

UNIVERSIDAD PARA LA COOPERACION INTERNACIONAL
(UCI)

PROJECT MANAGEMENT PLAN FOR THE SUCCESSFUL IMPLEMENTATION OF
THE SMART SURVEY METHODOLOGY IN SCATTERED RURAL AREAS IN
COLOMBIA

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DEDICATION

To my beloved wife and daughters, the light of my life.

“What do you think success is?” asked the boy.

“To love,” said the mole.

—Charlie Mackesy

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First, I want to thank God, who has allowed me to reach this point in my life and has sustained me through the most difficult moments. He constantly reminds me how much I need His infinite love and mercy. I also want to deeply thank my family, who are, without a doubt, the driving force of my life. I owe everything to them, and I work every day for them.

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I hope this small effort contributes, even in the slightest way, to the well-being of those who need it most.

ABSTRACT

This Final Graduation Project develops a Project Management Plan for the successful implementation of the SMART Survey Methodology in scattered rural areas in Colombia. The SMART Survey is a technical methodology widely used in emergency contexts to determine the prevalence of acute malnutrition and mortality rates in children under five years old.

Despite its broad use in Africa and Asia, Latin America has very limited implementation, and Colombia has only two recent experiences, one of them in 2023 and in 2024. This document identifies the gap in the integration of management tools and practices with technical requirements, proposing a solution based on the Project Management Institute (PMI) guidelines.

The objective of this document is to develop the Project Management Plan for the successful implementation of the SMART Survey Methodology in scattered rural areas in Colombia, to ensure the effective implementation of the SMART methodology by enhancing planning, coordination, and control processes through the creation of ten management plans: Integration, Scope, Schedule, Cost, Quality, Resource, Communications, Risk, Procurement, and Stakeholder Management.

In order to develop this FGP that aims to improve the management process around the implementation of the SMART Survey in the short term required for its implementation, this document uses a qualitative and analytical methodology supported by primary sources information collected through expert interviews and personal records, as well as secondary sources such as technical manuals and academic documents.

The final result consists of a comprehensive Project Management Plan that considers both operational and managerial dimensions. It facilitates resource optimization and effective implementation timelines, contributing to better data quality and stronger advocacy through informed decisions.

This plan is expected to be adaptable not only to the Colombian context but also to other regions in Latin America where the SMART Methodology has not been extensively implemented. This FGP reinforces the necessity of structured project management in technically complex, time-sensitive interventions such as the SMART Survey.

Keywords: SMART Survey, project management, successful project implementation

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ABBREVIATIONS AND ACRONYMS

AC:	Actual Cost
ACF:	Action Against Hunger / Action contre la Faim
BAC:	Budget at Completion
C.I.:	Confidence Intervals
CDR:	Crude Death Rate
CPI:	Cost Performance Index
CV:	Cost Variance
DPS:	Data Plausibility Score
EAC:	Estimate at Completion
ENA:	Emergency Nutrition Assessment
ETC:	Estimate to Complete
EV:	Earned Value
FGP:	Final Graduation Project
GAM:	Global Acute Malnutrition
GPM:	Green Project Management
HAZ:	Height-for-Age Z-scores
HDDS:	Household Dietary Diversity
IYCF:	Infant Young Child Feeding
MAD:	Minimum Acceptable Diet
MDD:	Minimum Dietary Diversity
MMF:	Minimum Meal Frequency
MUAC:	Mid- Upper Arm Circumference
PM:	Project Management
PMBOK:	Project Management Book of Knowledge
PMI:	Project Management Institute
PMP:	Project Management Plan
PV:	Planned Value
P5:	People, Planet, Prosperity, Process, and Products
RC:	Reserve Cluster
SD:	Standard Deviation
SDG:	Sustainable Development Goal
SMART:	Standardized Monitoring and Assessment of Relief and Transitions
SPI:	Schedule Performance Index
SV:	Schedule Variance
TCPI:	To-Complete Performance Index
VAC:	Variance at Completion
WASH :	Water, Sanitation and Hygiene
WAZ:	Weight-for-Age Z-scores
WHO:	World Health Organization
WHZ:	Weight –for-Height- Z-scores
WBS:	Work Breakdown Structure
UN:	United Nations
UNICEF:	United Nation Children Education Fund

EXECUTIVE SUMMARY

The SMART Methodology has been widely implemented worldwide. In the last two years there have been reports of more than 100 surveys that have been implemented in Central and South America, Africa, Asia and Oceania (Action Against Hunger Canada, 2017). The SMART initiative has allowed to measure nutritional status and crude death rate in a wide number of scenarios, mainly in emergency contexts. Even though there have been several experiences, the limited implementation in Latin America has created a window of opportunity regarding the implementation of management concepts to be considered when running a SMART Survey in Colombia.

This is precisely the gap that this FGP fills, gathering lessons learned from the exercises implemented in Colombia and some others from Central America, to build a comprehensive Project Management Plan that takes into consideration as many aspects as possible to successfully implement the SMART Survey in Colombia. The problem to be solved through this project was the lack of structured project management integration in the implementation of the SMART Methodology in Colombia. Although the technical components of the methodology are well defined and standardized, the absence of a management framework results in inefficiencies, delayed schedules, poor stakeholder engagement, and potential threats to data quality. These weaknesses become especially relevant when SMART Surveys are implemented in scattered rural areas where logistical and contextual challenges multiply the managerial demands.

The justification for this FGP lies in the critical need to create a management tool that aligns the rigorous technical requirements of the SMART Methodology with a comprehensive and structured project management approach. This tool becomes even more important when considering the need to optimize resources, ensure timely execution, and maintain the high data quality required by the methodology. The absence of a dedicated management structure in previous implementations served as a trigger to develop a guide that enables future applications to be not only technically accurate but also operationally efficient.

This FGP's general objective was to develop a project management plan to implement the SMART Survey Methodology in scattered rural areas in Colombia, ensuring that the processes of the methodology are effectively implemented in the short term required as well as the optimal resource allocation.

The specific objectives were: 1. To develop the FGP charter to document the project's start; 2. To draft the integration management plan to coordinate the various processes and activities within the project management process groups of initiating and planning; 3. To draft the scope management plan to ensure that the project includes all the work required to complete the project successfully; 4. To draft the schedule management plan to manage the timely completion of the project; 5. To draft the cost management plan to be able to complete the project with the approved budget; 6. To draft the quality management plan to meet the product quality requirements as well as expectations of stakeholders; 7. To draft the resource

management plan to manage the resources needed for the successful completion of the project; 8. To draft the communications management plan to ensure timely and appropriate management of project information; 9. To draft the risk management plan to control and manage potential risks in the project; 10. To draft the procurement management plan to purchase or acquire products and services needed from outside the project team; and 11. To draft the stakeholder management plan to develop appropriate strategies for effectively engaging stakeholders in project decisions and execution.

The methodology used in the development of this document was qualitative and analytical, utilizing interviews with experts and the author's personal experience implementing the SMART Methodology in Colombia as primary sources, and the SMART Methodology reference documents, the PMBOK, and other documents that supported the development of the academic exercise as secondary sources.

Regarding the conclusions, the main conclusion is the importance of implementing a structured Project Management approach for the implementation of the SMART Methodology, especially considering the short time available for implementing the Methodology, which does not allow for a large margin of error in the operation. Therefore, the development of the conclusions also highlights the importance of each Management Plan and its determining role in the effective implementation of the methodology. Likewise, the development of this document allows us to conclude that it has potential use as a model for future exercises using this methodology in Colombia and other similar settings in the region.

Finally, some recommendations are made considering the roles involved throughout the implementation of the SMART methodology, and the importance of active participation throughout the design, implementation, and monitoring of the Management Plan during a SMART Survey is highlighted.

The importance of involving decision makers in the methodology's design and implementation is also highlighted to facilitate not only the validation of results but also their effective use of the results in concrete actions for the vulnerable population from whom the snapshot of their diagnosis is obtained in terms of the tracer indicators of the methodology and others that have been considered during the design.

1 INTRODUCTION

The SMART (Standardized Monitoring and Assessment of Relief and Transitions) Initiative has made an enormous difference in monitoring, reporting and evaluating emergencies as well as the results of the interventions in different settings. This methodology has two main indicators, nutritional status in children under 5 years old and mortality rate (SMART, AAH Canada, and the Technical Advisory Group, 2017). It has made the difference in gathering data that has allowed for the estimation of global acute malnutrition prevalence in many contexts and very complex scenarios. This methodology has been limitedly implemented in Latin America's region, and in Colombia, two recent implementation experiences have nourished the knowledge of the SMART Methodology.

1.1 Background

The SMART Methodology has been widely implemented worldwide. In the last two years, there have been reported more than 100 surveys implemented in the continents of America (Nicaragua, Honduras and Colombia), Africa (Gambia, Côte d'Ivoire, Nigeria, South Sudan, Zambia, Kenya, Ethiopia and Somalia), Asia (Nepal and Gaza Strip) and Oceania (Papua New Guinea). Also, a total of 130 SMART trainings have taken place. The last figure is not any less important since all these processes counted with the participation of 243 organizations around the world (Action Against Hunger Canada, 2017).

The SMART (Standardized Monitoring and Assessment of Relief and Transitions) initiative is an inter-agency initiative launched in 2002 (Action Against Hunger Canada, 2017). This methodology that can be applied in a wide number of scenarios has to main indicators.

The first one corresponds to the nutritional status in children under 5 years old, in this case the result is the estimated prevalence, the key indicator here is acute malnutrition (weight for height) but there are also indicators regarding stunting (height/length for age) and underweight (weight for age) (SMART, AAH Canada, and the Technical Advisory Group, 2017).

On other hand, the mortality rate is also measured, and it is especially important in cases where the surveillance systems are collapsed or broken due to the crisis by self, for example in war contexts. Nevertheless, it is critically important to highlight that the main indicator is always the nutritional status in children under 5 years old (SMART, AAH Canada, and the Technical Advisory Group, 2017).

1.2 Statement of the problem

As explained before, there have been several experiences in the implementation of this methodology, mainly in Africa, but the experience in Latin America is still limited. The main reason for the limited implementation has to do with a lack of enough SMART Survey Managers Certified by the SMART Initiative in the region. This situation has been recently faced with the participation, training and certification of two nutritionists in this

methodology for Latin America, one of them in Central America (Nicaragua) and the other one in South America (Colombia).

Nevertheless, the lack of enough Spanish speakers certified to support the SMART Survey Methodology in the region has limited not just its wide implementation but also the smooth implementation of the Methodology. There are then invaluable lessons learned from the cases of Nicaragua, Honduras and Colombia.

Colombia, particularly, did not have technical in-country support; instead, it was remote support most of the time (the only exception was the training process of 2023 where there was on-site support for the training of enumerators in Spanish).

The rest of the technical support was in English, that required an additional translation effort understand the Methodology, to deliver feedback, to translate the reports and to explain the results. Many lessons learned were drawn, some of which were difficult and involved quick actions to manage the situation during the process, which was traumatic and stressful for the teams.

1.3 Purpose

The "statement of the problem" or situation to face has now been identified and understood. This is where this FGP brings a window of opportunity to gather the lessons learned from the exercises implemented in Colombia and other countries in Central America, to build a comprehensive Project Management Plan that takes into consideration as many aspects as possible to successfully implement the SMART Survey in Colombia.

The importance of this project lies in the possibility to have a defined project management plan structured to successfully implement the SMART survey methodology in

Scattered rural areas in Colombia, which represents additional challenges, since the dispersed rural areas require to think with much more detail about logistics, operations and managerial considerations in order to obtain the expected results in the time estimated.

The methodology is very clear regarding technical affairs, but there is not detailed information regarding managerial aspects. Even though there are some preliminary steps on the formulation of the project from a technical perspective, there is a window of opportunity regarding the management plan which involves the steps to take into consideration for the successful implementation of the SMART Methodology.

This is where this project takes importance, since it allows to Non-Governmental Organizations as well as other critical stakeholders to plan not just the technical points of the methodology but also all the management processes that are behind the success of its implementation.

1.4 General objective

To develop a project management plan to implement the SMART Survey Methodology in scattered rural areas In Colombia, ensuring that the processes of the methodology are effectively implemented in the short term required as well as the optimal resource allocation.

1.5 Specific objectives

1. To develop the FGP charter to document the project's start.
2. To draft the integration management plan to coordinate the various processes and activities within the project management process groups of initiating and planning.

3. To draft the scope management plan to ensure that the project includes all the work required to complete the project successfully.
4. To draft the schedule management plan to manage the timely completion of the project.
5. To draft the cost management plan to be able to complete the project within the approved budget.
6. To draft the quality management plan to meet the product quality requirements as well as the expectations of stakeholders.
7. To draft the resource management plan to manage the resources needed for the successful completion of the project.
8. To draft the communications management plan to ensure timely and appropriate management of project information.
9. To draft the risk management plan to control and manage potential risks in the project.
10. To draft the procurement management plan to purchase or acquire products and services needed from outside the project team.
11. To draft the stakeholder management plan to develop appropriate strategies for effectively engaging stakeholders in project decisions and execution.

2 THEORETICAL FRAMEWORK

The theoretical framework presents the guide and information required regarding every managerial aspect to be considered in this project, leading to build the management plan for the successful implementation of the SMART Survey Methodology in scattered rural areas in Colombia. This framework links experience, technical knowledge and concepts required to reach the complete development of the objectives established.

2.1 Company/Enterprise framework

Action Against Hunger Canada (est. in 2006) works tirelessly in the fight against hunger globally through its specialized nutrition technical programs that build the knowledge and skills of nutrition and public health professionals worldwide for the detection, treatment and prevention of malnutrition. Its collaborative programmatic model brings together communities, civil society, government, and the international assistance community to work jointly on fundamental public health issues that contribute to hunger in this world (Action Against Hunger Canada, 2025).

2.1.1 Company/Enterprise background

Founded in 1979, Action Against Hunger is a global humanitarian organization that takes decisive action against the causes and effects of hunger. Its mission is to save the lives of severely malnourished children while helping communities become self-sufficient. With staff in nearly 50 countries, its programs in nutrition, food security, livelihoods, water,

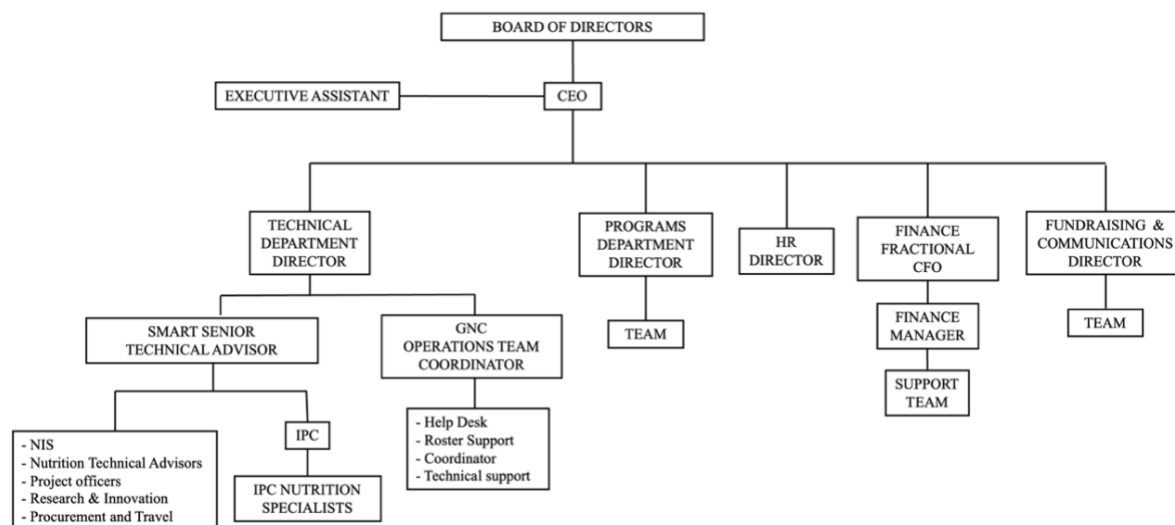
sanitation, and hygiene each more than 20 million people each year (Action Against Hunger Canada, 2025).

2.1.2 Mission and vision statements

The vision of AAH Canada is a world free from hunger, and its mission is to take action to end hunger and its root causes worldwide. AAH Canada responds to crises and partners with local communities to prevent, detect, and treat undernutrition, promoting change to policies, practices and inequalities that perpetuate hunger (Action Against Hunger Canada, 2025).

2.1.3 Organizational structure

Figure 1. Organizational structure



Note: Adapted from the Organizational Structure of *Action Against Hunger Canada* as of May 2025., With the permission of Action Against Hunger Canada, 2025 (Wondim, 2025).

2.1.4 Products and Services Offered

AAH Canada's leading-edge programs have been built on the foundations of technical excellence, rigor and innovative practice over many years. AAH Canada is an expert in nutrition information systems, emergency nutrition and gender equality. Action Against Hunger Canada plays a hosting role to two significant global programs (SMART and the Global Nutrition Cluster Operations Team Program Support) that provide guidance, tools and training in the areas of nutrition data collection and analysis and best practices for emergency nutrition service delivery for hundreds of Governments, civil society organizations and international organizations worldwide.

AAH Canada's programs support the capacity of public health professionals who deliver lifesaving and long-term initiatives in communities globally. AAH Canada also works towards sustainable, transformative health system strengthening in all its efforts to ensure a long-lasting impact together with its partners, including members of the Humanitarian Coalition. As a member of the Action Against Hunger International Network, AAH Canada also provides a range of technical support for the mainstreaming of gender equality across its programs and operations worldwide. Its commitments towards a gender transformative approach are integrated into its core health programming and its technical support to its International Network (Action Against Hunger Canada, 2025).

2.2 Project Management concepts

The implementation of the SMART survey methodology requires a comprehensive understanding of several project management concepts. Even though this knowledge is not expressly written in the SMART methodology guidelines, it is critical to have comprehension of these critical concepts to ensure a successful implementation of the methodology that demands effective resolution of different kind of situations that take place throughout the process. That is why this section details relevant project management concepts and their relationship with this project’s objectives.

2.2.1 Project management domains

The PMBOK Guide 7th Ed. Describes 12 principles that are aligned with the PMI Code of Ethics and Professional Conduct. These principles were identified and developed by the engagement of a global community of project practitioners (industries, cultural backgrounds, organizations). The twelve principles are described in the table below based on the information from PMBKOK 7th Ed (Project Management Institute, 2021).

Chart 1. Project Management Principles (PMBOK 7th Ed)

#	Principle	Description
1	Be a diligent, respectful, and caring steward	Stewards act responsibly to carry out activities with integrity, care, and trustworthiness while maintaining compliance with internal and external guidelines. They demonstrate a broad commitment to the financial, social, and environmental impact of the projects they support (Project Management Institute, 2021).
2	Create a collaborative Project Team environment	Project teams are made up of individuals who wield diverse skills, knowledge, and experience. Project teams that work collaboratively can accomplish a shared objective more effectively and efficiently than individuals working on their own (Project Management Institute, 2021).

3	Effectively engage with Stakeholders	Engage stakeholders proactively and to the degree needed to contribute to project success and customer satisfaction (Project Management Institute, 2021).
4	Focus on value	Continually evaluate and adjust project alignment to business objectives and intended benefits and value (Project Management Institute, 2021).
5	Recognize, evaluate, and respond to system interactions	Recognize, evaluate, and respond to the dynamic circumstances within and surrounding the project in a holistic way to positively affect project performance (Project Management Institute, 2021).
6	Demonstrate leadership behaviors	Demonstrate and adapt leadership behaviors to support individual and team needs (Project Management Institute, 2021).
7	Tailor based on context	Design the project development approach based on the context of the project, its objectives, stakeholders, governance, and the environment using "just enough" process to achieve the desired outcome while maximizing value, managing cost, and enhancing speed (Project Management Institute, 2021).
8	Build quality into processes and deliverables	Maintain a focus on quality that produces deliverables that meet project objectives and align with the needs, uses, and acceptance requirements set forth by relevant stakeholders (Project Management Institute, 2021).
9	Navigate complexity	Continually evaluate and navigate project complexity so that approaches and plans enable the project team to successfully navigate the project life cycle (Project Management Institute, 2021).
10	Optimize risk responses	Continually evaluate risk exposure, both opportunities and threats, to maximize positive impacts and minimize negative impacts to the project and its outcomes (Project Management Institute, 2021).
11	Embrace adaptability and resiliency	Build adaptability and resiliency into the organization's and project team's approaches to help the project accommodate change, recover from setbacks, and advance the work of the project (Project Management Institute, 2021).
12	Enable change to achieve the envisioned future state	Prepare those impacted for the adoption and sustainment of new and different behaviors and processes required for the transition from the current state to the intended future state created by the project outcomes (Project Management Institute, 2021).

Note: Adapted from the book *The Standard for Project Management*. (p.23), Project Management Institute, 2021.

The way these 12 principles operate in the implementation of the SMART survey methodology can be explained considering the actions required to go through the project successfully. The very first principle demands stewardship, as explained before that implies responsibility as well as integrality in each management decision. In the SMART survey methodology, this is critical since we are collecting anthropometric data (to estimate

malnutrition) and non-anthropometric data for other indicators. That means working in the field and facing any kind of challenges (security affairs, accessibility, lack of signal or problems with data quality) that demands quick decisions. If there is no diligence, respect and care, it is not possible to go through all these challenges that require not just technical knowledge but also management skills and rigor regarding this principle, like the others.

Very connected with the previous one is the 2nd principle, team environment, which must be a collaborative since facing each challenge and achieving a successful result in the data collection process in difficult situations in the field it is critical as a team. The 6th principle, demonstrating leadership. The 7th principle, that consists in tailoring based on context, so we all figure out the way to tackle down a barrier or a problem that may affect the data collection process or the data quality. Considering that quality is the core of the SMART methodology, the 8th principle plays a key role as it highlights the main reason why the SMART methodology is considered a reliable tool to measure the prevalence of malnutrition.

The SMART survey also requires engagement, not just by the team but from each stakeholder (3rd principle) that might be involved in the process, like national health institute, ministry of health, other government institutions, other NGOs as well as the communities, this is not just the team gathering the information required to estimate the prevalence of malnutrition (the purpose of the SMART survey); each stakeholder has to feel engaged with the data collection process and its importance, for accountability scenarios, public policy building, public health decisions in government, and any other

place where the valuable information collected is filling a gap of data with quality regarding malnutrition.

This project also requires a deep focus on value. Value is ultimately the main indicator of project success since the focus of the project is about the outcomes from the perspective of the end user of the data that comes from the SMART survey. Here data quality takes on special importance, so, in this kind of project, it is important to constantly evaluate and adapt the way the project is going on aligned with the project objectives.

This project also requires the application of the principle of recognizing, evaluating, and responding to systems interactions. In difficult contexts, particularly in scattered rural areas where scarcity is prevalent, planning alone is not sufficient. While optimizing risk responses (10th principle) is also critical, it is closely tied to systems thinking. Additionally, this principle is interconnected with the 9th principle (navigating complexity), the 11th (embracing adaptability and resiliency), all of which are essential for achieving the proposed objectives.

2.2.2 Predictive, adaptative, and hybrid projects

The PMBOK Guide 7th Ed. Describes 8 Performance Domains. These are “a group of related activities that are critical for the effective delivery of project outcomes” (Project Management Institute, 2021). The Performance Domains are described in the table below based on the information from PMBKOK 7th Ed (Project Management Institute, 2021).

Chart 2. Project Performance Domains (PMBOK 7th Ed)

#	P. Domain	Description
1	Stakeholders	The Stakeholder Performance Domain addresses activities and functions associated with stakeholders (Project Management Institute, 2021).
2	Team	The Team Performance Domain addresses activities and functions associated with the people who are responsible for producing project deliverables that realize business outcomes (Project Management Institute, 2021).
3	Development Approach and Life Cycle	The Development Approach and Life Cycle Performance Domain addresses activities and functions associated with the development approach, cadence, and life cycle phases of the project (Project Management Institute, 2021).
4	Planning	The Planning Performance Domain addresses activities and functions associated with the initial ongoing and evolving organization and coordination necessary for delivering project deliverables and outcomes (Project Management Institute, 2021).
5	Project Work	The Project Work Performance Domain addresses activities and functions associated with establishing project processes, managing physical resources, and fostering a learning environment (Project Management Institute, 2021).
6	Delivery	The Delivery Performance Domain addresses activities and functions associated with delivering the scope and quality that the project was undertaken to achieve (Project Management Institute, 2021).
7	Measurement	The Measurement Performance Domain addresses activities and functions associated with assessing project performance and taking appropriate actions to maintain acceptable performance (Project Management Institute, 2021).
8	Uncertainty	The Uncertainty Performance Domain addresses activities and functions associated with risk and uncertainty (Project Management Institute, 2021).

Note: Adapted from the book *A Guide to the Project Management Body of Knowledge – PMBOK Guide 7th Ed.* (p.7), Project Management Institute, 2021.

These 8 performance domains are strongly linked to the PM principles explained before, and the way these domains are integrated with the implementation of the SMART survey methodology can be explained as it was described before. Considering the complexity of the contexts where the SMART survey methodology is implemented, data collection involves working in challenging conditions (some of which have been previously exposed). It is not possible to go through all these situations without a comprehensive management plan that also requires the structure that comes from the performance domains.

Stakeholders is the first performance domain, and it is critical in the SMART methodology. As explained in the principles, there is not a successful result without engagement. So, what is expected from this domain is a productive working relationship with the different stakeholders throughout the project, agreement on objectives (the survey has its objectives and it does need to be agreed in committees), and accountability exercises.

Then, closely linked to the first one, there is the 2nd domain, Team. This performance domain is translated in a high-performing team, and all the interpersonal skills required and demonstrated by each member of the team. We all need to look at the same direction, working in hard conditions demands a very good team development.

The "development approach and life cycle" and "planning" performance domains are crucial. The former requires defining an approach aligned with SMART survey deliverables, which then informs the latter, ensuring organized and coordinated progress throughout the implementation process.

Then, the performance domains "project work" (5th), "delivery" (6th), and "measurement" (7th) become highly important in the phases of survey design, data collection, data analysis, and final report delivery. Here the desired outcomes include not just efficient and effective project performance but also processes appropriate for the context, efficient and effective management, as well as the contribution, resulting from the implementation of the SMART methodology to the strategy of the organizations that are mainly related with advocacy when there is a lack of updated information. It is also

important to emphasize the need for a reliable understanding of the status of the implementation of the SMART survey among the different stakeholders.

The last performance domain is not the least important since “uncertainty” is also potentially part of the SMART survey considering that this methodology is implemented due to the difficult situations where the information is gathered. As a consequence, the outcome expected is primarily to be aware of the social, political, geographical, and cultural context in which the project takes place. This helps anticipate the potential threats and understand their consequences.

2.2.3 Project management

The PMBOK Guide 7th Ed. Defines Project Management as the “application of knowledge, skill, tools and techniques to project activities to meet project requirements”. Project management also refers to “guiding the project work to deliver the intended outcomes (Project Management Institute, 2021).

2.2.4 Project management knowledge areas and processes

The concept of Project Management Knowledge Area comes from the PMBOK 6th Ed. “A knowledge Area is 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” (Project Management Institute, 2017).

These Knowledge Areas are critical in the development of this, which aims to create a project management plan for implementing the SMART methodology. For this purpose, each of the ten knowledge areas requires its management plan. These areas are described in the table below based on the information from PMBKOK 6th Ed (Project Management Institute, 2017).

Chart 3. Project Management Knowledge Areas (PMBOK 6th Ed)

#	Knowledge Area	Description
1	Project Integration M.	Process and activities related to the project management process groups (Project Management Institute, 2017).
2	Project Scope Management	Processes required to ensure that the project completes all the work required in the project (Project Management Institute, 2017).
3	Project Schedule Management	Processes required to manage the timely completion of the project (Project Management Institute, 2017).
4	Project Cost Management	Processes involved in planning, budgeting, managing and controlling project costs (Project Management Institute, 2017).
5	Project Quality Management	Processes for incorporating the methodology's quality guidelines (Project Management Institute, 2017).
6	Project Resource Management	Processes to identify, acquire, and manage resources required for the project (Project Management Institute, 2017).
7	Project Communications	Processes required to share the results in strategic scenarios with key stakeholders (Project Management Institute, 2017).
8	Project Risk Management	Processes of conducting risk identification, analysis, response and monitoring risks (Project Management Institute, 2017).
9	Project Procurement M.	Processes necessary to purchase products and services needed from outside the team (Project Management Institute, 2017).
10	Project Stakeholder M.	Processes to identify stakeholders that impact or are impacted by the project (Project Management Institute, 2017).

Note: Adapted from the book *A Guide to the Project Management Body of Knowledge – PMBOK Guide 6th Ed.* (p.23, 24), Project Management Institute, 2017.

There are also the Project Management Process Groups—a set of processes that lead to achieving the project objectives. There are 5 Process Groups described in the table below based on the information from PMBKOK 6th Ed (Project Management Institute, 2017).

Chart 4. Project Management Process Groups (PMBOK 6th Ed)

#	Process Group	Description
1	Initiating	Processes performed to define a new project or phase by obtaining authorization (Project Management Institute, 2017).
2	Planning	Processes required to establish the scope of the project and refine objectives (Project Management Institute, 2017).
3	Executing	Processes performed to complete the work defined in the Project M. Plan (Project Management Institute, 2017).
4	Monitoring and controlling	Processes required to track, review and regulate the progress and performance (Project Management Institute, 2017).
5	Closing	Processes performed to formally complete or close the project and contract (Project Management Institute, 2017).

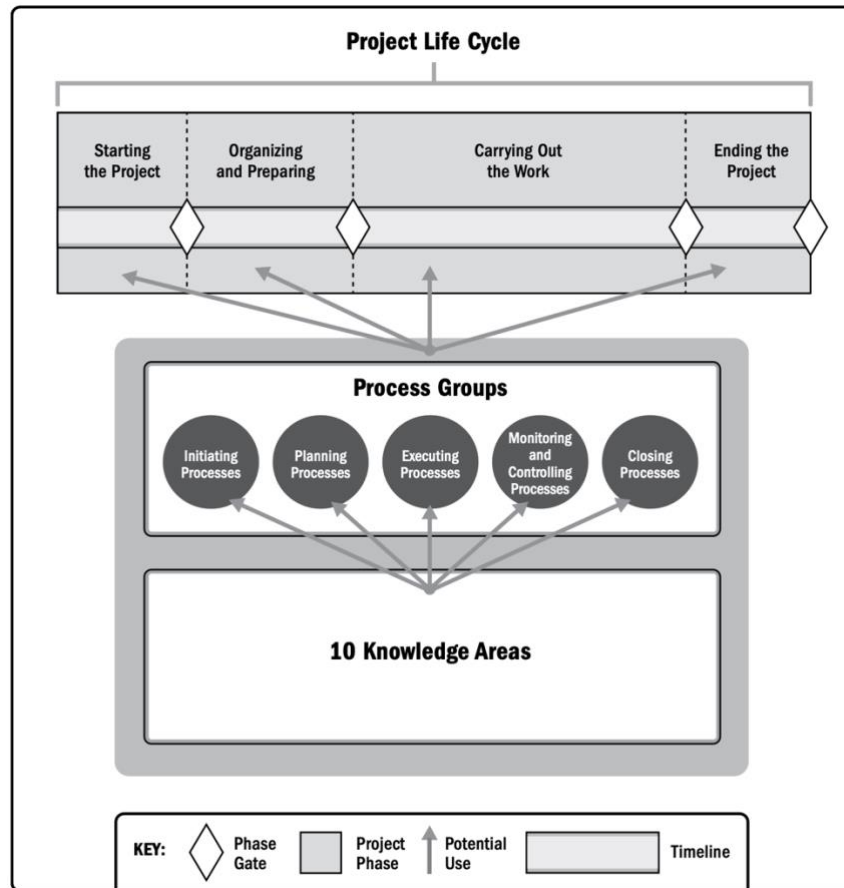
Note: Adapted from the book *A Guide to the Project Management Body of Knowledge – PMBOK Guide 6th Ed.* (p.23), Project Management Institute, 2017.

These charts illustrate processes within both Knowledge Areas and Process Groups. These processes can be applied across different project phases and within specific knowledge areas (Project Management Institute, 2017).

2.2.5 Project life cycle

The Project life cycle refers to the “series of phases that a project passes through from its start to its completion”. As shown in the figure bellow the project life cycle goes from starting point of the project to the end of the project, but it’s strongly connected with the process groups as well as in the knowledge areas. These key concepts guide the management of the project throughout its course. (Project Management Institute, 2017)

Figure 2. Interrelationship of PMBOK 6th Ed Guide Key Components in Projects



Note: Copied from the book *A Guide to the Project Management Body of Knowledge – PMBOK Guide 6th Ed.* (p.18), Project Management Institute, 2017.

To complete the understanding of the previous figure, it is important to understand that a *project phase* refers to a “collection of logically related project activities that culminates in the completion of one or more deliverables” (Project Management Institute, 2017). Additionally, the concept *phase gate* refers to a “review at the end of a phase in which a decision is made to continue to the next phase”. (Project Management Institute, 2017).

2.2.6 Company strategy, portfolios, programs and projects

To conclude this section, we will cite a few critical concepts that are key in the structure of organizations and companies:

- Company Strategy: “Is the reason for the project and all needs are related to the strategy to achieve the value” (Project Management Institute, 2021).
- Portfolio: “Projects, programs, subsidiary portfolios, and operations managed as a group to achieve strategic objectives” (Project Management Institute, 2021).
- Program: “Related projects, subsidiary programs, and program activities that are managed in a coordinated manner to obtain benefits not available from managing them individually” (Project Management Institute, 2021).
- Project: “A temporary endeavor undertaken to create a unique product, service, or result. The temporary nature of projects indicates a beginning and an end to the project work or a phase of the project work. Projects can stand alone or be part of a program or portfolio” (Project Management Institute, 2021).

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

The SMART Methodology is an initiative launched in 2002 that comes from the effort of a network of organizations and humanitarian practitioners, led by Action Against Hunger Canada. This methodology is a simplified and standardized household-level survey methodology used to understand severity and magnitude of a public health situation having as main indicators the *nutritional status* of the population under 5 years

old and in some cases *death rate* (SMART, AAH Canada, and the Technical Advisory Group, 2017).

2.3.1 Current situation of the problem or opportunity in study

In Latin America there is a minimal implementation of this methodology. In the background there are four SMART surveys, the first one in 2021 in Nicaragua, the second in 2022-23 in Honduras (Alemán, 2025). On the other hand, there are two experiences in Colombia, a Rapid SMART in 2023 and a SMART survey in 2024.

Many lessons learned were drawn from those cases regarding technical and managerial aspects. Those cases have not been described before from a project management perspective. This is where there is an opportunity to go deeper in managerial knowledge, explaining in detail how the implementation of the SMART methodology could improve in order to achieve a successful result.

2.3.2 Previous research done for the topic in the study

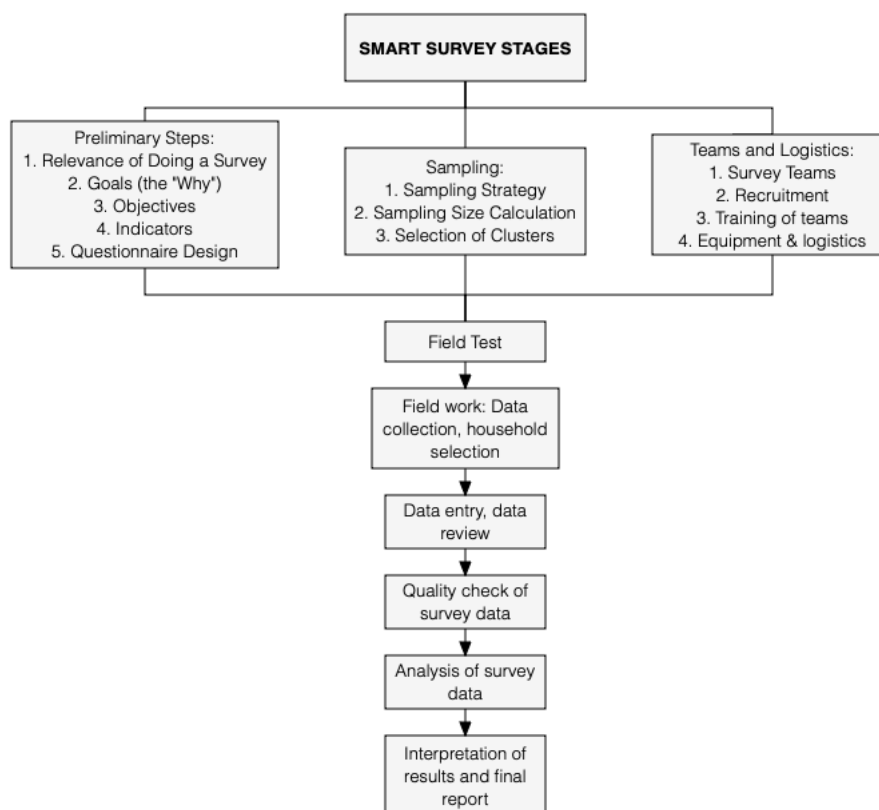
Even though there is a vast amount of technical experience in the implementation of the SMART survey, especially in Africa, there is limited information published regarding the project management lessons learned. Also considering its importance throughout the survey, from the preliminary steps till the reports and even the spread of the results, it is an exercise that could nourish the support for future exercises of SMART, especially in contexts like Latin America where there are numerous challenges in relation with access routes, security, logistics, weather and even cultural and social context.

2.3.3 Other theories related to the topic in the study

In this section, the SMART survey Methodology will be summarized. Nevertheless it is important to clarify that for the deep understanding of the SMART Methodology, it is a must to search for the main source in the SMART Initiative web site (<https://smartmethodology.org/>). All the official documents, including the SMART Methodology, can be consulted and downloaded for free from that website. When considering its implementation, it is also critically important to contact the technical experts throughout the same website. It allows to communicate with Action Against Hunger Canada, which provides an updated roster of certified consultants who can support the implementation of the methodology in any context. This is very important advice since the SMART Methodology uses a specific software (ENA Software) and has very specific technical rules that will not be described in this document.

The SMART Survey can be organized in stages that are very useful to build the Work Breakdown Structure. These stages come from the SMART Methodology, and as described, the very first moment for a Survey is named “Preliminary Steps”. At this point, we must evaluate the pertinence of implementing the Methodology check for information already available, is there a gap that could be fulfilled with this data? What is this information for? Are there actions to be potentially taken after the enormous effort (budget, personnel, logistics, operations, technical knowledge) of implementing the methodology? (SMART, AAH Canada, and the Technical Advisory Group, 2017).

Figure 3. SMART Survey Stages



Note: Adapted from the *SMART Standardized Monitoring and Assessment for Relief and Transitions Manual 2.0*. (p.8, 12, 27, 53 and 64), Action Against Hunger Canada, 2017.

When the pertinence of implementing the SMART Methodology is determined, the goal and the objectives must be defined. This is a very critical step since gathering information in scattered rural areas represent an opportunity to collect data not just related to the main indicator (nutritional status) (SMART, AAH Canada, and the Technical Advisory Group, 2017). But also to other kind of indicators (People in Need (PIN), 2025) regarding the targeted population. For example, Morbidity, Vaccination, Infant and Young

Child Feeding (IYCF) (World Health Organization & UNICEF, 2021). Food Security, Water, Sanitization and Hygiene (WASH) or Maternal Health Status, etc.

Once the objectives and their indicators are defined and the goal is established, it is important to design an appropriate questionnaire. In this questionnaire design stage, as well as in the previous stages of the preliminary steps, it is critical to get an active participation from each stakeholder that is taking part in the implementation of the SMART Methodology (SMART, AAH Canada, and the Technical Advisory Group, 2017). That means that in technical committees, the parties approve the progress of the project, including these critical preliminary steps that are part of the “Survey Protocol”. The reason why it is important is that by having the technical validation of the participating institutions and organizations, the survey design responds to the needs and to the “why” of the exercise.

The next step in the process moves is the sampling. In this step is crucial to know the territory as well as the communities and their context, and their context due to the fact that the sampling method depends on the communities’ distribution and the availability of updated information regarding the number of households per community.

It is also important to know that to achieve a minimum precision, there is a sample size calculation that requires few secondary data to get the number of children under 5 years old as well as the number of households (Estimated Prevalence of Global Acute Malnutrition-GAM; Percentage of Children Under 5 Years Old; Average Household Size). There are also different sampling criteria to get the number of households required to “achieve the minimum precision” regarding the crude mortality rate or CDR (SMART,

AAH Canada, and the Technical Advisory Group, 2017). These formulas and criteria are well described in the methodology.

The best sampling method for an already defined sample size is called “Cluster Sampling.” It is impractical to carry out a simple random sampling or a systematic random sampling in cases where the list of Households is incomplete or not updated, methodologically known as Basic Sampling Units-BSU, and when the population targeted is geographically dispersed, as is the case in scattered rural areas (SMART, AAH Canada, and the Technical Advisory Group, 2017).

To understand the Clusters, it can be useful to think of them as a mechanism of distribution of the BSU in different Geographic Units. These Geographic Units allow the Team to define the part of the dispersed targeted area in which the information is going to be gathered. These clusters are key in the implementation of the SMART survey in Colombia when there is an overdispersion of the population in rural areas and where the information regarding the population that lives in the territory is not updated.

It is also critical to understand that Cluster Sampling demands not just an exercise of sampling in the office but in the field, where there is also a randomization process to select the Households that are going to participate in the survey (SMART, AAH Canada, and the Technical Advisory Group, 2017).

In the next stage, a series of processes and logistics take place. These include determining the survey teams required to gather the information as fast as possible, the recruitment process, the training of teams, and securing the equipment and logistics (like transportation) ready on time, (SMART, AAH Canada, and the Technical Advisory

Group, 2017). All this work demands Project Management knowledge, organization, scheduling, an appropriate Gantt Chart, a complete Work Breakdown Structure, a budget with adequate resources allocation, as well as a system that allows for following the implementation of the SMART Methodology in each stage of the project.

The SMART Methodology relies heavily on anthropometric measures. A crucial step in the training process, conducted in the field where data will be collected, is the "standardization test." This test evaluates the trained team's precision and accuracy in taking these measurements. Successful completion of the standardization test is required before the team proceeds to the field test, the final step before actual data collection (both anthropometric and non-anthropometric).

Household selection (Cluster Sampling) and data collection are followed by daily data systematization in ENA Software, the official software of the SMART Methodology (SMART, AAH Canada, and the Technical Advisory Group, 2017). This data is then reviewed for inconsistencies, typing errors, and other mistakes, particularly in anthropometric measurements. The ENA Software's Plausibility Check provides feedback on data quality (SMART, AAH Canada, and the Technical Advisory Group, 2017), which is relayed to the team daily. This feedback loop allows for immediate correction of results and improvement in data gathering techniques, reinforcing the knowledge gained during training.

Once all data is collected, a quality check of the survey data is done, allowing us to determine the quality of the anthropometric data. If the data has indeed good quality, the analysis of survey data is conducted, and the preliminary results are shared with

stakeholders. In the meantime, the reports writing process takes place, following technical validation by the technical committee, the interpretation and final results are delivered. At this stage, a well-structured communications management plan is crucial to ensure information is shared with the appropriate stakeholders through the correct channels.

3 METHODOLOGICAL FRAMEWORK

In this chapter the methodological framework will be developed, understood as a “tool to guide the developer through a sequence of steps to complete a procedure” (McMeekin et al., 2020). It can also be explained as the systematic and structured processes that are used to conduct the research in this Graduation Project in order to achieve the objectives established to answer the research question.

3.1 Information sources

Information sources refer to critical data essential for learning as well as investigating, regarding its meaning. Chatterjee explains that a source is “Any object from which something can be obtained or found out. Thus, any object that provides information can be called an information source” (Chatterjee, 2017).

3.1.1 Primary sources

A primary source is “an original material created at the time a historical event occurs, and can be original documents (e.g. Diaries, personal journals, direct interviews,

and other unpublished works)” (Alvarez, 2023). In this document, the primary information sources come from direct interviews with technical experts as well as personal journals regarding the experience gained in the previous implementation of the SMART Methodology in Colombia.

3.1.2 Secondary sources

Secondary sources “are created by someone who did not experience firsthand or participate in the events or conditions being researched (e.g. Textbooks, edited works, books, and articles that interpret or review research works)” (Alvarez, 2023). In this document, the secondary information sources come from books, academic articles and official documents regarding the SMART Initiative, like the SMART Methodology.

Chart 5. Information Sources

Objectives	Information sources	
	Primary	Secondary
1. To develop the FGP charter to document the project’s start.	<ul style="list-style-type: none"> - Experiences from SMART Surveys. - Interviews with experts. 	<ul style="list-style-type: none"> - PMBOK® Guide 7th Ed. (2021) & 6th Ed. (2017) - Other PM Books and Articles. - AAH Canada & SMART Initiative Websites. - SMART Methodology.
2. To draft the integration management plan to coordinate the various processes and activities within the project management process groups of initiating and planning.	<ul style="list-style-type: none"> - Experiences from SMART Surveys. - Interviews with experts. 	<ul style="list-style-type: none"> - PMBOK® Guide 7th Ed. (2021) & 6th Ed. (2017) - Other PM Books and Articles. - AAH Canada & SMART Initiative Websites. - SMART Methodology.
3. To draft the scope management plan to ensure that the project includes all the work required to complete the project successfully.	<ul style="list-style-type: none"> - Experiences from SMART Surveys. - Interviews with experts. 	<ul style="list-style-type: none"> - PMBOK® Guide 7th Ed. (2021) & 6th Ed. (2017) - Other PM Books and Articles. - AAH Canada & SMART Initiative Websites. - SMART Methodology.
4. To draft the schedule management plan to manage the timely completion of the project.	<ul style="list-style-type: none"> - Experiences from SMART Surveys. 	<ul style="list-style-type: none"> - PMBOK® Guide 7th Ed. (2021) & 6th Ed. (2017) - Other PM Books and Articles. - AAH Canada & SMART Initiative Websites.

	- Interviews with experts.	- SMART Methodology.
5. To draft the cost management plan to be able to complete the project within the approved budget.	- Experiences from SMART Surveys. - Interviews with experts.	- PMBOK® Guide 7th Ed. (2021) & 6th Ed. (2017) - Other PM Books and Articles. - AAH Canada & SMART Initiative Websites. - SMART Methodology.
6. To draft the quality management plan to meet the product quality requirements as well as the expectations of stakeholders.	- Experiences from SMART Surveys. - Interviews with experts.	- PMBOK® Guide 7th Ed. (2021) & 6th Ed. (2017) - Other PM Books and Articles. - AAH Canada & SMART Initiative Websites. - SMART Methodology.
7. To draft the resource management plan to manage the resources needed for the successful completion of the project.	- Experiences from SMART Surveys. - Interviews with experts.	- PMBOK® Guide 7th Ed. (2021) & 6th Ed. (2017) - Other PM Books and Articles. - AAH Canada & SMART Initiative Websites. - SMART Methodology.
8. To draft the communications management plan to ensure timely and appropriate management of project information.	- Experiences from SMART Surveys. - Interviews with experts.	- PMBOK® Guide 7th Ed. (2021) & 6th Ed. (2017) - Other PM Books and Articles. - AAH Canada & SMART Initiative Websites. - SMART Methodology.
9. To draft the risk management plan to control and manage potential risks in the project.	- Experiences from SMART Surveys. - Interviews with experts.	- PMBOK® Guide 7th Ed. (2021) & 6th Ed. (2017) - Other PM Books and Articles. - AAH Canada & SMART Initiative Websites. - SMART Methodology.
10. To draft the procurement management plan to purchase or acquire products and services needed from outside the project team.	- Experiences from SMART Surveys. - Interviews with experts.	- PMBOK® Guide 7th Ed. (2021) & 6th Ed. (2017) - Other PM Books and Articles. - AAH Canada & SMART Initiative Websites. - SMART Methodology.
11. To draft the stakeholder management plan to develop appropriate strategies for effectively engaging stakeholders in project decisions and execution.	- Experiences from SMART Surveys. - Interviews with experts.	- PMBOK® Guide 7th Ed. (2021) & 6th Ed. (2017) - Other PM Books and Articles. - AAH Canada & SMART Initiative Websites. - SMART Methodology.

Note: Own work.

3.2 Research methods

Research methods “are a range of tools that are used for different types of enquiries, just as a variety of tools are used for doing different practical jobs, for example, a pick for breaking up the ground or a rake for clearing leaves” (Walliman, 2022). For the Project Management Plan for the Successful Implementation of the SMART Survey Methodology in scattered rural areas in Colombia, Qualitative and Analytical methods will be applied to address the established objectives.

3.2.1 Qualitative method:

In the qualitative method, the “research is concerned with feelings, ideas, or experiences. Finding insights that can result in testable hypotheses is the main goal of the data collection, which is frequently done in narrative form” (Ugwu, 2023).

3.2.2 Analytical method:

In the analytical method, the research is “an organized investigation/study that seeks to understand, explain and dissect complex phenomena by examining their components and relationships. It involves critically analyzing data, facts, or information to draw meaningful conclusions, identify patterns, and gain insights” (Aggarwal, 2024).

Chart 6. Research Methods

Objectives	Research methods	
	Qualitative Method	Analytical Method
1. To develop the FGP charter to document the project’s start.	Plays a role in capturing the project vision and initial expectations through brief descriptions.	This method is critical in developing project objectives, feasibility and alignment with FGP guidelines.
2. To draft the integration management plan to coordinate the various processes and activities within the PM process groups of initiating and planning.	It is crucial to facilitate the understanding of coordination processes.	This method is valuable in developing the relationship analysis between processes.

3. To draft the scope management plan to ensure that the project includes all the work required to complete the project successfully.	This method is instrumental in identifying the project expectations through document reviews.	Supports the understanding of scope elements and analysis of potential scope changes.
4. To draft the schedule management plan to manage the timely completion of the project.	It is vital to gather qualitative insights on scheduling challenges.	Supports the timelines and dependencies analysis to create the schedule plan.
5. To draft the cost management plan to be able to complete the project within the approved budget.	Facilitates the qualitative understanding of costs related to the SMART Methodology implementation.	It is invaluable to estimate costs and budget allocation to ensure the efficient use of resources.
6. To draft the quality management plan to meet the product quality requirements as well as the expectations of stakeholders.	This method plays a significant role in gathering insights regarding quality key points based on best practices and lessons learned.	It helps us to examine the main quality tools and control measures of the SMART Methodology.
7. To draft the resource management plan to manage the resources needed for the successful completion of the project.	Captures insights into resource availability and utilization for future learning.	It is critical to analyze workforce allocation, equipment and material logistics needs.
8. To draft the communications management plan to ensure timely and appropriate management of project information.	Supports the identification of key communication needs and methods for sharing results.	This research method plays a key role in analyzing communication strategies.
9. To draft the risk management plan to control and manage potential risks in the project.	Supports the identification of risks through described experiences and expert interviews.	Used to systematically analyze potential risks as well as mitigation strategies.
10. To draft the procurement management plan to purchase or acquire products and services needed from outside the project team.	Explores qualitative insights into provider's selection criteria and procurement challenges.	Supports cost-benefit analysis, supplier evaluation, and contract risk assessments.
11. To draft the stakeholder management plan to develop appropriate strategies for effectively engaging stakeholders in project decisions and execution.	Used to assess stakeholder concerns and engagement strategies.	It is key in analyses of stakeholder influence and engagement in the implementation of SMART.

Note: Own work.

3.3 Tools

The Oxford English Dictionary defines tool as “a device, procedure, etc., used in the development or improvement of something” (Oxford English Dictionary, 2025).

Throughout the building of this project management plan, few tools are critical to achieve the established objectives.

Chart 7. Tools

Objectives	Tools
1. To develop the FGP charter to document the project’s start.	Expert judgement; Data gathering (Interviews).; Literature review.; PM Software.
2. To draft the integration management plan to coordinate the various processes and activities within the project management process groups of initiating and planning.	Expert judgement; Data gathering (Interviews); Meetings; Data analysis; Literature review; PM Software.
3. To draft the scope management plan to ensure that the project includes all the work required to complete the project successfully.	Expert judgement; Data gathering (Interviews); Meetings; Data analysis; Decomposition; PM Software.
4. To draft the schedule management plan to manage the timely completion of the project.	Expert judgement; Data gathering (Interviews); Decomposition; Meetings; Literature review; PM Software.
5. To draft the cost management plan to be able to complete the project within the approved budget.	Expert judgement; Data gathering (Interviews); Data analysis; Meetings; Literature review; PM Software.
6. To draft the quality management plan to meet the product quality requirements as well as the expectations of stakeholders.	Expert judgement; Data gathering (Interviews); Data analysis. Meetings; Literature review; PM Software.
7. To draft the resource management plan to manage the resources needed for the successful completion of the project.	Expert judgement; Data gathering (Interviews); Data representation; Meetings; Literature review.
8. To draft the communications management plan to ensure timely and appropriate management of project information.	Communication requirements analysis; Communication models; Communication methods; Interpersonal and team skills; Data representation; Meetings; Literature review.
9. To draft the risk management plan to control and manage potential risks in the project.	Expert judgement; Data gathering (Interviews); Data analysis; Meetings; Literature review.
10. To draft the procurement management plan to purchase or acquire products and services needed from outside the project team.	Expert judgement; Data gathering (Interviews); Data analysis; Meetings; Literature review.

11. To draft the stakeholder management plan to develop appropriate strategies for effectively engaging stakeholders in project decisions and execution.	Expert judgement; Data gathering (interviews); Data analysis; Meetings; Literature review.
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Note: Own work.

3.4 Assumptions and constraints

In Project Management, an assumption is a “belief to be true without any evidence. It refers to expected events or circumstances during the project’s life cycle” (Usmani, 2024). On other hand, project assumptions “are limitations on a project” (Usmani, 2024). The PMBOK Guide recognizes six project constraints” (Usmani, 2024). “Scope, quality, schedule, budget, resources, and risk” (Project Management Institute, 2021).

Chart 8. Assumptions & Constraints

Objectives	Assumptions	Constraints
1. To develop the FGP charter to document the project’s start.	<ul style="list-style-type: none"> - The SMART Methodology information is complete and available. - The implementation of the SMART Methodology will be guided by the project management plan. 	Limited time to project charter.
2. To draft the integration management plan to coordinate the various processes and activities within the project management process groups of initiating and planning.	<ul style="list-style-type: none"> - The SMART Methodology information is complete and available. - The implementation of the SMART Methodology will be guided by the project management plan. 	Limited time to conclude the FGP (3 months)
3. To draft the scope management plan to ensure that the project includes all the work required to complete the project successfully.	<ul style="list-style-type: none"> - The SMART Methodology information is complete and available. - The implementation of the SMART Methodology will be guided by the project management plan. 	Limited time to conclude the FGP (3 months)
4. To draft the schedule management plan to manage the timely completion of the project.	<ul style="list-style-type: none"> - The SMART Methodology information is complete and available. - The implementation of the SMART Methodology will be guided by the project management plan. 	Limited time to conclude the FGP (3 months)
5. To draft the cost management plan to be able to complete the project within the approved budget.	<ul style="list-style-type: none"> - The SMART Methodology information is complete and available. - The implementation of the SMART Methodology will be guided by the project management plan. 	Limited time to conclude the FGP (3 months)

6. To draft the quality management plan to meet the product quality requirements as well as the expectations of stakeholders.	- The SMART Methodology information is complete and available. - The implementation of the SMART Methodology will be guided by the project management plan.	Limited time to conclude the FGP (3 months)
7. To draft the resource management plan to manage the resources needed for the successful completion of the project.	- The SMART Methodology information is complete and available. - The implementation of the SMART Methodology will be guided by the project management plan.	Limited time to conclude the FGP (3 months)
8. To draft the communications management plan to ensure timely and appropriate management of project information.	- The SMART Methodology information is complete and available. - The implementation of the SMART Methodology will be guided by the project management plan.	Limited time to conclude the FGP (3 months)
9. To draft the risk management plan to control and manage potential risks in the project.	- The SMART Methodology information is complete and available. - The implementation of the SMART Methodology will be guided by the project management plan.	Limited time to conclude the FGP (3 months)
10. To draft the procurement management plan to purchase or acquire products and services needed from outside the project team.	- The SMART Methodology information is complete and available. - The implementation of the SMART Methodology will be guided by the project management plan.	Limited time to conclude the FGP (3 months)
11. To draft the stakeholder management plan to develop appropriate strategies for effectively engaging stakeholders in project decisions and execution.	- The SMART Methodology information is complete and available. - The implementation of the SMART Methodology will be guided by the project management plan.	Limited time to conclude the FGP (3 months)

Note: Own work.

3.5 Deliverables

Project deliverables are “the results of project activities” (Malsam, 2023) aiming to meet the established objectives of the project. In this particular project, the deliverables are the FGP Charter and the Management Plans to successfully implement the SMART Methodology in scattered rural areas in Colombia.

Chart 9. Deliverables

Objectives	Deliverables
1. To develop the FGP charter to document the project’s start.	FGP Charter: “document that formally authorizes the existence of a project” (Project Management Institute, 2017).
2. To draft the integration management plan to coordinate the various processes	Integration Management Plan: “are the processes and activities to identify, combine, unify, and coordinate the

and activities within the project management process groups of initiating and planning.	various processes and Project Integration activities” (Project Management Institute, 2017).
3. To draft the scope management plan to ensure that the project includes all the work required to complete the project successfully.	Scope Management Plan: “are the processes required to complete the project successfully” (Project Management Institute, 2017).
4. To draft the schedule management plan to manage the timely completion of the project.	Schedule Management Plan: “are the processes required meet project’s schedule” (Project Management Institute, 2017).
5. To draft the cost management plan to be able to complete the project within the approved budget.	Cost Management Plan: “are the processes involved in planning, estimating, budgeting, financing, funding, managing, and controlling costs” (Project Management Institute, 2017).
6. To draft the quality management plan to meet the product quality requirements as well as the expectations of stakeholders.	Quality Management Plan: “are the processes for incorporating the organization’s quality policy regarding planning, managing and controlling” (Project Management Institute, 2017).
7. To draft the resource management plan to manage the resources needed for the successful completion of the project.	Resource Management Plan: “are the processes to identify, acquire, and manage the resources needed” (Project Management Institute, 2017).
8. To draft the communications management plan to ensure timely and appropriate management of project information.	Communications Management Plan: “are the processes required to ensure planning, collection, creation, distribution, storage, retrieval, management, control, monitoring and disposition of project information” (Project Management Institute, 2017).
9. To draft the risk management plan to control and manage potential risks in the project.	Risk Management Plan: “are the processes of conducting risk management planning, identification, analysis, response planning, response implementation, and monitoring risk on a project” (Project Management Institute, 2017).
10. To draft the procurement management plan to purchase or acquire products and services needed from outside the project team.	Procurement Management Plan: “are the processes to acquire products, services, or results required from outside the project team” (Project Management Institute, 2017).
11. To draft the stakeholder management plan to develop appropriate strategies for effectively engaging stakeholders in project decisions and execution.	Stakeholder Management Plan: “are the processes to identify 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 engaging stakeholders in the project” (Project Management Institute, 2017).

Note: Own work.

4 RESULTS

This chapter develops the components of the Project Management Plan (PMP) to successfully implement the SMART Survey Methodology in scattered rural areas in Colombia. For this end, the perspective of the results is focused on the development of the processes required in the initiating and planning processes groups in the 10 knowledge areas (explained in the second chapter).

4.1 Project Charter & Integration Management Plan

The integration management “includes the processes and activities to identify, define, combine, unify, and coordinate the various processes and project management activities within the PM Process Groups” (Project Management Institute, 2017). In the initiating process group, the main tool/technique involved is the Project Charter.

Chart 10. Integration Management Plan

INTEGRATION MANAGEMENT PLAN	
Item	Development
Project Charter	“This document formally authorizes the existence of the project and provides the Project Manager with authority to apply resources to project activities.” (Project Management Institute, 2017)

Note: Adapted from the book *A Guide to the Project Management Body of Knowledge – PMBOK Guide 6th Ed.* (p.25), Project Management Institute, 2017.

The objective of this integration management plan is to ensure from the initiating process group that all components of the project are, from this overall perspective,

cohesively planned to deliver the expected results of the SMART Survey, considering that more details are found in each subsidiary management plan.

For this purpose, each role has specific responsibilities:

Chart 11. Roles and Responsibilities Integration Management

Role	Responsibilities
Project Manager	Leads overall project coordination, approves and monitors changes, and maintains project plan.
Technical Committee	Provides strategic direction and reviews major changes.
Donor/Sponsor	Approves high-level changes and funding adjustments.
Team Leaders	Ensure component plan execution is aligned and integrated.

Note: Own work.

4.1.1 Project Charter

Chart 12. Project Charter

PROJECT CHARTER	
Item	Development
Project Name	SMART Survey in Colombia (The municipalities must be named here). Example: SMART Survey in the municipalities of Bagadó and Alto Baudó in Chocó, Colombia.
Start/End Dates	A SMART survey usually takes around 3 months. Example: August 1, 2025 – October 31, 2025.
General and Specific Objectives	General: Must respond to the questions Who (Target Population), What (Indicator), Where (Location) and When (Timeframe). Example: Estimate the current prevalence of GAM among children under 5 years old who live in the municipalities of Bagadó and Alto Baudó in Chocó, Colombia. Specific: It must detail each specific information to be collected in the survey, e.g. WASH, FSL, IYCF, etc. Example: Characterize the Food Security situation in the municipalities of Bagadó and Alto Baudó in Chocó, Colombia.
Project Description	It is critical to describe what the SMART Survey is about, the local context, and the importance of implementing the SMART survey to understand the situation through the delivery of information with quality that allows advocacy for public policy or getting resources through international cooperation. It should be carefully detailed to understand the why of the Survey as well as its benefits in order to support its implementation.
Scope	It is also critical to understand the scope of the project, which must be understood by all the stakeholders. This is a brief example:

	<p>The scope of this SMART survey includes:</p> <ul style="list-style-type: none"> - Analysis of data collected on the SMART Survey. - Strict monitoring of data quality through ENA software. - Delivery of a report that includes results, analysis, recommendations and conclusions regarding the findings. 														
The project does not include	<p>Some points are usually excluded from the scope of a SMART Survey, and that's a critically delicate point since this kind of survey is implemented with vulnerable populations. This is an example:</p> <ul style="list-style-type: none"> - Population measured: In anthropometrics in children under 5 years old, children with disabilities are excluded from the measurement process. The reason behind this is that the WHO growth charts did not include this population. - The data collection does not imply any kind of humanitarian aid, it is just data collection, and its benefits are mainly related to the power of information to mobilize resources and efforts. 														
Budget	<p>Each SMART Survey has its own budget, but here is a summarized example:</p> <table border="1"> <thead> <tr> <th><i>ACTIVITY/BUDGET ITEM</i></th> <th><i>Total (USD)</i></th> </tr> </thead> <tbody> <tr> <td>Consolidation of the Technical Committee for the implementation of the SMART Survey</td> <td>238,1</td> </tr> <tr> <td>Development of the SMART survey proposal</td> <td>27210,9</td> </tr> <tr> <td>Training, Standardization Test, and Pilot</td> <td>13581,0</td> </tr> <tr> <td>Data Collection of SMART Survey</td> <td>112418,1</td> </tr> <tr> <td>Preparation of results reports</td> <td>1476,2</td> </tr> <tr> <td>TOTAL COST (USD)</td> <td>154924,2</td> </tr> </tbody> </table>	<i>ACTIVITY/BUDGET ITEM</i>	<i>Total (USD)</i>	Consolidation of the Technical Committee for the implementation of the SMART Survey	238,1	Development of the SMART survey proposal	27210,9	Training, Standardization Test, and Pilot	13581,0	Data Collection of SMART Survey	112418,1	Preparation of results reports	1476,2	TOTAL COST (USD)	154924,2
<i>ACTIVITY/BUDGET ITEM</i>	<i>Total (USD)</i>														
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Training, Standardization Test, and Pilot	13581,0														
Data Collection of SMART Survey	112418,1														
Preparation of results reports	1476,2														
TOTAL COST (USD)	154924,2														
Stakeholders	Donors; NGOs; Local Government, National Health Authorities, Communities and Survey workers.														
Milestones	<p>Each SMART Survey has its own schedule as well, but here is an example of a summarized schedule required for the milestones of the Survey:</p> <table border="1"> <thead> <tr> <th>Milestone</th> <th>Time required</th> </tr> </thead> <tbody> <tr> <td>Consolidation of the Technical Committee</td> <td>1 month</td> </tr> <tr> <td>Development of Survey Proposal</td> <td>1 month</td> </tr> <tr> <td>Training, Standardization Test and Pilot</td> <td>2 weeks</td> </tr> <tr> <td>Data Collection of SMART Survey</td> <td>2 weeks</td> </tr> <tr> <td>Preparation and Socialization of Results</td> <td>1 month</td> </tr> </tbody> </table>	Milestone	Time required	Consolidation of the Technical Committee	1 month	Development of Survey Proposal	1 month	Training, Standardization Test and Pilot	2 weeks	Data Collection of SMART Survey	2 weeks	Preparation and Socialization of Results	1 month		
Milestone	Time required														
Consolidation of the Technical Committee	1 month														
Development of Survey Proposal	1 month														
Training, Standardization Test and Pilot	2 weeks														
Data Collection of SMART Survey	2 weeks														
Preparation and Socialization of Results	1 month														
Risks	<p>There are many potential risks associated with the implementation of a SMART Survey, and it's very particular to each SMART, but here are some common examples:</p> <ul style="list-style-type: none"> - Unexpected challenges related to weather or security that may delay the data collection. - Unexpected hiring or logistics delays that affect the achievement of the schedule. 														
Assumptions	<p>There should not be assumptions in the implementation of a SMART Survey since it is implemented in tough contexts and emergency situations. Nevertheless, there are a few points usually "assumed". Some examples include:</p> <ul style="list-style-type: none"> - There will be cooperation among the different stakeholders. - The NGOs implicated, the local government, and communities will provide the information and support required for data collection. 														
Success Criteria	The main success criteria technically are the data quality that is strongly monitored by the SMART Manager Survey through the ENA Software and daily basis feedback.														

	Nevertheless, there are also other success criteria also connected with data validity and with management, like schedule achievement. For example, conducting the data collection within the planned time. Another important success criteria is achieving the project within the allocated budget, which also demands a thoroughly detailed planning phase.
Acceptance Criteria	The project closure is conditioned to the achievement of the objectives set on the SMART Survey, and that must be delivered through the final report of the Survey and explained clearly through a particular set of indicators depending on the objectives established.

Note: Own work.

4.1.2 Change Control Process

Chart 13. Change Control Process

Step	Action	Responsible
1	Identify and document change	Any team member
2	Submit change request	Project Manager
3	Review and evaluate impact	Technical Committee
4	Approve or reject the change	Sponsor / Project Manager
5	Update documentation and plans	Project Manager

Note: Own work.

4.2 Scope Management Plan

The scope management plan “describes how the scope will be defined, monitored and validated” (Project Management Institute, 2017).

Chart 14. Scope Management Plan

SCOPE MANAGEMENT PLAN	
Item	Development
Scope definition	The following techniques will be used to describe the scope: - Requirements traceability matrix - Creation of WBS from the detailed Project Scope statement
Scope Validation	This is the definition of the process of “formalizing acceptance of the completed project deliverables.” (Project Management Institute, 2017)

Note: Adapted from the book *A Guide to the Project Management Body of Knowledge – PMBOK Guide 6th Ed.* (p.25), Project Management Institute, 2017.

The objective of this scope management plan is to ensure that the SMART Survey includes all the work required and only the work required to complete the project successfully.

For this purpose, each role has specific responsibilities

Chart 15. Roles and Responsibilities in Scope Management

Role	Responsibilities
Project Manager	Develops scope statement, manages scope changes, and validates deliverables
Technical Committee	Reviews and validates major scope components
Team Leader	Confirms deliverables are implemented as scoped
SMART Consultant	Ensures technical deliverables meet SMART methodology

Note: Own work.

4.2.1 Requirements traceability matrix

To design the Scope Management Plan, it is important to collect the organization's requirements, summarized in a requirements traceability matrix:

Chart 16. Requirements traceability matrix

ID	Requirement Description	Project Objectives	WBS Deliverables
RQ1	Local stakeholders' engagement in the implementation of the SMART Survey.	To implement a SMART Survey in two municipalities in Colombia with the active participation of local government and authorities.	1. Institutional coordination established for the implementation of SMART surveys.
RQ2	Know the nutritional status of children under 5 years old in a determined population and timeframe.	To estimate the current prevalence of GAM among children under 5 years old who live in the municipalities of Bagadó and Alto Baudó in Chocó, Colombia.	2. SMART nutrition survey implemented in two municipalities in Colombia.
RQ3	Leverage the survey to collect other information related to food security	To characterize the Food Security situation in the municipalities of Bagadó and	2. SMART nutrition survey implemented in two municipalities in Colombia.

	(or other required indicators).	Alto Baudó in Chocó, Colombia.	
RQ4	Present the results in strategic scenarios with key stakeholders that can act based on the findings.	To share the findings in previously accorded scenarios with local authorities to move forward with concrete actions.	3. Local authorities (departmental and municipal) have access to nutritional information from prioritized municipalities.

Note: Own work.

The WBS highlights the activities and deliverables required to meet the objectives set in the SMART Survey. The WBS dictionary and the WBS figure are provided to illustrate this, as well as the requirements previously mentioned. Nevertheless, it is critical to answer the question “Is the survey relevant?” (Wondim, 2025). This is essential to understand why a SMART Survey is implemented. This is the starting point to define the requirements. By understanding the relevancy, it is possible to establish a clear scope of the project.

4.2.2 Work Breakdown Structure - WBS

The WBS highlights the activities and deliverables required to meet the objectives set in the SMART Survey. The WBS dictionary and the WBS figure are provided in this section.

Chart 17. WBS Dictionary

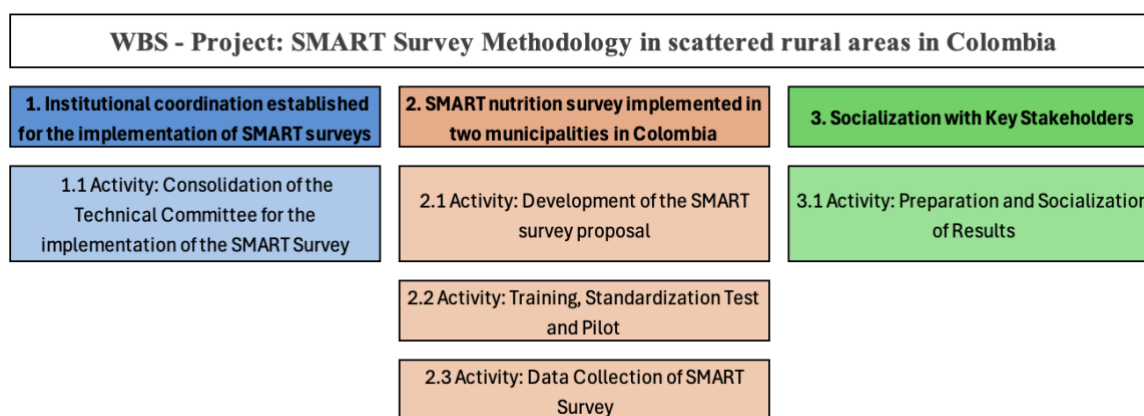
Code	WBS Deliverable	Description
1	Institutional coordination established for the	This deliverable is about the establishment of the consultative technical committee that must include local authorities (e.g. National Health Institute) and other key stakeholders with an interest in the implementation of the exercise. These

	implementation of SMART surveys	stakeholders take part from the beginning of the exercise, and they participate in the building of the Survey.
1.1	Consolidation of the Technical Committee	The consolidation of the consultative technical committee implies an agreement on the way the committee is going to work, as well as how it is going to be established.
2	SMART nutrition survey implemented in two municipalities in Colombia	This deliverable is the core of the process, the implementation of the SMART Survey. It begins with the proposal (written by the consultant), followed by its approval by the technical committee. Then, the enumerators are trained, and after that, the data collection takes place.
2.1	Development of the SMART survey proposal	The proposal is a critical step in which the indicators to be measured (in addition to the main indicator) are established. The data-collection method, the sampling method, and other technical elements are also determined. This whole process is validated by the technical committee, composed of key stakeholders interested in the implementation of the SMART Survey.
2.2	Training, Standardization Test and Pilot	The training is for the team that is going to collect the information. Here, enumerators are tested regarding their skills in anthropometrics (standardization test)— a crucial step. This is also part of the system established by the Methodology to measure and monitor data quality.
2.3	Data Collection of SMART Survey	Data collection is a process constantly monitored by the consultant where data quality is also measured through the plausibility check, so it's possible to move on as long as the data quality meets the technical requirements. It's done in a daily basis and teams in the field are constantly getting feedback so they can improve the way they are collecting anthropometric data.
3	Sharing results with Key Stakeholders	After data is collected, reports must be prepared Then, results are shared with stakeholders. This process requires a communications management plan, which includes a stakeholder analysis and the thorough selection of the result-sharing method to maximize the implementation of the methodology.
3.1	Preparation and presentation of Results	The results must be prepared as soon as possible. Once data collection has concluded, the SMART Survey manager (consultant) can move forward with data analysis and deliver quick preliminary results to be checked and validated by the technical committee. After all the doubts are cleared, it is possible to move forward to the final report presentation in the scenarios previously defined for his purpose.

Note: Own work.

The WBS Dictionary is the input to draft the WBS. Each deliverable and milestone have its own code, and these codes work also as guides when programming the schedule and building the Budget. So, having clear milestones and activities is a key part of the project that will also be monitored and controlled since these are key points to measure the success of the project.

Figure 4. WBS – Project



Note: Own work.

4.2.3 Scope Validation

The scope validation needs a formal mechanism established and approved in the technical committee. This committee is very strategic since it is composed of different key stakeholders that are interested in the project, who have their own expectations on the scope of the methodology linked to their interest. Each organization, national and local institution/authority, local communities' associations, as well as academic stakeholders that may be involved in the implementation of the SMART Survey are part of this committee, and each of them set an opinion that is seriously considered. The main reason for this active participation in the creation of the survey is getting commitment to act when the results are delivered.

In this project, the scope validation is when the completed deliverables get the approval from the technical committee. Since there are clear requirements that are covered by concrete objectives, the accomplishment of these objectives is also the achievement of

the scope defined from the beginning of the project. The scope validation needs a document that supports the process. This document requires formal validation from the technical committee through a signed email. The committee comprises technical experts in the data gathered by the SMART survey.

4.2.4 Scope Change Log

There is a key format to request for scope change, the Scope Change Log Template. This is a key document to update the project status since it can impact the schedule as well as the cost of the project. The format is illustrated in the example below:

Chart 18. Scope Change Log Template

Date	Request Description	Impact	Status	Decision
Date of request	Describe the requested scope modification	Describe in detail the potential impact of this modification on the project's success.	This is the review status by the Technical Committee (e.g., In Process)	The final decision is reported here. If approved, each management plan must be adjusted according to the modified scope.

Note: Own work.

4.2.5 Scope Exclusions

It is also important to highlight the two scope exclusions that the SMART Survey has. The first one is that the project does not include post-survey intervention activities. The relevance of the survey is linked to the data quality, but the potential actions that may come from the results are up to the stakeholders involved in the exercise.

The second one is that the SMART Survey does not include medical follow-up services. That means that if malnutrition cases are identified, they are not going to receive medical treatment from the team. Nevertheless, that’s why it is critical to strengthen the articulation processes and involve local authorities before data collection takes place. This way, in case that a malnutrition case is identified, it is possible to manage the case with the assistance of local health services authorized to treat GAM or any other illness identified in the field.

4.3 Schedule Management Plan

The schedule management plan “establishes the criteria and the activities for developing, monitoring, and controlling the schedule” (Project Management Institute, 2017).

Chart 19. Schedule Management Plan

SCHEDULE MANAGEMENT PLAN	
Item	Development
Activities	This element of the schedule management plan is about defining activities, as well as its sequences and the estimation of the time required for each activity.
Schedule	Developing the schedule allows to monitor and control the accomplishing of the schedule established.

Note: Adapted from the book *A Guide to the Project Management Body of Knowledge – PMBOK Guide 6th Ed.* (p.25), Project Management Institute, 2017.

The objective of this schedule management plan is to define and control the timeline of the SMART Survey to ensure timely completion of each phase as well as its deliverables.

For this purpose, each role has specific responsibilities:

Chart 20. Roles and Responsibilities in Risk Management

Role	Responsibilities
Project Manager	Develops schedule baseline, monitors progress and manages delays
Team Leader	Reports activity progress and updates schedule forecasts
Logistics and Procurement Officer	Coordinates the delivery schedules of inputs and materials
All Team Members	Complete tasks according to planned deadlines

Note: Own work.

Milestone List

There are three milestones in this project, included in the WBS: "training completed (activity 2.2), data collection completed (activity 2.3), and the final report delivered (activity 3.1)."

Chart 21. Milestone

Milestone	Responsible
Training Completed	SMART Consultant
Data Collection Completed	Team Leader and Project Manager
Final Report Delivered	SMART Consultant and Project Manager

Note: Own work.

4.3.2 Activities

The activities matrix summarizes the code (used in the WBS), the activity name along with its definition, and the required time for the implementation of each activity. These time frames can be visualized more graphically in the Gantt Chart.

Chart 22. Activities Matrix

Code	Activity name	Definition	Time Required
1.1	Activity: Consolidation of the Technical Committee for the SMART Survey	The consolidation of the consultative technical committee implies an agreement on the way the committee is going to work, as well as how it is going to be established.	1 Month
2.1	Activity: Development of the SMART survey proposal	The proposal is a critical step in which the indicators to be measured (in addition to the main indicator), the data-collection method, the sampling method, and other technical elements are defined. All this process is validated by the technical committee, composed of key stakeholders interested in the implementation of the SMART Survey.	1 Month
2.2	Activity: Training, Standardization Test and Pilot	The training is for the team that is going to collect the information. Here, enumerators are tested regarding their skills in anthropometrics (standardization test). This is also part of the system established by the Methodology to measure and monitor data quality.	2 Weeks
2.3	Activity: Data Collection of SMART Survey	Data collection is a process constantly monitored by the consultant, where data quality is also measured through the plausibility check, so it's possible to move on as long as the data quality meets the technical requirements. It's done in a daily basis and teams in the field are constantly getting feedback so they can improve the way they are collecting anthropometric data.	2 Weeks
3.1	Activity: Preparation and results sharing.	The results must be prepared as soon as possible. Once data collection has concluded, the SMART Survey manager (consultant) can move forward with data analysis and deliver quick preliminary results to be checked and validated by the technical committee. After all the doubts are cleared, it is possible to move forward to the final report presentation in the scenarios previously defined for his purpose.	1 Month

Note: Own work.

4.3.3 Schedule

The Gantt Chart below illustrates the Schedule of this project, and it can be performed in a PM Software like Project Libre. This figure shows the timeline for the

executed during the 1.1 milestone, but as Wondim highlights, for these activities it could also be considered to begin two months before.

4.3.4 Schedule Monitoring Tools

The Schedule Management Plan demands monitoring tools, and the main tools recommended for the SMART Survey are the Gantt Chart with the Critical Path, the SPI (Schedule Performance Index), and weekly progress reports. There is daily feedback in the SMART Survey, but there must be weekly updates to follow the accomplishment of the project times.

4.4 Cost Management Plan

The cost management plan “describes how the project costs will be planned, structured, and controlled” (Project Management Institute, 2017).

Chart 23. Cost Management Plan

COST MANAGEMENT PLAN	
Item	Development
Project Budget	This is the budget required (from planning) for the project implementation.
Cost Control	This is about the strategy to follow budget execution.

Note: Adapted from the book *A Guide to the Project Management Body of Knowledge – PMBOK Guide 6th Ed.* (p.25), Project Management Institute, 2017.

The objective of this cost management plan is to ensure that project expenses are budgeted and controlled so that the SMART Survey is completed within the approved budget.

For this purpose, each role has specific responsibilities:

Chart 24. Roles and Responsibilities in Cost Management

Role	Responsibilities
Project Manager	Develops budget, approves expenditures, manages variances
Donor/Sponsor	Approves overall budget and major reallocations
Logistics and Procurement Officer	Tracks costs for materials, equipment, and services
Finance Officer	Prepares reports, tracks actuals vs. planned costs

Note: Own work.

4.4.1 Project Budget

Chart 25. Project Budget

Code	Activity Name	Unit type	# of Units	Price Unit	Total Price
1	Institutional coordination established for the implementation of SMART surveys				
1.1	Activity: Consolidation of the Technical Committee for the SMART Survey				
1.1.1	Coordination Meetings (Logistics support, materials, snacks, and others.	Session	1	238,1	238,1
2	SMART nutrition survey implemented in two municipalities in Colombia				
2.1	Activity: Development of the SMART survey proposal				
2.1.1	SMART Consultant (Hiring of provider paid by fees and/or consulting services)	Month	4	6802,7	27210,9
2.2	Activity: Training, Standardization Test and Pilot				
2.2.1	Air transport for the national implementation and monitoring team	Trip	6	285,7	1714,3
2.2.2	Travel allowances for the team (includes accommodation and meals, approx. 8 days per trip)	Day	48	66,7	3200,0
2.2.3	Rental of land and/or river transport (6 days)	Vehicle	4	1285,7	5142,9
2.2.4	Accommodation and snacks for participants during national training (pilot, 30 people for 8 days)	Person	30	85,7	2571,4
2.2.5	Kit of materials, stationery, and supplies for training activities (logistics support, materials supply)	Kit	2	476,2	952,4
2.3	Activity: Data Collection of SMART Survey				
2.3.1	Anthropometric Equipment (Kit)	Kit	2	2381,0	4761,9
2.3.2	Transport of anthropometric equipment	Kit	2	357,1	714,3
2.3.3	Rental of land/river transport for the implementation and monitoring team	Month	2	13852,1	27704,2
2.3.4	Materials, supplies and stationery for implementation activities	Unit	2	476,2	952,4
2.3.5	Project Manager (1 staff person for 4 months)	Month	4	1666,7	6666,7

2.3.6	Team Leader (10 staff persons – hiring of staff or service provider depending on needs in the field)	Month	2	11904,8	23809,5
2.3.7	Measurer (20 staff persons – hiring of staff or service provider, depending on needs in the field)	Month	2	19047,6	38095,2
2.3.8	Visibility and protection for implementation and monitoring teams	Unit	1	856,7	856,7
2.3.9	Logistics and Procurement Officer	Month	4	738,1	2952,4
2.3.10	Finance Officer	Month	4	738,1	2952,4
2.3.11	HR Officer	Month	4	738,1	2952,4
3	Socialization with Key Stakeholders				
3.1	Activity: Preparation and Socialization of Results				
3.1.1	Communications and Design Officer	Month	2	738,1	1476,2
TOTAL COST USD					154924,2

Note: Own work.

4.4.2 Cost Control and Project Performance Metrics

The cost control of the project will be performed through specific formulas that correlate budget and schedule, as explained in the table below. The reason for having formulas that are schedule-oriented, budge-oriented, and others that correlate schedule and cost is that if there is a delay in the schedule of the project, it will represent a challenge to achieve the results within the defined budget.

There is a clear example of how to correlate schedule and budget to control the cost of the project. There are two critical metrics in the table below : Schedule Variance (SV) and Cost Variance (CV). Once the SV and the CV are calculated, it is possible to diagnose whether the project is ahead of schedule and under budget (SV and CV both positive), behind schedule but under budget (SV – and CV +), ahead of schedule but over budget (SV + and CV -) or behind schedule and over budget (SV and CV both negative). This last scenario would be the worst for the project.

Chart 26. Project Performance Metrics

Metric Category	Metric Name	Formula	Purpose / Description	Interpretation
Planned Values	Budget at Completion (BAC)	$BAC = Total\ Planned\ Budget$	Total budget allocated for the project.	Represents the financial target for the entire project.
Planned Values	Planned Value (PV)	$PV = Planned\ \% \ Complete \times BAC$	Value of the work scheduled to be completed.	Used to assess schedule progress.
Baseline Performance	Earned Value (EV)	$EV = Actual\ \% \ Complete \times BAC$	Value of the work actually completed.	Used in cost and schedule performance assessments.
Baseline Performance	Actual Cost (AC)	$AC = Actual\ Cost\ Incurred$	Costs incurred for the completed work.	Used in cost performance metrics.
Baseline Performance	Schedule Variance (SV)	$SV = EV - PV$	Indicates schedule progress.	SV > 0: Ahead of schedule SV < 0: Behind schedule
Baseline Performance	Schedule Performance Index (SPI)	$SPI = EV / PV$	Measures schedule efficiency.	SPI > 1: Ahead SPI < 1: Behind
Baseline Performance	Cost Variance (CV)	$CV = EV - AC$	Indicates budget performance.	CV > 0: Under budget CV < 0: Over budget
Baseline Performance	Cost Performance Index (CPI)	$CPI = EV / AC$	Measures cost efficiency.	CPI > 1: Under budget CPI < 1: Over budget
Forecasts	To-Complete Performance Index (TCPI)	$TCPI = (BAC - EV) / (BAC - AC)$	Measures cost/efficiency required to finish within BAC.	TCPI > 1: Need to improve performance
Forecasts	Estimate at Completion (EAC)(<i>CPI</i>)	$EAC = BAC / CPI$	Forecasts final cost assuming current cost efficiency.	Higher EAC = Overrun
Forecasts	Estimate at Completion (EAC)(<i>Planned</i>)	$EAC = AC + (BAC - EV)$	Forecasts final cost assuming performance returns to planned	Useful when performance is expected to recover.

Forecasts	Estimate to Complete (ETC)	$ETC = EAC - AC$	Expected cost to finish the remaining work.	Helps plan the remainder of the project.
Forecasts	Variance at Completion (VAC)	$VAC = BAC - EAC$	Forecasted budget surplus or deficit.	VAC > 0: Under budget VAC < 0: Over budget

Note: Adapted from the book *A Guide to the Project Management Body of Knowledge – PMBOK Guide 7th Ed.* (p.100, 104, 105), Project Management Institute, 2021.

The chart above summarizes all the metrics proposed to execute the project performance metrics in order to follow and monitor the accurate implementation of the project's budget, considering also time (schedule), a critical resource that can represent an over budget.

4.5 Quality Management Plan

The quality management plan “describes how applicable policies, procedures, and guidelines will be implemented to achieve the quality objectives.” (Project Management Institute, 2017)

Chart 27. Quality Management Plan

QUALITY MANAGEMENT PLAN	
Item	Development
Quality Standards	The quality standards are established based on the SMART methodology, focusing on data quality derived from anthropometric measurements. This data is then interpreted by ENA Software, resulting in a "plausibility check." This check serves to assess the quality of data concerning the nutritional status of children under 5 years old, which is the core of the survey.
Quality Control	This element is about monitoring and recording the results of the quality management activities. The main input here is the “plausibility check” that allows to check on data quality, and the output is the daily report based on the findings of the plausibility check.

Note: Adapted from the book *A Guide to the Project Management Body of Knowledge – PMBOK Guide 6th Ed.* (p.25), Project Management Institute, 2017.

The objective of this quality management plan is to ensure that the process as well as deliverables of the project follow the quality guidelines and meet the quality standards required by the SMART Survey Methodology.

For this purpose, each role has specific responsibilities:

Chart 28. Roles and Responsibilities in Quality Management

Role	Responsibilities
Project Manager	Oversees quality planning and monitoring
SMART Consultant	Leads quality assurance and implements daily quality control with feedback based on Plausibility Check
Team Leader	Implements daily quality control in the field

Note: Own work.

4.5.1 Quality Standards

The SMART Methodology has wide recognition for its data quality. That means that its results are reliable, especially regarding anthropometric data. The reason why this methodology is highly trustworthy is because it has a thorough monitoring system, which constitutes the quality standards of the SMART Survey.

The first checkpoint of the system comes from the design of the Survey. In the words of Hailu Wondim, “your survey is your instrument, and needs to be calibrated” (Wondim, 2025). The very first checkpoint of the system comes from the design of the Survey. As Wondim states “your survey is your instrument, and needs to be calibrated” (Wondim, 2025).

This data collection is not reduced to the anthropometric data but also to non-anthropometric data that is used to collect indicators related. for example, to WASH Indicators, IYCF Indicators or Food Security Indicators (e.g. HDDS, MAD, MDD or MMF). These questions must be neutral, simple and short, closed-ended, and using common language (that must be confirmed with local communities), and mutually exclusive (SMART, AAH Canada, and the Technical Advisory Group, 2017).

The second checkpoint is the Standardization Test that takes place at the end of the enumerators training. This test is designed to evaluate anthropometric measurement skills for enumerators. It measures mainly precision or consistency (Technical Error of Measurement) and accuracy or validity (Bias from Supervisor/Median) (SMART, AAH Canada, and the Technical Advisory Group, 2017). This is measured in the software ENA and if the results are positive, the anthropometric data collected by the enumerators can be trusted.

The last checkpoint is the Plausibility Check. This is different test that identifies big mistakes or flagged data that refers to outliers or “extreme values that are so far from the mean that they are unlikely to be correct measurements” (SMART, AAH Canada, and the Technical Advisory Group, 2017). It also identifies small mistakes linked to the SD related to check if results follow a well-shaped normal distribution graph also known as bell curve.

Chart 29. Plausibility Check Thresholds

Criteria	Description	Flags	Unit	Excellent	Good	Acceptable	Problematic
Flagged data	Outliers	Included	%	0-2.5	>2.5-5	>5-7.5	>7.5
Overall Sex Ratio	Significant difference between male and female	Included	p	>0.1	>0.05	>0.001	0.001
Age Ratio	Significant difference between two age ranges	Included	p	>0.1	>0.05	>0.001	≤0.001
Digit Preference Score (Weight)	Preference for a decimal when registering weight	Included	#	0-7	8-12	13-20	>20
Digit Preference Score (Height)	Preference for a decimal when registering height	Included	#	0-7	8-12	13-20	>20
Digit Preference Score (MUAC)	Preference for a decimal when registering MUAC	Included	#	0-7	8-12	13-20	>20
Standard Deviation WHZ	Quality of actual measurements taken	Excluded	SD	<1.1 and >0.9	<1.15 and >0.85	<1.2 and >0.2	≥1.2 or ≤0.8
Skewness WHZ	Measure of symmetry in the normal distribution chart (if the chart is tailed)	Excluded	#	<±0.2	<±0.4	<±0.6	≥±0.6
Kurtosis WHZ	Measure of standard distribution (if the chart is melted)	Excluded	#	<±0.2	<±0.4	<±0.6	≥±0.6
Poisson Distribution WHZ-2	Uniformity in the distribution of GAM cases	Excluded	p	>0.05	>0.01	>0.001	≤0.001

Note: Adapted from the *SMART Standardized Monitoring and Assessment for Relief and Transitions Manual 2.0*. (p.8, 12, 27, 53 and 64), Action Against Hunger Canada, 2017.

These are the main indicators of the plausibility check. Nevertheless, there are additional indicators of data quality to be consulted in the SMART Methodology Manual. These ones include flags: Flagged Data, Sex Ratio, Age Ratio, Digit Preference (Weight, Height and MUAC). And these ones exclude flags: SD, Skewness, Kurtosis and Poisson Distribution (SMART, AAH Canada, and the Technical Advisory Group, 2017).

4.5.2 Quality Control

The quality control uses the Quality Standards explained before, and for this end, it is important to check with the team of enumerators and team leaders that questions are well written, the questionnaire works, and everything is ready to begin to collect the information with a functional and understandable survey. Outstanding results in the standardization testing can be achieved through effective training of enumerators, as highlighted by Pereyra (2018), along with exercises and clear explanations on anthropometric measurements.

It demands also good planning and working with several participants that should be manageable by the trainer, to confirm each participant understands the information provided. Another critical quality control is a supervision plan in the field, checking data quality (with plausibility check) on a daily basis, which makes a “big difference on the quality” (Wondim, 2025). Furthermore, it is essential to have a contingency plan in place. As Wondim (2025) states, "to have a plan to consult another technical expert, since there is critical to learn new things and consult." This highlights the importance of seeking additional expertise when necessary.

4.6 Resource Management Plan

The resource management plan “provides guidance on how project resources should be categorized, managed, and released” (Project Management Institute, 2017).

Chart 30. Resource Management Plan

RESOURCE MANAGEMENT PLAN	
Item	Development
Resource Identification	Identification of team and physical resources needed.
Resource acquiring	Guide for hiring the team and acquiring the physical resources for the project.
Roles and responsibilities	Overall job description of each role in the project.

Note: Adapted from the book *A Guide to the Project Management Body of Knowledge – PMBOK Guide 6th Ed.* (p.25), Project Management Institute, 2017.

The objective of this resource management plan is to ensure the timely and effective management and coordination of human and non-human (physical) resources required for the implementation of the SMART Survey.

For this purpose, each role has specific responsibilities:

Chart 31. Roles and Responsibilities in Resource Management

Role	Responsibilities
Project Manager	Coordinates all resource needs and allocations
Team Leader	Supervises field teams, ensures availability and deployment of local resources
HR Officer	Recruits, contracts, and maintains staffing levels
Logistics Officer	Secures transportation, equipment, and materials

Note: Own work.

4.6.1 Resource Identification

The implementation of the SMART Survey Methodology will require the following resources identified to successfully implement the project. The resources will be classified into human and non-human resources.

Chart 32. Resource Identification

Resource Name	Type	Unit	Q	Justification
SMART Consultant	Human	Month	4	SMART Consultant Certified is required to develop the SMART survey proposal, data quality analysis and reports.
Project Manager	Human	Month	4	Oversees the full project lifecycle, ensuring proper project implementation.
Team Leader	Human	Month	2	Leads field teams during survey implementation and provides on-ground decision-making.
Measurers	Human	Month	2	Twenty personnel hired for anthropometric measurements and field data collection.
Communications and Design Officer	Human	Month	2	Produces visual materials for report preparation and support information dissemination.
Logistics and Procurement Officer	Human	Month	4	Secures and coordinates logistics, transport, and supplies for each project phase.
Finance Officer	Human	Month	4	Oversees financial tracking, reporting, and compliance with project requirements.
HR Officer	Human	Month	4	Manages recruitment, contracts, and all HR compliance for the team.
Coordination Meeting Support	Non-Human	Session	1	Includes logistics, materials and snacks; coordination via technical committee meetings.
Air Transport	Non-Human	Trip	6	Travel for the national team to reach training and pilot locations.
Travel Allowances	Non-Human	Day	48	Covers per diem, meals, and accommodations for the national team (approx. 8 days per trip).
Land/River Transport (Training)	Non-Human	Vehicle	4	Required to access training locations, often in remote areas.
Accommodation & Snacks (Training)	Non-Human	Person	30	Accommodation and meals for 30 participants national training.
Training Materials Kit	Non-Human	Kit	2	Includes stationery, manuals, and logistics for training sessions.
Anthropometric Equipment	Non-Human	Kit	2	Essential measurement tools for field data collection.
Transport of Equipment	Non-Human	Kit	2	Logistics for delivering measurement tools to field sites.
Land/River Transport (Implementation)	Non-Human	Month	2	Vehicles to transport field teams during survey implementation.

Field Supplies	Non-Human	Unit	2	Stationery and logistical materials used during field implementation.
Visibility and Protection Gear	Non-Human	Unit	1	Safety vests, branding, or protective gear for field teams.

Note: Own work.

4.6.2 Resource acquiring

The resources will be acquired looking at internal resources available, including human resources, like the communications and design officer and also non-human resources like anthropometric equipment. There are also external resources. A clear example of this kind of resources is the SMART consultant that can be hired from outside the organization. The external resources will be acquired through the procurement process that is described in the procurement management plan.

4.6.3 Main Roles and responsibilities for each position

Chart 33. Main Roles and Responsibilities for each position

Roles	Responsibilities	Reports To	Skills Required
Project Manager	<ul style="list-style-type: none"> - Lead project planning and execution - Coordinate stakeholders and team - Monitor scope, budget, and risks - Report progress 	Program Director / Sponsor	Project management, leadership, budgeting, stakeholder communication, risk management
SMART Consultant	<ul style="list-style-type: none"> - Design SMART survey methodology - Train team and provide technical input - Develop technical documentation 	Project Manager	SMART Manager Certified with technical expertise in SMART surveys

Team Leader	<ul style="list-style-type: none"> - Supervise field teams - Monitor daily activities and quality - Ensure team logistics and safety - Report to PM 	Project Manager	Team coordination, communication, field supervision, problem-solving, data quality assurance
Measurers	<ul style="list-style-type: none"> - Conduct anthropometric measurements - Record and report data - Follow protocols and ethical practices 	Team Leader	Data collection, attention to detail, familiarity with SMART methodology, fieldwork adaptability
Communications and Design Officer	<ul style="list-style-type: none"> - Create visual materials (reports, infographics) - Support communication and dissemination of results 	Project Manager	Graphic design, layout tools (e.g., Adobe suite), data visualization, creativity, stakeholder sensitivity
Logistics and Procurement Officer	<ul style="list-style-type: none"> - Coordinate transportation, accommodation, and supply chain logistics - Procure goods and services in line with donor and organizational policy - Ensure timely delivery and inventory tracking 	Project Manager	Procurement planning, negotiation, vendor management, logistics coordination, knowledge of donor policies
Finance Officer	<ul style="list-style-type: none"> - Monitor expenditures against budget - Prepare financial reports and forecasts - Ensure compliance with financial and donor guidelines 	Project Manager	Budgeting, financial reporting, donor compliance, attention to detail, Excel/financial software
HR Officer	<ul style="list-style-type: none"> - Manage recruitment and contracting Maintain personnel files and HR compliance - Support onboarding and HR queries for field and admin staff 	Project Manager	Human resources management, labor law knowledge, recruitment systems, confidentiality, communication

Note: Own work.

The roles previously detailed are critical to implement successfully the project. It is critical to understand that the structure of SMART Consultant/manager, Team Leader and Measurers come directly from the SMART Methodology. Additional roles are suggested to ensure certain tasks are executed. For example, the project manager will lead logistics and

operations (no technical knowledge), and the communications and design officer will support the layout of the final report that consolidates the results of the survey.

4.7 Communications Management Plan

The communications management plan “describes how project communications will be planned, structured, implemented, and monitored for effectiveness” (Project Management Institute, 2017).

Chart 34. Communications Management Plan

COMMUNICATIONS MANAGEMENT PLAN	
Item	Development
Communications Matrix	This matrix will include stakeholder (receiver) communication requirements, information to be communicated (including method and format to be delivered) and the role responsible of communicating the information.

Note: Adapted from the book *A Guide to the Project Management Body of Knowledge – PMBOK Guide 6th Ed.* (p.25), Project Management Institute, 2017.

The objective of this communications management plan is to ensure timely, and effective exchange of information with all project stakeholders, supporting transparency, and engagement.

For this purpose, each role has specific responsibilities:

Chart 35. Roles and Responsibilities in Communications Management

Role	Responsibilities
Project Manager	Oversees overall communication and reporting
Communications and Design Officer	Develops visuals, coordinates dissemination channels
Team Leader	Facilitates communication with local communities
SMART Consultant	Provides technical content for presentations and reports

Note: Own work.

To ensure an appropriate communications management plan, it is critical to define the target audience. This demands a clear understanding of who this specific information is gathered for, and why this audience is interested in this high-quality data regarding very specific indicators.

Once this question is answered, it is possible to define goals for the communications management plan that are mainly oriented to achieve the overall objectives established in the beginning of the project. That is connected to the requirements of the project, specifically RQ4: Share the results in strategic scenarios with key stakeholders that can act based on the findings.

Consequently, as explained in the scope management plan, a specific deliverable must answer to this requirement, as the communications management plan becomes essential at this point. It is critical to understand each stakeholder and to ensure that each one is not just informed about the project but that the whole process is understood. This can be achieved through effective communication channels, understandable language, and highlights of the most important findings.

Consequently, as explained in the scope management plan, a specific deliverable must answer to this requirement, as the communications management plan becomes essential at this point.

4.7.1 Interval vs. External Communication

The frequency and format of the communication is different with internal and external stakeholders, as it will be more developed in the communication matrix. However,

it is important to differentiate between the types of communication and the different stakeholders.

Chart 36. Interval vs External Communication

Type	Audience	Frequency	Format
Internal	Project Staff	Daily / Weekly	Emails, Briefings
External	Donors, Partners and Government	Weekly / Monthly / As needed	Reports, Presentations

Note: Own work.

4.7.2 Communications Matrix

This tool is a cornerstone when creating the communications management plan since the matrix will draft the development of the deliverables as well the details regarding the way it should be performed.

Chart 37. Communications Matrix

Stakeholder (Receiver)	Requirements	Information	Method	Format	Role responsible
Technical Committee	Guide technical design and validate all survey phases	<ul style="list-style-type: none"> - The project SOP (overall process clarity) - SMART Protocol (technical document with methodology, sampling, and indicators) - Training Materials (tools, agenda, and exercises) - Preliminary Results (GAM/SAM, trends, with confidence intervals) - Final Report (validated, full analysis) 	Workshops / Email / Meetings	PDF documents / Presentations	SMART Consultant / Project Manager
Ministry of Health / National Authorities	Ensure alignment with national policy and standards	<ul style="list-style-type: none"> - The project SOP (overall process clarity) - SMART Protocol (technical design and ethical standards) - Final Report (detailed analysis and trends) - Policy Brief (key messages) 	Strategic briefings / Email	PDF Reports / Policy Briefs	Project Manager

		and strategic recommendations)			
Donor / Sponsor	Monitor methodology, compliance, and strategic impact	<ul style="list-style-type: none"> - The project SOP (overall process clarity) - SMART Protocol (technical justification) - Budget Summary (resource allocation overview) - Preliminary Results (initial findings for early decision-making) - Final Report (validated and actionable) 	Email / Presentation	Slide Deck / PDF / Budget Annex	Project Manager
Local Government	Support coordination and act on localized results	<ul style="list-style-type: none"> - The project SOP (overall process clarity) - SMART Protocol (overview of survey in local context) - Preliminary Results (local malnutrition rates and key findings) - Final Report (recommendations tailored to local context) 	Meetings / Email	Summary Report / Presentations	Project Manager
UN Agencies	Coordinate methodology and support response planning	<ul style="list-style-type: none"> - The project SOP (overall process clarity) - SMART Protocol (technical methodology for alignment) - Final Report (national/regional data with program implications) - Policy Brief (response recommendations) 	Joint meetings / Email	Reports / Dashboards / Briefs	Project Manager
Other NGOs / Implementing Partners	Coordinate methods, timelines, and joint actions	<ul style="list-style-type: none"> - The project SOP (overall process clarity) - SMART Protocol (method alignment and coverage) - Final Report (comparable data and field observations) - Lessons Learned (operational insights for future programming) 	Coordination Meetings / Email	PDFs / Shared Drive / Brief Reports	Project Manager
Academic & Research Institutions	Reference methodology and access to validated data	<ul style="list-style-type: none"> - The project SOP (overall process clarity) - SMART Protocol (technical methodology and sampling logic) 	Webinars / Email	SOP / Reports / Data Packages	SMART Consultant

		- Final Report (disaggregated tables and analysis) - Metadata / Datasets (structured files for research and reuse, if authorized)			
Community Representatives / Civil Society	Ensure informed participation and local relevance	- The project SOP (overall process clarity) - SMART Protocol (key messages explained simply) - Summary of Findings (community-level indicators and messaging)	Community Forums / Verbal Briefing	Posters / Flyers / Verbal Communication	Team Leader / Field Team
Media / Public Audiences	Raise public awareness and transparency	- Key SMART Findings (headline indicators such as GAM, SAM, mortality) - Policy Brief (simplified version for public advocacy, when appropriate)	Press Briefings / social media	Infographics / Press Releases / Fact Sheets	Communications and Design Officer / PM
Internal Project Team	Ensure consistent implementation, training, and technical compliance	- The project SOP (overall process clarity) - SMART Protocol (implementation plan and technical details) - Enumerator Training Materials (training agenda, SOP-aligned guides, standardization test forms, interview tools) - Monitoring Templates (daily trackers, QA checklists)	Internal Briefings / Shared Drive	SOP / Manuals / Tools / Templates / Presentations	SMART Consultant / Project Manager

Note: Own work.

Some key documents are common in most of the stakeholders, such as the project's SOP. This document is not mandatory but is highly recommended (Wondim, 2025) to get an overall understanding of the process. It describes with simple language the milestones in the implementation of the survey step by step, from planning to validation. It also serves as a simple guide for everyone to review the cornerstones in the methodology if

necessary. Since it is an SOP, it is also a guideline to implement the SMART Survey Methodology, available to all stakeholders.

Within the SMART Methodology, critical standard information includes the "Enumerators Training Material." This material requires caution in its delivery as it is integral to the quality control process, specifically the "standardization test." Therefore, the way this information is delivered directly impacts data quality.

Three critical documents defined in the Methodology: the SMART Protocol (must be ready before training and data collection), the Preliminary Results (This information is organized very quickly in a presentation to rapidly share the most important findings), and the Final Report (that includes validated data as well as its analysis), that final report is critical for advocacy purposes and it informs the creation of other communication tools that highlight the importance of drafting interventions while considering the findings.

There are other deliverables like metadata or datasets that must be strictly protected. Similarly, a document that consolidates the lessons learned from the implementation of the project and a Policy Brief with key messages for advocacy purposes are essential.

Moreover, defining the methods to deliver the information to stakeholders is strategic. These can be emails, verbal briefings, and meetings to workshops, webinars, forums, and press briefings.

To conclude the communications management plan, there must be clear measurements or criteria to evaluate the efficiency of the communications processes. There are some basic indicators of efficiency like confirming if information is understood. That means, if information is clear. An example of this was explained before regarding the

enumerators training with the pretest and posttest where it is possible to verify if main ideas were understood during the training process.

Another example is the stakeholder satisfaction, especially when talking about communities and decision-makers. This is because they must understand all key information related to the SMART Methodology so they can rely on the premise that the results are going to meet their requirements, which are defined before the project starts and well-described in the scope management plan.

4.7.3 Communication Escalation Path

This is a critical process to be considered regarding communications management. The escalation process is a key element when managing and monitoring communications regarding the milestones as well as the other elements where communications management is actively participating.

Chart 38. Interval vs External Communication

Level	Escalation Trigger	Escalates To
1	Delay in deliverables	Project Manager
2	Misalignment with the Ministry of Health and other External Stakeholder expectations	Technical Committee

Note: Own work.

For the SMART Survey there are two levels for escalating an issue. The first one is regarding delays in deliverables (protocol, training, data collection, report). In this case, all these situations must be immediately communicated to the project manager, and if

necessary, it also should be escalated to the Technical Committee. In the same line, any misalignment with the Ministry of Health of another key stakeholder should be escalated with the Technical Committee because it is related to strategy more than operations.

4.8 Risk Management Plan

The risk management plan “describes how risk management activities will be structured and performed” (Project Management Institute, 2017).

Chart 39. Risk Management Plan

RISK MANAGEMENT PLAN	
Item	Development
Risk Identification	Including description of each risk identified.
Probability and Impact Matrix	Matrix including scoring scheme.
Risk Register	Includes risks identified, probability and impact score, the risk score, as well as the mitigation strategies and monitoring plan.

Note: Adapted from the book *A Guide to the Project Management Body of Knowledge – PMBOK Guide 6th Ed.* (p.25), Project Management Institute, 2017.

The objective of this risk management plan is to proactively identify, assess and address potential risks, minimizing the likelihood and impact of negative events as well as enhancing the opportunities for project success.

For this purpose, each role has specific responsibilities:

Chart 40. Roles and Responsibilities in Risk Management

Role	Responsibilities
Project Manager	Oversees overall risk process, maintains risk register, escalates high-priority risks
SMART Consultant	Identifies technical and methodological risks, advises on mitigation strategies

Team Leader	Reports operational and logistical risks, ensures the local context is factored in
Logistics and Procurement Officer	Identifies supply-chain and equipment risks, updates delivery timelines
All Team Members	Participate in risk identification and monitoring in their areas of work

Note: Own work.

4.8.1 Risk Categories (Risk Breakdown Structure)

Risks are grouped into categories using a tool known as Risk Breakdown Structure (RBS) that allows to have a simplified structure to ensure comprehensive identification of potential threats, as well as categorizing them.

Chart 41. Risk Breakdown Structure

Category	Examples
Technical	Methodological flaws, measurement errors, data quality risks
Operational	Delays in field activities, coordination breakdowns, and transport issues
Human Resource	Staff turnover, gaps in capacity, inadequate training
Stakeholder	Community resistance, lack of local buy-in, and political interference
Environmental	Security incidents, weather events and regulatory changes
Compliance	Protocol rejection, ethical violations and donor policy misalignment

Note: Own work.

For the SMART Survey Project, the main category could be related to technical risks since the core of this survey is data quality, closely related to technical elements to be considered during its implementation as critical, non-negotiable checkpoints.

Then, there are other equally important categories linked to managerial risks, such as those related to operations, human resources, stakeholders, environmental and compliance.

4.8.2 Risk Identification

Each risk is evaluated using qualitative values for Probability (likelihood of occurrence) and Impact (severity of consequences). These definitions guide the scoring as well as the prioritization.

Chart 42. Definitions for Probability and Impacts

Level	Probability	Impact
5 – Very High	>90% chance	Major failure, non-compliance, or major reputational damage
4 – High	70% - 90% chance	Significant delay, cost overrun >20%, donor concern
3 – Medium	30% - 70% chance	Moderate delay or rework, partial loss of data
2 – Low	10% - 30% chance	Minor disruption, small additional costs or time
1 – Very Low	<10% chance	Negligible impact or easily mitigated issue

Note: Own work.

4.8.3 Probability and Impact Matrix

The objective of this risk management plan is to proactively identify, assess and address potential risks, minimizing the likelihood and impact of negative events as well as enhancing the opportunities for project success. The matrix below is used to calculate a Risk Score by multiplying the *Probability* and *Impact* value. These scores are critical since they guide response priorities and risk monitoring intensity.

Chart 43. Probability and Impact Matrix

		Impact				
		1 (Very Low)	2 (Low)	3 (Medium)	4 (High)	5 (Very High)
Probability	5 (Very High)	5	10	15	20	25
	4 (High)	4	8	12	16	20
	3 (Medium)	3	6	9	12	15
	2 (Low)	2	4	6	8	10
	1 (Very Low)	1	2	3	4	5

Note: Own work.

There is a method for interpreting the values regarding the response. If the scores are high or very high (16 to 25), the risk demands immediate mitigation or contingency planning. If the scores are ranged in medium (8 to 15) these risks require monitoring and a defined response strategy. And finally, the risks scored low (<8) may be accepted with monitoring.

4.8.4 Risk Register

The objective of this risk management plan is to proactively identify, assess and address potential risks, minimizing the likelihood and impact of negative events as well as enhancing the opportunities for project success. This risk register documents the identified risks along with their category, probability and impact ratings as well as risk score, and selected response strategies. This dynamic is alive and must be updated throughout the project lifecycle.

The highest risk of the project identified in this matrix is related to the enumerator recruitment. In scattered rural areas, hiring enough enumerators is a real challenge that

demands beginning the recruitment process early, as well as keeping standby pool that may come from previous experiences.

Chart 44. Risk Register

ID	Risk	Category	P	I	Score	Response Strategy	Response Plan	Risk Owner	Status
R1	Enumerator recruitment delayed	Human Resource	4	4	16	Mitigate	Begin recruitment early; maintain a standby pool	HR Officer	Active
R2	Equipment not delivered on time	Operational	3	3	9	Transfer / Mitigate	Include a time buffer; pre-identify local vendors	Logistics Officer	Active
R3	Community resistance to the survey	Stakeholder & Social	2	4	8	Mitigate	Conduct pre-survey sensitization with local leaders and community groups	Team Leader	Planned
R4	Measurement errors due to poorly trained enumerators	Technical	3	5	15	Mitigate	Conduct standardization test; monitor quality daily	SMART Consultant	Active
R5	Political unrest disrupts fieldwork	External	2	5	10	Monitor / Accept	Maintain a flexible schedule; coordinate with local security	Project Manager	Monitored
R6	SMART protocol rejected by national authorities	Compliance & Legal	1	5	5	Avoid	Share draft early with the Technical Committee; align with national protocol standards	Project Manager	Closed
R7	Budget overrun due to	Operational	3	4	12	Mitigate	Add contingency margin; monitor	Finance Officer	Planned

	underestimated field expenses						field costs weekly		
R8	Late hiring of the communications and design officer	Human Resource	2	3	6	Accept / Monitor	Include backup support via the project manager or a consultant	HR Officer	Monitored
R9	Delay in stakeholder validation of final report	Stakeholder & Social	2	4	8	Mitigate	Schedule validation session in advance; provide executive summary for early feedback	Communications Officer	Planned

Note: Own work.

The second highest risk identified is related to measurement errors due to poorly trained enumerators. For this point there are some recommendations to mitigate this risk. The first one is that it is mandatory that each enumerator must approve the Standardization Test, and only the enumerators well-trained are going to be able to pass this test. It demands rigor, and the results (as explained before) should demonstrate precision and accuracy by the enumerators. The other checkpoint is daily basis feedback regarding the results that the Plausibility Check provides. If Data Quality is acceptable, it is important to highlight the risk related to pad quality measurements, and if it is problematic, it is suggested to stop data collection and identify the root cause of the issue with the team that is collecting data with poor quality and conduct the necessary reinforcement regarding anthropometric measurements.

There are other risks clearly described in the risk register with their own mitigation or contingency plan, and it goes from the rejection of the SMART Protocol to political unrest that disrupts fieldwork. For each case, it is necessary to follow the risk management plan to mitigate the identified risk appropriately.

4.8.5 Monitoring and Updating Process

As explained before, the risk monitoring will occur throughout the project that means that the risk register must be reviewed biweekly during the implementation phases, after each milestone, and during team meetings and coordination meetings. Finally, it is imperative to highlight that high-risk items must be escalated to the technical committee as needed to determine a coordinated and quick response.

It is also crucial to emphasize that all lessons learned from previous experiences, as well as those gleaned from the current SMART Survey, should be considered in the risk management. This is because most lessons learned originate from the occurrence of potential risks that may or may not have been identified during early phases of the process or project implementation.

4.9 Procurement Management Plan

The procurement management plan “contains the activities to be undertaken during the procurement process” (Project Management Institute, 2017).

Chart 45. Procurement Management Plan

PROCUREMENT MANAGEMENT PLAN	
Item	Development
Procurement strategies and procedure	Definition of how goods and services will be identified, sourced, contracted, and tracked for timely and compliant delivery.

Note: Adapted from the book *A Guide to the Project Management Body of Knowledge – PMBOK Guide 6th Ed.* (p.25), Project Management Institute, 2017.

The objective of this procurement management plan is to ensure the timely sourcing and acquisition of all necessary goods and services for the implementation of the SMART Survey (in compliance with organizational and donor policies).

For this purpose, each role has specific responsibilities:

Chart 46. Roles and Responsibilities in Procurement Management

Role	Responsibilities
Logistics and Procurement Officer	Manages procurement process, evaluates vendors, ensures timely delivery and coordinates distribution and delivery of procured items
Project Manager	Approves procurement plans and major purchases
Finance Officer	Verifies budget availability and tracks procurement-related costs

Note: Own work.

4.9.1 Procurement strategy

This strategy defines how goods and services will be identified and sourced, balancing efficiency, compliance, and transparency.

Chart 47. Procurement Strategy

Strategic Element	Approach
Sourcing Type	Combination of local (transport, accommodation) and central/national (equipment) sourcing.
Framework Agreements	Use of pre-approved vendor lists and existing framework contracts, where applicable, to reduce time and risk.
Competitive Bidding	Required for mid- and high-value purchases, with transparent selection criteria.
Emergency Procurement	Allowed only in justified cases (e.g., urgent equipment replacement), with documented approval (formal email) from Project Manager.
Vendor Selection Criteria	Based on compliance with specifications, delivery capacity, price, quality, and past performance.

Note: Own work.

4.9.2 Procurement procedure

The procedure outlines how goods and services will be contracted and tracked, from need identification to delivery and payment.

Chart 48. Procurement Procedure Steps

Step	Process	Responsible	Tools/Outputs
1	Identify needs and technical specifications	Requesting Team / Consultant	Procurement Request Form (PRF)
2	Validate budget and availability	Finance Officer	Budget code confirmation, financial forecast
3	Launch the procurement process	Procurement Officer	RFQ, vendor shortlist, bid opening record
4	Evaluate and select vendor	Procurement + Project Manager	Bid evaluation matrix, technical/financial comparison
5	Issue a PO or Contract	Procurement Officer	Purchase order or signed service contract
6	Receive goods or services	Requesting Team / Logistics	Goods Received Note (GRN), Delivery Note
7	Approve and process payment	Finance Officer	Invoice, GRN, payment request
8	Archive and track documentation	Procurement / Finance	Digital and physical archive of procurement files

Note: Own work.

4.9.3 Procurement monitoring and risk mitigation

Procurement activities in this kind of project (especially in emergency situations) are exposed to risks such as delays, vendor failure, or budget discrepancies. To mitigate these risks, there are concrete mitigation strategies to be considered if required:

Chart 49. Procurement Risk Monitoring and Mitigation

Risk	Category	Mitigation Strategy
Delayed delivery of equipment or transport	Logistics	Use local vendors with proven capacity; build buffer time in delivery schedules
Low-quality or non-compliant items	Technical	Use detailed specs and reference samples; require vendor performance history
Budget overrun due to price fluctuations	Financial	Maintain updated price lists and include a contingency margin in the procurement budget
Limited vendor competition in remote areas	Market availability	Pre-identify vendors; consider joint procurement with partners
Documentation errors delaying payments	Administrative	Use standardized forms (PRF, GRN, PO); verify signatures and completeness before filing

Note: Own work.

4.9.4 Procurement Performance Review

It is also important to highlight that the procurement process must be regularly reviewed to ensure it is aligned with the work plan and budget, and to extract insights from that experience. Procurement performance can be reviewed through frequent checks during all phases with the participation of the PM as well as the Procurement Officer and the Finance Officer, and with procurement tools like a procurement tracking sheet or a supplier performance log.

In case that the organization leading the project’s implementation has already established a procurement process it is important to confirm every possible potential risk regarding procurement is covered by the organizational processes. If one of the components of the project needs improvement, it is highly recommended to update the process map, adding any checkpoint required to mitigate the potential events related to procurement. It must be understood that if procurement fails, the whole project fails, since technically, the shorter the data collection takes, the better the quality (with some additional requirements).

4.10 Stakeholder Management Plan

The stakeholder management plan includes the identification of stakeholders that is “the process of identifying project stakeholders and to document/analyze relevant information regarding their interests, influence, and potential impact on project success” (Project Management Institute, 2017). On the other hand, this plan also represents “the process of developing approaches to involve project stakeholders based on their needs, expectation, interests, and potential impact on the project” (Project Management Institute, 2017).

Chart 50. Stakeholder Management Plan

STAKEHOLDER MANAGEMENT PLAN	
Item	Development
Stakeholders Identification	The stakeholder identification is developed in the stakeholder register matrix, which includes the stakeholder identification, functional area, roles and responsibilities, main expectations, and major requirements.
Stakeholders Engagement Plan	The stakeholder’s engagement plan is developed to define the strategy for each kind of stakeholder depending on the results of the power-interest grid.

Note: Adapted from the book *A Guide to the Project Management Body of Knowledge – PMBOK Guide 6th Ed.* (p.25), Project Management Institute, 2017.

The objective of this stakeholder management plan is to identify all relevant stakeholders, understand their needs and influence, and engage them to support the success in the implementation of the SMART Survey.

For this purpose, each role has specific responsibilities:

Chart 51. Roles and Responsibilities in Stakeholder Management

Role	Responsibilities
Project Manager	Leads stakeholder engagement strategy and tracks satisfaction
Team Leader	Maintains relationships with local community stakeholders
Communications and Design Officer	Coordinates messaging and visibility materials
Donor/Sponsor	Supports high-level advocacy and alignment with strategic partners

Note: Own work.

4.10.1 Stakeholder Identification

Stakeholder identification is documented in this Stakeholder Register Matrix, which captures stakeholder roles, expectations, as well as their potential influence in the implementation of the SMART Survey.

Chart 52. Stakeholder Register Matrix

ID	Stakeholders	Functional Area	Roles and Responsibilities	Main Expectations	Major Requirements	Influence/ Impact
1	Technical Committee	Technical Oversight / Advisory	Guides technical design and validates survey phases	Rigorous methodology, data quality	Processes clarity, validated protocol and tools	Medium Power / High Impact
2	Ministry of Health / National Authorities	Public Sector / Regulatory	Approves protocol, supports policy uptake	Policy-relevant, nationally aligned results	Methodological compliance, policy briefs	High Power / High Impact

3	Donor / Sponsor	Donor / Funder	Provides funding, requires reporting and impact measurement	Strategic value, compliance, and transparency	Final report, budget summary, validated outputs	High Power / Medium Impact
4	Local Government	Public Sector / Local	Facilitates fieldwork, community liaison, and acts on local results	Coordination, visible results at the local level	Early communication, contextualized findings	Medium Power / High Impact
5	UN Agencies	Multilateral / Technical Support	Supports joint planning and technical validation	Consistent indicators, programmatic relevance	Protocol alignment, data sharing	High Power / Medium Impact
6	Other NGOs / Implementing Partners	NGO / Operational	Share resources, coordinate logistics and timing	Data comparability, operational insights	Method harmonization, lessons learned	Medium Power / Medium Impact
7	Academic & Research Institutions	Academia / Research	Analyze data, review methods, and publish findings	Technical transparency, data access	Full report, metadata/datasets	Low Power / Medium Impact
8	Community Representatives / Civil Society	Local Civil Society	Promote participation, provide legitimacy and access	Respect, information, and community benefits	Accessible messaging, clear field plans	Low Power / Medium Impact
9	Public Audiences	Public Communication	Raise awareness, hold implementers accountable	Transparency, simplicity	Clear key messages, visuals and open data	Medium Power / Low Impact
10	Internal Project Team	Project Operations	Implement the project, ensure data quality and compliance	Guidance, tools, aligned planning	SOP, protocols, and training materials	High Power / High Impact

Note: Own work.

4.10.2 Stakeholder analysis

Stakeholders are classified using the Power–Interest Grid, as depicted below. This grid helps to prioritize engagement and communication strategies based on each stakeholder's ability to affect and interest in the project.

Chart 53. Power-Interest Grid

ID	Stakeholder	Power	Interest	Classification
1	Ministry of Health / National Authorities	High	High	Manage Closely
2	Technical Committee	Medium	High	Manage Closely
3	Donor / Sponsor	High	Medium	Keep Satisfied
4	Local Government (Municipalities)	Medium	High	Manage Closely
5	UN Agencies (UNICEF, WFP)	High	Medium	Keep Satisfied
6	Other NGOs / Implementing Partners	Medium	Medium	Keep Informed
7	Academic & Research Institutions	Low	Medium	Keep Informed
8	Community Representatives / Civil Society	Low	High	Keep Informed
9	Media / Public Audiences	Medium	Low	Monitor (Minimal Effort)
10	Internal Project Team	High	High	Manage Closely

Note: Own work.

As identified in the grid above, there are four stakeholders with relevant power and interest that demand to be managed closely. These include the Ministry of Health and national authorities, the Technical Committee (consisting of technical experts from national authorities, the organization leader, representatives of donors, as well as other technical experts that may come from organization partners, and the SMART Consultant).

The other stakeholders that need to be managed closely are the local authorities that are critical in the articulation process and in the authorization from the communities to be able to gather information and last one is the internal project team, the enumerators. They are the hearth of data quality. If teamwork is satisfactory the SMART Survey will be successful. That's why they need to be managed closely.

Two stakeholders require a high-satisfaction level, t must get reliability about the success throughout the project), and UN Agencies, like UNICEF which are usually the representatives of the donor investment and have clear intentions regarding the success of the project.

Additionally, three stakeholders who are monitoring the implementation of the project from areas not directly involved in the operation must stay informed. This is the case of managerial positions of other NGOs that are participating of data collection. These managerial positions do not necessarily understand technical aspects of data collection, , but they are aware of their cooperation and thus demand to be informed about the process. The same treatment is required for academic & research institutions (that are very keen on this kind of exercise), and the civil society and community representatives since they are aware of their role in the accountability of the project asit is their right to know the results and they are the owners of that information.

The last one is the public audience (through social media) that must be monitored since they do not have either power or interest in technical affairs or in the figures that may come from the SMART Survey.

4.10.3 Stakeholder Engagement Strategies

Having understood the Power-Interest Grid, it is critical to understand the engagement strategies in depth, and what is implied in each case. The chart below briefly explains the concrete actions that must be carried out to obtain expected results.

Chart 54. Engagement Strategies by Classification

Classification	Engagement Strategy
Manage Closely	One-on-one meetings, validation sessions, frequent technical updates
Keep Satisfied	High-level reporting, progress updates, briefing presentations
Keep Informed	Periodic email updates, shared reports, group consultations
Monitor (Minimal Effort)	General public updates, press releases, social media summaries

Note: Own work.

When talking about managing closely, it demands mainly frequent updated and constant communication, meetings, emails, chats and calls (if necessary), each communication demands to be registered (meeting minutes). In the cases that demand to be kept satisfied, the communication must be clear, concrete and formal, with consistent reports and presentations. For the stakeholders that require to keep informed, it is enough to receive periodic email updates, overall reports and group consultations if required, to clarify any doubts. Finally, for those who demand ongoing monitoring. The work of the communications and design officer (who is in charge of general public updates, press releases, social media publications, and feedback) is sufficient.

5 CONCLUSIONS

This FGP provides a route to achieve a successful implementation of the SMART Methodology in Colombia, especially in scattered rural areas where there are particular context-related challenges. Based on this, there are some specific conclusions that come from the development of this graduation project, described below:

1. The development of this document offers a translated theoretical PM technical knowledge into an operational plan tailored to the realities of implementing SMART surveys in field conditions like the ones found in the scattered rural areas in Colombia. Through the construction of the 10 management plans — Integration, Scope, Schedule, Cost, Quality, Resource, Communications, Risk, Procurement, and Stakeholder Management — the project not only complied with academic and professional standards but also delivered a practical model applicable to the real-world implementation of SMART Surveys.
2. The PMBOK project management technical structure should be implemented to improve the overall efficiency regarding the managerial processes involved in the implementation of the SMART Surveys in scattered rural areas in Colombia (as well as in each humanitarian context), from very early phases of the project (initiating and planning) to the end of the project (closing phase). There is an enormous potential, time, and resources that this technical knowledge brings to optimize, as is required to maintain quality in the SMART Methodology, indeed the managerial knowledge should be seriously considered for the success of the SMART Survey, which is a very short-term project, that means that any error

could cost not just resources and time but also data quality since a SMART Survey demands short time for data collection from the very core of the SMART Methodology. In this document in particular, the overall performance of the PM Practices came from 6th and 7th edition.

3. The Charter of the Scope Management Plan (FGP) allowed formal documentation of the vision, objectives, and boundaries of the project, thus providing the basis for planning. This confirmed the importance of investing time in a proper project start-up process, including stakeholder alignment and setting expectations.
4. The integration management plan demonstrated the importance of having a unified coordination framework to strengthen the articulation of all planning components, providing a structured approach to manage changes and ensure alignment across all knowledge areas.
5. The scope management plan proved to be essential to ensure that the project remains focused on what must be done, and only on what must be done. A clearly defined scope, supported by tools such as the WBS and the requirements traceability matrix, helps prevent disproportionate expectations related to scope and improves communication with stakeholders.
6. The schedule management plan helped establish a logical sequence of tasks and deadlines, confirming that time-related risks can be mitigated when milestones are well defined and tracked from the beginning.

7. The cost management plan validated the need for detailed budgeting and cost control, especially in this type of fast-paced field project. Budget discipline and rigorous financial monitoring turned out to be crucial elements to maintain the feasibility of the survey.
8. The quality management plan demonstrated the importance of integrating technical expectations and a clear understanding of the parties in relation to the methodology's standards in the early planning stages. Quality indicators such as data plausibility and team accuracy must be aligned with the project objectives from the beginning.
9. The resource management plan confirmed the fundamental fact that having clarity on the specific functions of each role within the team and equipment needs significantly improves operational efficiency. This plan also highlighted the importance of adequately preparing teams and providing logistical support on time.
10. The communications management plan emphasized that proactive and transparent information flow is key for stakeholder trust and also to ensure that results are used effectively once available.
11. The risk management plan highlighted that anticipating uncertainties, especially in remote and vulnerable areas that characterize the dispersed rurality of Colombia, makes the difference between success and failure. Identifying potential risks and mitigation measures in advance helps the team maintain adaptability during implementation.

12. The stakeholder management plan reinforced that meaningful participation from all actors involved is essential both to facilitate the execution of the survey and to ensure that the results are valued, understood, and used by those who can generate impact.
13. This document can become a model from the project management perspective for the implementation of the SMART Surveys in Colombia and the region. This project addressed the gap in planning tools and strategic oversight observed in the execution of similar exercises in a recent period of time in Colombia, where the potential lack of enough managerial knowledge led to planning and execution delays, overworked staff, and going over budget.

6 RECOMMENDATIONS

In order to achieve the purpose of the successful implementation of a SMART Survey in scattered rural areas in Colombia with a PM framework supporting its success, some recommendations should be considered.

1. The first recommendation is to institutionalize management planning in the SMART Survey design. That means that Organizations implementing SMART surveys should formally integrate PMBOK-based management planning into their standard procedures. Developing comprehensive management plans before fieldwork begins would improve clarity, resource coordination, and risk mitigation throughout the survey lifecycle.
2. To improve internal coordination and avoid fragmented planning, NGOs and agencies are encouraged to adopt formal integration management processes, led by the project coordinator.
3. It is recommended that teams invest time and technical effort in developing a detailed scope management plan to concentrate resources on priority tasks and effectively manage stakeholder expectations.
4. Given the short timeline required for SMART Surveys, it is highly recommended that the PM dedicate enough time to structure and monitor the project schedules, considering realistic milestones.
5. Financial officer and PM are encouraged to track costs in real time and train field staff in basic budget monitoring tools, improving transparency.

6. The PM, together with the consultancy and the technical committee, should jointly define quality management metrics from the beginning and integrate them with the quality controls established in the SMART Methodology, such as the Plausibility Check, which must be rigorously monitored.
7. It is recommended that Human Resources and field managers jointly define clear job descriptions and ensure sufficient training for each team member. Adequate planning of resources, both human and material, must be in place before survey implementation begins.
8. Communications officers should design communication plans that focus on result advocacy strategies and tailored messages for different audiences to increase the visibility and impact of the data.
9. It is highly recommended to conduct risk assessments before field deployment and update them periodically. Security, weather, logistics, and political risks must be monitored daily, as these are the ones that have the greatest impact on data collection, and the team must develop contingency plans before the risk materializes.
10. Finally, it is also highly recommended to involve local institutions, authorities, and civil society organizations more deeply in the survey design and implementation process. It is challenging, but it is also an effective tool to ensure strategic stakeholder engagement. It is challenging, but it is an effective tool to ensure strategic stakeholder engagement, and it also enhances legitimacy. This engagement will inform strategic decisions.

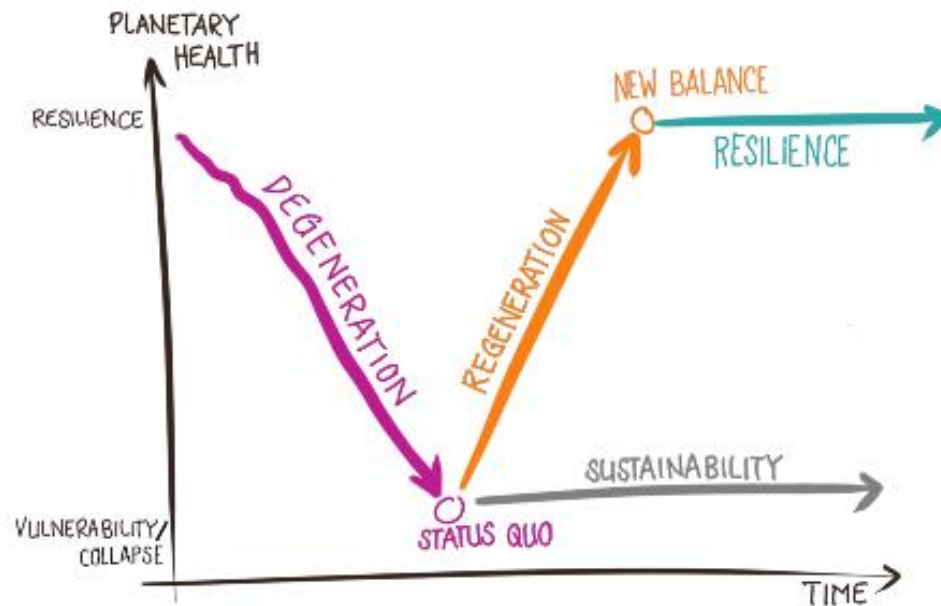
7 VALIDATION OF THE FGP IN THE FIELD OF REGENERATIVE AND SUSTAINABLE DEVELOPMENT

In this chapter, the concepts of Regenerative Development and Sustainable Development will be explained. Similarly, their relationship with the development of the project management plan for implementing the SMART Survey Methodology in scattered rural areas in Colombia will be addressed. Moreover, the impact of the project execution and operation of the SMART Methodology with Regenerative and Sustainable Development will be described.

Sustainable Development in its early definitions “was about leaving future generations, similar conditions” (Müller, 2017) as found in the planet. That means avoiding the degradation of the planet; However, the planet's condition is already in an advanced state of degradation and Sustainability “is not achievable anymore” (Müller, 2017) in the current conditions where there is urgency call to restore the planet, Müller (2017) emphasizes the critical need for immediate action, stating that "now it is about all present human beings, being able to make the change that will allow to have a future." This pressing need leads to the consideration of Regenerative Development.

Regenerative Development is “a system of developmental technologies and strategies that works to enhance the ability of living beings to co-evolve, so that the planet continues to express its potential for diversity, complexity, and creativity through harmonizing human activities with the continuing evolution of life on our planet, even as we continue to develop our potential as humans” (Mang & Haggard, 2016).

Figure 6. Sustainability Vs Regenerative



Note: Copied from *Sustainability Vs Regenerative Explained by 5 Graphics*. Bowie Yin Sum Kung, 2022. (Sum, 2022)

Regenerative development “provides the framework, and builds the local capability required to ensure regenerative design processes achieve maximum systemic leverage and support through time” (Mang & Haggard, 2016). A Regenerative approach “shifts the focus of sustainable design from slowing down entropy to building the capability of living communities to evolve toward greater value” (Mang & Haggard, 2016).

Implementing the SMART Survey Methodology are closely linked to Regenerative development and Sustainable development. With an understanding of all the logistics and operational efforts required to implement this methodology, it is clear that it requires human resources, equipment, transport, food for the enumerators (during the training), and other supplies such as the organization-provided work attire.

For instance, technical equipment, including the Electronic Scale (with the wooden boards and the standard wight), Measuring Boards (Standard reference in wood from UNICEF), and Arm Circumference Measuring Tapes, demand a lot of procurement management. If the planning process is inadequate, and a local provider is not reached on time, an import will be required.

Imports have a considerable impact on regenerative and sustainable development, every time an import is required, it leaves an ecological footprint, causing environmental damage. That's why it is critical to think about ensuring local providers for each supply required in the project. That may require some additional effort, but it will translate into a positive impact on planet and possible costs saved. since imports demand more resources so the final price is directly affected.

The effects of the implementation of the SMART Survey Methodology in scattered rural areas in Colombia regarding regenerative and sustainable development as well as the Sustainable Development Goals (SDGs) (United Nations, 2015) can be mainly identified in its execution as well as in its overall operation, there is a critical need for accurate project management planning. A previously discussed example involves the reliance on imports, which could undermine regenerative and sustainable development. This is because importing supplies often contributes significantly to environmental degradation. For this reason, during the planning phase, it is essential that the procurement management plan prioritize sourcing supplies locally in order to avoid or mitigate the potential negative impacts that imports may have on the project.

Now, to understand in a deeper sense the concepts behind the approach given to this project, it is important to clarify that it is a framework that goes beyond the triple constraint (time, cost and scope), and even beyond the triple bottom line (profit, people and planet). This approach integrates a value creation focus on project management, drawing inspiration from Kate Raworth's Doughnut Economics. (Raworth, 2017) and that has been incorporated in the GPM® P5™ Standard for Sustainability in Project Management in its 3rd version by GPM Global (Green Project Management - GPM, 2023). It also considers the Sustainable Development Goals (SDGs) (United Nations, 2015) that can be better understood when performing the P5 Analysis. This topic will be developed further in the following section.

7.1 Relationship of the project to the Sustainable Development Goals

“The *17 Sustainable Development Goals (SDGs)* are an urgent call for action by all countries - developed and developing - in a global partnership. They recognize that ending poverty and other deprivations must go hand-in-hand with strategies that improve health and education, reduce inequality, and spur economic growth – all while tackling climate change and working to preserve our oceans and forests” (United Nations, 2015).

In June 1992, at the Earth Summit held in Rio de Janeiro, Brazil, more than 178 countries adopted Agenda 21, a comprehensive action plan to build a global partnership for sustainable development to improve people's lives and protect the environment. Then, in September 2000, Member States unanimously adopted the Millennium Declaration at the Millennium Summit held at UN Headquarters in New York (United Nations, 2015).

Then, in June 2012, during the United Nations Conference on Sustainable Development, held in Rio de Janeiro, Brazil, Member States adopted the outcome document "The Future We Want," in which they decided, among other things, to initiate a process to develop a set of SDGs based on the MDGs and to establish the United Nations High-Level Political Forum on Sustainable Development (United Nations, 2015).

Subsequently, in 2013, the General Assembly established a 30-member Open Working Group to develop a proposal on the SDGs, and finally, in January 2015, the General Assembly began the negotiation process for the post-2015 development agenda.

The process culminated in the subsequent adoption of the 2030 Agenda for Sustainable Development, with 17 SDGs at its core, at the United Nations Summit on Sustainable Development in September 2015 (United Nations, 2015).

There is a clear connection between the Methodology and the SDGs. For more specifically, the methodology is linked to the first goal "End poverty in all its forms everywhere", the second goal "End hunger, achieve food security and improved nutrition and promote sustainable agriculture", the third one "Ensure healthy lives and promote well-being for all at all ages", and the sixth goal "Ensure availability and sustainable management of water and sanitation for all" (United Nations, 2015). These four goals are approached from the project through advocacy, since one of the main goals of a SMART survey is to expose the situation of the population along with other indicators related to Food Security, Health, IYCF and/or WASH, among others.

This type of data collection exercise that is widely recognized for its data quality allows to make evident the needs in a determined moment and with a determined

population regarding this set of indicators that are closely related to the goals mentioned before. Thus, the SMART Survey makes a call to action to the different stakeholders (public and private) that may have any kind of responsibility with the population surveyed.

7.2 Analysis of the project according to Standard P5

The P5 Standard is mainly informative. That is, it provides guidance, best practices and recommendations related to sustainability in management processes, products, services and technologies. However, it is also a normative standard that provides the basis for GPM's programs for the certification of individuals (Green Project Management - GPM, 2023).

It is also critical important to describe the P5 Ontology. It is a set of concepts and categories that will depict the whole picture regarding the connection of the project with sustainability as well as with the SDGs, in order to manage the complexity of this subject by getting all the elements organized in a coherently way (Green Project Management - GPM, 2023).

There are a few critical concepts that must be considered when performing the P5 Analysis: Categories (People, Planet, and Prosperity); Perspectives (Product Impacts and Process Impacts); and finally, the Focus Lens for product perspective (Lifespan and servicing) and process perspective (Efficiency, Effectiveness, and Fairness) (Green Project Management - GPM, 2023).

In order to analyze the Project in light of the Standard P5, the P5 assessment template provided by the Green Project Management was used (Green Project Management

- GPM, 2023). After conducting the analysis, the potential sustainability impact was identified for each category as described below:

Chart 55. P5 Potential Sustainability Impact by Category

Impact Cat.	Potential Impact	Description (Cause)	Proposed Response
People	Hard working conditions	Harsh environments, long travel times, and a lack of infrastructure.	Provide compensation, protective gear, and travel support.
	Limited access to healthcare	Health risks due to limited medical access affect workforce productivity.	Partner with healthcare providers to offer medical support.
	High staff turnover	Staff changes could affect data collection and project timing.	Develop retention strategies, such as career growth opportunities.
	Community resistance	Some communities may distrust external projects.	Engage community leaders to build trust and project acceptance.
	Language and cultural barriers	Indigenous languages and cultural norms may create misunderstandings.	Hire local interpreters and train staff on cultural sensitivities.
Planet	High fuel consumption	Frequent travel increases the carbon footprint due to fuel emissions.	Optimize travel routes and use fuel-efficient transport.
	Non-local suppliers	Getting supplies from abroad increases the ecological footprint.	Getting all the supplies from local suppliers.
	Impact of travel emissions	Extensive travel results in high CO2 emissions.	Encourage virtual meetings to reduce travel-related emissions.
	Use of plastics	The use of disposable plastics in field activities harms the environment.	Replace single-use plastics with biodegradable or reusable alternatives.
Prosperity	Financial sustainability	Dependence on external funding may threaten long-term continuity.	Develop partnerships with local institutions for sustained funding.
	Long-term funding	Challenges in expanding the methodology to other regions.	Adapt the methodology for scalability in different regions.
	Job creation	Project implementation generates new job opportunities.	Promote local hiring to stimulate economic development.

Note: Own work.

The potential impacts described above primarily affect the People category, specifically its labor practices and decent work sub-categories, as well as those related to society and customers. Within the Planet category, impacts are observed across all sub-categories. For the Prosperity category, the main impact falls under project feasibility. This impact analysis is illustrated in chart 56.

Chart 56. P5 Impact Analysis – Scoring Summary

People Impacts	Initial Impact Score	New Impact Score	Change
Labor Practices and Decent Work	3,0	5,0	2,0
Society and Customers	3,0	5,0	2,0
Human Rights	5,0	5,0	0,0
Ethical Behavior	5,0	5,0	0,0
Overall People Score	5,0		
Planet Impacts	Initial Impact Score	New Impact Score	Change
Transport	3,5	5,0	1,5
Energy	3,0	5,0	2,0
Land Air, and Water	3,0	5,0	2,0
Consumption	3,0	5,0	2,0
Overall Planet Score	5,0		
Prosperity Impacts	Initial Impact Score	New Impact Score	Change
Project Feasibility	3,0	5,0	2,0
Business Agility	5,0	5,0	0,0
Local Economic Impact	5,0	5,0	0,0
Overall, Prosperity Score	5,0		
Overall Project Score	5,0		

Note: Own work.

7.3 Relationship of the project to the dimensions of Regenerative Development

Regenerative Development is, as Müller cited the Mang's definition "a system of technologies and strategies for generating the patterned whole system understanding of a place, and developing the strategic systemic thinking capacities, and the stakeholder engagement and commitment required to ensure regenerative design processes to achieve maximum systemic leverage and support, that is self-organizing and self-evolving" (Müller, 2017). Müller highlights six dimensions of regenerative development: Environmental (regeneration of degraded ecosystems and biodiversity above other interests); Social (inclusive and equitable societies); Economic (fair and equitable economy); Political

(participatory governance, transparency and ethics); Cultural (rescue of cultural diversity and local knowledge); and Spiritual (values, ethics, society that cares) (Müller, 2017).

Chart 57. Regenerative Development Dimensions and Project Impact

Dimension	Description	Project Impact
Environmental	Functional regeneration of ecosystems and their services, supporting biodiversity and allowing life to continue thriving throughout the planet (Müller, 2017).	As seen in the previous matrix, the main potential impact of the project is related to the transport, energy required to get supplies, and the use of plastics.
Social	Social strengthening, which fosters community organization and development to be able to cope with adaptation to climate change (Müller, 2017).	The main social regenerative development impact that the project brings is that it exposes the nutritional situation (mainly) of a given population in a determined context.
Economic	Paradigm for economic development where people matter more than markets and money, where economic development is promoted at all levels of society, allowing for more opportunities to achieve better living standards (Müller, 2017).	The main objective of a SMART Survey is the people. This is the hearth of the methodology, but it is not just the target population but the team that gathers the information. That's why in the P5 matrix working conditions was also a main point in the impacts as well as the potential communities' barriers.
Political	Conservation of living culture, which is the necessary bond for community life, where local knowledge, values and traditions are shared within family, friends and the community as a whole, giving meaning to these terms (Müller, 2017).	Community is also a critical point in the implementation of a SMART survey. Before the data collection begins, there is substantial previous work related to talking with communities' leaders as well as with other critical stakeholders in the territories to explain what the exercise is about and how it is going to support the community. So, the role this data plays in locating the specific needs of the community is explained.
Cultural	Rethinking and redesigning current political structures so they can reflect true participatory democracy and fostering long-term vision and actions that seek increased livelihoods and happiness and not only gross income (Müller, 2017).	The SMART Survey results play a critical role in advocacy for "rethinking and redesigning current political structures", since the potential worrying results will lead to reconsidering if current actions are the right way to move forward in solving a particular situation of the population.
Spiritual	Fostering deep spiritual and value structures based on ethics, transparency and global well-being to allow humanity to live in peace with itself and Mother Earth (Müller, 2017).	The implementation of the SMART survey is definitely a concrete action that advocates for "global well-being to allow humanity to live in peace with itself and Mother "Earth" especially considering that these results are about critical needs that vulnerable population has in difficult contexts.

Note: Own work.

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9 APPENDICES

9.1 APPENDIX 1: FGP CHARTER

CHARTER OF THE PROPOSED FINAL GRADUATION PROJECT (FGP)

1. Student name

Javier Cabezas

2. FGP name

Proposal: Project Management Plan for the Successful Implementation of the SMART Survey Methodology in scattered rural areas in Colombia

3. Application Area (Sector or activity)

Nutrition

4. Student signature



5. Name of the Graduation Seminar facilitator

Carlos Brenes

6. Signature of the facilitator

7. Date of charter approval

8. Project start and finish date

22/04/2025

16/06/2025

9. Research question

What are the key elements that should be considered in the project management plan to implement the SMART Methodology in scattered rural areas in Colombia?

10. Research hypothesis

Is it possible to draft a project management plan to implement effectively the SMART Survey Methodology (focused in determine nutritional status in under 5 years old children) in scattered rural areas in Colombia?

11. General objective

To develop a project management plan to implement of the SMART Survey Methodology in scattered rural areas In Colombia, ensuring that the processes of the methodology are effectively implemented in the short term required as well as the optimal resource allocation.

12. Specific objectives

1. To develop the FGP charter to document the project's start.
2. To draft the integration management plan to coordinate the various processes and activities within the project management process groups of initiating and planning.
3. To draft the scope management plan to ensure that the project includes all the work required to complete the project successfully.
4. To draft the schedule management plan to manage the timely completion of the project.
5. To draft the cost management plan to be able to complete the project within the approved budget.
6. To draft the quality management plan to meet the product quality requirements as well as the expectations of stakeholders.
7. To draft the resource management plan to manage the resources needed for the successful completion of the project.
8. To draft the communications management plan to ensure timely and appropriate management of project information.
9. To draft the risk management plan to control and manage potential risks in the project.
10. To draft the procurement management plan to purchase or acquire products and services needed from outside the project team.

To draft the stakeholder management plan to develop appropriate strategies for effectively engaging stakeholders in project decisions and execution.

13. FGP purpose or justification

The importance of this project lies in the possibility to have a defined project management plan structured to successfully implement the SMART survey methodology in Colombia. This is critically important since there are very limited experiences in the implementation of this methodology not just in the country but in the region.

The methodology is very clear regarding technical affairs. However, there is not information regarding managerial aspects. So even though there are some preliminary steps that have everything to do with formulation of the project from technical perspective, there is not a clear component about the steps to take into consideration to a successful implementation form a management knowledge.

This is where this project takes importance, since it allows to Non-Governmental Organizations as well as other critical stakeholders to plan not just the technical points of the methodology but also all the management processes that are behind the success of its implementation.

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

- | | |
|-------|--|
| 1. | Graduation Seminar |
| 1.1 | FGP Deliverables |
| 1.1.1 | Appendix 1 FGP Charter |
| 1.1.2 | Appendix 2 FGP WBS |
| 1.1.3 | Chapter I. Introduction |
| 1.1.4 | Chapter II. Theoretical Framework |
| 1.1.5 | Chapter III. Methodological Framework |
| 1.1.6 | Annexes |
| 1.2 | Graduation Seminar Approval |
| 2. | Tutoring Process |
| 2.1 | Tutor |
| 2.1.1 | Tutor Assignment |
| 2.1.2 | Communication |
| 2.2 | Adjustments of Previous Chapters |
| 2.2.1 | Refinement of theoretical background (SMART Methodology) |
| 2.2.2 | Integration of project management best practices |
| 2.3 | Chapter IV. Development |
| 2.3.1 | Structuring implementation with the project management plans |
| 2.3.2 | SMART methodology application framework |
| 2.4 | Chapter V. Conclusions |
| 2.4.1 | Discussion of project management challenges |
| 2.4.2 | Lessons learned and best practices |
| 2.5 | Chapter VI. Recommendations |
| 2.5.1 | Recommendations for future implementation |
| 3. | Reading by reviewers |
| 3.1 | Reviewer's assignment request |
| 3.1.1 | Assignment of two reviewers |
| 3.1.2 | Communication |

	3.1.3	FGP submission to reviewers
3.2		Reviewers work
	3.2.1	FGP reading and report by Reviewer 1
	3.2.2	FGP reading and report by Reviewer 2
4.		Adjustments
	4.1	Report for reviewers
	4.2	FGP update
	4.2.1	Refinement of details in alignment with feedback
	4.3	Second review by reviewers
	4.3.1	Verification of applied modifications
	4.3.2	Final validation before defense
5.		Defense to Board of Examiners
	5.1	Final review by the board
5.2		FGP grade report

15. FGP budget

The estimated budget will be 300 USD to cover internet service provider and access to some bibliographic references with cost (like books).

16. FGP planning and development assumptions

- 17. - The SMART Methodology information is complete and available.
- 18. - The project management plan will be applied to the SMART Methodology implementation.
- 19. - Research time for the FGP will be at least 15 hours per week during the FGP development process.

20. FGP constraints

- The maximum time frame to finalize the FGP is 6 months, from initial planning stages to final presentation to the board of examiners.

21. FGP development risks

- Unforeseen shifts in weekly work linked to feedback that requires additional work.
- There may be a delay in the completion of the task linked to illness of the researcher.
- There is possible risk in the completion and/or submission of some tasks if there is a problem related with the lack of internet service.

22. FGP main milestones

WBS Code	Deliverable	Finish Date (Estimated)
1.1	FGP Deliverables	31/03/25
1.1.1	Appendix 1 FGP Charter	3/03/25
1.1.2	Appendix 2 FGP WBS	3/03/25
1.1.3	Chapter I. Introduction	31/03/25
1.1.4	Chapter II. Theoretical Framework	17/03/25
1.1.5	Chapter III. Methodological Framework	24/03/25
1.1.6	Annexes	10/03/25
1.2	Graduation Seminar Approval	7/04/25
2.1	Tutor	9/04/25
2.1.1	Tutor Assignment	9/04/25
2.1.2	Communication	9/04/25
2.2	Adjustments of Previous Chapters	14/04/25
2.2.1	Refinement of theoretical background (SMART Methodology)	28/04/25
2.2.2	Integration of project management best practices	28/04/25
2.3	Chapter IV. Development	12/05/25
2.3.1	Structuring implementation with the project management plans	12/05/25
2.3.2	SMART methodology application framework	12/05/25
2.4	Chapter V. Conclusions	09/06/25
2.4.1	Discussion of project management challenges	09/06/25
2.4.2	Lessons learned and best practices	09/06/25
2.5	Chapter VI. Recommendations	23/06/25
2.5.1	Recommendations for future implementation	23/06/25
3.1	Reviewers' assignment request	27/06/25
3.1.1	Assignment of two reviewers	27/06/25
3.1.2	Communication	27/06/25
3.1.3	FGP submission to reviewers	27/06/25
3.2	Reviewers work	28/07/25
3.2.1	FGP reading and report by Reviewer 1	28/07/25
3.2.2	FGP reading and report by Reviewer 2	28/07/25
4.1	Report for reviewers	04/08/25
4.2	FGP update	15/08/25
4.2.1	Refinement of details in alignment with feedback	15/08/25
4.3	Second review by reviewers	22/08/25
4.3.1	Verification of applied modifications	22/08/25
4.3.2	Final validation before defense	22/08/25
5.1	Final review by board	29/08/25
5.2	FGP grade report	29/08/25

23. Theoretical framework

23.1 Estate of the “matter”

The SMART initiative is a methodology that is mainly designed to estimate the prevalence of acute malnutrition (nutritional status of children under 5 years), SMART stands for Standardized Monitoring and Assessment of Relief and Transitions, and it has been a way to face the need of information of quality regarding these vital public health indicators, it is also possible to measure mortality rate when there is lack of a trustable surveillance system. (Action Against Hunger Canada, 2017)

It was an inter-agency initiative launched in 2002. Since there have been several experiences in the implementation of this methodology, especially in Asia and Africa but not in Latin America, and even though the methodology is very clear regarding technical aspects, there is not a document that gather managerial advises about the management plans that are critical for the successful implementation of the methodology.

23.2 Basic conceptual framework

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

Technical basic concepts: SMART (Standardized Monitoring and Assessment of Relief and Transitions); Survey; Prevalence; GAM (Global Acute Malnutrition); SAM (Severe Acute Malnutrition); Height Boards; Scales; MUAC (Mid-Upper Arm Circumference); Weight; Height; Length; MUAC tapes; Plausibility Check; Standardization Test; Mortality Rate; Public Health; Precision; Accuracy; Magnitude.

Management basic concepts: project management; PMP (Project Management Plan); Project Life Cycle; Project Charter; Organizational Structure; Integration Management, Scope Management; Schedule Management; Cost Management; Quality Management; Resource Management; Communication Management; Risk Management; Procurement Management; Stakeholder Management; Regenerative Development.

24. Methodological framework

Objective	Name of deliverable	Information sources	Research method	Tools	Restrictions
1. To develop the FGP charter to document the project's start.	FGP Charter	Primary: - Experiences from SMART Surveys implemented and experts' interviews. Secondary: - PMBOK® Guide 7th Ed. (2021) & 6th Ed. (2017) - Other PM Books and Articles. - AAH Canada & SMART Initiative Websites - SMART Methodology	Qualitative. Analytical.	-Expert judgement. - Data gathering (Interviews). - Literature review. - PM Software.	Limited time to project charter.
2. To draft the integration management plan to coordinate the various processes and activities within the project management process groups of initiating and planning.	Integration Management Plan	Primary: - Experiences from SMART Surveys implemented and experts' interviews. Secondary: - PMBOK® Guide 7th Ed. (2021) & 6th Ed. (2017) - Other PM Books and Articles. - AAH Canada & SMART Initiative Websites - SMART Methodology	Qualitative. Analytical.	-Expert judgement. - Data gathering (Interviews). - Meetings. - Data analysis. - Literature review. - PM Software.	Limited time to conclude the FGP (3 months)
3. To draft the scope management plan to ensure that the project includes all the work required to complete the project successfully.	Scope Management Plan	Primary: - Experiences from SMART Surveys implemented and experts' interviews. Secondary: - PMBOK® Guide 7th Ed. (2021) & 6th Ed. (2017) - Other PM Books and Articles. - AAH Canada & SMART Initiative Websites - SMART Methodology	Qualitative. Analytical.	-Expert judgement. - Data gathering (Interviews). - Meetings. - Data analysis. - Decomposition. - PM Software.	Limited time to conclude the FGP (3 months)
4. To draft the schedule management plan to	Schedule Management Plan	Primary: - Experiences from SMART Surveys implemented	Qualitative. Analytical.	-Expert judgement. - Data gathering (Interviews).	Limited time to conclude

manage the timely completion of the project.		and experts' interviews. Secondary: - PMBOK® Guide 7th Ed. (2021) & 6th Ed. (2017) - Other PM Books and Articles. - AAH Canada & SMART Initiative Websites		- Decomposition. - Meetings. - Literature review. - PM Software.	the FGP (3 months)
5. To draft the cost management plan to be able to complete the project within the approved budget.	Cost Management Plan	Primary: - Experiences from SMART Surveys implemented and experts' interviews. Secondary: - PMBOK® Guide 7th Ed. (2021) & 6th Ed. (2017) - Other PM Books and Articles. - AAH Canada & SMART Initiative Websites	Qualitative. Analytical.	-Expert judgement. - Data gathering (Interviews). - Data analysis. - Meetings. - Literature review. - PM Software.	Limited time to conclude the FGP (3 months)
6. To draft the quality management plan to meet the product quality requirements as well as the expectations of stakeholders.	Quality Management Plan	Primary: - Experiences from SMART Surveys implemented and experts' interviews. Secondary: - PMBOK® Guide 7th Ed. (2021) & 6th Ed. (2017) - Other PM Books and Articles. - AAH Canada & SMART Initiative Websites - SMART Methodology	Qualitative. Analytical.	-Expert judgement. - Data gathering (Interviews). - Data analysis. - Meetings. - Literature review. - PM Software.	Limited time to conclude the FGP (3 months)
7. To draft the resource management plan to manage the resources needed for the successful completion of the project.	Resource Management Plan	Primary: - Experiences from SMART Surveys implemented and experts' interviews. Secondary: - PMBOK® Guide 7th Ed. (2021) & 6th Ed. (2017) - Other PM Books and Articles. - AAH Canada & SMART Initiative Websites - SMART Methodology	Qualitative. Analytical.	-Expert judgement. - Data gathering (Interviews). - Data representation. - Meetings. - Literature review.	Limited time to conclude the FGP (3 months)
8. To draft the communications management plan to ensure timely and appropriate	Communications Management Plan	Primary: - Experiences from SMART Surveys implemented and experts' interviews. - Experts Interviews. Secondary:	Qualitative. Analytical.	- Communication requirements analysis. - Communication models.	Limited time to conclude the FGP (3 months)

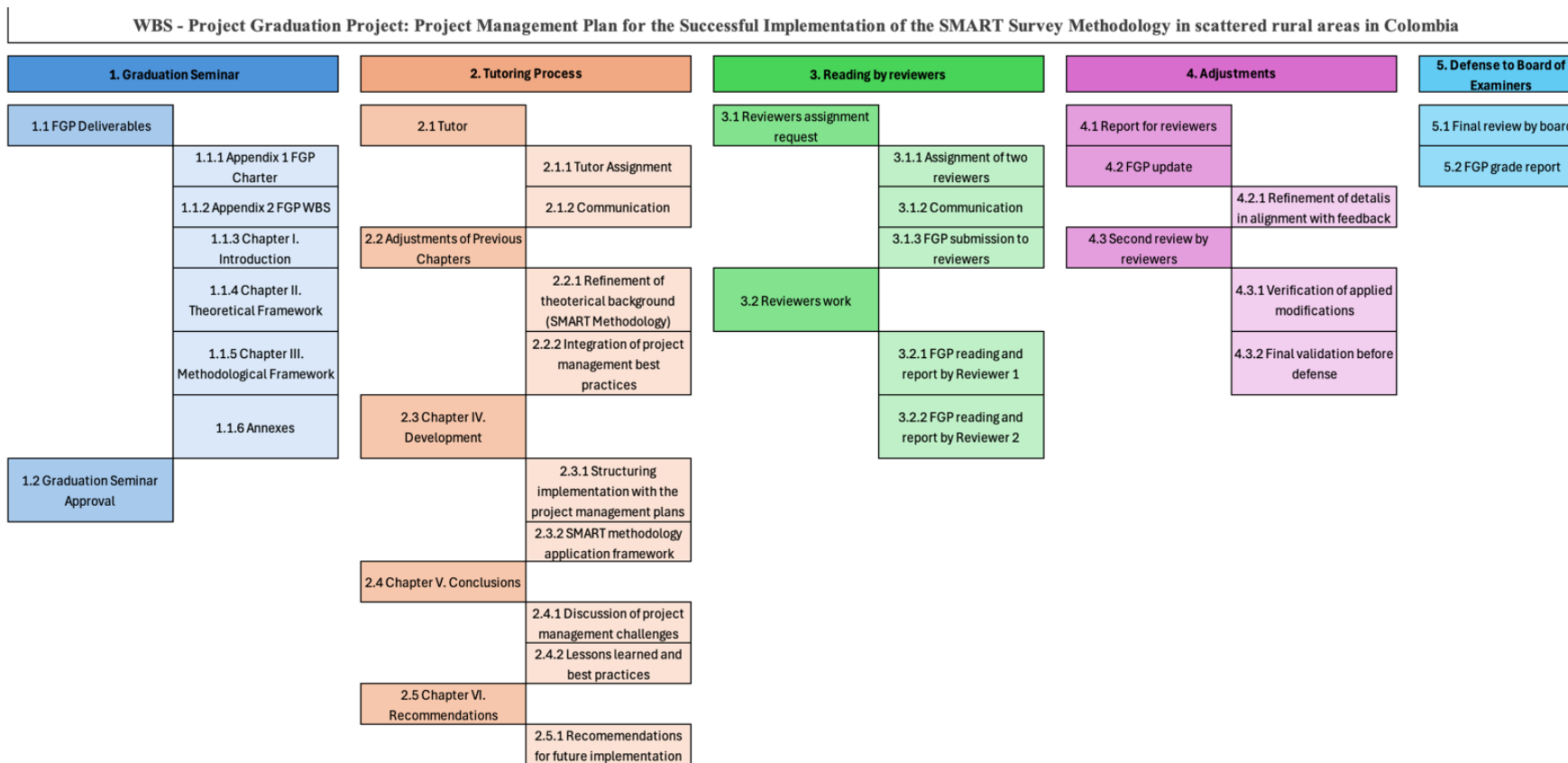
management of project information.		<ul style="list-style-type: none"> - PMBOK® Guide 7th Ed. (2021) & 6th Ed. (2017) - Other PM Books and Articles. - AAH Canada & SMART Initiative Websites - SMART Methodology 		<ul style="list-style-type: none"> - Communication methods. - Interpersonal and team skills. - Data representation. - Meetings. - Literature review. 	
9. To draft the risk management plan to control and manage potential risks in the project.	Risk Management Plan	<p>Primary:</p> <ul style="list-style-type: none"> - Experiences from SMART Surveys implemented and experts' interviews. <p>Secondary:</p> <ul style="list-style-type: none"> - PMBOK® Guide 7th Ed. (2021) & 6th Ed. (2017) - Other PM Books and Articles. - SMART Methodology 	Qualitative. Analytical.	<ul style="list-style-type: none"> -Expert judgement. - Data gathering (Interviews). - Data analysis. - Meetings. - Literature review. 	Limited time to conclude the FGP (3 months)
10. To draft the procurement management plan to purchase or acquire products and services needed from outside the project team.	Procurement Management Plan	<p>Primary:</p> <ul style="list-style-type: none"> - Experiences from SMART Surveys implemented and experts' interviews. <p>Secondary:</p> <ul style="list-style-type: none"> - PMBOK® Guide 7th Ed. (2021) & 6th Ed. (2017) - Other PM Books and Articles. - AAH Canada & SMART Initiative Websites - SMART Methodology 	Qualitative. Analytical.	<ul style="list-style-type: none"> -Expert judgement. - Data gathering (Interviews). - Data analysis. - Meetings. - Literature review. 	Limited time to conclude the FGP (3 months)
11. To draft the stakeholder management plan to develop appropriate strategies for effectively engaging stakeholders in project decisions and execution.	Stakeholder Management Plan	<p>Primary:</p> <ul style="list-style-type: none"> - Experiences from SMART Surveys implemented and experts' interviews. <p>Secondary:</p> <ul style="list-style-type: none"> - PMBOK® Guide 7th Ed. (2021) & 6th Ed. (2017) - Other PM Books and Articles. - AAH Canada & SMART Initiative Websites 	Qualitative. Analytical.	<ul style="list-style-type: none"> -Expert judgement. - Data gathering (interviews). - Data analysis. - Meetings. - Literature review. 	Limited time to conclude the FGP (3 months)

25. Validation of the work in the field of regenerative and sustainable development.

This FGP complies with the concepts of regenerative and sustainable development by taking actions oriented to optimization in the procurement process (buying local), as well as the project is mainly led to social well-being by itself since it is the core of its purpose.

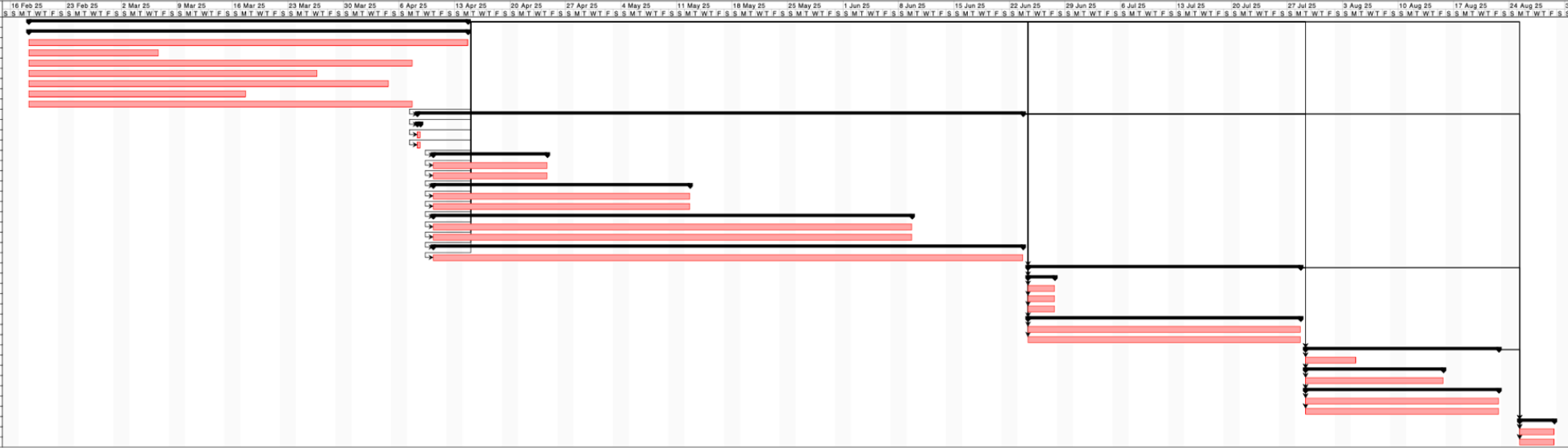
The way this project is aligned with regenerative principles can be mainly evidenced not just in the positive social impact (explained throughout the document, including 7th chapter), but also by the sustainability actions mainly related with procurement and the avoiding of imports when getting supplies for the project's implementation. It can indeed be measured by observing if 100% of the supplies are procured by local suppliers (setting this as the goal to take concrete actions regarding sustainability).

9.2 APPENDIX 2: FGP WBS



Note: Own work.

9.3 APPENDIX 3: FGP SCHEDULE



Note: Own work.

	ID	Name	Duration	Start	Finish	Predecessors
1	1	1. Graduation Seminar	40 days	2/18/25 8:00 AM	4/14/25 5:00 PM	
2	2	1.1 FGP Deliverables	40 days	2/18/25 8:00 AM	4/14/25 5:00 PM	
3	3	1.1.1 Appendix 1 FGP Charter	40 days	2/18/25 8:00 AM	4/14/25 5:00 PM	
4	4	1.1.2 Appendix 2 FGP WBS	13 days	2/18/25 8:00 AM	3/6/25 5:00 PM	
5	5	1.1.3 Chapter I. Introduction	35 days	2/18/25 8:00 AM	4/7/25 5:00 PM	
6	6	1.1.4 Chapter II. Theoretical Framework	27 days	2/18/25 8:00 AM	3/26/25 5:00 PM	
7	7	1.1.5 Chapter III. Methodological Framework	34 days	2/18/25 8:00 AM	4/4/25 5:00 PM	
8	8	1.1.6 Annexes	20 days	2/18/25 8:00 AM	3/17/25 5:00 PM	
9	9	1.2 Graduation Seminar Approval	35 days	2/18/25 8:00 AM	4/7/25 5:00 PM	
10	10	2. Tutoring Process	55 days	4/8/25 8:00 AM	6/23/25 5:00 PM	1
11	11	2.1 Tutor	1 day	4/8/25 8:00 AM	4/8/25 5:00 PM	1
12	12	2.1.1 Tutor Assignment	1 day	4/8/25 8:00 AM	4/8/25 5:00 PM	1
13	13	2.1.2 Communication	1 day	4/8/25 8:00 AM	4/8/25 5:00 PM	1
14	14	2.2 Adjustments of Previous Chapters	11 days	4/10/25 8:00 AM	4/24/25 5:00 PM	1
15	15	2.2.1 Refinement of theoretical background (SMART Methodology)	11 days	4/10/25 8:00 AM	4/24/25 5:00 PM	1
16	16	2.2.2 Integration of project management best practices	11 days	4/10/25 8:00 AM	4/24/25 5:00 PM	1
17	17	2.3 Chapter IV. Development	23 days	4/10/25 8:00 AM	5/12/25 5:00 PM	1
18	18	2.3.1 Structuring implementation with the project management plans	23 days	4/10/25 8:00 AM	5/12/25 5:00 PM	1
19	19	2.3.2 SMART methodology application framework	23 days	4/10/25 8:00 AM	5/12/25 5:00 PM	1
20	20	2.4 Chapter V. Conclusions	43 days	4/10/25 8:00 AM	6/9/25 5:00 PM	1
21	21	2.4.1 Discussion of project management challenges	43 days	4/10/25 8:00 AM	6/9/25 5:00 PM	1
22	22	2.4.2 Lessons learned and best practices	43 days	4/10/25 8:00 AM	6/9/25 5:00 PM	1
23	23	2.5 Chapter VI. Recommendations	53 days	4/10/25 8:00 AM	6/23/25 5:00 PM	1
24	24	2.5.1 Recommendations for future implementation	53 days	4/10/25 8:00 AM	6/23/25 5:00 PM	1
25	25	3. Reading by reviewers	25 days	6/24/25 8:00 AM	7/28/25 5:00 PM	1;10
26	26	3.1 Reviewers assignment request	4 days	6/24/25 8:00 AM	6/27/25 5:00 PM	1;10
27	27	3.1.1 Assignment of two reviewers	4 days	6/24/25 8:00 AM	6/27/25 5:00 PM	1;10
28	28	3.1.2 Communication	4 days	6/24/25 8:00 AM	6/27/25 5:00 PM	1;10
29	29	3.1.3 FGP submission to reviewers	4 days	6/24/25 8:00 AM	6/27/25 5:00 PM	1;10
30	30	3.2 Reviewers work	25 days	6/24/25 8:00 AM	7/28/25 5:00 PM	1;10
31	31	3.2.1 FGP reading and report by Reviewer 1	25 days	6/24/25 8:00 AM	7/28/25 5:00 PM	1;10
32	32	3.2.2 FGP reading and report by Reviewer 2	25 days	6/24/25 8:00 AM	7/28/25 5:00 PM	1;10
33	33	4. Adjustments	19 days	7/29/25 8:00 AM	8/22/25 5:00 PM	1;10;25
34	34	4.1 Report for reviewers	5 days	7/29/25 8:00 AM	8/4/25 5:00 PM	1;10;25
35	35	4.2 FGP update	14 days	7/29/25 8:00 AM	8/15/25 5:00 PM	1;10;25
36	36	4.2.1 Refinement of details in alignment with feedback	14 days	7/29/25 8:00 AM	8/15/25 5:00 PM	1;10;25
37	37	4.3 Second review by reviewers	19 days	7/29/25 8:00 AM	8/22/25 5:00 PM	1;10;25
38	38	4.3.1 Verification of applied modifications	19 days	7/29/25 8:00 AM	8/22/25 5:00 PM	1;10;25
39	39	4.3.2 Final validation before defense	19 days	7/29/25 8:00 AM	8/22/25 5:00 PM	1;10;25
40	40	5. Defense to Board of Examiners	5 days	8/25/25 8:00 AM	8/29/25 5:00 PM	1;10;25;33
41	41	5.1 Final review by board	5 days	8/25/25 8:00 AM	8/29/25 5:00 PM	1;10;25;33
42	42	5.2 FGP grade report	5 days	8/25/25 8:00 AM	8/29/25 5:00 PM	1;10;25;33

Note: Own work.

9.4 APPENDIX 4: PRELIMINARY BIBLIOGRAPHICAL RESEARCH

Brière, S., Proulx, D., Flores, O. N., & Laporte, M. (2015). Competencies of project managers in international NGOs: Perceptions of practitioners. *International Journal of Project Management*, 33(1), 116-125. <https://doi.org/10.1016/j.ijproman.2014.04.010>
Justification: Analyzes key competencies in project management within NGOs, which, together with the UN system, implement the SMART methodology in humanitarian settings.

European Commission. (2017). *PM² Project Management Methodology Guide*. Publications Office of the European Union. <https://op.europa.eu/en/publication-detail/-/publication/0e3b4e84-b6cc-11e6-9e3c-01aa75ed71a1>
Justification: Describes a project management methodology used in international cooperation, applicable to the context of SMART implementation.

Grellety, E., & Golden, M. H. (2018). Severely malnourished children with a low weight-for-height have similar mortality to those with a low mid-upper-arm-circumference: II. Systematic literature review and meta-analysis. *Nutrition Journal*, 17, 80. <https://doi.org/10.1186/s12937-018-0383-5>
Justification: Provides an in-depth analysis of mortality in severely malnourished children, comparing different diagnostic criteria such as weight-for-height (WHZ) and mid-upper arm circumference (MUAC).

Harake, M. F. (2024). Project Management of UN Activities: An Operational Guide to End-to-End Project Delivery. *PM World Journal*, 13(5), 1-24. <https://pmworldlibrary.net/wp-content/uploads/2024/05/pmwj141-May2024-Harake-Project-Management-of-UN-Activities.pdf>
Justification: Explains project management processes within the UN system, relevant for projects operating in collaboration with UN agencies.

Kaplan, R. S., & Mikes, A. (2012). Managing Risks: A New Framework. *Harvard Business Review*, 90(6), 48-60. <https://hbr.org/2012/06/managing-risks-a-new-framework>
Justification: Provides a framework for risk management in projects, useful for mitigating challenges in the implementation of SMART surveys in scattered rural areas.

Montes-Guerra, M. I., De-Miguel, A. R., Pérez-Ezcurdia, M. A., Gimena Ramos, F. N., & Díez-Silva, H. M. (2015). Project Management in Development Cooperation: Non-Governmental Organizations. *Innovar*, 25(56), 53-68. <https://doi.org/10.15446/innovar.v25n56.48989>
Justification: Examines how project management in NGOs can enhance the implementation of methodologies such as SMART.

Project Management Institute. (2017). *A guide to the project management body of knowledge (PMBOK® Guide)* (6th ed.).

Justification: This guide offers the project management processes required for structuring the project management plan.

SMART Initiative. (2015). *The SMART Plausibility Check for Anthropometry*. Action Against Hunger Canada. <https://smartmethodology.org/survey-planning-tools/smart-methodology/plausibility-check>

Justification: Explains the validation of anthropometric data in SMART surveys, ensuring the quality of results in acute malnutrition assessments.

SMART Initiative, Action Against Hunger Canada, & Technical Advisory Group. (2017). *SMART Manual 2.0: Standardized Monitoring and Assessment of Relief and Transitions*. Action Against Hunger Canada. <https://smartmethodology.org/survey-planning-tools/smart-methodology/smart-methodology-manual>

Justification: The core technical document describing the SMART methodology, its application, and essential tools to support this project.

Sphere Project. (2018). *Sphere Handbook: Humanitarian Charter and Minimum Standards in Humanitarian Response*. <https://spherestandards.org/handbook/editions>

Justification: Provides minimum standards for humanitarian interventions, fundamental for planning and managing SMART surveys.

United Nations. (2015). *Transforming Our World: The 2030 Agenda for Sustainable Development*. <https://sdgs.un.org/2030agenda>

Justification: A global framework linking nutrition assessment projects to the Sustainable Development Goals (SDGs).

United Nations Office for Project Services. (2018). *UNOPS Strategic Plan 2018-2021*. https://content.unops.org/publications/UNOPS-Strategic-Plan-2018-2021_EN.pdf

Justification: Provides guidelines on project management within the UN system, useful for structuring the implementation of SMART in scattered rural areas.

World Health Organization (WHO), & United Nations Children's Fund (UNICEF). (2019). *Recommendations for data collection, analysis and reporting on anthropometric indicators in children under 5 years old*. <https://apps.who.int/iris/handle/10665/324791>

Justification: Provides additional technical foundations for anthropometric data collection in children, complementing the standards used in SMART.

9.5 APPENDIX 5: REVISION DICTUM SIGNED

Juan Sebastian Acosta Marin
Bachelor of English Philology and Languages
Certified by the National University of Colombia

Jun 12, 2025

Dear Academic Advisor,

RE: Thorough Review and Proofreading of Final Graduation Project submitted by Javier Cabezas Pineda in partial fulfillment of the requirements for the Master of Project Management (MPM) Degree.

I hereby confirm that Javier Cabezas Pineda has made all the corrections to the Final Graduation Project document as I have advised. In my opinion, the document does now meet the literary and linguistic standards expected of a student for a degree at the Master's level.

Sebastian Acosta M.
Juan Sebastian Acosta M.
English Language Philologist
CELTA certified instructor and Interpreter