Harvest and commercialization monitoring
1.3	Mechanized planting of 6,000 hectares through the application of conventional practices and conservation agriculture.
1.3.1	List of beneficiaries' review

1.3.2	ToRs receipt and approval
1.3.3	Solicitation to contract mechanized planting services
1.3.4	Solicitation to purchase supplies for mechanized planting
1.3.5	Verification of plots and machinery
1.3.6	Distribution of supplies for mechanized planting
1.3.7	Field work
1.3.8	Verification of mechanized planting
1.3.9	Payment
1.3.10	Harvest and commercialization monitoring
1.4	Training and formalization of 2,500 rural MSMEs for their integration into value chains.
1.4.1	List of rural MSMEs' review
1.4.2	ToRs receipt and approval
1.4.3	Solicitation to contract training and formalization services
1.4.4	Trainings of rural MSMEs
1.4.5	Supervision of Trainings of rural MSMEs
1.4.6	Formalization of rural MSMEs
1.4.7	Supervision of Formalization of rural MSMEs
1.4.8	Payment
1.4.9	Engagement of rural MSMEs in the market.
1.4.10	Monitoring of market activities of project stakeholders.
1.5	Capacity development of the stakeholders involved in the project through technical training days.
1.5.1	List of participants' review
1.5.2	Technical training receipt and approval
1.5.3	Logistics arrangements
1.5.4	Technical training of stakeholders
1.5.5	Supervision of technical training
1.5.6	Payment

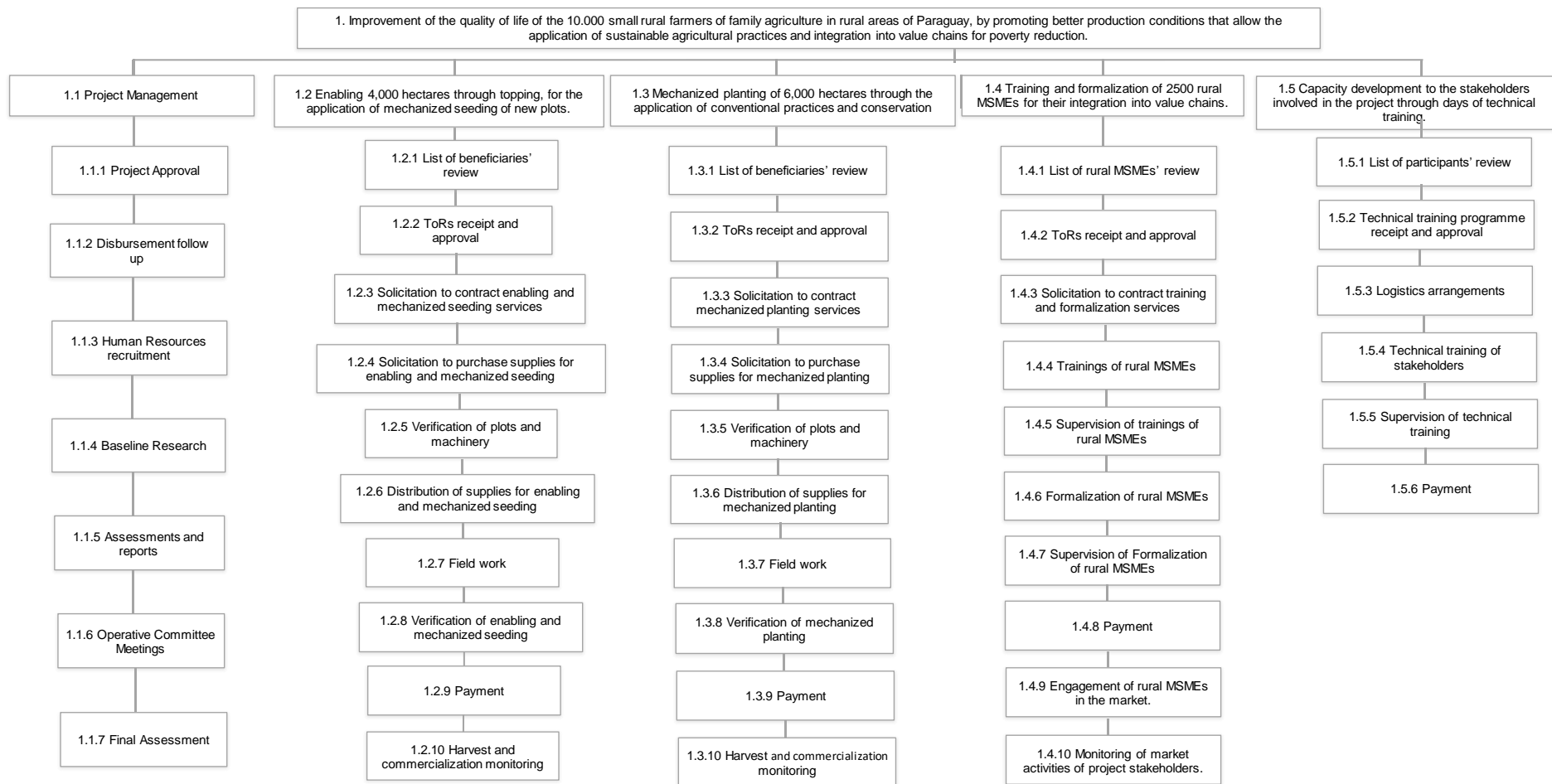


Figure 4. Work Breakdown Structure. Source: Compiled by author.

4.1.5. WBS Dictionary

The WBS Dictionary in Table 13 contains preliminary information to be adjusted during the planning stage. Dates and costs are subject to confirmation, and would be explained in more depth in the Schedule and Costs Management Plan respectively. In accordance with the previous section about the WBS, the WBS Dictionary is a preliminary proposal of the work packages and activities of the Small Rural Farmers Development Programme, for the implementation from the approval of the donor to the closure stage.

Table 13. WBS Dictionary. Source: Compiled by author.

WBS Dictionary			
Deliverable	Project Management	WBS ID	1.1
Description	The Project Management work package includes the tasks needed to ensure that the project meets its objectives within budget and on the scheduled timescales. The Project Manager is responsible of this work package and takes the full responsibility of monitoring project progress, tracking deliverables, and reporting to the Steering Committee.		
Assumptions and Constraints	<ol style="list-style-type: none"> 1. The Project Manager works full time for the project. 2. Resources are available on time for the project activities. 3. The Steering Committee provides feedback regularly. 4. The sponsor is willing to fund the project. 		
Milestones and due dates	01/08/2020	Project approval	
	11/08/2020	Disbursement of funds	
	30/08/2020	End of human resources recruitment process	
	15/09/2020	Delivery of baseline report	
	Quarterly	Assessments and reports	

	Monthly		Operating Committee Meetings		
	31/07/2021		Final Assessment report		
Level	WBS ID	Work Package	Description	Owner	Cost Estimates
3	1.1.1	Project approval	After the project plan verification and adjustment, the project sponsor must approve the final project plan. The project is approved by signing a legal document of approval named "Order of initiation".	Sponsor (ITAIPU)	-
3	1.1.2	Disbursement follow up	After the project approval, the Project Manager is in charge to follow up the disbursement. The disbursement is expected to be received in 10 days after the project is approved.	Project Manager (UNOPS)	-
3	1.1.3	Human resources recruitment	With the project approval, the Project team may start the Human Resources recruitment process. After the review of the ToRs, the hiring process might take up to 30 days to be completed.	Project Manager and HR team (UNOPS)	-
3	1.1.4	Baseline research	The baseline research is performed by UNOPS project team with the technical assistance of the Technical Planning Secretariat (STP). The data is provided by the government and collected by an outsourced company. Analysis is performed by the monitoring specialist of UNOPS.	Technical Planning Secretariat (STP) and UNOPS project team	10,000
3	1.1.5	Assessments and	Project Manager monitors the project	Project Manager	-

		reports	implementation and provides a report to the Steering Committee on a quarterly basis. In case of issues or changes, an expectation report might be submitted before the planned date.	(UNOPS)	
3	1.1.6	Operating Committee Meetings	The Operating Committee meets on a monthly basis to review the progress of the project activities. The meeting is organized by the PM and each stakeholder sends a representative to participate.	Project Manager (UNOPS)	-
3	1.1.7	Final assessment	In the last month of the project, the Project Manager performs a final Assessment that is presented to the Steering Committee in the Closure day.	Project Manager (UNOPS)	10,000
Total USD					20,000
Quality Requirements	<ol style="list-style-type: none"> 1. Project Plan approved on time. 2. Disbursement of funds received on schedule. 3. Employees available and hired to perform project activities. 4. Baseline report finished according to plan. 5. Complete reports delivered on a quarterly basis. 6. Operating Committee meetings with the participation of all stakeholders held monthly. 7. Final report delivery on closure date with complete information of outcomes and deliverables. 				
Acceptance Criteria	Final report delivery on closure date with complete information of outcomes, deliverables, and all activities performed as part of the work package.				

Deliverable	Clearing 4,000 hectares through topping, for the application of mechanized seeding of new plots.	WBS ID	1.2		
Description	The mechanized land clearing work package includes all the tasks needed to clear the parcels from existing trunks and roots in order to sow. It also includes conventional agricultural practices such as, harrowing twice, leveling trail, and conventional sowing.				
Assumptions and Constraints	<ol style="list-style-type: none"> 1. The mechanized land clearing work is required for the beneficiaries of the project. 2. Providers of the required services are available in the market. 3. The works are going to be performed on time before the end of the sowing season. 4. Supplies are available to cover all the parcels. 5. The applicable regulation for procurement is UNOPS Procurement Manual. 6. FieldSight app is used for monitoring the work. 				
Milestones and due dates	11-sep-20	List of beneficiaries' review			
	11-sep-20	ToRs receipt and approval			
	15-oct-20	Solicitation to contract land clearing and mechanized seeding services			
	15-oct-20	Solicitation to purchase supplies for land clearing and mechanized seeding			
	30-oct-20	Verification of plots and machinery			
	30-oct-20	Distribution of supplies for land clearing and mechanized seeding			
	31-dic-20	Field work			
	31-dic-20	Verification of land clearing and mechanized seeding			
	31-dic-20	Payment			
	31-mar-21	Harvest and commercialization monitoring			
Level	WBS ID	Work Package	Description	Owner	Cost Estimates
3	1.2.1	List of beneficiaries' review	The review of the list of beneficiaries is performed by the project supervisors and monitors in the field, in order to determine if the beneficiaries require	UNOPS project team	5,000

			support, where the parcel is located, and which is the scope of the support needed.		
3	1.2.2	ToRs receipt and approval	MAG sends the ToRs for procurement of the supplies and services to UNOPS. UNOPS procurement team, along with the Project team, verifies that they are according to the List of beneficiaries, before the solicitation process, for its approval.	MAG, UNOPS procurement and project team	-
3	1.2.3	Solicitation to contract land clearing and mechanized seeding services	With the approved ToRs, the solicitation for contracting services is performed. The process is posted in UNGM and the national tender web, and is conducted by the eSourcing system.	UNOPS procurement and project team	-
3	1.2.4	Solicitation to purchase supplies for land clearing and mechanized seeding	With the approved ToRs, the solicitation for buying supplies is performed. The process is posted in UNGM and the national tender web, and is conducted by the eSourcing system.	UNOPS procurement and project team	-
3	1.2.5	Verification of plots and machinery	Previous to the recommendation of award, the project supervisors and monitors verify the machinery in the field, in order to guarantee that they are suitable for the work.	UNOPS project team	5,000

3	1.2.6	Distribution of supplies for land clearing and mechanized seeding	After the recommendation of award, the supplies are received in the field by the project supervisors and monitors.	Suppliers and UNOPS project team	2,000
3	1.2.7	Field work	After the verification of the machinery and plots, and the distribution of supplies, the work begins in the field. The work is closely monitored by the project supervisors and monitors with the FieldSight app.	Contractors and UNOPS project team	1,500,000
3	1.2.8	Verification of land clearing and mechanized seeding	After the field work, the beneficiaries are responsible for the maintenance of the plots that were cleared and sowed. After the work, the follow up is made by UNOPS and MAG monitors and the parcels are verified by the ITAIPU supervision team. Control is performed using drone's technology.	MAG monitoring team, ITAIPU supervision team and UNOPS project team	5,000
3	1.2.9	Payment	Payments are performed by UNOPS Finance team within 8 days of the submission of documents that certify the successful delivery of goods and services.	UNOPS Project team and Finance team	-
3	1.2.10	Harvest and commercialization monitoring	After 3 months of the sow, the parcels are ready for harvest. MAG and UNOPS project teams support the beneficiaries in the commercialization of the harvest, through the	MAG Commercialization department and UNOPS project team	5,000

			Commercialization department.			
					Total USD	1,522,000
Quality Requirements	<ol style="list-style-type: none"> 1. List of 4,000 beneficiaries reviewed and approved on time. 2. Complete ToRs sent by MAG and approval on schedule. 3. Convenient and optimized recommendation of award for contracting land clearing and mechanized seeding services. 4. Convenient and optimized recommendation of award for acquisition of supplies. 5. Plots and machinery of all contractors verified and suitable for the field work. 6. Supplies for land clearing and mechanized seeding distributed on time at the destination. 7. 100% of field work performed within calendar. 8. Appropriate maintenance of the plots that were cleared and sowed when verification is performed by sponsor. 9. All contracts signed with 100% execution. 10. Harvest of all the beneficiaries are allocated and return on investment of 100% is obtained. 					
Acceptance Criteria	Final delivery of 4,000 hectares through topping for the application of mechanized seeding of new plots.					
Deliverable	Mechanized planting of 6,000 hectares through the application of conventional practices and conservation agriculture.	WBS ID		1.3		
Description	The mechanized planting work package includes the tasks needed to sow through conventional soil tillage or direct seeding. When the parcel is not used by the beneficiary, conventional practices would be preferred for soil preparation: harrowing twice, leveling trail, and conventional sowing. When the parcel is used by the beneficiary on a yearly basis, direct sowing would be delivered, including rolling, dried, liming and direct sowing.					
Assumptions and Constraints	<ol style="list-style-type: none"> 1. The mechanized planting work is required by the beneficiaries of the project. Direct sowing is the preferred technique by the users. 2. Providers of the required services are available in the market. 					

	<p>3. The works are going to be performed on time before the end of the sowing season.</p> <p>4. Supplies are available to cover all the parcels.</p> <p>5. The applicable regulation for procurement is UNOPS Procurement Manual.</p> <p>6. FieldSight app is used for monitoring the work.</p>				
Milestones and due dates		11-sep-20	List of beneficiaries' review		
		11-sep-20	ToRs receipt and approval		
		15-oct-20	Solicitation to contract mechanized seeding services		
		15-oct-20	Solicitation to purchase supplies for mechanized seeding		
		30-oct-20	Verification of plots and machinery		
		30-oct-20	Distribution of supplies for mechanized seeding		
		31-dic-20	Field work		
		31-dic-20	Verification of mechanized seeding		
		31-dic-20	Payment		
	31-mar-21	Harvest and commercialization monitoring			
Level	WBS ID	Work Package	Description	Owner	Cost Estimates
3	1.3.1	List of beneficiaries' review	The review of the list of beneficiaries is performed by the project supervisors and monitors in the field, in order to determine if the beneficiaries require the support, where the parcel is located, and which is the scope of the support needed.	UNOPS project team	8,000
3	1.3.2	ToRs receipt and approval	MAG sends the ToRs for procurement of the supplies and services to UNOPS. UNOPS procurement team, along with the Project team, verifies that they are according to the List of beneficiaries, before the solicitation process, for its	MAG, UNOPS procurement and project team	-

			approval.		
3	1.3.3	Solicitation to contract mechanized planting services	With the approved ToRs, the solicitation for contracting services is performed. The process is posted at the UNGM and the national tender webpage, and is conducted by the eSourcing system.	UNOPS procurement and project team	-
3	1.3.4	Solicitation to purchase supplies for mechanized planting	With the approved ToRs, the solicitation for buying supplies is performed. The process is posted at the UNGM and the national tender webpage, and is conducted by the eSourcing system.	UNOPS procurement and project team	-
3	1.3.5	Verification of plots and machinery	Previous to the recommendation of award, the project supervisors and monitors verify the machinery in the field, in order to guarantee that they are suitable for the work.	UNOPS project team	8,000
3	1.3.6	Distribution of supplies for mechanized planting	After the recommendation of award, the supplies are received in the field by the project supervisors and monitors.	Suppliers and UNOPS project team	3,000
3	1.3.7	Field work	After the verification of the machinery and plots, and the distribution of supplies, the work begins in the field. The work is closely monitored by the project supervisors and monitors with the FieldSight app.	Contractors and UNOPS project team	2,000,000
3	1.3.8	Verification of mechanized	After the field work, the beneficiaries are responsible for the maintenance of	MAG monitoring team, ITAIPU	8,000

		planting	the plots that were cleared and sowed. After the work, the follow up is made by UNOPS and MAG monitors and the parcels are verified by the ITAIPU supervision team. Control is performed using drone's technology.	supervision team and UNOPS project team	
3	1.3.9	Payment	Payments are performed by UNOPS Finance team within 8 days of the submission of documents that certify the successful delivery of goods and services.	UNOPS Project team and Finance team	-
3	1.3.10	Harvest and commercialization monitoring	After 3 months of the sow, the parcels are ready for harvest. MAG and UNOPS project teams support the beneficiaries in the commercialization of the harvest, through the Commercialization department.	MAG Commercialization department and UNOPS project team	8,000
Total USD					2,035,000
Quality Requirements	<ol style="list-style-type: none"> 1. List of 6,000 beneficiaries reviewed and approved on time. 2. Complete ToRs sent by MAG and approval on schedule. 3. Convenient and optimized recommendation of award for contracting mechanized seeding services. 4. Convenient and optimized recommendation of award for acquisition of supplies. 5. Plots and machinery of all contractors verified and suitable for the field work. 6. Supplies for mechanized seeding distributed on time at the destination. 7. 100% of field work performed within calendar. 8. Appropriate maintenance of the plots that were cleared and sowed when verification is performed by sponsor. 9. All contracts signed with 100% execution. 10. Harvest of all the beneficiaries are allocated and return on investment of 100% is obtained. 				

Acceptance Criteria	Final delivery of 6,000 hectares through the application of conventional practices and conservation agriculture.				
Deliverable	Training and formalization of 2,500 rural MSMEs for their integration into value chains.	WBS ID		1.4	
Description	In order to support the beneficiaries in entering the value chain, the project includes a Work Package for the training and formalization of rural MSMEs. At least 2,500 rural MSMEs would receive training by virtual means and would receive assistance to formalize their operation in the market. The Work Package will be conducted under the leadership of the MSMEs' Vice Ministry.				
Assumptions and Constraints	<ol style="list-style-type: none"> 1. The beneficiaries are interested in organizing rural MSMEs in their communities. 2. Providers of the training and formalization services are available in the market. 3. The works are going to be performed on time before the end of the sowing season. 4. The applicable regulation for procurement is UNOPS Procurement Manual. 5. FieldSight app is used for monitoring the work. 				
Milestones and due dates	31-dic-20	List of rural MSMEs' review			
	31-mar-21	ToRs receipt and approval			
	08-ene-21	Solicitation to contract training and formalization services			
	08-ene-21	Trainings of rural MSMEs			
	31-dic-20	Supervision of Trainings of rural MSMEs			
	31-dic-20	Formalization of rural MSMEs			
	31-dic-20	Supervision of Formalization of rural MSMEs			
	31-dic-20	Payment			
	31-mar-21	Engagement of rural MSMEs in the market.			
	31-mar-21	Monitoring of market activities of project stakeholders.			
Level	WBS ID	Work Package	Description	Owner	Cost Estimates
3	1.4.1	List of rural MSMEs' review	The review of the list of beneficiaries is performed by the project supervisors	UNOPS project team	10,000

			and monitors in the field, in order to determine if the beneficiaries require support. This action establishes the production forecast and the scope of the support needed.		
3	1.4.2	ToRs receipt and approval	The MSMEs' Vice Ministry sends the ToRs for procurement of the services to UNOPS. UNOPS procurement team, along with the Project team, verifies that they are according to the List of beneficiaries, before the solicitation process, for its approval.	MSMEs' Vice Ministry, UNOPS procurement and project team	-
3	1.4.3	Solicitation to contract training and formalization services	With the approved ToRs, the solicitation for contracting services is performed. The process is posted at the UNGM and the national tender webpage, and is conducted by the eSourcing system.	UNOPS procurement and project team	-
3	1.4.4	Trainings for rural MSMEs	The contractor delivers the online training according to the agreed program.	Contractor and UNOPS project team	80,000
3	1.4.5	Supervision of Trainings for rural MSMEs	The monitoring is performed by the MSMEs' Vice Ministry. The work is closely monitored by the project supervisors and monitors with the FieldSight app.	MSMEs' Vice Ministry and UNOPS project team	5,000
3	1.4.6	Formalization of rural MSMEs	The contractor delivers the technical assistance to each of the 2,500 MSMEs to formalize.	Contractor and UNOPS project team	200,000

3	1.4.7	Supervision of Formalization of rural MSMEs	The MSMEs' Vice Ministry follows up the process of formalization in order to guarantee the proper path to attain formalization. The work is closely monitored by the project supervisors and monitors with the FieldSight app.	MSMEs' Vice Ministry and UNOPS project team	10,000
3	1.4.8	Payment	Payments are performed by UNOPS Finance team within 8 days of the submission of documents that certify the successful delivery of services. The MSMEs' Vice Ministry and UNOPS project team support operationally.	MAG monitoring team, ITAIPU supervision team and UNOPS project team	-
3	1.4.9	Engagement of rural MSMEs in the market	After training and formalization, rural MSMEs are ready to engage in the market. At harvest time, they sell their products and inform the Commercialization department of MAG about the results. UGP organizes a fair and calendar in order to foster rural MSMEs' engagement with import/export companies.	MAG Commercialization department, MSMEs' Vice Ministry, UNOPS project team and UGP	50,000
3	1.4.10	Monitoring of market activities of project stakeholders	The MAG Commercialization department follows up the market activities in close collaboration with the project supervisors and monitors through the FieldSight app.	MAG Commercialization department and UNOPS project team	5,000
Total USD					360,000

Quality Requirements	<ol style="list-style-type: none"> 1. List of beneficiaries organized in 2,500 MSMEs interested in training and formalization, reviewed and approved on time. 2. Complete ToRs sent by the MSMEs' Vice Ministry and approved on schedule. 3. Convenient and optimized recommendation of award for contracting training and formalization services. 4. 100% of rural MSMEs' participants trained and formalized. 5. 100% of trainings and formalization steps performed within calendar. 6. All contracts signed with 100% execution. 7. Complete yield of harvest allocated to the value chain and sold at market price. 		
Acceptance Criteria	2,500 trained and formalized rural MSMEs integrated into the value chain.		
Deliverable	Capacity development of the stakeholders involved in the project through technical training days.	WBS ID	1.5
Description	In order to develop the MAG technician's capacity, this Work Package includes trainings on conventional practices and conservation agriculture. These activities will prepare MAG to deliver results independently after a year of support provided by UNOPS.		
Assumptions and Constraints	<ol style="list-style-type: none"> 1. MAG technicians are interested in participating in capacity development activities. 2. Providers of the training and formalization services are available in the market. 3. The works are going to be performed on time before the end of the sowing season. 4. The applicable regulation for procurement is UNOPS Procurement Manual. 5. FieldSight app is used for monitoring the work. 		
Milestones and due dates	11-sep-20	List of participants' review	
	11-sep-20	Technical training receipt and approval	
	15-oct-20	Logistics arrangements	
	31-dic-20	Technical training of stakeholders	
	31-dic-20	Supervision of technical training	
	31-dic-20	Payment	

Level	WBS ID	Work Package	Description	Owner	Cost Estimates
3	1.5.1	List of participants' review	The list is provided by MAG and reviewed by the project supervisors, in order to determine the area and level of interest of the technicians nominated for the training.	MAG and UNOPS project team	2,000
3	1.5.2	Technical training receipt and approval	MAG sends the ToRs for contracting of services to UNOPS. UNOPS procurement team, along with the Project team, verifies that they are according to the List of beneficiaries, before the solicitation process, for its approval.	MAG and UNOPS project team	-
3	1.5.3	Logistics arrangements	UNOPS facilitates the logistics arrangements needed, by renting hotel, transportation, daily subsistence allowances, and others applicable.	UNOPS Project team	100,000
3	1.5.4	Technical training of stakeholders	Practical training is delivered by professionals in the field according to the agreed program.	Specialists and UNOPS project team	50,000
3	1.5.5	Supervision of technical training	The monitoring is performed by MAG and UNOPS project team through the FieldSight app.	MAG and UNOPS project team	10,000
3	1.5.6	Payment	Payments are performed by UNOPS Finance team within 8 days of the submission of documents that certify the successful delivery of services.	UNOPS Project team and Finance	-
Total USD					162,000

Quality Requirements	<ol style="list-style-type: none"> 1. List of participants assigned by MAG, reviewed and approved on time. 2. Complete ToRs sent by MAG approved on schedule. 3. Convenient and optimized recommendation of award for contracting training services. 4. 100% of participants from the MAG technical team trained. 5. 100% of trainings performed within calendar. 6. All contracts signed with 100% execution.
Acceptance Criteria	MAG technical team trained on conventional practices and conservation agriculture.

4.2. Schedule Management Plan

According to the PMBOK® Guide (2017), Project schedule management “includes the processes required to manage the timely completion of the project” (p. 173). The purpose of this Schedule Management Plan is to establish the criteria and the activities for developing, monitoring, and controlling the project schedule. When this plan is approved, no schedule changes will be permitted unless a request for change is processed in accordance with the agreed procedures.

The Schedule Management processes covered in this Plan are Plan Schedule Management, Define Activities, Sequence Activities, Estimate Activities Durations, Develop Schedule, and Control Schedules.

4.2.1. Plan Schedule Management

The project Schedule is developed in a Gantt chart, and the scheduling methodology for the project is the critical path method (CPM). The scheduling tool to be used in the development of the project schedule model is Microsoft Project software.

4.2.2. Roles and Responsibilities

The project manager is responsible for the overall schedule management. The project manager creates and monitors the project schedule using MS Project and validating the schedule with the project team and the stakeholders.

The project team is responsible for participating in the work package definition, sequencing, and duration and resource estimating. The project team will also review and validate the proposed schedule and perform assigned activities once the schedule is approved.

The Project Manager will review and update the project schedule on a weekly basis. The project team will provide the PM with actual performance and completion information, to compare the actual information to the schedule baseline and calculate the completion percentages and any variances. The PM will report the updates and variances to the Operating Committee.

Whenever necessary, the PM will meet with the project team members to determine the cause of any variation and discuss appropriate corrective measures. When schedule changes within tolerances are necessary, the PM

will submit a change request to the Operating Committee. If the schedule changes exceed the tolerances, with the approval of the Operating Committee, the case would be submitted to the Steering Committee.

4.2.3. Define Activities

The definition of activities is performed through Decomposition. According to the PMBOK® Guide (2017), “decomposition is a technique used for dividing and subdividing the project scope and project deliverables into smaller, more manageable parts. Activities represent the effort needed to complete a work package. The Define Activities process defines the final outputs as activities rather than deliverables, as done in the Create WBS process” (p. 185).

As a result of the Define activities process, jointly with the technical staff of MAG, MIC, and UNOPS, a List of Activities is obtained. Besides, milestones were identified and a Milestones List is approved as part of the Project Schedule Plan. Activities and milestones are included in the Project Schedule.

4.2.4. Sequence Activities

During the sequence activities process, the relationships among the project activities were established. For this activity, as observed in Table 14, the Precedence Diagramming Method (PDM) is used to construct the schedule model. Every activity and milestone is connected using one of the dependency relations:

- Finish to Start (FS)
- Finish to Finish (FF)
- Start to Start (SS)
- Start to Finish (SF)

Microsoft Project Software is the tool used to develop the model and obtain the Schedule in a Gantt Chart.

It is important to note that the main constraint in the sequence activity process is the agricultural calendar.

4.2.5. Estimate Activity Durations

Considering the quality-cost relation expected and funds availability, estimating resources is performed. The analysis involves estimating the type and

quantities of services and supplies, human resources, and equipment required to perform each activity.

Also, duration of activities is estimated in order to determine the number of work periods needed to complete individual activities with the estimated resources. The duration estimation is based on the analysis of the results of previous experiences in the last interventions in the field and the agricultural calendar.

Table 14. Activity Sequence chart. Source: Compiled by author.

ID	Activity	Start date	End date	Duration (days)	Precedence
A	Project Initiation - Sponsor approval	01-ago-20	07-ago-20	7	
B	Transfer of funds	10-ago-20	21-ago-20	11	A
C	List of beneficiaries' review and receipt and approval of ToRs of procurement processes of land clearing services for 4,000 ha.	01-sep-20	11-sep-20	11	B
D	Solicitation to contract services and supplies for land clearing of 4,000 ha.	11-sep-20	15-oct-20	34	C
E	Verification of plots and machinery and distribution of supplies for land clearing of 4,000 ha.	15-oct-20	30-oct-20	15	D
F	Field work of land clearing services of 4,000 ha.	30-oct-20	31-dic-20	62	E
G	Harvest and commercialization monitoring of land clearing services of 4,000 ha.	01-ene-21	31-mar-21	90	F
H	List of beneficiaries' review and receipt of ToRs of procurement processes for 6,000 ha. mechanized services	01-sep-20	11-sep-20	11	B
I	Solicitation to contract services and purchase supplies for 6,000 ha. mechanized services	11-sep-20	15-oct-20	34	H
J	Verification of plots and machinery and distribution of supplies for 6,000 ha. mechanized services	15-oct-20	30-oct-20	15	I
K	Field work for 6,000 ha.	30-oct-20	31-dic-20	62	J

	mechanized services				
L	Harvest and commercialization monitoring for 6,000 ha. mechanized services	01-ene-20	31-mar-21	90	K
M	List of rural MSMEs' review and ToRs receipt and approval	30-oct-20	15-nov-20	16	B
N	Solicitation to contract training and formalization services	15-nov-20	30-nov-20	15	M
O	Trainings and Formalization of rural MSMEs	01-dic-20	31-mar-21	120	N
P	Engagement of rural MSMEs in the market	01-ene-20	31-mar-21	90	O
Q	List of participants' review and Technical training receipt and approval	01-sep-20	11-sep-20	11	B
R	Logistics arrangements	11-sep-20	15-oct-20	34	Q
S	Technical training of stakeholders	30-oct-20	31-dic-20	62	R
T	Project Closure	20-jul-21	31-jul-21	11	G, L, P, S

4.2.6. Develop Schedule

To determine how long a project will last, the project team needs to find out the critical path. Globerson defines the critical path as “the longest path that dictates project completion” (2000). Considering the Table 14 Activity Sequence chart, Critical Path is obtained in Figure 5.

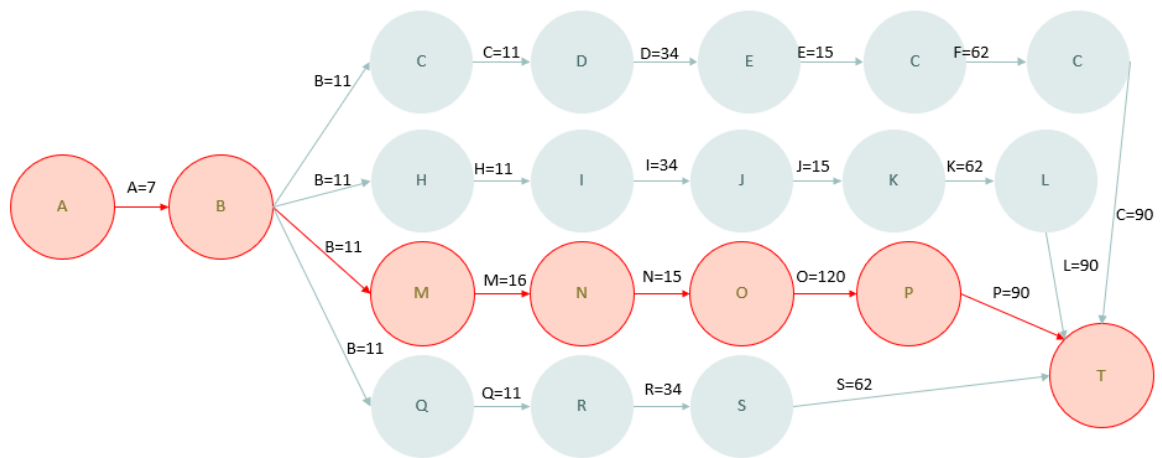


Figure 5. Critical Path. Source: Compiled by author.

According to the estimation, the total time for the project implementation is 252 days. However, a contingency is added due to the delays that often take place when dealing with public institutions. With the activities and milestones lists finished in Table 15, and the sequence and estimation analysis, the project schedule can be developed.

The active implementation of the project is expected from August 1, 2020 until March 31, 2021. From April to July, a monitoring phase occurs. It is possible that MAG requests an extension of particular activities during that quarter; for that reason, the project is requested to be open.

Table 15. Milestones and dates. Source: Compiled by author.

Milestone	Start date	End date
Project Initiation - Sponsor approval	01-ago-20	07-ago-20
Transfer of funds	10-ago-20	21-ago-20
List of beneficiaries' review 4,000 ha. land clearing services	01-sep-20	11-sep-20
Receipt and approval of ToRs of procurement processes of 4,000 ha. land clearing services	01-sep-20	11-sep-20
Solicitation to contract 4,000 ha. land clearing services	11-sep-20	15-oct-20
Solicitation to purchase supplies for 4,000 ha. land clearing services	11-sep-20	15-oct-20
Verification of plots and machinery for 4,000 ha. land clearing services	15-oct-20	30-oct-20
Distribution of supplies for 4,000 ha. land clearing	15-oct-20	30-oct-20

services		
Field work of 4,000 ha. land clearing services	30-oct-20	31-dic-20
Harvest and commercialization monitoring of 4,000 ha. land clearing services	01-ene-20	31-mar-21
List of beneficiaries' review of 6,000 ha. mechanized services	01-sep-20	11-sep-20
Receipt and approval of ToRs of procurement processes of 6,000 ha. mechanized services	01-sep-20	11-sep-20
Solicitation to contract 6,000 ha. mechanized services	11-sep-20	15-oct-20
Solicitation to purchase supplies for 6,000 ha. mechanized services	11-sep-20	15-oct-20
Verification of plots and machinery, 2nd round	15-oct-20	30-oct-20
Distribution of supplies for 6,000 ha. mechanized services	15-oct-20	30-oct-20
Field work 6,000 ha. mechanized services	30-oct-20	31-dic-20
Harvest and commercialization monitoring of 6,000 ha mechanized services	01-ene-20	31-mar-21
List of rural MSMEs' review	30-oct-20	31-dic-20
ToRs receipt and approval	01-ene-20	31-mar-21
Solicitation to contract training and formalization services	04-ene-21	08-ene-21
Trainings of rural MSMEs	04-ene-21	08-ene-21
Formalization of rural MSMEs	30-oct-20	31-dic-20
Engagement of rural MSMEs in the market	01-ene-20	31-mar-21
List of participants' review	01-sep-20	11-sep-20
Technical training receipt and approval	01-sep-20	11-sep-20
Logistics arrangements	11-sep-20	15-oct-20
Technical training of stakeholders	30-oct-20	31-dic-20

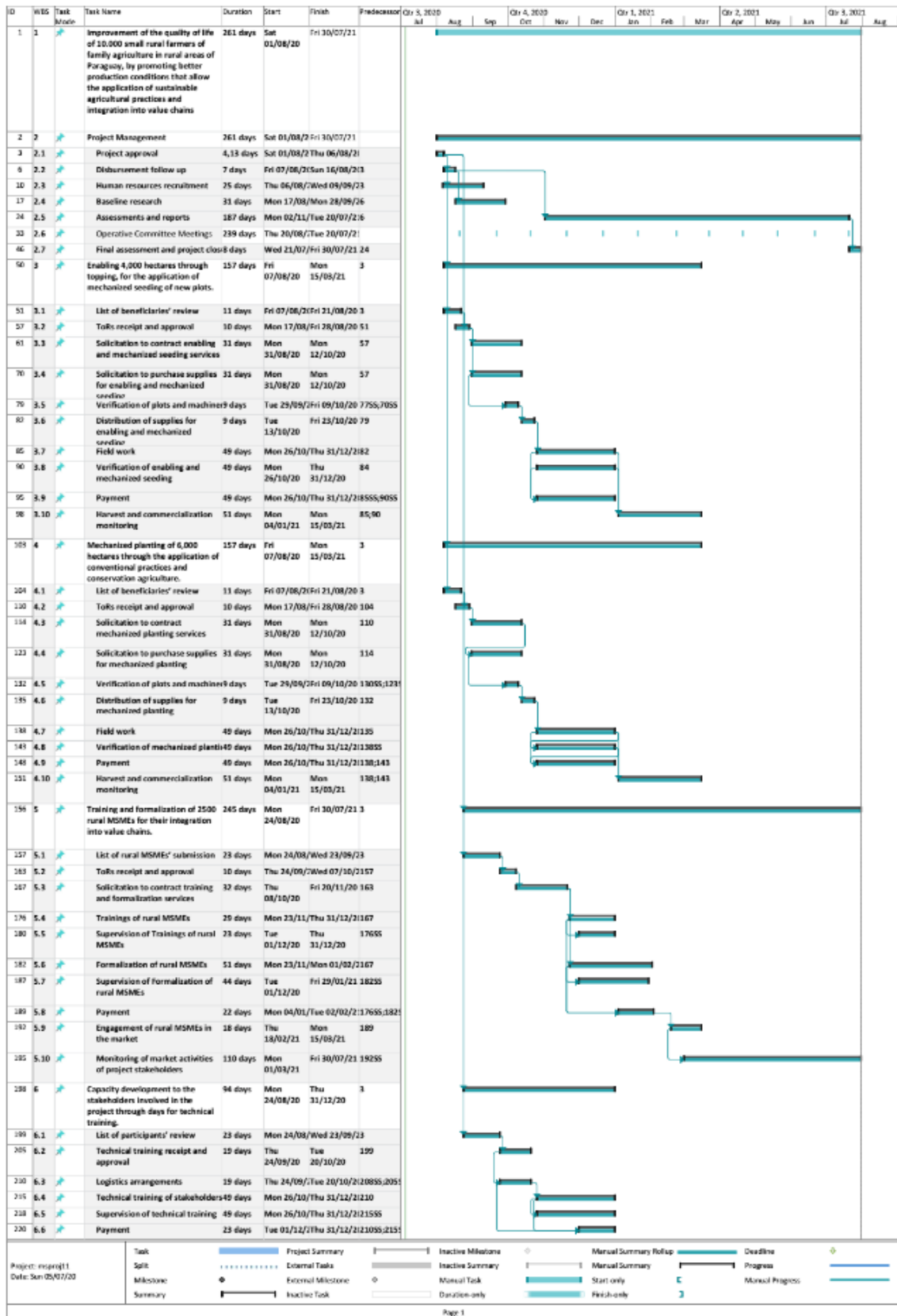


Figure 6. Gantt Chart based on WBS. Source: Compiled by author.

4.2.7. Control Schedule

The schedule is key for the controlling process, to monitor the status of project activities, to update project progress, and manage changes to the schedule baseline to achieve the plan.

After this version of the schedule is approved, the schedule can only be changed through the formal change control procedures set forth in the change management plan. The schedule baseline will be used throughout the project as a basis for comparison to actual results.

The project schedule will be reviewed and updated as necessary on a weekly basis with activities' status, by supervisors and monitors.

If the Project Manager determines that a change to the schedule is necessary, the project manager and team will meet to review and evaluate the change. The Project Manager must determine which tasks will be impacted, variance as a result of the potential change, and any alternatives or variance resolution activities they may employ to see how they would affect the scope, schedule, and resources. If, after this evaluation is complete, the Project Manager determines that any change will exceed the established boundary conditions, then a schedule change request must be submitted to the Operating Committee.

Submittal of a schedule change request is required if the proposed change is estimated to reduce the duration of an individual work package by 10% or more, or increase the duration of an individual work package by 10% or more. The Project Manager has a range of decision, when variations are less than 10% of planned.

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

4.2.8. Total Project Time

The total time needed for the implementation of the project activities is 252 days. The activities that take the most time are the formalization of the MSMEs, because formalization processes are performed by public institutions. As a

result, a contingency is added due to the delays that often occur when dealing with public institutions.

The active implementation of the project is expected from August 1, 2020 until March 31, 2021. Following the agricultural calendar, from September 2020 to January 2021, sowing must be conducted in the field. The project has flexibility to implement sowing activities in the framework of the agricultural calendar and MAG's needs.

Equally and simultaneously with sowing season, the beneficiary MSMEs should be trained and formalized, before harvest (which starts in January 2021). From April to July 2021, a monitoring phase will be put in place to adjust formalization and commercialization activities.

Henceforth, the critical path corresponds to the formalization route. After the harvest, the MSMEs must operate formally to commercialize the 2020-2021 harvest, that is, to achieve the project objectives.

4.3. Cost Management Plan

Project cost management “includes the processes involved in planning, estimating, budgeting, financing, funding, managing and controlling costs so that the project can be completed within the approved Budget” (PMBOK® Guide 2017, p. 231).

The Small Rural Farmers Development Programme is planned to be a pillar to support rural farmers. In this context, the Government, through the funds provided by ITAIPU Binacional, finance the intervention.

4.3.1. Cost Management Approach

The Project Manager will manage the costs for this project in alignment with UNOPS costs and budgeting policies. Earned Value calculations will measure and manage the financial performance of the project.

Costs estimations are based on MAG technicians’ and UNOPS supervisors’ expert knowledge in agriculture and previous projects. Although activity cost estimates are detailed in the plan, the level of accuracy may vary due to market variations.

The project will be financed according to the agreed disbursement schedule. The total contribution for the project implementation is USD 4,850,000.

Cost variances of +/- 0.1 in the cost and schedule performance indexes are tolerable, and the Project Manager has the authority to make changes to the project to bring it back within budget. Acceptable variations within the project tolerances will be reported in the project quarterly status report.

Cost variances of +/- 0.2 in the cost and schedule performance indexes exceed the tolerance and require a corrective action from the Project Manager, with previous approval from the Project Operating Committee, in order to bring the cost and/or schedule performance indexes below the alert level. The issue and the corrective action will be reported and approved during the Operating Committee meeting.

4.3.2. Plan Cost Management

During the implementation of the project, the Project Manager is responsible for managing and reporting on the project’s cost. Furthermore, he/she is in charge of presenting and reviewing the project cost performance on a monthly basis

during the Operating Committee meeting. Said performance will be measured using earned value, for its accuracy and inclusiveness. The three earned value dimensions that will be used are planned value (PV), earned value (EV), and actual cost (AC). The project will also consider variances and efficiency indicators, such as cost variance, schedule variance, cost performance index, and schedule performance index. (Practice Standard for Earned Value Management, 2011).

The Project Manager must submit a descriptive progress status report with an interim financial statement to the sponsor, on a quarterly basis. The interim financial statement template to be used is shown in Figure 7.

INTERIM FINANCIAL STATEMENT

Project :

Partner(s):

As on:

Income:

Contributions	20XX	XXXX	
	20XX	XXXX	
			XXXX
Interest (if project is eligible)	20XX	XXXX	
			XXXX
Total Income	A		XXXX

Less: Project Expenses

Period-Years

20XX	Project(s) Expense	XXXX	
	Management Fees	XXXX	
	Net Exchange Gain/Loss	XXXX	
			XXXX

20XX	Project(s) Expense	XXXX	
	Management Fees	XXXX	
	Net Exchange Gain/Loss	XXXX	
			XXXX

Total Expenditure	B		XXXX
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Less: Project Advances	C		0
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Less: Project Capitalised Assets	D		0
---	----------	--	---

Project Cash Balance	A-B-C-D		XXXX
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Less: Actual Commitments	E		0
Commitments***			0

Project Fund Balance	A-B-C-D-E		XXXX
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Notes:

* All amounts are in USD. Transactions in non-USD have been converted to USD at the UN operational rate of exchange as on the date of the transaction.

* This is an interim statement provided for information purposes only. Figures are not final.

* The report includes fee projections for open period(s).

* Project advances include operational advances, prepayments, petty cash, and any VAT payments to suppliers that have yet to be recovered.

Certified by:

Comment:

Date:

|

Report run on:

□

Figure 7. Interim Financial Report Template. Source: UNOPS templates

4.3.3. Estimate Costs

The total contribution of ITAIPU Binacional for the implementation of the project is USD 4,850,000. The estimation of operational costs for this project is based on previous experiences, market information, and expert knowledge of MAG technicians in the field.

Table 16. Cost of Sowing Services. Source: Compiled by author.

Activities	Price per Ha.	Ha.	Cost USD
Land clearing through topping	\$370	4,000	\$1,080,000
Mechanized sowing	\$140	6,000	\$684,000
		10,000	\$1,764,000

Table 17. Cost of Supplies. Source: Compiled by author.

Supplies	Price per Ha.	Ha.	Cost USD
Seeds	\$132	10,000	\$1,220,000
Fertilizers	\$43	10,000	\$430,000
Herbicides	\$14	10,000	\$140,000
			\$1,790,000

Table 18. Cost of MSME-related services. Source: Compiled by author.

Activity	Price per MSMEs	Qty	Cost USD
Training services	\$50	2,500	\$125,000
Formalization of MSMEs	\$200	2,500	\$500,000
			\$625,000

Table 19. Cost of Human Resources. Source: Compiled by author.

Project Personnel	Unitary Cost		Qty	Months	Total Months	Total Cost USD
	HR Scale Level	Monthly cost				
Project Manager	LICA 9.6	\$5,599	1	9	9,00	\$50,391
Procurement officer	LICA 5.3	\$3,316	1	1	1,00	\$3,316
Field supervisor	LICA 6.7	\$4,012	4	10	40,00	\$160,480
Monitoring assistant	LICA 3.5	\$2,580	3	7	21,00	\$54,180

Finance assistant	LICA 3.5	\$2,580	1	10	10,00	\$25,800
						\$294,167

Table 20. Additional Operating Costs. Source: Compiled by author.

Additional Operating Costs		
1	Communication	\$20,000
2	Trainings	\$25,000
3	Travel	\$50,000
4	Operating Costs	\$11,577
Total USD		\$106,577

4.3.4. Determine Budget

Budgeting is performed by UNOPS using a business calculator. The calculator includes a recovery fee based on the budgeting policies and financial rules of UNOPS, in order to sustain the office. It is important to mention that UNOPS is a self-financing office that finances its operations with partner contributions. This budget will cover all the activities of the project, considering the direct and indirect costs.

Table 21. Budget of the project. Source: Compiled by author.

Project Budget		Cost USD	%
A	Procurement of supplies (seeds, fertilizers, herbicides, and others) for sowing 10,000 ha.	\$1,790,000	37
B	Land clearing of 4,000 hectares through topping, for the application of mechanized seeding of new plots.	\$1,080,000	22
C	Mechanized planting of 6,000 hectares through the application of conventional practices and conservation agriculture.	\$684,000	14
D	Training and formalization of 2,500 rural MSMEs for their integration into value chains.	\$625,000	13
E	Operating costs of capacity development of the stakeholders involved in the project through technical training days	\$106,577	2
F	Project Personnel	\$294,167	6
G	Direct costs (A+B+C+D+E+F)	\$4,579,744	94
H	Indirect costs (fee)	\$270,256	6
I	Total cost of project (G+H)	\$4,850,000	100

Considering the Planned Value, the S curve or performance measurement baseline (PMB) in Figure 8 determines the amount of cash needed in each stage of the project.

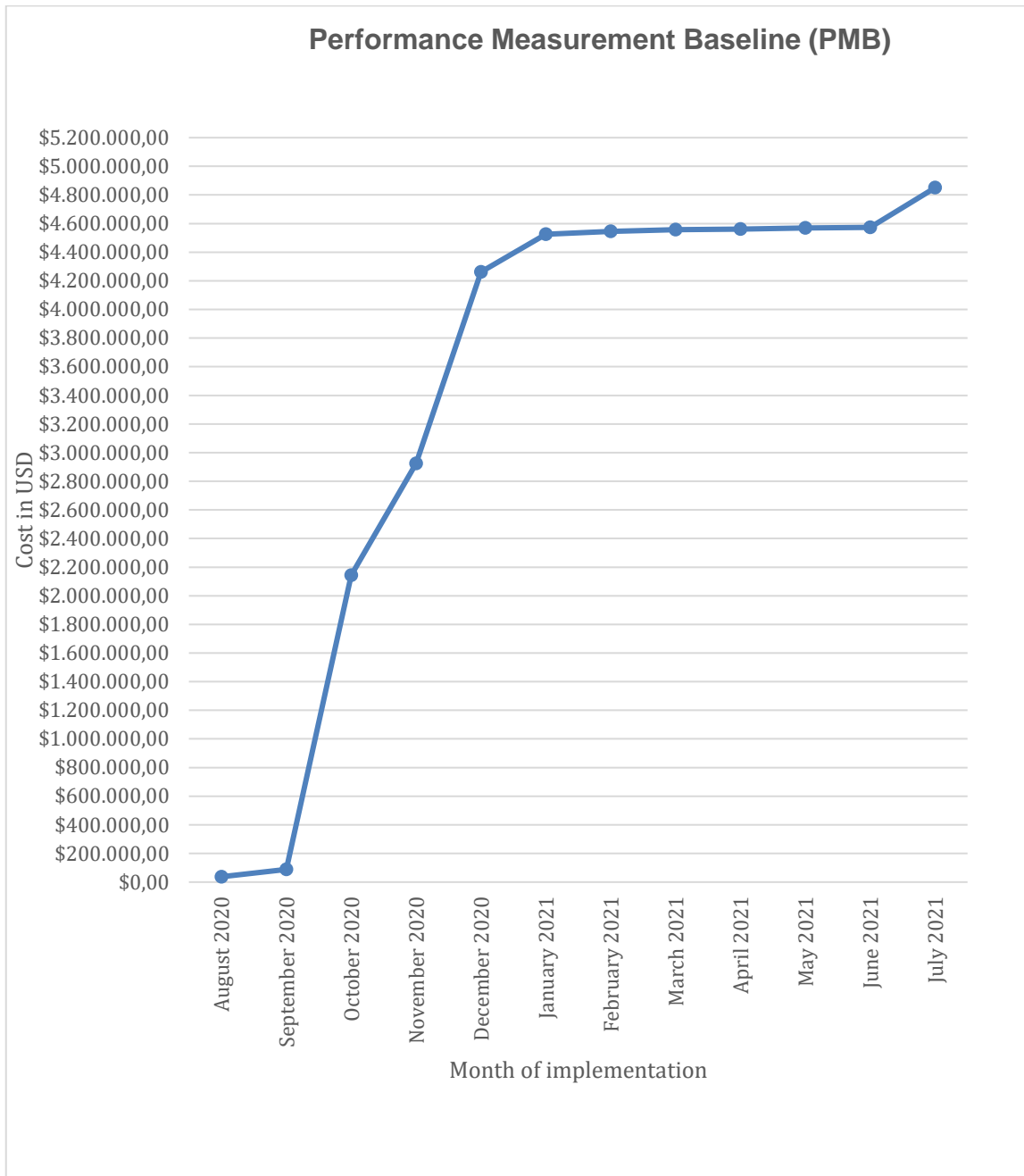


Figure 8. S curve or Performance Measurement Baseline. Source: Compiled by author.

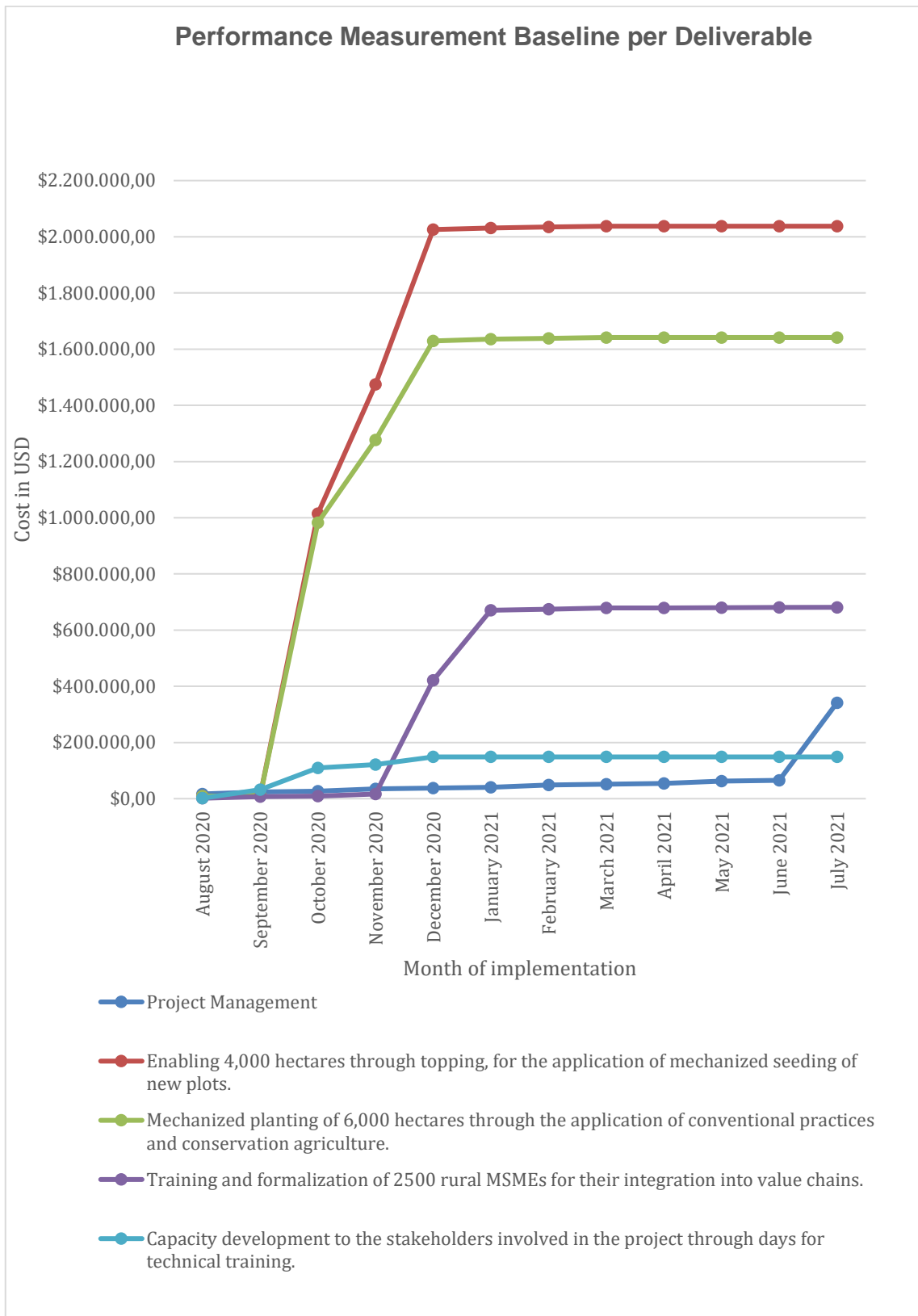


Figure 9. Performance Measurement Baseline (PMB) per Deliverable. Source: Compiled by author.

For a successful implementation of activities, a three-stage budget disbursement calendar is agreed with the sponsor. This will allow the Project Manager to have liquidity to cover the expenses of the activities with the available resources, avoiding costs overruns. According to the Performance Measurement Baseline in Figures 8 and 9, the agreed disbursement schedule is reflected in Table 22.

Table 22. Schedule of Disbursements. Source: Compiled by author.

Disbursement	Requirements	Amount in USD	%
1	Approval of the project (Month 1)	3,000,000	62
2	Presentation of the 1st progress report (Month 4)	1,560,000	32
3	Presentation of the 2nd progress report (Month 7)	290,000	6
Total USD		4,850,000	100

4.3.5. Control Costs

The budget control process will follow the established project change process. Approvals for project budget changes must be approved by the Operating Committee.

Cost variances of +/- 0.1 in the cost and schedule performance indexes are tolerable, and the Project Manager has the authority to make changes to the project to bring it back within budget. Acceptable variations within the project tolerances will be reported in the project quarterly status report.

Cost variances of +/- 0.2 in the cost and schedule performance indexes exceed the tolerance and require a corrective action from the Project Manager, with previous approval of the Project Operating Committee, in order to bring the cost and/or schedule performance indexes below the alert level. The issue and the corrective action will be reported and approved during the Operating Committee meeting.

Table 23. Cost performance indicators. Source: Compiled by author.

Performance Measure	Frequency	Responsible	Tolerance	
			Acceptable	Alert (!) Corrective action required
Schedule Performance Index (SPI)	Quarterly	PM	Between 0.9 and 0.8 or Between 1.1 and 1.2	Less Than 0.8 or Greater than 1.2
Cost Performance Index (CPI)	Quarterly	PM	Between 0.9 and 0.8 or Between 1.1 and 1.2	Less Than 0.8 or Greater than 1.2

The schedule performance index (SPI) is a measure of how close the project is to being completed compared to the schedule. As a ratio, it is calculated by dividing the budgeted cost of work performed, or earned value, by the planned value.

The cost performance index (CPI) is a measure of the financial effectiveness and efficiency of a project. It represents the amount of completed work for every unit of cost spent. As a ratio, it is calculated by dividing the budgeted cost of work completed, or earned value, by the actual cost of the work performed.

4.4. Quality Management Plan

The PMBOK® Guide states that Project quality management includes “processes for incorporating the organization’s quality policy regarding planning, managing, and controlling project and product quality requirements in order to meet stakeholders’ objectives” and “also supports continuous process improvement activities” (PMBOK® Guide 2017, p. 271).

The purpose of this plan is to:

- Ensure quality is planned
- Define how quality will be managed
- Define quality assurance activities
- Define quality control activities
- Define acceptable quality standards

Managing quality within a project contributes to a successful project delivery. Not doing so, may also lead to a significant reputational risk for the organization and its partners. Quality management requires identifying requirements, and analyzing, managing, and reviewing performance at planned intervals.

In this context, the Quality Management Plan for the Small Rural Farmers Development Programme will incorporate UNOPS quality policies in line with Governments requirements. It is the purpose of this Quality Management Plan to establish a process to ensure that project goals, objectives, and deliverables are met in compliance with the formally approved quality standards. By following this plan, the project will provide ITAIPU and MAG with the products they require to meet their business objectives, and as a consequence, family agriculture rural farmers will benefit.

The plan defines the roles and responsibilities of stakeholders as they relate to quality management and the strategy to achieve acceptable quality standards in technical areas and documentation, product and process development, and manufacturing.

4.4.1. Quality Management Approach

In order to deliver a quality project, the Quality Management Plan includes four processes:

- 4.4.1.1 Quality Planning – The PMBOK® Guide defines quality planning as “...identifying quality requirements and/or standards for the project and its deliverables, and documenting how the project will demonstrate compliance with quality requirements and/or standards” (PMBOK® Guide 2017, p. 277).
- 4.4.1.2 Quality Assurance – According to the PMBOK® Guide, quality assurance is about using project processes effectively and “it involves following and meeting standards to assure the stakeholders that the final product will meet their needs, expectations and requirements”. Systematic or planned actions are necessary to offer sufficient reliability that a particular service or product will meet the specified requirements.
- 4.4.1.3 Quality Control – “The process that monitors specific project results to determine if they conform to specifications and identify ways to eliminate the causes of unsatisfactory results” (Rose, 1947, p.73).
- 4.4.1.4 Quality Improvement – Juran defines quality improvement as “...the organized creation of beneficial change; the attainment of unprecedented levels of performance...breakthrough.” (Juran, 1999, p. 53.).

4.4.2. Quality Requirements/Standards

4.4.2.1. Process Quality

The process quality standards and requirements are determined by the implementer, and they are stated in the policies and regulations available in UNOPS intranet. The applicable standards are based on existing enterprise process standards. What is more, process quality agricultural standards provided by MAG will be applied in order to obtain optimum results in the harvest.

Supervisors are responsible for the process quality. They report to the Project Manager. The process metrics will be measured by the supervisors and field monitors using FieldSight, and analyzed by the Monitoring Assistant to determine the quality of the process. If process follows the quality standard and

no issues arise during the implementation of the activities, the project would have achieved process compliance.

4.4.2.2. Product Quality

The product quality standards and requirements are determined by the project supervisors according to commercial and agricultural sustainability standards. There may be product-specific quality standards identified that are not currently part of the plan. For this case, the supervisors will pay special attention to the ToRs and TSs submitted by the partners in order to incorporate them into the project documentation, if approved. The activities will be supervised closely by supervisors and field monitors, to guarantee that the product is compliant with quality standards.

4.4.3. Stakeholders

In order to define the quality requirements expected by the stakeholders, it is important to identify each stakeholder, and the level of impact, interest, power, and influence they have in the project.

Table 24. Stakeholder Matrix. Source: Compiled by author.

N°	Stakeholder	Role	Impact	Interest	Power	Influence
1	MAG	Client	High	High	High	Medium
2	ITAIPU	Sponsor	High	Medium	High	High
3	MIC/STP/ UGP	Technical Assistance	Low	Low	Low	Low
4	Rural Farmers	Customer	Low	High	Low	Low
5	Contractors	Suppliers	High	Medium	Low	Medium
6	UNOPS	Management Implementer	High	High	Medium	High

4.4.3.1. Roles and Responsibilities

Project stakeholders play a vital role in quality management. In order to ensure that appropriate quality standards are established at every level, the following roles and responsibilities have been identified:

- Client: The Client is the beneficiary of the project. He is a sitting member of the Steering Committee. As such, the Client will ensure the Steering

Committee is informed of all quality standards and initiatives regarding the Project. The Client is responsible for approving all established quality standards for the project. Additionally, the Client will ensure that quality management standards and practices are met prior to accepting project deliverables and authorizing project completion.

- **Sponsor:** The Project Sponsor finances the project. The Sponsor is responsible to ensuring that adequate resources are available on time to properly implement the Quality Management Plan.
- **Technical Assistance:** The specialized institutions that provide support to the project are very important stakeholders. These institutions provide valuable inputs that make it possible to have a precise and efficient implementation of the project. The inputs guarantee that the project outputs will be quality products and will satisfy the requirements of the client.
- **Customer:** The final recipients of the project are distributed geographically over the country. They are monitoring actors that communicate the quality of the project. Their participation is minimum in the project management and decision-making process, but their input provides improvement opportunities.
- **Suppliers:** The providers are relevant stakeholders with direct influence in the project quality, since their inputs are used to produce the expected products. Monitoring providers guarantee the quality of the intervention.
- **UNOPS:** UNOPS is the implementer of the project. A Project Manager is designed by UNOPS and has overall responsibility for quality management of the Project. The Project Manager is responsible for the implementation of the Quality Management Plan as well as ensuring all products, processes, and documentation adhere to the plan. The Project Manager will work with the supervisors to ensure and monitor that quality standards are established at all levels in all areas of the project.

4.4.3.2. Stakeholder prioritization “L-Shaped Matrix”

Table 25. Stakeholder prioritization “L-Shaped Matrix”. Source: Compiled by author.

Stakeholder Prioritization	MAG	ITAIPU	MIC/STP/UGP	Rural Farmers	Suppliers	UNOPS	Row Total	Row Decimal Value
MAG		1	10	1	10	1	23	0.23
ITAIPU	1		10	10	10	1	32	0.32
MIC/STP/UGP	1/10	1/10		1/10	1/10	1/10	0.5	0.00
Rural Farmers	1	10	1/10		5	10	26.1	0.26
Suppliers	1/10	1/10	1/10	1/5		5	5.5	0.05
UNOPS	1	1	10	1/10	1/5		13	0.13
							100	1.00

Key:
10 Much more important
5 More important
1 Equally important
1/5 Less important
1/10 Much less important

The L-Shaped Matrix reveals that ITAIPU’s and the rural farmers’ requirements should be prioritized. However, it should be noted that MAG is the institution in charge of leading the project for the rural farmers. As a channel, MAG priorities reveal the best practices and most beneficial intervention for family agriculture according to the national policy.

4.4.4. Project Products and Processes Subject to Quality Review

In order to achieve the expected quality requirements, after the stakeholder's analysis, process and product requirements are identified and prioritized.

4.4.4.1. Quality Assurance Requirements

After a brainstorming session with stakeholders, the process requirements defined are:

Table 26. Process Requirements. Source: Compiled by author.

Requirement	Definition
Celerity	This refers to quickness, rapidity, rapidness, speediness in the processes. Considering the tight agricultural calendar, it is a requirement that all processes are expeditious.
Efficiency	This refers to achieving the highest amount of output of the expected quality, using the least amount of inputs. If the project is efficient, resources would be optimized when achieving the planned results.
Transparency	This refers to openness, ongoing communication, and public accountability. Transparency contributes with the effort of eradicating corruption. Since the funds invested in the project are public funds, it is a requirement that the resources are used with transparency and accountability.
Sustainability	Sustainable development has been defined in Our Common Future, also known as the Brundtland Report, as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs." This requirement implies that intervention should be constant, balanced, and environmentally oriented.

4.4.4.1.1. Stakeholder requirements prioritization

Each stakeholder has its own priorities, depending on their particular interests. In this sense, Tables 27 to 33 show the relation between the requirements prioritization of each stakeholder.

Table 27. MAG prioritization matrix. Source: Compiled by author.

MAG	Celerity	Efficiency	Transparency	Sustainability	Row Total	Relative Decimal Value
Celerity		1	5	10	16	0.46
Efficiency	1		5	10	16	0.46
Transparency	1/5	1/5		1	1.4	0.04
Sustainability	1/10	1/10	1		1.2	0.03
					34.6	1

MAG priorities are celerity and efficiency. They prefer to have results on time and optimizing resources to provide support to the highest quantity of rural farmers.

Table 28. ITAIPU prioritization matrix. Source: Compiled by author.

ITAIPU	Celerity	Efficiency	Transparency	Sustainability	Row Total	Relative Decimal Value
Celerity		1/5	1/5	1/5	0.6	0.03
Efficiency	5		1	1	7	0.32
Transparency	5	1		1	7	0.32
Sustainability	5	1	1		7	0.32
					21.6	1

ITAIPU Binacional's priorities are efficiency, transparency, and sustainability. The sponsor is more interested in the efficient and transparent use of resources, to guarantee sustainability, rather than having rapid results.

Table 29. MIC/STP/UGP prioritization matrix. Source: Compiled by author.

MIC/STP/UGP	Celerity	Efficiency	Transparency	Sustainability	Row Total	Relative Decimal Value
Celerity		1	1/5	1/5	1.4	0.06
Efficiency	1		1	1	3	0.14
Transparency	5	1		5	11	0.51
Sustainability	5	1	1/5		6.2	0.29
					21.6	1

The technical assistance providers, MIC/STP/UGP, consider that transparency is priority. They also prefer the intervention to be sustainable, over efficiency and celerity.

Table 30. Rural Farmer prioritization matrix. Source: Compiled by author.

Rural Farmers	Celerity	Efficiency	Transparency	Sustainability	Row Total	Relative Decimal Value
Celerity		1/5	5	1	6.2	0.25
Efficiency	5		5	1	11	0.44
Transparency	1/5	1/5		5	5.4	0.22
Sustainability	1	1	1/5		2.2	0.09
					24.8	1

Rural farmers prefer efficiency and celerity over transparency and sustainability. As end users, their priority is to receive the assistance, efficiently and on time.

Table 31. Supplier prioritization matrix. Source: Compiled by author.

Suppliers	Celerity	Efficiency	Transparency	Sustainability	Row Total	Relative Decimal Value
Celerity		5	10	10	25	0.72
Efficiency	1/5		1	1/5	1.4	0.04
Transparency	1/10	1		1	2.1	0.06
Sustainability	1/10	5	1		6.1	0.18
					34.6	1

The supplier’s interest is to make business, selling their services and products to the implementer. In this sense, they prioritize the celerity of the processes.

Table 32. UNOPS prioritization matrix. Source: Compiled by author.

UNOPS	Celerity	Efficiency	Transparency	Sustainability	Row Total	Relative Decimal Value
Celerity		1/5	1/10	1/5	0.5	0.01
Efficiency	5		1	1	7	0.20
Transparency	10	1		1	12	0.35
Sustainability	5	1	1		7	0.20
					26.5	1

UNOPS’s priority is transparency, since that is the added value offered by the organization. Accountability and openness are the values that guarantee the proper use of resources. Moreover, UNOPS is interested in providing services in an efficient and sustainable manner.

Table 33. Stakeholders' Weighted Requirements Prioritization matrix. Source: Compiled by author.

Weighted Requirements Prioritization	MAG	ITAIPU	MIC/STP/UGP	Rural Farmers	Suppliers	UNOPS	Row Total	Relative Decimal Value
Celerity	0.46	0.03	0.06	0.25	0.72	0.01	1.54	0.27
Efficiency	0.46	0.32	0.14	0.44	0.04	0.20	1.61	0.28
Transparency	0.04	0.32	0.51	0.22	0.06	0.35	1.50	0.26
Sustainability	0.03	0.32	0.29	0.09	0.18	0.20	1.11	0.19
							5.77	1

After the weighted analysis of the requirements of stakeholders, the project's priority is efficiency, understanding that the project processes must be performed optimizing resources. Afterwards, the project processes must prioritize keeping pace to guarantee the expeditious delivery of outputs. Subsequently, transparency would be taken into account to assure the proper allocation of resources. Lastly, sustainability would be prioritized to provide environmentally sustainable solutions.

4.4.4.1.2. Quality Assurance Activities

Quality assurance efforts for the Project will ensure that the processes used in this project produce deliverables that meet the established quality standards agreed by stakeholders. In other words, quality assurance will prevent any defects in the final deliverables, while maximizing efficiency and minimizing waste.

The processes and standards must be audited at the end of each stage, as in the chart below. The standards have been developed as a foundation for guaranteeing project quality as it relates to the various processes involved. UNOPS is responsible of each process meeting the established quality standards. For each process, the Project Manager will ensure these standards, the activities, and the schedule are met.

It is important to note that, as the Project Plan evolves, processes and quality standards may change, prior formal approval. If any changes are made, the Project Manager is responsible for communicating the changes to the project team and updating all project plans and documentation.

Table 34. Quality Assurance Activities. Source: Compiled by author.

Process	Standard	Stages	Metrics		Tolerance	Responsible
Human Resources	Regulations and procedures in the Process & Quality Management System regarding HR Recruitment	<ul style="list-style-type: none"> -Prepare vacancy announcement. -Assess candidates. -Issue contract agreement. -Human Resources Management 	Celerity	Process within schedule. 100% of HR must be hired before the planting season in September.	Max. deviation accepted of 1 week.	UNOPS (PM + HR)
			Efficiency	100% of Resources hired according to plan. Resources are enough to	Allocation of retainers might be accepted if it does not exceed HR budget line, to	UNOPS (PM)

				implement all the planned activities.	cover up to 10% of supervision activities.	
			Transparen-cy	ITAIPU and MAG focal points participate in 100% of the assessment processes.	10%	ITAIPU + MAG + UNOPS (PM)
			Sustainabili-ty	100% of the ToRs are prepared including sustainabi-lity criteria.	10% of HR might not have sustainabi-lity experience.	MAG + UNOPS (PM)
Procure-ment	Regulations and procedures in Process & Quality Management System regarding Procurement, and the Procurement Manual	-Require-ments definition -Sourcing. -Solicitation -Manage-ment of Submissions -Evaluation. -Review and Award -Contract finalizations and issuance -Logistics -Contract Management	Celerity	Process within schedule. 100% of procurement must be formalized before the planting season in September.	Max. deviation accepted of 1 week.	UNOPS (PM + Procurement)
			Efficiency	100% of procurement according to plan. Resources are enough to implement all planned activities.	Allocation of extra services and supplies might be directly contracted to achieve project objectives, if it does not exceed the total amount of direct	UNOPS (PM)

					costs.	
			Transparen-cy	ITAIPU and MAG focal points participate in 100% of assessment processes.	10%	ITAIPU + MAG + UNOPS (PM + Procurement)
			Sustainability	100% of the ToRs and TSs are prepared including sustainability criteria.	10% of the tender documents might not include a sustainability criterion.	MAG + UNOPS (PM + Procurement)
Finance	Regulations and procedures in the Process & Quality Management System regarding Finance	<ul style="list-style-type: none"> -Manage payments. -Manage cash issuance. -Manage cash replenishment -Manage cash closure. -Client Financial Reporting. -Client Project Final Refund. -Client Project Closure. 	Celerity	Process within schedule. 100% of payments and reports must be issued within 1 week of request.	Max. deviation accepted of 2 days.	UNOPS (PM + HR)
			Efficiency	100% of payments and reports are issued according to plan. Resources are enough to cover all planned activities.	Losses due to exchange rates differences are acceptable, if they do not exceed the total amount of direct costs.	UNOPS (PM)

			Transparency	100% of payments reported with supporting information.	Indirect costs details might be exempt.	ITAIPU + MAG + UNOPS (PM)
			Sustainability	100% of payments and reports are issued online.	Specific reports might be issued on paper, upon request.	MAG + UNOPS (PM)

4.4.4.2. Quality Control Requirements

In order to analyze the product requirements, it is important to consider the expected products and the acceptance criteria of the project:

Table 35. Project deliverables and products acceptance criteria. Source: Compiled by author.

Project Deliverables	<ol style="list-style-type: none"> 2. Land clearing of 4,000 hectares through topping, for the application of mechanized seeding of new plots. 3. Mechanized planting of 6,000 hectares through the application of conventional practices and conservation agriculture. 4. Training and formalization of 2,500 rural MSMEs for their integration into value chains. 1. Capacity development of the stakeholders involved in the project through technical training days.
Products Acceptance Criteria	<ol style="list-style-type: none"> 2. To acquire inputs (seeds, fertilizers, herbicides, lime, and others) for planting 10,000 hectares. 3. To reach the goal of 10,000 hectares cleared and planted with inputs purchased by the project. It is expected that at least 10,000 families will benefit, encompassing a population of 40,000 inhabitants, and that 25% will manage to exit the extreme poverty and poverty groups after 1 year of sustained assistance from the project. 4. At the end of the project, 2,500 new MSMEs are expected to be functional and with trained personnel for commercialization activities. 5. The goal related to the empowerment of women states that at least 50% of the beneficiaries must be women.

4.4.4.2.1. Product Metrics and Quality Baseline

The delivery of each product would be met by complying with product requirements. Product requirements are defined in the Requirements Traceability Matrix in Table 36.

Considering the agricultural nature of the project, the quality of products is assessed through regular audits of the acceptance criteria by the monitoring assistant, and the data gathered by the supervisors and monitors through FieldSight, as described in Table 36.

Table 36. Product metrics and quality baseline. Source: Compiled by author.

N°	Metric	Type of Metric	Review method	Frequency	Acceptance criteria	Responsible
1	Quantity of supplies acquired and distributed (seeds, fertilizers, herbicides, lime, and others)	Product	FieldSight	Once, after award of contract at moment of delivery	Purchase supplies for sowing 10,000 ha.	Supervisors
2	Quantity of hectares sowed per item	Product	FieldSight	Daily	Sow 10,000 ha. of crops.	Supervisors
3	Quantity of hectares cleared through topping, for the application of mechanized seeding of new plots	Product	FieldSight	Daily	Clear 4,000 ha.	Supervisors
4	Quantity of hectares mechanized through the application of conventional practices and conservation agriculture	Product	FieldSight	Daily	Mechanize 6,000 ha.	Supervisors
5	Amount of the budget allocated per assigned line	Project	ERP + GoogleData Studio	Weekly	Spend a maximum of USD 4,922,000 in total	PM

6	Activities implemented according to Schedule	Project	Ou Project	Monthly	Implement 100% of planned activities within 12 months of project.	PM
7	Quantity of rural farmers and total number of families benefited from the Project	Product	FieldSight	Weekly	Support 10,000 small rural farmers with agricultural services	PM
8	Quantity of women involved in rural labors benefited from the project	Project	FieldSight	Weekly	Involve at least 5,000 women in agricultural works.	PM
9	Percentage of farmers in extreme poverty and poverty groups after 1 year of sustained assistance in the project	Project	FieldSight	Every six months	Provide commercial tools to 2,500 "graduated" beneficiaries	PM
10	Quantity of rural MSMEs trained and formalized	Product	FieldSight	Every six months	Train and formalize at least 2,500 rural MSMEs	Supervisors
11	Quantity of MSMEs integrated into value chains	Product	FieldSight	Every six months	Integrate at least 2,500 rural MSMEs into the market.	Supervisors
12	Quantity of stakeholders involved in the project participating in technical training	Product	FieldSight	Monthly	Train at least 1,000 MAG technicians	Supervisors

The quality of contracted services and the supplies provided are subject to the ToRs and TSs that MAG will submit, and to the approval of the project's technical supervisors, in due time according to the project schedule.

4.4.4.2.2. Quality Control Activities

Quality control in the Project will ensure that all project deliverables comply with established quality standards, detecting and fixing any defects while the product is being developed. To meet stakeholders' requirements and expectations, a formal process for the measurement and acceptance of quality standards must be implemented. For each deliverable, the Project Manager will oversee the quality standards, quality control activities, and frequency of activities outlined. The Project Manager will be able to do this through the supervisors and field monitors, since that is part of the management contract.

It is important to note that as the Project Plan evolves, deliverables and quality standards may change, prior formal approval. If any changes are made, the Project Manager is responsible for communicating the changes to the project team and updating all project plans and documentation.

Table 37. Quality Control Activities. Source: Compiled by author.

Deliverable	Quality Standards	Quality Control Activities	Frequency	Responsible
1. Land clearing of 4,000 hectares through topping, for the application of mechanized seeding of new plots.	4,000 hectares of land cleared and sowed	Lab and Field monitoring	-Lab tests of seeds and supplies selected randomly. -Plots and machinery monthly verification. -Daily field visits to areas of the beneficiaries' parcels.	-For Lab Tests, supervisors are responsible for random sample collection. -Plots and machinery verification is performed by monitors and supervisors before contract signing, and monthly, during works. -Works are monitored on a daily basis using FieldSight.

2. Mechanized planting of 6,000 hectares through the application of conventional practices and conservation agriculture.	6,000 hectares of land mechanized and sowed	Lab and Field monitoring	-Lab tests of seeds and supplies selected randomly. -Plots and machinery monthly verification. -Daily field visits to areas of beneficiaries' parcels.	-For Lab Tests, supervisors are responsible of random samples collection. -Plots and machinery verification is performed by monitors and supervisors before contract signing, and monthly during works. -Works are monitored on a daily basis using FieldSight.
3. Training and formalization of 2,500 rural MSMEs for their integration into value chains.	2,500 rural MSMEs formalized	Documental review	-Progress reports' monthly revision. -Weekly survey to beneficiaries.	-Contractors submit a progress report on formalization to supervisors monthly. -Beneficiaries are consulted weekly about formalization during monitoring of field work.
	2,500 rural MSMEs trained	Training monitoring	-Weekly supervision of trainings.	-Supervisors supervise trainings online and onsite weekly.
4. Capacity development of the stakeholders involved in the project through technical training days.	MAG technicians trained	Training monitoring	-Weekly supervision of trainings.	-Supervisors supervise trainings online and onsite weekly.

The Client and the Sponsor are responsible for the formal acceptance of each deliverable meeting the established quality standards.

4.4.5. Quality Control and Assurance Monitoring

A quality record will be used to summarize the planned and actual results of all quality management activities and will be used to provide quality outcome information for the project progress reports. The Quality Control and Quality Assurance Logs will be updated daily by the supervisor or assistant in charge of the activity, using the digital platform FieldSight ([available for free on Google Play for Android and iOS](#)).

These logs will be reviewed weekly by the Project Manager and also monthly by the other stakeholders, during the project status meetings. The purpose of these logs is to track quality control and assurance activities until closure or until they are no longer required.

4.4.6. Quality Improvement

Quality improvement will be performed according to the plan-do-check-act cycle model for quality improvement. Changes will be “planned”, so as to ensure they will have beneficial effects. Next, the team will “do” the plan on a small scale. Then, results will be “checked” to determine effectiveness, and finally, the team will “act” to implement the change system-wide if it is effective. If the change is not effective, the team will return to the plan steps and start over with better information.

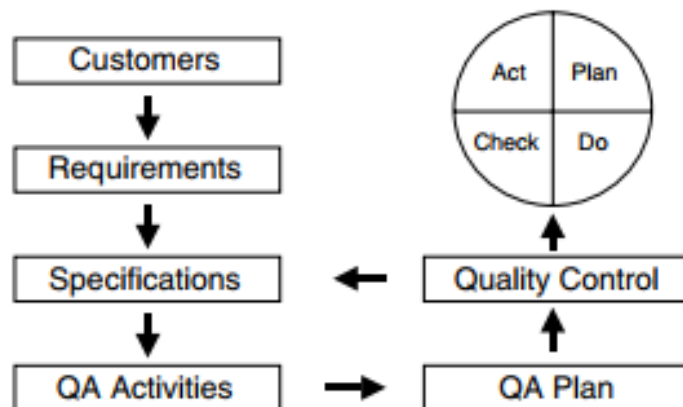


Figure 10. Quality Journey: quality improvement. Source: Rose, 1947, p. 73.

4.5. Resource Management Plan

According to the PMBOK® Guide (2017), Project Resource Management includes “the processes to identify, acquire and manage the resources needed for the successful completion of the project. These processes help ensure that the right resources will be available to the project manager and project team at the right time and place.” (p.307)

The Small Rural Farmers Development Programme Resource Management Plan provides guidance on how project resources are categorized, allocated, managed, and released. To obtain the Resource Management Plan, planning and estimating processes were performed.

4.5.1. Resource Management Approach

This Resources management plan is a tool which will aid in the management of the resource activities throughout the project life cycle. The human resources management plan includes:

- Roles and responsibilities of team members throughout the project,
- Guidance on the acquisition process,
- Project organizational charts,
- How performance will be measured, and
- Training and development guidance.

The purpose of the human resources management plan is to achieve project success by ensuring the appropriate resources are acquired with the necessary skills and experience. Besides, the plan ensures that resources are trained if any gaps in skills are identified. Team building strategies are clearly defined and effectively managed.

The Resources acquisition and management is responsibility of the Project Manager. For a matter of transparency and accountability, personnel is acquired by the organization with no external influence, except during the evaluation, when partners may participate.

4.5.2. Identification of Resources

After an analysis of the work load, the schedule, and the available budget, the resources needed to implement the project activities are identified in Table 38.

Table 38. Project Personnel Chart. Source: Compiled by author.

PROJECT PERSONNEL	HR Scale Level	Qty	Months	Total Months needed
Project Manager	LICA 9.6	1	9	9
Procurement officer	LICA 5.3	1	1	1
Field supervisor	LICA 6.7	4	10	40
Monitoring assistant	LICA 3.5	3	7	21
Finance assistant	LICA 3.5	1	10	10

4.5.3. Acquiring Resources Guidance

The Project Manager is appointed by UNOPS to develop and implement the project. The Project Manager is responsible for the HR recruitment, with the support of the Regional Offices, whose expenses are covered under the Indirect Costs of the organization. The recruitment process is performed following the regulations and policies of the organization.

The recruitment process includes:

4.5.3.1. Prepare Vacancy Announcement

The Hiring Manager, with the support of an HR Practitioner, prepares the Vacancy Announcement (VA) using the appropriate template. The Hiring Manager ensures that the VA reflects the minimum requirements of the position in terms of competencies, required skills, work experience, knowledge, education, and language as set in the Job Profile (Terms of reference (TOR)/Job Description (JD)), to better ensure that relevant, qualified, and interested candidates apply. The VA should remain open for at least fourteen (14) calendar days from the date of posting in GPRS.

4.5.3.2. Assess Candidates

Applicants whose applications are submitted by the closing date must be assessed exclusively against the pre-defined qualification criteria included in the Vacancy Announcement (VA):

Table 39. Candidates profile. Source: Compiled by author.

Role	Responsibility
Project Manager	Skills: Effective communication, solution-focused, results-oriented, strategic perspective, partnering, leading self and others, integrity, and inclusion Knowledge: Project management Experience: 9 years leading or coordinating projects Education: Bachelor's degree in relevant field, Master's degree in Project Management.
Procurement officer	Skills: Effective communication, solution-focused, results-oriented, agility Knowledge: Procurement Experience: 5 years leading purchases Education: Bachelor's degree in Finance, Administration or similar
Field supervisor	Skills: Effective communication, solution-focused, results-oriented, agility, leading self and others, integrity, and inclusion Knowledge: Supervision Experience: 6 years of field work in rural areas Education: Bachelor's degree in Agronomy or similar
Monitoring assistant	Skills: Effective communication, solution-focused, results-oriented, agility, integrity, and inclusion Knowledge: Monitoring Experience: 3 years of monitoring work in rural areas Education: High School degree with technical training in agriculture
Finance assistant	Skills: Effective communication, solution-focused, results-oriented, agility Knowledge: Accounting Experience: 3 years working in accounting Education: Bachelor's degree in Accounting

A technical assessment must be documented in written form and marked anonymously by at least two (2) reviewers.

All interviews for the same position must be conducted in the same manner: either in person or virtually (e.g. by telephone, Skype, or WebEx), and by the same assessment panel (except when there are large recruitment campaigns and the reasons are documented in writing).

The assessment conducted by the panel must be documented in minutes reflecting the evaluation and rating of each candidate in order to leave no doubt

as to the recommendations of the interview panel and the reasoning behind such recommendations. Opinions expressing disagreement with the majority must be also documented in writing when applicable. The panel must document their agreement with the content of the minutes (e.g. signing the minutes or confirming by email that a certain version circulated by email is correct).

The final ranking order of recommended candidates must contain additional information relevant to the position.

The Hiring Manager or the HR Practitioner must obtain the two (2) most recent performance assessment reports of the candidate.

4.5.3.3. Issue Contract Agreement

Administrative actions prior to contract issuance are communicated to selected candidates via a “welcome email”. The notification of selection includes the forms that the Individual Contractor is required to complete (Contract agreement).

Once the agreement is signed and uploaded to the database, the contractor is officially personnel of the project.

4.5.4. Roles and Responsibilities

The roles and responsibilities for the Project are essential to project success. All team members must clearly understand their roles and responsibilities appearing in the ToRs. In this way, they can successfully perform their portion of the project and guarantee that the work activities are done according to plan. For the Project, the following project team roles and responsibilities have been established:

Table 40. Roles and responsibilities of project team members. Source: Compiled by author.

Role	Responsibility
Project Manager	Responsible for the general Management of the Project. Project recruitment leader. Responsible for the overall success of the Project. The PM must authorize and approve all project activities and expenditures. He/she is responsible for approving that work activities meet established acceptability criteria and fall within acceptable variances. The PM will be responsible for reporting project status in accordance with the communication management plan. The PM will evaluate the performance of all project team members and communicate their performance to HR.

Procurement officer	Responsible for the procurement processes for contracting services and acquiring goods for the project. Reviews ToRs and TSs. Finalizes tender documents. Leads the clarification process during tenders and evaluations. Recommends awards.
Field supervisor	Monitoring and control of project activities in the field. Provides technical support in agricultural matters to guarantee project quality. Each supervisor is in charge of a specific geographical area and it is assisted by monitoring assistants.
Monitoring assistant	Provides support to field supervisors in field monitoring and reporting tasks. Their main duty is to gather information in the
Finance assistant	Provides administrative support. Performs verification of documentation and payment processes. He/she is responsible for the archive.

4.5.5. Project Organization

The Project Manager leads the project with the support of the project team. The roles and responsibilities interact actively and are closely related as shown in Table 41.

Table 41. RACI Chart. Source: Compiled by author.

Activity	Role				
	Project Manager	Procurement Official	Field Supervisor	Monitoring Assistant	Finance Assistant
Complete project documentation	R-A	C	Q	C	I
Procure goods and services	A	R	Q	Q	I
Hire Human Resources	R-A	-	Q	Q	I
Monitor field activities	A	-	R	C	I
Project delivery progress	R-A	C	C	C	C
Payments	A	-	-	-	R
Project Closure	R-A	C	C	C	C
Roles	R= responsible	A= accountable	C= consulted	I= informed	Q= quality reviewer

The Organizational Breakdown Structure in Chart x, shows the relationship between project tasks and team members. Any proposed changes to project responsibilities must be reviewed and approved by the project manager.

Changes will be proposed in accordance with the project’s change control process. As changes are made, all project documents will be updated and redistributed accordingly.

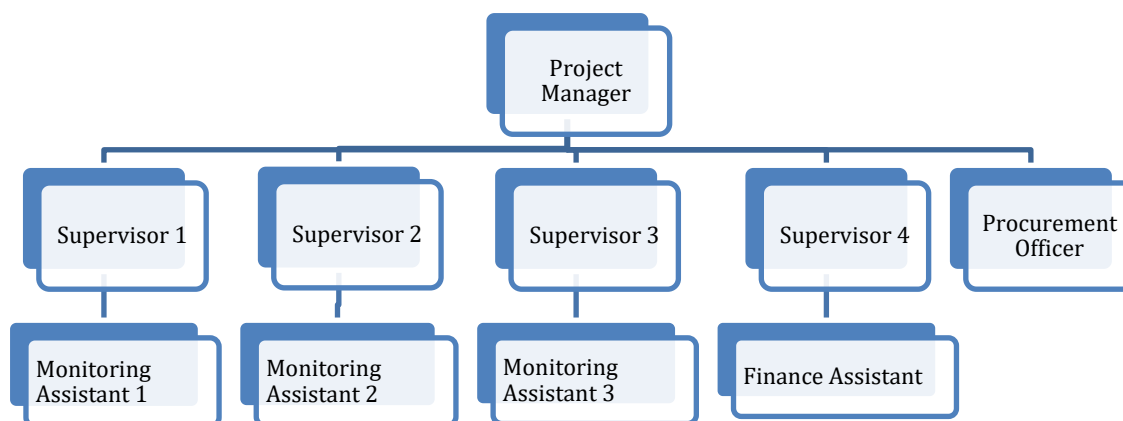


Figure 11. Project Organizational Chart. Source: Compiled by author.

In order to provide a clear guidance and purpose to the project team, a team charter is defined in Table 42.

Table 42. Team Charter. Source: Compiled by author.

Team Charter	
Team Name	Small Rural Farmers Development Programme Team
Team Purpose	The team will ensure the successful delivery of the activities planned to provide tools for rural development and welfare to the farmers practicing family agriculture, based on project management international standards.
Mission	The team mission is to help rural farmers practicing family agriculture build better lives and achieve sustainable development.
Vision	The team vision is to transform the rural farmers’ perspective of production and commercialization, to a sustainable and prosper perspective of family agriculture.
Objectives	<ol style="list-style-type: none"> 1. Provide optimized services 2. Be proactive and active 3. Ensure quality of processes and products 4. Earn trust of stakeholders and engage 5. Report quickly and constantly

4.5.6. Project Team Resource Management Guidance

The Performance management framework must be used by personnel to establish, review, and evaluate individual goals against corporate goals, ensuring full alignment of individual goals with corporate goals and strategic direction.

All personnel who have an ongoing contract or who have worked for a minimum of six (6) months in a given calendar year must complete a performance evaluation. Where applicable, this must be done on an annual basis in line with the performance appraisal cycle, unless a different timeframe is approved. A Performance Evaluation Report (PER) must be completed when the cumulative duration of the contract and its amendment(s) is six (6) months or longer in a given calendar year.

Regular performance-related discussions must take place between the supervisor and the supervised personnel, and satisfactory performance must be certified prior to payment of any fees.

Supervisees must be given the opportunity to comment on any negative feedback before such negative feedback can be taken into account in the assessment.

The ratings of objectives are as follows:

- 1-Far Exceeded Expectations
- 2-Exceeded Expectations
- 3-Fully Met Expectations
- 4-Partly Met Expectations
- 5-Unsatisfactory Performance

Ongoing performance-related discussions take place throughout the year. A continuous feedback culture is encouraged. As such, supervisors and supervisees should seek and give regular feedback. If the supervisor has observed (throughout the year) results that are below expectations and/or deficiencies in demonstrating required competencies, he/she must inform the individual of these shortcomings. This feedback must be communicated in a constructive way and documented to the extent possible. The actions to address substandard performance must be taken by the supervisor in a timely

manner and appropriately documented (e.g. through email exchanges, note to file, comments included in or files uploaded to the PER tool, etc.).

If personnel obtain two consecutive “Partly Met Expectations” performance ratings, action should be taken to terminate the agreement with the contract holder.

4.5.7. Project Team Training and Development

Personnel of the project are eligible to apply to participate in learning activities funded by the corporate budget. Participants attending training or serving as resource persons are considered to be on official duty.

The project will reimburse personnel up to a maximum of USD 500 per year for costs associated with certification training, membership renewal examinations, and annual membership fees in accredited professional organizations, institutes, associations, and societies directly related to their work. The costs shall be charged to the same source of funding as the individual’s salary.

Personnel that is attending a high-level university degree course, such as a Bachelor’s and/or Master’s degree, either through an Education Assistance Programme or on their personal capacity, will be allowed to take two (2) days per academic semester (up to a total of four (4) days per academic year) of special leave, with full pay for study purposes and exam attendance only. Leave days cannot be carried over to the subsequent semester.

This will require the agreement of the supervisor and should be requested in advance.

4.5.8. Estimate Activity Resources

Estimate Activity Resources is defined by the PMBOK® Guide (2017) as “the process of estimating team resources and the type and quantities of materials and supplies necessary to perform project work” (p. 320).

The physical resources needed for the project implementation are purchased with operational budget included in the Cost Management Plan according to the roles and responsibilities of the personnel, based on the experience of previous projects. Transportation is responsibility of the employee, while the project covers fuel and Daily Subsistence Allowance (to be reimbursed).

Table 43. Physical resources chart. Source: Compiled by author.

Personnel Appointed	Physical Resource	Qty	Ownership	Cost per Unit	Total Cost
Project Manager	Computer	1	UNOPS	900	900
Procurement officer	Computer	1	UNOPS	900	900
Field supervisor	Cellphone	4	UNOPS	250	1,000
Monitoring assistant	Cellphone	3	UNOPS	250	750
Finance assistant	Computer	1	UNOPS	900	900
Total Cost USD					4,450

4.5.9. Control Resources

In order to ensure that the physical resources assigned and allocated to the project are available as planned, as well as monitored for their proper use, control activities will be carried out by the Project Manager. The supervisors will supervise the correct use of resources of the assistants that report to them according to Figure 11. Project Organizational Chart.

The process will be performed continuously in all project phases and throughout the project life cycle using the FieldSight platform. The holder of an asset will upload, on a monthly basis, a photo of the resource that was assigned to the staff according to Table 43. Physical resources chart. In case of damages or loss, the issue should be reported immediately to the supervisor in order to take action.

Before the end of the contract, personnel must return the physical resource to the organization.

4.6. Risk Management Plan

According to the PMBOK® Guide, “Project Risk Management includes the processes of conducting risk management planning, identification, analysis, response planning, response implementation, and monitoring risk on a project” (2017, p. 395).

Risks are defined by the PMBOK® Guide as uncertain events or conditions that, should they occur, will have an effect—positive or negative—on achieving the project objectives (PMBOK®, 2017, p. 397). It is important to notice that a risk is not an event or occurrence which has already befallen a project. It is an event that might happen, and can be either a threat or an opportunity.

The Project Risk Management Plan of the Small Rural Farmers Development Programme describes how risk management activities are structured and performed.

4.6.1. Risk Management Approach

The general approach to managing project risks includes a methodical process completed on a weekly basis by the project team. During brainstorming sessions, the project team identifies, scores, and ranks the various risks. The most likely and highest impact risks are closely monitored to ensure that the assigned supervisor takes the necessary steps to implement the mitigation response at the appropriate time during the schedule. Supervisors will provide status updates on their assigned risks in the weekly project team meetings.

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

4.6.2. Risk Management Process

The methodology used in the risk management process is defined below.

4.6.2.1. Risk Identification

Risk identification will involve the project team and appropriate stakeholders, and will include an assessment of environmental factors, organizational culture, the project management plan, and any other possible sources of risks. Brainstorming sessions will be held weekly, to briefly evaluate the appearance of a new risk and plan mitigation actions.

A Risk Management Log will be generated in FieldSight and updated as needed. The Log will be stored electronically in the project library and will be accessible to the Project team.



4.6.2.2. Risk Analysis

All risks identified will be assessed to recognize the range of possible project outcomes. Qualification will be used to determine which risks are the top risks to pursue and respond to and which risks can be ignored.

The analysis will include the type of risk, the category, and the description, and the possible consequences will be clearly described.

The consequences are measured in terms of financial, reputational, legal, scope/ technical, quality, time and health, safety, social, and environmental effects.

4.6.2.3. Qualitative Risk Analysis

The probability, proximity and impact for each identified risk will be assessed by the project manager, gathering input from the project team.

To assess the probability, the question to be answered is “How likely is the risk to materialize?” The probability will be scored from 1, if the probability is low, to 4, if the risk is highly likely to materialize.

Table 44. Probability of occurrence definition. Source: Compiled by author.

Probability of Occurrence	Probability is the estimated likelihood or probability of a particular threat or opportunity
1 – Low	Very unlikely event/rare (≤30% likelihood)

2 – Low to Medium	Unlikely event (30-50% likelihood)
3 – Medium to High	Likely event (50-70% likelihood)
4 – High	Very likely event (≥70%)

To assess the impact, the question to be answered is “What consequences are expected?” The severity of the impact will be scored 1, if the impact is not significant, to 4, when the consequences expected are serious.

Table 45. Impact definition. Source: Compiled by author.

Impact	Impact is the estimated result of a particular threat or opportunity occurring.
1 – Low	Minor or little impact on the entity’s objectives
2 – Low to Medium	Moderate impact on the entity’s objectives
3 – Medium to High	Significant impact on the entity’s objectives and/or potential organizational-wide consequences
4 – High	Very significant impact on the entity’s objectives and potential significant organizational-wide consequences

The relation between impact and frequency is shown in Table 46. Risks in red must be closely monitored, since their materialization will directly impact project results.

Table 46. Impact/frequency guidance. Source: Compiled by author.

Impact	4. High	3. Medium to High	3. Medium to High	4. High	4. High
	3. Medium to High	2. Low to Medium	3. Medium to High	3. Medium to High	4. High
	2. Low to Medium	2. Low to Medium	2. Low to Medium	2. Low to Medium	3. Medium to High
	1. Low	1. Low	1. Low	1. Low	2. Low to Medium
Risk Level Bands		1. Low	2. Low to Medium	3. Medium to High	4. High
		Frequency			

Lastly, proximity will be assessed answering the question “How quickly is the risk likely to materialize?” The importance of the moment of occurrence comes from the fact that a project is time bounded and a complication on the schedule can affect pertinently the project success.

4.6.2.4. Quantitative Risk Analysis

Analysis of risk events that have been prioritized using the qualitative risk analysis process and their effect on project activities will be estimated, a numerical rating applied to each risk based on this analysis, and then documented in the risk management plan.

4.6.2.5. Risk Response Planning

Based on the assessed risk level and its proximity, the need of review and the frequency of review of a risk response and/or risk escalation is determined:

Table 47. Risk response guidance. Source: Compiled by author.

Risk Level	Review Guidance and Frequency			
4. High	Guidance: Required response and escalation Review frequency: Quarterly	Guidance: Required response and escalation Review frequency: Monthly	Guidance: Required response and escalation Review frequency: Monthly	Guidance: Required response and escalation Review frequency: Weekly
3. Medium to High	Guidance: Recommended response Review frequency: Quarterly	Guidance: Recommended response Review frequency: Quarterly	Guidance: Recommended response and escalation Review frequency: Monthly	Guidance: Recommended response and escalation Review frequency: Weekly
2. Low to Medium	Guidance: Optional response Review frequency: Quarterly	Guidance: Optional response Review frequency: Quarterly	Guidance: Optional response Review frequency: Monthly	Guidance: Optional response Review frequency: Weekly

1. Low	Guidance: Optional response Review frequency: Biannual	Guidance: Optional response Review frequency: Quarterly	Guidance: Optional response Review frequency: Quarterly	Guidance: Optional response Review frequency: Monthly
Opportunities	Guidance: Optional response to the opportunity Review frequency: Biannual	Guidance: Optional response to the opportunity Review frequency: Quarterly	Guidance: Optional response to the opportunity Review frequency: Monthly	Guidance: Optional response to the opportunity Review frequency: Weekly
Risk response and review table	Within one year or beyond	Within six months	Within three months	Within one month
	Risk Proximity			

For each major risk (red & orange zones) a supervisor will be assigned for monitoring purposes to ensure that the risk will not become an issue.

For each identified risk, a clear approach must be selected, from Table 48.

Table 48. Strategies for approaching risks. Source: Adaptation of Shrivastava, 2012.

Strategies for Negative Risks or Threats		Strategies for Positive Risks or Opportunities	
Avoid	Eliminate the probability of risk event to happen.	Exploit	Ensure that the risk event happens.
Mitigate	Either reduce the probability or impact of both for the risk event.	Enhance	Either increase the probability or impact of both for the risk event.
Transfer	Transfer the negative impact of the risk event to someone else.	Share	Share positive impact of the risk event.
Accept	When none of the above strategies are possible, accept the risk and deal with it when it happens. An active acceptance strategy will seek for a contingency risk reserve to deal with the impact when the risk occurs. The contingency could be for time or cost, or both.		

For each risk that will be mitigated, the project team will identify ways to prevent the risk from occurring or reduce its impact or probability of occurring. For each major risk that is to be mitigated or that is accepted, a course of action will be outlined for the event that the risk does materialize, in order to minimize its impact.

4.6.2.6. Risk Monitoring and Control

The Risk owner will monitor and control the risks daily. When the risk owner suspects that a triggering event has occurred, he/she must report the issue immediately and initiate the response plan when appropriate, monitoring for changes in the environment leading to changes in the likelihood/consequence of an event. All of this must be tracked and reported through some logical process.

Management will be notified of important changes to risk status as a component to the Project Status Report on a quarterly basis.

4.6.3. Roles and Responsibilities

In order to define the lead, support and risk management team members for each type of activity described in the plan, and clarify the responsibilities, a RACI matrix is developed.

Table 49. Risks management roles and responsibilities RACI matrix. Source: Compiled by author.

Activity	Roles and Responsibilities				
	Project Manager	Supervisors	Monitoring/ Finance Assistants	Operating Committee	Steering Committee
Risk Identification	A - R	C	C	I	I
Risk Assessment	R	C	C	I	I
Risk Response	A	R	C	I	I
Risk Monitoring and Control	A	R	C	C - I	I

R-Responsible; A-Accountable/Approval; C-Consulted; I-Informed

4.6.4. Risk Categories

For a better understanding of risks, a Risk Breakdown Structure is provided. According to Hillson (2002), RBS is defined as “A source-oriented grouping of project risks that organizes and defines the total risk exposure of the project. Each descending level represents an increasingly detailed definition of sources of risk to the project.”

For the Small Rural Farmers Development Programme, in Table 50, we consider three levels of project risks, with supporting guidance that describes the risks in detail.

Table 50. Risks Categories. Source: UNOPS templates.

Category	Category	Risk Area	Supporting Guidance
Level I	Level II	Level III	
Partners & Stakeholders	Relations & Satisfaction	Relationship management	Related to engaging and managing relations with key partners and stakeholders (e.g. difficult or bureaucratic relationship; heavy reporting requirements; no previous relationship, representation in UN/government fora, etc.).
	Relations & Satisfaction	Buy-in from key stakeholders	Related to ability to maintain support for the approach and/or the outputs/outcome of a project from key internal or external decision makers and stakeholders (e.g. beneficiaries, authorities, management, etc.).
	Relations & Satisfaction	Media relations and negative publicity	Related to media relations and negative publicity for the organization and/or its stakeholders. For example: media coverage critical of stakeholders in local, national or international outlets; media coverage which may be influenced by local, national or international political sensitivities or agendas; media coverage which may require the preparation and/or issuance of an official statement regarding a concern or event.
	Relations &	Inter and intra	Related to coordination among

Category	Category	Risk Area	Supporting Guidance
Level I	Level II	Level III	
	satisfaction	governmental relations	different levels and structures of government, including differing priorities and/or mismatches of resources, responsibilities, and/or expectations.
	Legal and Compliance	Contractual commitments and liabilities	Related to ensuring clear and comprehensive terms and conditions for the project and the stakeholders during the contract negotiation phase, as well as managing any risks related to ability to meet contractual commitments throughout the contract implementation phase.
	Legal and Compliance	Claims, insurances and grievances	Related to situations where the organization (personnel, agents, etc.) may be implicated in actions leading to claims, grievances, or insurance-related issues through the contract implementation or project closure phase.
	Other partners & stakeholders risks	Other partners & stakeholders risks	Other partners & stakeholders risks not captured in other categories.
Finance	Treasury	Liquidity and investment management	Related to safeguarding of entrusted funds, such as ensuring liquidity of funds vis-à-vis providing reasonable return on investments.
	Currency and exchange rate	Exchange rate for contributions	Related to currency fluctuations in cash inflow i.e. funds to be received from donors, where fluctuations may require to re-scope projects or request additional funds.
	Currency and exchange rate	Exchange rate for payments	Related to currency fluctuations in cash outflow, i.e. payments made in local currency, where fluctuations may require to re-scope projects or request additional funds.
	Currency and exchange rate	Inflation or deflation	Related to change to cost of inputs due to inflation/deflation in the local economy.

Category	Category	Risk Area	Supporting Guidance
Level I	Level II	Level III	
	Contributions	Timely receipt of funds	Related to the ability of partners to transfer funds on time for projects to continue as planned.
	Expenditure	Pre-payments	Related to pre-payments made to third parties (e.g. suppliers, implementing partners, NGOs) before receiving a service/good. Often for suppliers mitigated through bank guarantees.
	Expenditure	Over/duplicate payments	Related to accuracy of payments, such as the risk of over or duplicate payments.
	Expenditure	Payment infrastructure	Related to having efficient and cost-effective methods for project fund disbursements, including risk from cash payments (through petty cash and operational advances), cryptocurrencies, etc.
	Reporting and data	Engagement/project reporting to partners	Related to adequacy of data in partner reporting and conformity with partner reporting requirements/standards.
	ICT	ICT tools	Related to the availability of ICT tools fit-for-purpose.
	Other finance risks	Other finance risks	Other financial risks not captured in other categories.
People	Safety and security	Security policies and requirements	Related to security of personnel and compliance with security regulation (including safety related to aviation, road and fire).
	Safety and security	Occupational health, safety and well-being	Related to occupational health, safety and well-being of personnel (excluding safety related to aviation, road and fire) and contractors.
	Recruitment & retention	Attraction, availability and retention of qualified personnel	Related to ability to acquire or retain qualified personnel.
	Recruitment & retention	Diversity, gender and	Related to discrimination, gender/diversity balance and/or

Category	Category	Risk Area	Supporting Guidance
Level I	Level II	Level III	
		gender mainstreaming	gender mainstreaming in projects.
	Capabilities and performance management	Technical expertise	Related to availability of technical expertise in project personnel to perform the required activities.
	Capabilities and performance management	Learning, training and knowledge management	Related to building capacity through training and retaining/leveraging institutional knowledge.
	Capabilities and performance management	Performance management	Related to managing performance of personnel, including building incentive instruments.
	Other people risks	Other people risks	Other people risks not captured in other categories.
Process/ Operations	Organisational setting	Governance and roles/responsibilities	Related to clarity of roles/responsibilities, including management of delegation of authority and segregation of duties (e.g. functional governance structures for projects/offices, clarity on responsibility/accountability, decision-making authority and related liabilities).
	Organisational setting	Process effectiveness and internal controls	Related to maturity of internal procedures and ability to follow best-practices, as well as ability to identify and respond to organizational risks, including ensuring effective internal controls.
	Fraud and ethics	Cybersecurity and data protection	Related to any ICT weaknesses that may pose risks for privacy/data protection and/or vulnerability to malicious attacks.
	Fraud and ethics	Fraudulent or unethical behavior by UNOPS personnel	Related to personnel exposed to possible personal conflicts of interest or engaging in proscribed practices, such as ethical misconduct, fraud, collusion or corruption.
	Fraud and	Fraudulent or	Related to contracting vendors or

Category	Category	Risk Area	Supporting Guidance
Level I	Level II	Level III	
	ethics	unethical behavior by UNOPS supplier	implementing partners that have engaged or are engaging in proscribed practices, such as fraud, unethical practices, corruption, collusion, coercion or obstruction.
	Fraud and ethics	Sexual exploitation, harassment, bullying and abuse of authority	Related to harassment, including sexual exploitation and abuse of authority by personnel/suppliers/implementing partners.
	Procurement	Procurement planning and strategy	Related to having procurement planning/ strategies in place to approach key procurement processes with the objective of ensuring compliance, timely delivery and value for money.
	Procurement	Procurement process management	Related to managing the procurement process prior to contract award, including specifications/requirements, solicitation process, and background checks.
	Procurement	Availability of service providers, implementing partners quality supplies and equipment	Related to availability of service providers, as well as availability of sufficient supplies and/or equipment that meet quality requirements.
	Procurement	Supplier contract and performance management	Related to supplier performance and capacity to deliver during contract period, including quality, timely delivery of goods/services/works, transport and logistics, communication, bankruptcy of the contractor, etc.
	Project Management & Design	Project complexity and interdependencies	Related to project complexity or interdependencies between multiple projects or activities/deliverables outside the project control. E.g.

Category	Category	Risk Area	Supporting Guidance
Level I	Level II	Level III	
			atypical approach, challenging quality requirements, interdependencies with implementing partners for critical activities, poor definition or changes to the project scope.
	Project Management & Design	Benefits definition and realisation	Related to ability to define and realize project/engagement benefits, including ensuring long-term viability of projects.
	Project Management & Design	Beneficiary selection and targeting	Related to difficulties in selecting and targeting end beneficiaries and matching their ultimate needs and requirements to project outputs as well as promoting a balanced spread of donors funding across beneficiaries.
	Project Management & Design	Technology complexity or challenges	Related to complexity of implementing new or existing technologies (e.g. internet access, block-chain initiatives, etc.) due to reasons such as limited technical understanding, ease of procurement and/or availability of resources for maintenance.
	Project Management & Design	Project planning	Related to planning for a project with available resources that could result in poor quality, cost and time overruns.
	Project Management & Design	Project delivery	Related to delivery of the agreed outputs and services with the available resources and/or within the agreed timeline, budget or quality requirements.
	Project Management & Design	Project control	Related to control of projects and work packages with both acceptance and assurance.
	Project Management & Design	Monitoring & Evaluation	Related to monitoring and evaluation of projects, including auditing.
	Project Management	Project closure	Related to closing the project during the implementation and closure

Category	Category	Risk Area	Supporting Guidance
Level I	Level II	Level III	
	& Design		phases.
	Project site operations	Ownership and continued use of project site	Related to use of project site to implement projects that would achieve project outcome(s).
	Project site operations	Access to project site	Related to geographical barriers or ability to physically access project sites and remote locations.
	Project site operations	Availability of basic infrastructure	Related to availability of logistical, energy, electricity and required ICT networks at project site(s).
	Project site operations	Availability of natural resources	Related to availability of required natural resources such as water and raw construction materials at project site(s).
	Project site operations	Site logistics planning and strategy	Related to plan or prepare a suitable strategy for site logistics to ensure effective procurement, transportation, stationing of workers, material and other resources to achieve the goals of a construction project.
	Sustainability	Disaster risk reduction (DRR) and resilience	Related to risks of disasters and emergencies, such as natural events/man-made disasters, seasonal variations and epidemics.
	Sustainability	Economic development	Related to decent employment creation; labour rights and working condition; capacity development; fair operating practices; supply chain.
	Sustainability	Social and culture	Related to community health and safety; human rights, non-discrimination and gender equality; displacement and resettlement; indigenous people; tangible and intangible cultural heritage.
	Sustainability	Environment and climate change	Related to biodiversity, habitats and management of natural resources; climate change, pollution and waste management.
	Other process/operations risks	Other process/operations risks	Other operations risks not captured in other categories.

4.6.5. Risk Identification and Analysis of the Small Rural Farmers Development Programme

Table 51. Risk matrix. Source: Compiled by author.

ID	Risk Cat. I	Risk Cat. II	Risk/ Issue Area	Risk	Risk Level	Detailed description/ Drivers	Impact Description	Response Overview	Risk Owner
1	People	Safety and security	Security policies and requirements	Challenges to the safety and security of UNOPS personnel and implementing partners at the project sites	2. Low to Medium	Due to high security sensitivity in certain project locations (presence of armed groups and drug trafficking in 2 regions out of 7), there is a risk to the safety of UNOPS personnel and implementing partners, leading to potential violence danger (fatalities in the worst case), robbery, delivery halt, and ultimately reputational consequences for UNOPS. One incident occurred in the previous 4 years of project implementation (the tractor of a service provider got burned).	<ul style="list-style-type: none"> - violence (fatalities in the worst case), - robbery - delivery halt - reputational consequences 	<p>The risk is currently mitigated by:</p> <ul style="list-style-type: none"> - the project supervisors following security protocols and the strategy agreed with UNDSS. - service providers and locally hired personnel usually belong to each project location. - ongoing coordination and advice from local leaders. <p>Evaluate the possibility to establish security protocols to be applied by service providers, considering the risk is still high when service providers do not belong to the project location. Risk to be re-assessed based on decision to be</p>	PM

								taken regarding the outsourcing of project monitoring services (previously performed through local controllers).	
2	Partners & Stakeholders	Relations & Satisfaction	Media relations and negative publicity	Delay in project signature due to negative national media coverage	3. Medium to High	Due to a current negative campaign against UNDP from influential national media, there is a risk of consequential negative media coverage for this project, leading to possible reputational challenges, significant delays in signing the project agreement and—in the worst case—to project deal withdrawal.	- possible reputational damage - significant delays in signing the project agreement - in the worst case, project deal withdrawal	Evaluate the opportunity to define a communication campaign and strategy to manage media relations in Paraguay in case of agreement signature for this and other new projects. Possibility to benchmark the communication strategy for similar projects in LCR.	PM
3	Process/ Operations	Organizational setting	Governance and roles/responsibilities	Unclear/ overlapping roles and responsibilities	2. Low to Medium	Our partners are proposing a change in the project governance based on which UNOPS will have to co-implement the project in coordination with departmental	- increase project complexity (technical scope) - negative project delivery	As part of current project negotiation, UNOPS is requesting a formal segregation of activities', resources', and delivery objectives between UNOPS and local municipalities.	PM

						<p>authorities (local municipalities in target departments). This, in turn, can determine project interdependencies with activities outside our direct control, and thereby, a risk of unclear/overlapping roles between UNOPS and local authorities, ultimately leading to increased project complexity, negative consequences for the project delivery and for the relationship with partners.</p>	<p>consequences (cost, time, quality)</p> <ul style="list-style-type: none"> - reputational damage in relation with key stakeholders 	<p>Based on previous pilot implementation in 2 municipalities, UNOPS would commit to autonomously delivering the project in each target municipality for a total of 10,000 hectares and provide additional services (supplying planting and certification packages) for additional work performed by the municipalities.</p>	
4	Process/Operations	Project Management & Design	Project control	Over-reliance on external service providers of key project control activities	2. Low to Medium	<p>In correlation to the risk "Unclear/overlapping roles and responsibilities" and as a result of the change in the project governance (increased coordination with local municipalities),</p>	<ul style="list-style-type: none"> - increase project supervision complexity - negative project delivery consequences (cost, time, quality) 	<p>Permanent monitoring of activities of external stakeholders. Emergency procurement procedures in case of need.</p>	PM

						UNOPS is expected to increasingly rely on external service providers to supply services to local municipalities. This, in turn, can generate a risk of over-reliance on external service providers of key project activities, increasing the supervision needs compared to previous similar projects and possibly affecting negatively the project delivery.	<ul style="list-style-type: none"> - cost efficiencies (outsourcing cheaper than local controllers) - reputational damage in relation with key stakeholders 		
5	Process/ Operations	Sustainability	Environment and climate change	Seasonal variations affecting project delivery	3. Medium to High	Due to the exposure of this project to seasonal variation and climate risks (e.g. flooding during rainy season, no water during dry season) and in case of delay in starting the project, there is a risk of not being able to deliver key project	<ul style="list-style-type: none"> - increased delivery challenges - poor project outcomes 	<ul style="list-style-type: none"> - Seeds conservation practice introduced in previous similar projects will be applied to increase the growth of the seeds' plantations. - Evaluate how this risk can affect the delivery of municipalities and advice our partners accordingly 	PM

						activities as planned, affecting the success of this project. In this regard, the risk likelihood is higher in relation to risks of delayed signature (see risk "Negative national media coverage") and municipalities' delays ("Unclear/overlapping roles and responsibilities").			
6	Process/ Operations	Project Management & Design	Techno- logy comple- xity or challen- ges	Opportunit y to share technologie s with partners	2. Low to Medium	UNOPS adopted FieldSight to perform the monitoring for this project. In this regard, there is an opportunity to increase project monitoring efficiency by sharing the same technology with partners (Ministry of Agriculture). This can lead to a possible advisory project opportunity in relation to the adoption of FieldSight across MAG	- Increased quality of project monitoring from partner side. - New project opportunity (adoption of FieldSight across the Ministry of Agriculture).	- Evaluate most effective way to share the application with the Ministry and enhance this opportunity	Supervi- sors

						(the work performed by more than 1,000 technicians would benefit from the adoption of this tool).			
7	Process/ Operations	Procurement	Supplier contract and performance management	Low suppliers performance	3. Medium to High	Due to lack of technical expertise and capacity of local service providers in some rural areas, there is a risk of low supplier performance leading to possible negative reputational consequences for UNOPS and poor project delivery and outcomes. Lesson related to quality issues with 3 service providers in previous similar projects.	- higher project costs - delays and project halts - reputational damage vs. beneficiaries	Based on lessons learned from similar projects: - Strengthen supervision and monitoring to effectively evaluate supplier's performance and take actions in case of low performing suppliers. - Possibility to reach out to new local MSMEs (local companies recently established by previous project beneficiaries that exited the poverty segment) through the MIC.	Procurement Officer
8	Process/ Operations	Procurement	Procurement process management	Effectiveness of suppliers selection process	3. Medium to High	Technical specifications for key procurements are defined by our partners and the selection process is conducted by UNOPS. Possible		Compliance to procurement rules and regulations	Supervisors

						risks to the effectiveness of the process are reduced by following UNOPS procurement rules and regulations.			
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4.7. Procurement Management Plan

According to the PMBOK® Guide, “Project Procurement Management includes the processes necessary to purchase or acquire products, services, or results needed from outside of the project team” (2017, p. 459).

The Small Rural Farmers Development Programme procurement plan documents how the project will conduct the procurement processes in order to deliver the project successfully. This procurement plan will serve as a guide for managing procurement throughout the life of the project and will be updated as acquisition needs change, if requested by the project stakeholders. This plan identifies and defines the process of procurement, the timeline to be followed, the types of bid methods to be followed and the tender documents.

For the Small Rural Farmers Development Programme, procurement includes the processes from the request of the goods and/or services through a requisition, until the issuance of a contract in the form of a Purchase Order.

4.7.1. Procurement Management Responsibilities

The procurement framework for this project is the [UNOPS Procurement Manual](#), which defines the roles and responsibilities indicated in Table 52.

Table 52. Roles and responsibilities in procurement. Source: Compiled by author.

Role	Responsibility
PM	Plan Procurement
Supervisors	Draft TSs and/or ToRs
Procurement Officer	Review TSs and/or ToRs
Procurement Officer	Prepare tender documents
PM	Request procurement through requisition
Procurement Officer	Solicitation
Procurement Officer, supervisors	Evaluation
Procurement Officer	Recommendation of award
Procurement Officer	Contract issuance
PM	Contract management
PM, supervisors	Suppliers' performance review

In this sense, the Project Manager will work with the project team to identify all items to be procured for the successful completion of the project.

The Project Manager and the supervisors will provide oversight and management for all procurement activities under this project. However, the

procurement activities will be delivered by the Procurement Officer. Once the contract is signed, contract management is responsibility of the project team. The procurement process is a joint responsibility of the Project team members, as reflected in Figure 12.

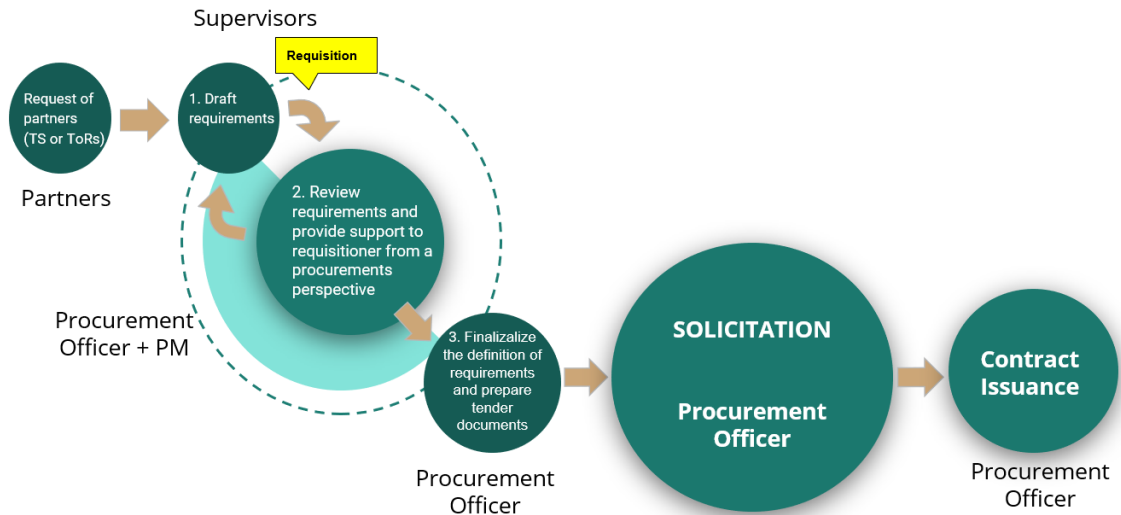


Figure 12. Procurement workflow. Source: Compiled by author.

4.7.2. Requisitions

Procurement requests will be performed in accordance to the Procurement Management Plan by the Project Manager through a requisition. The requisition form in Table 52 will include:

- A detailed description of the goods, works or services being sought;
- Category code (selection of the code is critical to ensure data quality and reporting);
- Confirmation of funds availability for the requested purchase, as well as justification of the purchase with reference to the project agreement with the client;
- In the case of a requisition in respect of construction works, it should include a contingency sum as per instructions in section 10.1;
- Quantity to be procured;
- Required delivery date or start-up/completion date;
- Delivery location or location of works/services to be performed;
- Estimated price;

- Any additional information (e.g. standardization, preferred method of shipment).

Table 53. Requisition form template. Source: UNOPS Templates.

REQUISITION FORM							
To:				Registration No:			
Requester:							
Latest acceptable delivery/start-up date:							
#	Description (specifications/TOR/SOW to be attached)	Qty	Unit Cost (Currency)	Total Cost (Currency)	Account / Activity	Remarks	
1							
2							
3							
4							
5							
6							
7							
8							
Estimated freight and insurance costs for goods							
Mode of transport for goods:							
				Total:			
Suggested suppliers for the shortlist							
Name of the company		Contact person		Phone Number		Fax Number	E-mail contact
Justification/Purpose/Use of goods/works/services:							
Legal agreement: (please specify the type of agreement and confirm it has been signed)							
Requested By:							
(Signature)		(Printed Name)				(Date)	
Project Manager UNOPS:							
(Signature)		(Printed Name)				(Date)	
Budget owner UNOPS:				Procurement details:			
Budget Available:		Yes / No		Country where services are to be performed/goods delivered:			
GL Unit:				Contact person:			
Project Number:				Tel.:			
Fund Code:				Email:			
Department id:				Delivery address:			
Donor:							
Name (Budget owner):							
Signature:							
Date:							

4.7.3. Procurement Timetable

According to the schedule, there is a procurement timetable in Figure 13. In the case that partners request purchases outside the scope of the Procurement Management Plan, the request must be approved by the Steering Committee with a formal letter. The letter should provide the new budget distribution agreed by ITAIPU and MAG.

ID	WBS	Task Name	Duration	Start	Finish	Predecessor	Resource Name	Timeline											
								Half 2, 2020	Half 1, 2021	Half 2, 2021	J	A	S	O	N	D	J	F	M
1	1	Improvement of the quality of life of 10.000 small rural farmers of family agriculture in rural areas of Paraguay, by promoting better production conditions that allow the application of sustainable agricultural practices and integration into value chains	261 days	Sat 01/08/20	Fri 30/07/21			[Gantt bar for task 1]											
2	1.1	Project Management	261 days	Sat 01/08/20	Fri 30/07/21			[Gantt bar for task 2]											
3	1.1.1	Baseline research shopping	31 days	Mon 17/08/20	Mon 28/09/20	2	S1	[Gantt bar for task 3]											
4	1.1.2	Lessons learned workshop	8 days	Wed 21/07/20	Fri 30/07/20		PM	[Gantt bar for task 4]											
5	1.2	Enabling 4,000 hectares through topping, for the application of mechanized seeding of new plots.	157 days	Fri 07/08/20	Mon 15/03/21			[Gantt bar for task 5]											
6	1.2.1	ToRs receipt and approval	10 days	Mon 17/08/20	Fri 28/08/20	5	S1	[Gantt bar for task 6]											
7	1.2.2	Solicitation to contract enabling and mechanized seeding services	31 days	Mon 31/08/20	Mon 12/10/20	6	PO	[Gantt bar for task 7]											
8	1.2.3	Solicitation to purchase supplies for enabling and mechanized seeding	31 days	Mon 31/08/20	Mon 12/10/20	6	PO	[Gantt bar for task 8]											
9	1.3	Mechanized planting of 6,000 hectares through the application of conventional practices and conservation agriculture.	157 days	Fri 07/08/20	Mon 15/03/21			[Gantt bar for task 9]											
10	1.3.1	ToRs receipt and approval	10 days	Mon 17/08/20	Fri 28/08/20	9	S1	[Gantt bar for task 10]											
11	1.3.2	Solicitation to contract mechanized planting services	31 days	Mon 31/08/20	Mon 12/10/20	10	PO	[Gantt bar for task 11]											
12	1.3.3	Solicitation to purchase supplies for mechanized planting	31 days	Mon 31/08/20	Mon 12/10/20	11	SS PO	[Gantt bar for task 12]											
13	1.4	Training and formalization of 2500 rural MSMEs for their integration into value chains.	245 days	Mon 24/08/20	Fri 30/07/21			[Gantt bar for task 13]											
14	1.4.1	ToRs receipt and approval	10 days	Thu 24/09/20	Wed 07/10/20	13	S1	[Gantt bar for task 14]											
15	1.4.2	Solicitation to contract training and formalization services	32 days	Thu 08/10/20	Fri 20/11/20	14	PO	[Gantt bar for task 15]											
16	1.5	Capacity development to the stakeholders involved in the project through days for technical training.	94 days	Mon 24/08/20	Thu 31/12/20			[Gantt bar for task 16]											
17	1.5.1	Logistics arrangements	19 days	Thu 24/09/20	Tue 20/10/20	16	S3	[Gantt bar for task 17]											

Figure 13. Procurement timetable estimation. Source: Compiled by author.

4.7.4. ToRs and TSs

The ToRs and TSs are technical documents that will be supplied to UNOPS for the procurement process according to the schedule. The preliminary ToRs and TSs will be developed by technical staff of MAG and MIC, and reviewed by the UNOPS project team, before the solicitation. Requirements will depend on the type of goods/services and estimated amount of the contract.

4.7.5. Applicable Procedures

A number of factors, such as market conditions, the complexity and nature of the requirement and monetary value influence the choice of the solicitation method.

Table 54. Summary of solicitation methods. Source: UNOPS Procurement Manual.

Solicitation method	Contract value	Requirements	Evaluation method
Shopping	< US\$5,000	Off-the-shelf goods, standard specification, simple services and works	Lowest priced most technically acceptable
RFQ	US\$5,000 < US\$50,000	Requirements for goods, services or works are clear and specific	Lowest priced most technically acceptable
ITB	≥ US\$50,000	Requirements for goods, services or works are clearly and completely specified	Lowest priced substantially compliant

Shopping is “an informal method of solicitation appropriate for the procurement of readily available off-the-shelf or standard specification goods less than USD 5,000, or simple works or services less than USD 5,000. Shopping is undertaken by based on the comparison of prices obtained from potential suppliers, received orally or in writing (including by checking available online sources). Prices taken orally must be written down carefully, dated and kept in the file. When using shopping as a method under limited competition, at least three suppliers must be compared. Should it not be possible to compare three suppliers, the reason must be recorded in writing in the award document. Awards are made based on the ‘lowest priced, most technically acceptable offer’ evaluation methodology.” (UNOPS Procurement Manual, 2019, p. 55)

An RFQ is “an informal method of solicitation. It is used for low value procurement (below USD 50,000) where the requirements for goods, services or works are clear and specific. Awards are made based on the ‘lowest priced, most technically acceptable offer’ evaluation methodology” (Procurement Manual, 2019, p. 56).

An ITB is “a formal method of solicitation where prospective suppliers are requested to submit a bid for the provision of goods, services or works. It is normally used when the requirements are clearly and completely specified. An ITB is mandatory for procurements equal to or above USD 50,000 but can also be used for lower value procurement (below USD 50,000) if requirements are complex. An ITB can either define the minimum requirements a good or service has to meet or must outline a range of acceptable requirements. During evaluation, a bid is compliant based on pass/fail criteria. Contracts are awarded on the basis of the ‘lowest priced substantially compliant offer’ evaluation methodology, including delivery terms, and any other technical requirements stated in the ITB” (Procurement Manual, 2019, p. 56).

The minimum time that the offer must be available before the submission of offer for each type of process is outlined in Table 55.

Table 55. Minimum solicitation period. Source: UNOPS Procurement Manual.

Solicitation method	Requirement	Minimum bidding time in calendar days
RFQ	All	5
ITB	Goods	15
ITB	Works	15
ITB	Services	21

4.7.6. Bid Documents

The tender documents to be used are the official RFQs and ITBs templates. All templates needed are available in the corporate repository. The following standard documents will be used for project procurement activities:

- Standard Request for Proposal Template to include
 - Background

- Proposal process and timelines
 - Proposal guidelines
 - Proposal formats and media
 - Source selection criteria
 - Pricing forms
 - Statement of work
 - Terms and Conditions
- Internal source selection evaluation forms
 - Non-disclosure agreement
 - Letter of intent
 - Firm fixed price contract
 - Procurement audit form
 - Procurement performance evaluation form
 - Lessons learned form

RFQs and ITBs are wholly conducted through the eSourcing platform (<https://esourcing.unops.org/>), where official documentation must be uploaded by the offerors.

The tenders are posted in the UNGM website (<https://www.ungm.org/>) and also in the National Procurement Office website (<https://www.contrataciones.gov.py/>) to ensure the participation of as many companies as possible.

The evaluation of offers is confidential. The recommendation of award, after the evaluation is concluded is posted online in the UNGM and in the National Procurement Office website, before the issuance of the contract.

4.7.7. Contract Issuance

After the evaluation is completed, the evaluation committee will recommend the award of the contract. The recommendation of award will be communicated by a letter to the donor and the contract will be issued in the form of a Purchase Order as in Figure 14.

Company Name

Purchase Order

Address

Delivery: place of delivery

Order Number: xxxx
 Status: Ordered(O)
 CoRegNo:
 Supplier ID: xxxx
 Order date: xx/xx/20xx
 Delivery date: xx/xx/20xx
 Delivery method:
 Delivery term:
 Payment terms: Immediate
 Proc. Official: xxxxxxxxxxxxxx
 Ext./Webbuy Ref.:

No	Article	Description	Quantity	Unit	Unitprice	Currency	Amount	Delivery date
1	xxxx01	xxxx	1.0	xx	xxxxxxx	USD	xxxxxxx	xx/xx/20xx

Total in USD**xxxxxxxx**

This Purchase Order contract (the "Contract") is made between the United Nations Office for Project Services ("UNOPS"), a subsidiary organ of the United Nations, and the Contractor identified herein, for the provision of goods and/or services.

The following documents, listed in the order of priority, are deemed to form and be read and construed as part of the Contract, having superseding effect over any other negotiations and/or agreements, whether oral or in writing, pertaining to the subject of this Contract:

- The Special Conditions of Contract, if included as an attachment to this Contract;
- The UNOPS General Conditions of Contract for the provision of goods and/or services, as applicable, available at: <https://www.unops.org/english/Opportunities/suppliers/how-we-procure/Pages/default.aspx>
- This Contract document;
- Any additional attachments to this Contract.

The Contract shall enter into force upon its signature by the Contractor which shall send a signed copy of the Contract to UNOPS as soon as possible, unless signature by the Contractor has not been expressly requested by UNOPS.

Signature of authorised signatory of the Contractor:

Date signed by the Contractor:

This Purchase Order has been approved electronically by xxxxx and does not require signature by UNOPS.

Figure 14. Purchase order template. Source: UNOPS Templates.

4.8. Stakeholder Management Plan

According to the PMBOK® Guide, "Project Stakeholder Management includes the processes required to identify the people, groups, or organizations that could impact or be impacted by the project, to analyze stakeholder expectations and their impact on the project, and to develop appropriate management

strategies for effectively engaging stakeholders in project decisions and execution". (2017, p. 503).

According to the PMBOK® Guide, the Project Stakeholder Management knowledge area includes four processes: Identify Stakeholders, Plan Stakeholder Engagement, Manage Stakeholder Engagement and Monitor Stakeholder Engagement.

In this sense, the Small Rural Farmers Development Programme, for its wide variety of stakeholders, and the idiosyncrasies of each one of them, should developed a deep analysis of stakeholder's expectations and strategies to effectively engage supporting project decisions and the implementation of activities.

Through this plan, the project team will identify stakeholders. For classifying as a stakeholder, the person or group must have some interest or level of influence that can impact the project. As affirmed by Smith (2000), this will allow us to benefit, not only from understanding their interests, but also from understanding the potential project impact if a need were not met.

Besides, this plan will outline the strategies that are going to be used to engage the stakeholder throughout the project life cycle, to keep them motivated and contributing when necessary.

4.8.1. Stakeholder Identification

After a thorough analysis of the Project team, the stakeholders were identified and categorized according to their level of influence and interest, as observed in Table 56.

Table 56. Stakeholders influence/interest grid. Source: Compiled by author.

N°	Stakeholder	Role	Functional Area	Organization	Influence Level		Interest Level	
1	Minister of Agriculture and Livestock	Client	Management	MAG	3	Control over rural farmers	5	Economics: Local employment
2	General Director	Sponsor	Management	ITAIPU	5	Control over funds disburse	3	Social change: Rural Farmers

						-ment		empowerment
3	Minister of Industry and Commerce	Technical Assistance	Commerce	MIC	1	Technical control over suppliers' business	1	Economics: Local employment
4	Minister of Technical Planning	Technical Assistance	Planning	STP	1	Technical control over beneficiary's identification	1	Social change: End of Poverty
5	President of the Union	Technical Assistance	Outreach	UGP	3	Political influence over suppliers' business	1	Economics: commercialization
6	Representative of Farmers	Customer	Production	Rural Farmers	1	Control over local workforce	5	Economics: Local employment
7	Representative of Suppliers	Contractor	Production	Suppliers	3	Control over suppliers' business	3	Economics: commercialization
8	Manager of UNOPS	Implementer	Management	UNOPS	5	Authority to sign contracts	5	Delivering a successful project

4.8.2. Stakeholders Map

According to the level of influence and interest of the stakeholders, actions can be categorized and mapped as in Figure 15.

- Manage closely: high influence + high interest

The UNOPS manager, the Minister of Agriculture and Livestock, and ITAIPU General Director should be managed closely, since they are the stakeholders with greater influence and interest in the success of the project. Suppliers are in the middle of the map. Their role is fundamental, as they must provide the services and supplies to satisfy the expectations of the other stakeholders.

- Keep satisfied: high influence + medium interest

The UGP President has influence in the political arena and he must be kept satisfied. A successful outcome in terms of commercialization depends on his engagement.

- Keep informed: medium influence + high interest

The Small rural farmers have a high interest, but their influence is moderate. Their influence increases in case they organized and protest. Based on lessons learned, they must be informed regularly, since they are a powerful arm when in discomfort, and they are ready to use force if necessary.

- Monitor: low influence + low interest

The Minister of Technical Planning and the Minister of Industry and Commerce have low influence and interest. Since they give technical support in their specific areas of expertise, monitoring is sufficient.

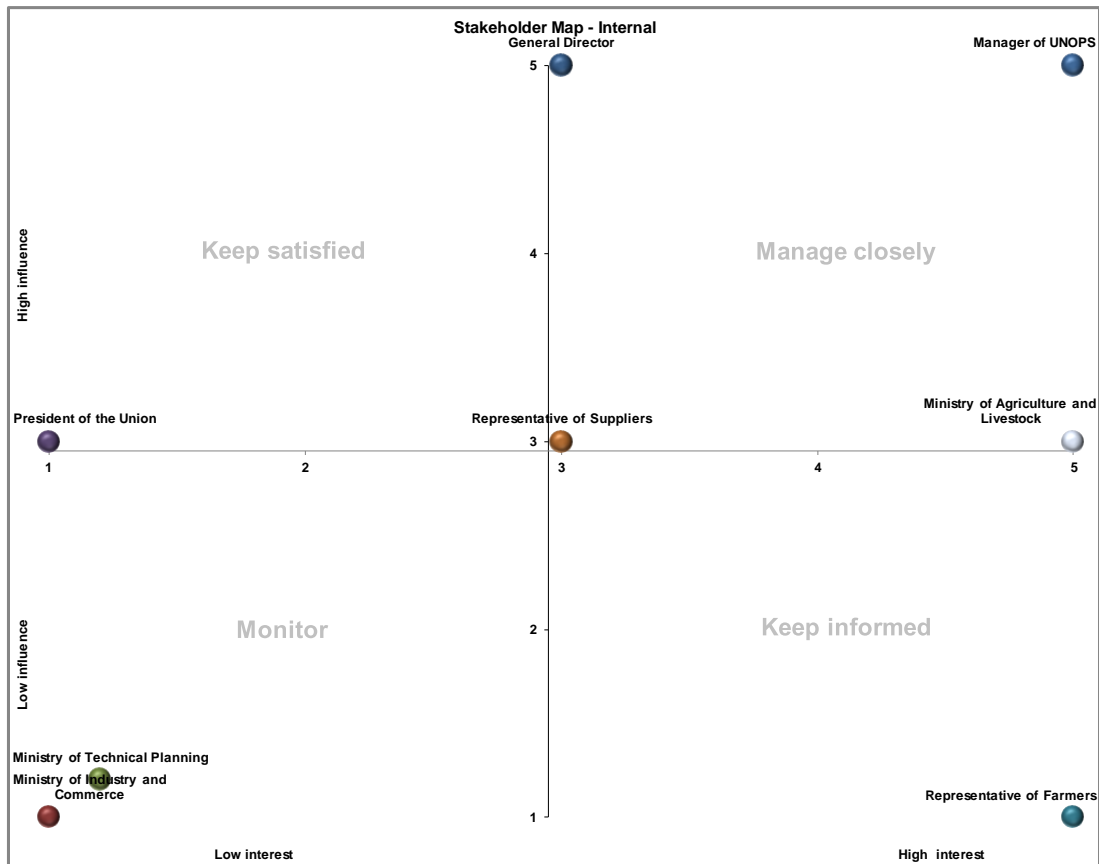


Figure 15. Stakeholder Map. Source: Compiled by author.

4.8.3. Prioritization

Due to the high number of stakeholders, it is important to establish a priority rule. In this sense, priority in the decision-making process is given to ITAIPU, MAG and UNOPS.

MIC, STP and UGP are support institutions with technical assistance roles and have a secondary role in the decision-making process.

4.8.4. Stakeholder Engagement

In order to determine the current engagement levels of stakeholders and the desired engagement levels required for a successful project delivery, a stakeholder engagement assessment matrix was developed.

The engagement is classified in the following levels:

- Unaware: unaware of the project and potential impacts.

- Resistant: aware of the project and potential impacts but resistant to any changes that may occur as a result of the work or outcomes of the project.
- Neutral: aware of the project, but neither supportive nor unsupportive.
- Supportive: aware of the project and potential impacts and supportive of the work and its outcomes.
- Leading: aware of the project and potential impacts and actively engaged in ensuring that the project is a success.

As observed in Table 56, specific strategies must be developed for the appropriate engagement of MIC, STP, UGP and suppliers, to obtain support and put rural farmers in a leading position.

Table 57. Stakeholder Engagement Assessment Matrix. Source: Compiled by author.

Stakeholder Engagement Assessment					
Stakeholder	Unaware	Resistant	Neutral	Supportive	Leading
MAG					C D
ITAIPU					C D
MIC			C	D	
STP			C	D	
UGP			C	D	
Rural Farmers	C			D	
Suppliers			C		D
UNOPS					C D

C = Current
D = Desired

4.8.5. Stakeholder Engagement Strategies

In order to empower the stakeholders according to the expected role assigned, several strategies are developed, as shown in Table 57.

Table 58. Stakeholder Engagement Strategies. Source: Compiled by author.

Stakeholder Engagement Strategy			
Stakeholder	Current	Desired	Engagement Strategy
MAG	Leading	Leading	In order to maintain the engagement of MAG and ITAIPU, the project team will guarantee their active participation in all the decision-making. They are key stakeholders and will have a decisive vote in the Steering and
ITAIPU	Leading	Leading	

			<p>Operating Committee.</p> <p>Promoting national ownership and capacity development is essential for the long-term success and sustainability of the project. For this reason, the project envisages holding technical agricultural trainings and seminars on procurement and project management.</p>
MIC	Neutral	Supportive	<p>In order to engage the technical stakeholders in the project, the project will assign specific roles and responsibilities in their areas of expertise. In this sense, the participation of MIC, STP and UGP will be guaranteed by the formalization of a Memorandum of Operational Implementation.</p> <p>Besides, actions of each stakeholder will be publicized in order to enforce their participation.</p>
STP	Neutral	Supportive	<ul style="list-style-type: none"> • STP will be in charge of providing the beneficiaries lists according to their income and production profile. They will be involved in monitoring tasks of the rural farmers' economic situation. • MIC will lead the formalization and training of MSMEs' activities. Besides, MIC will facilitate and monitor commercial activities of the MSMEs.
UGP	Neutral	Supportive	<ul style="list-style-type: none"> • UGP has a political role, facilitating the relation with commercial unions in order to guarantee that all MSMEs sell their production.
Rural Farmers	Unaware	Supportive	<p>As it was expressed by Forman (2012), one of the key factors for project success is the participation of end users, who are key to the ultimate success of project outcomes. Their involvement has to be real, however, because they have to believe that their participation makes a difference and that they are being taken seriously.</p> <p>Most of the time, at the beginning of a project, rural farmers are unaware of the implications of the project implementation. For this reason, since the very beginning, supervisors and monitors will contact them to</p>

			<p>engage them in the project.</p> <p>They will be encouraged to support the project by actively participating in the operational work in their parcels and in the commercialization activities.</p> <p>Visibility of the testimonies will be a priority to share the experiences and good practices all over the country. Lastly, the concerns and observations for improvement will be considered in a lessons learned workshop at the end of the project for the final report.</p>
Suppliers	Neutral	Leading	<p>In order to engage and develop the capacity of suppliers the project will promote training and disseminate guidelines on how to submit a bid in UNOPS tenders.</p> <p>Besides, pre-bid clarification meetings will be held to review administrative and technical requirements with potential local bidders.</p> <p>It will also be a priority to extend contact with suppliers by announcing the tender in common local media (community radio) and using the local language in communications.</p> <p>UNOPS monitoring team will alert the Project Manager if violations, such as child labor, unequal pay for the same work, or environmental contamination by the contractor are observed. These issues should be discussed with the provider.</p> <p>Payments will be made within deadlines to ensure the liquidity of the provider, which is crucial for MSMEs.</p>
UNOPS	Leading	Leading	<p>In order to maintain the engagement of UNOPS internal stakeholders, the project team will guarantee their active participation in all the decision-making. The Office Manager and Project Manager are key stakeholders and will have a decisive vote in the Steering and Operating Committee, respectively.</p>

4.9. Communication Management Plan

According to the PMBOK® Guide, “Project Communications Management includes the processes necessary to ensure that the information needs of the project and its stakeholders are met through development of artifacts and implementation of activities designed to achieve effective information exchange” (2017, p. 359).

In this context, the Small Rural Farmers Development Programme includes a comprehensive plan to keep their stakeholders informed and to collect the feedback accordingly, in order to make the adjustments that contribute to the project success.

4.9.1. Roles and Responsibilities

The Project Manager will take a proactive role in ensuring effective communications on this project. The communications requirements are documented in the Communication Matrix in Table 58. In case updates or changes are required as the project progresses or changes, the Project Manager is responsible for managing all proposed and approved changes in the communication management plan. Once the change is approved, the project manager will update the plan and supporting documentation and will distribute the updates to the project team and other stakeholders.

Project communication activities will occur within the project’s approved budget, schedule, and resource allocations. Communication activities will occur in accordance with the frequencies detailed in the Communication Matrix in order to ensure the project adheres to schedule constraints. Any deviation of these timelines may result in excessive costs or schedule delays and must be approved by the Operating Committee.

4.9.2. Communication Matrix

Table 59. Communication Matrix. Source: Compiled by author.

Communication Matrix							
Communication Type	Objective of Communication	Medium	Frequency	Audience	Owner	Deliverable	Format
Planning Meeting	Introduce the project team and the project to stakeholders. Review project objectives and management approach.	Meeting on site or by web-based platform	Once, at the beginning of the project	Representative of ITAIPU MAG Project Team STP MIC UGP	Project Manager	Agenda	Meeting minute signed by stakeholders archived in project folder. Photos of event
						Meeting Minutes	
Project Team Meetings	Review project progress with the team.	Meeting on site or by web-based platform	Weekly	Project Manager Project Team	Project Manager	Agenda	Meeting minute archived in project folder
						Meeting Minutes	
						Project Plan update	Project Plan update
Operating Committee meetings	Monitor and control the project progress. Approve acceptable changes.	Meeting on site or by web-based platform	Weekly	Technical focal points of ITAIPU MAG Project Team STP MIC UGP	Project Manager	Agenda	Meeting minute archived in project folder
						Meeting Minutes	
						Project Plan update	Project Plan update
Steering	Report on the	Meeting on	As needed	High	UNOPS	Agenda	Meeting minute

Committee meetings	status of the project to management.	site or by web-based platform		authorities of ITAIPU MAG UNOPS	country manager	Meeting Minutes	archived in project folder
Project Status Reports	Report the status of the project including activities progress, schedule, costs, risks, and issues.	Written by email and formal letter	Quarterly	High authorities of ITAIPU MAG	Project Manager	Project Status Report	Project Status Report
						Interim Financial Report	
						Supporting documentation	
Clarification meetings	Engage, clarify doubts, and make adjustments to tender processes of the project.	Meeting on site or by web-based platform	As part of a procurement process, during tenders posting phase	Suppliers	Procurement Officer	Agenda	Meeting minute archived in project folder
						Meeting Minutes	
Press releases	Publicize the project progress and success testimonies at a national level.	Written factsheets in newspapers, social networks, radio and television.	Monthly	Citizens of the country and beneficiaries.	Project Manager	Press report	Press report. Factsheets, photos and videos of events.
Lessons Learned workshop	Collect lessons learned and improvement	Meeting on site or by web-based	Once at the end of the project	Representative of ITAIPU MAG	Project Manager	Agenda	Meeting minute signed by stakeholders
						Meeting Minutes	

	suggestions. Review project objectives and management approach.	platform		Project Team STP MIC UGP Beneficiaries		Closure report	archived in project folder. Photos of event. Closure report
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4.9.3. Guidelines for Meetings

The meeting Agenda will be distributed a day in advance of the meeting with the precise identification of the topics to be approached along with the time limit.

The first item in the agenda should be a review of action items from the previous meeting.

Meeting minutes will be distributed within 2 business days following the meeting for the stakeholders' review and signatures. Stakeholders may request changes to the minutes before the signature. Meeting minutes will include the status of all items from the agenda, new action items, and the agreement.

The Operating Committee meetings are presided by the Project Manager, and the Executive Committee meetings by the UNOPS country Manager. A supervisor assistant will be assigned as secretary to record the minutes.

4.9.4. Communication Standards

The project will utilize standard organizational formats and templates for all formal project communications. Informal project communications should be professional and effective but there is no standard template or format that must be used.

4.9.5. Relation With Press in Case of Crisis

Taking into account various previous experiences of UNOPS in reputational crisis situations, these are some recommendations and information that the project team should have ready in the event that the crisis situation spreads massively through press or on social networks:

4.9.5.1. Voice

Generally, it is expected that the external spokesperson be someone from by ITAIPU and MAG. Although there are some agreed cases where the UNOPS takes over the role of spokesperson or it is carried out jointly. This decision rests with the UNOPS country Manager. In the first case, the Government, jointly with UNOPS, must define the person responsible with their data to derive possible inquiries from the press or citizens (email, phone, name).

4.9.5.2. Information

UNOPS can provide information that will serve as a basis for communication with press or the other stakeholders. This includes having a set of documents available and updated:

- Very general information on the agreement signed with the Government, including a summary of UNOPS responsibilities, scope of the parties, and concrete results (figures, percentages, etc.) without going into details or technicalities.
- A chronology of events related to the issues that became massive: preferably, a table with dates, actions taken, steps to follow and those responsible.
- Make an analysis of the risks and based on that, have a business case with the different options or possible scenarios and the costs in terms of time, money, resources, reputation, etc. of each option.
- A folder with reports, queries, minutes, technical and legal documents, prepared by UNOPS and project suppliers.
- Have identified the priority lines on which the project needs communication to be focused on.
- Prepare a document (Bullet Points) with questions about the specific issue in question that press could ask and the possible very specific answer. The communications team at a regional level can collaborate with the questions and the project technical team with the answers.

4.9.5.3. Coordination

The operational coordination with the counterpart will be led by the Project Manager. There will be a permanent follow-up of what is published in networks, web portals, and press monitoring. This is done by UNOPS, the counterpart, and other stakeholders involved in the issue. This monitoring allows to identify messages, more specific questions, and the scope of the situation (local, national and international).

4.9.5.4. Products

Products such as press releases, press conferences, interviews or any other activity will be coordinated with the counterpart and the different approaches will be evaluated. For each case, UNOPS guidelines and recommendations about the use and development of these products will be considered.

5. CONCLUSIONS

1. The Project Management Plan for the Small Rural Farmers Development Programme was created using the explanatory research method based on a case study, in accordance to the sixth edition of the PMBOK® Guide, with the aim of providing a project management tool to ITAIPU Binacional and the Ministry of Agriculture and Livestock of Paraguay for the successful implementation of the project.
2. The Project Charter was the first subsidiary element developed for the Project Management Plan, created as the deliverable for the first specific objective. The project charter was created using a template to capture and organize the business needs and objectives, project description, preliminary scope statement, initial project risks, project deliverables, summary milestones, and project budget. The Project Charter also included a preliminary identification of the project stakeholders and was used as an initial proposal for project commencement.
3. In order to define and specify the scope of the project in the framework of the second specific objective, the Scope Management Plan was developed. The Scope Management Plan includes the WBS, WBS dictionary, the Requirements Management Plan, Requirements Document, and Requirements Traceability Matrix, with information obtained during meetings with project stakeholders.
4. The Schedule Management Plan was the result of the third specific objective and included the Activity and Milestones List, Gantt Chart, and Critical Path, to adequately identify and coordinate each project activity and ensure the project's completion within the time constraints.
5. The Cost Management Plan was formulated as the output of the fourth specific objective. A business calculator was used to adequately generate the project budget, considering market costs for each activity and the costs of previous similar projects. After analyzing the Performance Measurement Baseline, a disbursement schedule was organized.
6. The Quality Management Plan was built for the fifth specific objective. The Quality Management Plan includes a quality management approach,

quality requirements/standards, quality assurance, quality control, and the quality control measures that will be used throughout the project. These components are included so as to ensure that quality was embedded into the project's processes and product. The analysis was based on the Stakeholder prioritization "L-Shaped Matrix".

7. The Resources Management Plan was developed for the sixth specific objective. The subsidiary plan takes into account the details of all human and material resources required to complete the project, how they were identified and classified, a team charter, and the roles and responsibilities of each project team member. In addition, the project organization chart, the staffing management approach, and details identifying how human resources will be managed throughout the project are detailed in the plan.
8. The deliverable for the seventh specific objective was the Risk Management Plan, which captured and classified project risks. A Risk Breakdown Structure was arranged to facilitate risk assessment and permit an effective risk mitigation. Apart from that, a Risk Register was developed along with a qualitative risk analysis.
9. The Procurement Management Plan was developed in connection with the eighth specific objective. The Plan followed the UNOPS Procurement Manual regulations in order to standardize procurement activities. The procurement management approach, the types of procurement processes, the procurement workflow, and the procurement timetable were part of this Plan.
10. The Stakeholder Management Plan was designed as a component of the ninth specific objective. The Stakeholders Management Plan included a Stakeholder Register, a Stakeholder Analysis and Level of Engagement, a Stakeholders Map, and an Engagement Plan.
11. Lastly, the Project Communication Plan was developed within the framework of the tenth specific objective. The Communication Matrix part of this Plan details all project stakeholders, and the communication method to be used along with its frequency, to ensure the information produced

during the project is shared at the right time, in the right format, to the right people and by the right person.

12. Although the Small Rural Farmers Development Programme is a national project of the Government of Paraguay, the project is implemented by UNOPS. This Project Management Plan serves as a tool to transfer the know-how to the MAG for a future independent implementation.

6. RECOMMENDATIONS

1. The Ministry of Agriculture and Livestock should employ formal Project Management methodologies, based on Project Management international standards (e.g. the PMBOK® Guide) to increase the likelihood of success in the implementation of agricultural projects.
2. The Ministry of Agriculture and Livestock should develop project documents such as a Project Charter and Project Management Plan, based on previous experiences, lessons learned, and best practices, before project initiation, during the engagement phase, for submission to possible sponsors.
3. Planning should be performed before August, so that the project can start with enough time for formalization and procurement, and adjusting to the agricultural calendar.
4. Scope should be defined in detail, in accordance with the interests of all the stakeholders before initiating the project. This will help avoid changes that exceed the acceptable tolerances during the project life cycle.
5. Since training and formalization of MSMEs are the activities within the critical path, this component should be prioritized to accomplish initiation during the first month of the project implementation, in order to reach the goal of the harvest commercialization that begins in January.
6. Special attention should be given to FieldSight management, as the project quality will be measured by the reports that are uploaded to the platform by the monitors and supervisors. Monitors' and Supervisors' responsibility is crucial to achieve the expected quality.
7. The implementer should consider risk management as continuous assessment tasks, which will help ward off reputational damage. The Project team must understand that risk assessment meetings are the top priority of the project. Resources, roles, and responsibilities must be respected. Even though multi-tasking is acceptable, the Project team members should prioritize their performance according to the role they were hired for. Project team members should be responsible for the physical resources they were assigned. The Project Manager should

ensure that the project team is hired and in place prior to the execution of any project activity, and that his team conducts all project planning related activities. This is necessary to provide a proper management of the project during its life cycle.

8. Procurement should be performed in conformity with corporate policy and the Procurement Manual. Procurement processes are confidential, and conflict of interests must be avoided.
9. Communication is the key to understanding and aiding tool for project success. Communication among stakeholders must be transparent, fluent, and constant.

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APPENDICES

Appendix 1: FGP Charter



PROJECT CHARTER (Formalizes the project start and confers the project manager with the authority to assign company resources to the project activities. Benefits: it provides a clear start and well defined project boundaries)	
Date:	Project Name:
28/02/2020	Project Management Plan for the Small Rural Farmers Development Programme in Paraguay
Knowledge Areas / PM Processes:	Application Area (Sector / Activity):
Knowledge Areas: Project Integration management, project scope management, project cost management, project time management, project quality management, project resources management, project risk management, project procurement management, project stakeholder's management and project communication management PM Processes: Initiation and planning	Agriculture
Project Start Date:	Project Finish date:
28/2/2020	11/09/2020
Project Objectives (General and Specific):	
General Objective: To develop a comprehensive Project Management Plan for the Small Rural Farmers Development Programme in Paraguay to provide the Ministry of Agriculture and Livestock (MAG) an effective and efficient methodology to strengthen family agriculture on a sustainable and innovative manner.	
Specific Objectives: <ol style="list-style-type: none"> 1. To create a project charter to formally authorize the project and develop a comprehensive project management plan. 2. To construct a scope management plan to ensure that the cost planning, resource allocation, and stakeholder engagement are executed appropriately during the project life. 3. To design a schedule management plan to ensure that the project planning fits the preapproved time frame. 4. To create a cost management plan to ensure that the project has a sustainable cash flow and adequate funds are allocated to the project. 5. To develop a quality management plan to ensure the project meets the acceptance standards of the project stakeholders. 6. To draft a resources management plan for the project to ensure a proper allocation of human resources and infrastructure. 7. To identify the risks of the project and develop a risk management plan to better 	

approach the possible issues and mitigate the risks the project team might encounter during the implementation of activities.

8. To create a procurement management plan to establish a sustainable and efficient procurement of goods and services.

9. To create a stakeholder management plan to ensure the proper identification, categorization, and participation of programme stakeholders.

10. To create a communication management plan to ensure a seamless communication among stakeholders and promote the project results publicly.

Project purpose or justification (merit and expected results): business case

In Paraguay there are approximately 264,000 farms dedicated to family farming, according to the latest National Agricultural Census (CAN, 2008). This represents more than 80% of the total agricultural exploitation of the country. For this reason, the government of Paraguay, through the MAG, invests in strengthening the small rural farmers labor. The Small Rural farmers development programme in Paraguay has lately portrayed certain inefficiencies which has resulted in several operational setbacks. Especially, due to the low availability of resources and the tight agricultural calendar. Besides, there is lack of coordination to allow the commercialization of the agriculture products, that have a short lifespan, as a consequence of the distance of the farms to the urban areas and lack of means of transport. This project management plan is supposed to facilitate a coordinated inter-institutional, efficient and transparent implementation of the project, by the adoption of project management and agriculture best practices and lessons learned, to increase the small rural farmers income and provide them of commercial tools for an upgrade to abandon the poverty segment.

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

A framework for the development of a project management plan to structure various processes of the small rural farmers development programme, through the development of the 10 subsidiary plans most pertinent to the project's objectives.

The subsidiary plans will capture the following information:

1. Project Charter.
2. Scope Management Plan
3. Schedule Management Plan
4. Cost Management Plan
5. Quality Management Plan
6. Resource Management Plan
7. Risk Management Plan
8. Procurement Management Plan
9. Stakeholders Management Plan
10. Communication Management Plan

Assumptions:

The expected events for the successful completion of the project, based on knowledge, evaluation of the current situation, available information and experience are:

1. It is assumed that funding will be made available for the implementation of the small rural farmers development programme in Paraguay.
2. It is assumed that the small rural farmers will continue interested in in MAG's programme.
3. It is assumed that other stakeholders within the small rural farmers development programme in Paraguay structure will be willing to participate in the exercise and that all key stakeholders will be identified.
4. It is assumed that staffing will be sufficient to successfully run the small rural farmers development programme in Paraguay.

5. It is assumed that the project scope will not be changed in the short to medium term.
6. It is assumed that the donor (ITAIPU Binacional) will finance the small rural farmers development programme in Paraguay during the next harvest.


Constraints:

The constraints that are considered for the development of the project are:

1. Time: The project duration is 12 months, that correspond to a complete agricultural cycle of the agricultural calendar.
2. Scope: There is no guarantee that all the stakeholders will provide sufficient information about the ongoing programme used as reference. The political changes impact the participation of the project, so, the stakeholders level of commitment and participation may vary.
3. Cost and funding: The project budget is USD 4.922.000. The project sponsor is ITAIPU Binacional.
4. The Executing, Monitoring and Controlling, and Closing process groups exceed the nature of the project and will not be covered.

Milestones and dates:

Milestone	Start date	End date
Project Start	24-feb-20	24-feb-20
Project Management Plan submission	30-jul-20	30-jul-20
Project Initiation with sponsor approval	01-ago-20	01-ago-20
Signature of agreement	07-ago-20	07-ago-20
Transfer of funds	10-ago-20	21-ago-20
Human resources recruitment	07-ago-20	31-ago-20
Baseline research	07-ago-20	31-ago-20
List of beneficiaries' review for land clearing of 4,000 hectares through topping, for the application of mechanized seeding of new plots.	01-sep-20	11-sep-20
ToRs of procurement processes receipt and approval	01-sep-20	11-sep-20
Solicitation to contract services	11-sep-20	15-oct-20
Solicitation to purchase supplies	11-sep-20	15-oct-20
Verification of plots and machinery	15-oct-20	30-oct-20
Distribution of supplies	15-oct-20	30-oct-20
Field work	30-oct-20	31-dic-20
Verification of works	30-oct-20	31-dic-20
Payment	30-oct-20	31-dic-20
Harvest and commercialization monitoring	01-ene-20	31-mar-21
List of beneficiaries' review for mechanized planting of 6,000 hectares through the application of conventional practices and conservation agriculture.	01-sep-20	11-sep-20
ToRs of procurement processes receipt and approval	01-sep-20	11-sep-20
Solicitation to contract services	11-sep-20	15-oct-20
Solicitation to purchase supplies	11-sep-20	15-oct-20
Verification of plots and machinery	15-oct-20	30-oct-20
Distribution of supplies	15-oct-20	30-oct-20

Field work	30-oct-20	31-dic-20
Verification of works	30-oct-20	31-dic-20
Payment	30-oct-20	31-dic-20
Harvest and commercialization monitoring	01-ene-20	31-mar-21
List of rural MSMEs' review	01-sep-20	11-sep-20
ToRs receipt and approval	01-sep-20	11-sep-20
Solicitation to contract training and formalization services	11-sep-20	15-oct-20
Trainings of rural MSMEs	30-oct-20	31-dic-20
Supervision of Trainings of rural MSMEs	30-oct-20	31-dic-20
Formalization of rural MSMEs	30-oct-20	31-dic-20
Supervision of Formalization of rural MSMEs	30-oct-20	31-dic-20
Payment	30-oct-20	31-dic-20
Engagement of rural MSMEs in the market.	01-ene-20	31-mar-21
Monitoring of market activities of project stakeholders.	01-ene-20	31-mar-21
List of participants' review	01-sep-20	11-sep-20
Technical training receipt and approval	01-sep-20	11-sep-20
Logistics arrangements	11-sep-20	15-oct-20
Technical training of stakeholders	30-oct-20	31-dic-20
Supervision of technical training	30-oct-20	31-dic-20
Payment	30-oct-20	31-dic-20
Lessons Learned Assessment	01-jul-21	20-jul-21
Project Closure	20-jul-21	30-jul-21
Relevant historical information:		
<p>The organization under review is a government office called Ministry of Agriculture and Livestock. The MAG is responsible for the agrarian policy of the country. Since 2012, the MAG is leading an agricultural project, financed by ITAIPU Binacional, that is being implemented by the United Nations Office for Project Services (UNOPS) on a yearly basis. However, there is an intention of the donor, of converting the project in a multi-year programme. Even though UNOPS implements the project, year after year, political changes affect the implementation, causing delays that impact the quality of the results.</p>		
Stakeholders:		
<p>Direct stakeholders: Global School of Project Management, Universidad para la Cooperacion Internacional, MAG, Technical Planning Secretariat, Ministry of Industry and Commerce, UNOPS, small rural farmers, Leticia Spinzi (Student), Tutors and Course Lecturers, Reviewers, Board of Examiners Indirect stakeholders: Union of production guilds, Prospective Cohorts to the Master's in Project Management, Government and People of Paraguay</p>		
Approval:		
Project Manager: Leticia Spinzi	Signature: 	
Authorized by:	Signature:	

Appendix 2: Philology Letter

Asunción, August 8, 2020

Academic Advisor
Master's Degree in Project Management (MPM)
Universidad para la Cooperación Internacional (UCI)

Dear Academic Advisor,

Re: Philological Review of the Final Graduation Project titled “Project Management Plan for the Small Rural Farmers Development Programme in Paraguay” submitted by Leticia Estefanía Spinzi Cálcena in partial fulfillment of the requirements for the Master in Project Management (MPM) Degree

I hereby confirm that Leticia Estefanía Spinzi Cálcena has made all the possible corrections and changes to the Final Graduation Project document suggested by myself. In my opinion, the document does now meet the literary and linguistic standards expected of a student at a master's level.

Respectfully,



Jazmín V. Benítez L.
B.A. - National University of Asunción, UNA
M.A. - Middlebury Institute of International Studies at Monterey, MIIS

Appendix 3: Linguistic Credentials



Middlebury Institute of International Studies at Monterey

In recognition of the completion of the prescribed course of study and upon the recommendation of the Faculty of the Middlebury Institute of International Studies at Monterey, the Board of Trustees of Middlebury College has conferred on

Jazmín Viviana Benítez López

the degree of

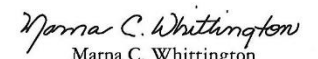
**Master of Arts in Translation
Spanish - English**

*With all the Rights, Privileges, Responsibilities and Honors thereunto appertaining.
In Witness Whereof, the Middlebury seal and the signatures of duly authorized officers
are affixed to this diploma given at Monterey in the state of California
this twentieth day of May, two thousand seventeen.*




Jeff Dayton-Johnson
Dean of the Institute


Laurie L. Patton
President


Marna C. Whittington
Chair, Middlebury Board of Trustees