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Article

Process approach in the configuration of a construction project for the conservation of the Weenhayek native people

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Abstract: Since the systematic approach of the processes and their interactions, the aim is to establish the configuration of a construction project for the housing of the Weenhayek indigenous people. Applied from the theoretical research of various authors on a group of methodologies, phases and tools for project management, through rational scientific methods, such as descriptive, analytical, comparative, analytical-synthetic, inductive-deductive, historical-logical, analogies, modeling, systemic-structural-functional, systematization; and empirical methods, such as interpretivism that involves inductive, qualitative, phenomenological and transversal research, and the interview technique; the way in which the implementation processes are organized, interacted and structured is established. This reveals an alternative for the detailed configuration of a construction project for Weenhayek houses, based on phases, activities, actions and work tasks with characteristics in accordance with the needs of the project.

Keywords: organization; construction project; Weenhayek housing; process approach; project management; social development

1. Introduction

In Bolivia, climate change operates in a context of poverty and inequality (Aparicio-Effen et al., 2016); it manifests itself through climatic effects: droughts, intense rainfall and floods, in the Gran Chaco region (Habitat for Humanity Argentina-Samsung, 2016), and affects the way of life of the most vulnerable, the indigenous peoples (United Nations Environment Programmer, 2017); and as a consequence, their homes (Herrera Castillo and Picado Aráuz, 2016). Today, these houses are grouped by family nuclei in communities, that is, the children and their families around the houses of their parents, located according to the hierarchy of each one, in flat places surrounded by large trees, settling in their ancestral territories. The current characteristics of traditional Weenhayek houses are the construction form, that is, the use of construction techniques that are transmitted from generation to generation orally, such is the case of the use of post systems as the support structure of the house, the quincha technique, palo a pique or adobe, the mud cake technique on the roof, among others. However, the cultural construction features have been influenced by sociocultural and economic factors, with risks of losing the identity of said native people such as deterioration, loss, displacement and search for new places, construction materials, construction techniques and variations

in the layout of spaces in the house, which adapt to the surrounding climatic conditions and the civilizing process (González-Gaudiano and Maldonado-González, 2017; Karmila et al., 2024).

In the context described above, Rojas Molina (2022) develops a model for adapting traditional Weenhayek dwellings in Bolivia to climate change, using a multidisciplinary approach of technical construction elements with key cultural practices of the region. Anyway, this requires the technical organization of the implementation process (Ebekozien et al., 2024).

1.1. Structure of a project

An organization is defined as an element of a system or a system, which refers to the set of operations or tasks. This concept applied to projects aims to coordinate, organize and order the available resources, whether human, financial, physical or others; and the activities necessary to achieve the objectives (Bellicoso et al., 2025; Carlton and Perloff, 2015).

Projects are diverse and complex due to the number of activities to be developed during their life cycle (timeline), which must be identified and prioritized to create a unique result (Sépulveda Rivilla, 2020). Its structure must be planned through phases and (or) processes; that is, through a configuration of a project (Benevolenskiy et al., 2012). The phases are established as divisions of a project, sequentially or overlapping, through controlled stages that measure performance in achieving the established objectives (Addyman et al., 2020; Roudias, 2015). These stages are made up of a group of processes that are executed as activities that contribute to their development and can be repeated in each phase or subcomponent (Axelos, 2020).

A configuration is defined as the set of interrelated physical and functional characteristics of a product or result (International Standard Organization, 2003), as the set of elements, parts and subsets that define a product or a whole in a unique way, involving methods, tasks, processes, criteria, specifications and regulations (Pérez Mínguez and Sabador Moreno, 2013); and as the set of elements that are created and planned based on the information of the design, creation, verification, operation and support for obtaining a product (project) (Guerra Vera, 2015). From this perspective, a configuration must be managed (Dawson and Ashmore, 2025).

Configuration management is defined as the set of processes, tools and databases used to process information about a product configuration (Guerra Vera, 2015); and it constitutes a set of activities that allow the physical and functional characteristics of the project to be identified (Williams, 2010). In this context, project configuration management is a process of integrating elements that involves activities, the necessary techniques and tools, and strategic resource planning, such as financial and environmental management, among others (Mejía Montoya et al., 2024; Uher and Loosemore 2004); therefore, within this management, organizational processes occur that have inputs, transformations, and outputs, which become inputs for other phases of management. That’s how it is, from this research perspective, the organization is based on the correspondence of activities with the already defined phases, which need a group of tools for their effective development. In this sense, the

organization of the internal configuration of each phase becomes essential to avoid unnecessary feedback in the process, both particular and general, of the project.

A project must be defined in an integral manner, taking into account ownership, technology, costs, duration, phases, financing, materials, techniques, among others (Dinsmore and Cabanis-Brewin, 2011); hence it is considered multidisciplinary and unique, because it simultaneously employs skills and knowledge from different professions, disciplines, technologies and organizations whose development has not been and is not equal to another (García et al., 2013; Valle et al., 2025).

Projects involve an adequate allocation of resources and the control of the processes of each of the sequential stages that make up their life cycle, in order to obtain a unique result (Uher and Loosemore 2004); while their development consists of several phases that involve successive and distinct stages, which include organization, planning, completion, among others; therefore, they require the organization of implementation processes for the configuration of a project. This organization of processes involves rules, standards and a frame of reference, necessary for the execution of a construction project in an efficient manner (Dinsmore and Cabanis-Brewin, 2011).

1.2. Processes

A process is defined as a set of activities that are related to each other or interact with each other, which transform input elements into results. Inputs and outputs can be tangible, such as equipment, materials, components; or intangible, such as energy or information (Riveros Hurtado, 2005); and they follow a natural order of events. From this perspective, the process-based approach can be implemented in all types of projects, and its main purpose is to improve the effectiveness and efficiency of the results to achieve defined objectives. In it, the activities that are planned within each process must be assigned the appropriate resources: techniques, materials, methods, among others (Riveros Hurtado, 2005), so the internal configuration of each phase is useful for its development. Hence, groups of processes can be executed within a phase, as stages or activities that contribute to its development. These can be repeated in each phase or subcomponent (Axelos, 2020). In addition, these processes are considered as tasks to be performed to complete the work defined in each phase (Project Management Institute, 2016). These tasks can be managed through technological tools in work management (Snyder, 2017). The set of tasks adds value to the management of construction projects, by providing greater benefits and organizational productivity (Ahmad and Días, 2021; Prasetyo et al., 2024).

On the other hand, these processes must be adapted to the complexity and risk of the project and can be defined as a strict linear model that presents iterations to achieve the project requirements, and must include planning, execution, monitoring and control, closing processes for data collection, data evaluation, performance measurement and measurement evaluation (Dinsmore and Cabanis-Brewin 2011). These same authors establish that the processes must be described in simple terms consisting of four to eight activities managed by them; and they must describe, in addition to the flow of activities and their triggering events, the various components that are necessary for the different steps of the process to work. These include

people, systems, information and data, materials, tools and equipment, documentation and environmental factors (Kapoor and Singhal, 2025).

On the other hand, there is no clear definition of how to integrate project processes, activities and knowledge; though, project knowledge must be integrated, managed and monitored to achieve success (Dinsmore and Cabanis-Brewin, 2011). Hence, these processes must be configured beforehand (Ribera et al., 2025).

1.3. Project management settings

Configuration management is an essential aspect of establishing project control, including the procedures that ensure project execution; and is defined as the process of identifying and documenting the functional and physical characteristics of products or systems, controlling changes in associated documents, and reporting the status of changes to those who need to know (Dinsmore and Cabanis-Brewin, 2011). In this context, project management can help with process configuration, as it is presented as a process for generating models of reality (García et al., 2013), which provides visual descriptions and allows the simulation of hypothetical scenarios in a comprehensive manner (Dinsmore and Cabanis-Brewin, 2011).

Project management is a complex process that involves a comprehensive approach to the analysis of project-related activities, such as: planning, monitoring, control, among other possible phases to be identified in a project (Bērziša et al., 2015); and involves the resources that are required, such as: a set of knowledge, skills, processes, practices, tools and techniques that are implemented throughout the project life cycle in order to meet the defined objectives (Sépulveda Rivillas, 2020).

There are many different project management methodologies; nevertheless, a general configuration can be used that adapts to all methodologies or a flexible system can be used that can be reconfigured according to the characteristics of the project. Even so, none of these approaches are feasible in practice (Bērziša et al., 2015). Among the different project management methodologies that describe the organization, standards, guidelines and best practices of project management work are: Project Management Body of Knowledge [PMBOK] that includes different management processes: inputs, tools, techniques and products; Projects in Controlled Environments [PRINCE2], which establishes eight processes, eight components and four techniques, where each process consists of subprocesses, which use certain input and output information; Scrum, which is presented as an iterative incremental framework to manage complex work; Information Technology Infrastructure Library [ITIL] and Microsoft Operation Framework [MOF], which are methodologies for management; and IT governance; among others (Bērziša et al., 2015).

Since this perspective, this research seeks to establish, from the theoretical-practical analysis of various construction project management systems, the organization from an approach based on implementation processes that help the alignment of the processes that are developed, through the detailed configuration of a construction project for the Weenhayek housing adaptation model. This model was developed by Rojas Molina (2022), which is a model of adaptation to climate change of the traditional dwellings of the Weenhayek people, Gran Chaco province in Bolivia. It presents a multidisciplinary approach that combines technical construction

elements with critical cultural practices in the regional entity of the Gran Chaco. Though, to build this model requires the design configuration of a Weenhayek housing construction project.

2. Materials and methods

This research is developed based on the theoretical position of various authors on the analysis of the relationships of a group of methodologies, phases and tools of project management technologies, applied in an orderly and systemic manner, which have achieved better results in their application; and the analysis of results obtained from empirical techniques applied to the main managers of project management methodologies in the area of study; these involve a multidisciplinary approach to scientific research methods (empirical-rational).

With the application of rational methods, such as descriptive, analytical, comparative, analytical-synthetic, inductive-deductive, historical-logical, analogies, modeling, systemic-structural-functional, systematization (Rodríguez Jiménez and Pérez Jacinto, 2017), the structure of the different project management systems is analyzed for the construction of the best results in its application by the authors studied (Ajam, 2018; Aljamee and Naeem, 2020; Al Maamzi and Tawfik, 2022; Bushuiev and Kozyr, 2020; Bentley, 2020; Chimes, 2020; Fernández and Fernández, 2008; Gauthier and Ika, 2012; Gemino et al., 2021; Ika and Hodgson, 2014; Joslin and Müller, 2015; Jovanovic and Beric, 2018; Kononenko and Lutsenko, 2018; Kononenko and Lutsenko, 2019; Marcelino-Sádaba et al., 2014; McHugh and Hogan, 2011; Masciadra, 2017; Mousaei and Gandomani, 2018; Matos et al., 2019; Parker et al., 2013; Roudias, 2015; Reiff and Schlegel, 2022; Turner et al., 2010; Titov and Titova, 2022; Takagi and Varajão, 2022; Ungureanu and Ungureanu, 2014; Wysocki, 2010; Weinstein and Jacques, 2013; Zasa et al., 2020). To this end, it seeks to establish the construction project management system and its structure with greater consensus among the authors studied.

Based on these, binary matrices are established, and through the application of Ucinet for Windows (Software for Social Network Analysis [Ucinet], version 6.528) (Borgatti et al., 2002), the centrality (degree to which the structure and relationships of a network correlate with each other and between authors) of each of the analyzed components is established in descending order:

- Project management systems typology: Hybrid (Project management structure made up of different types of project management methodologies) [0.366]; Standard or traditional (Basic Project Management Structure) [0.268]; flexible (Easily modifiable project management structure) [0.098]; customized (Project management methodology according to the characteristics of the project) [0.098]; specialized [0.049]; and adapted (Project management structure tailored to the needs of the project) [0.049].
- Conformation of hybrid typology: Scrum [0.146]; prince 2 [0.125]; project management book of knowledge [PMBOK] [0.104]; agile [0.104]; waterfall [0.104]).
- Structure of the methodologies (phases): Implementation or creation [0.271], management of plans or planning [0.208], control or evaluation [0.188], closure

or termination [0.188], start of the project [0.188]).

On the other hand, Ahmad and Días (2021) argue that the set of tasks adds value to the administration of construction projects, since it provides greater benefit and organizational productivity. In this context, in the analysis of the structure that makes up each phase (processes and tools), the following is considered:

- The International Organization for Standardization [ISO] 21,500 deals with the introduction of the process, inputs and outputs of the project, and is aligned with PMBOK (International Standard Organization, 2003). The latter offers a more detailed image of the processes, tools and techniques (Čabarkapa, 2019; Varajão et al., 2017). Hence, as a complement to the organization of the detailed configuration of the construction project, in the present research ISO 21500 is considered, which presents 39 processes distributed in five phases (Takagi and Varajão, 2022); and
- Work tools that connect workflows within and across activities and work teams that integrate construction data and allow access to the required information when they need it (Allan, 2018).

From an empirical perspective, to apply empirical techniques, the methodology and steps presented in the research onion (Saunders et al., 2019) are followed (**Figure 1**).

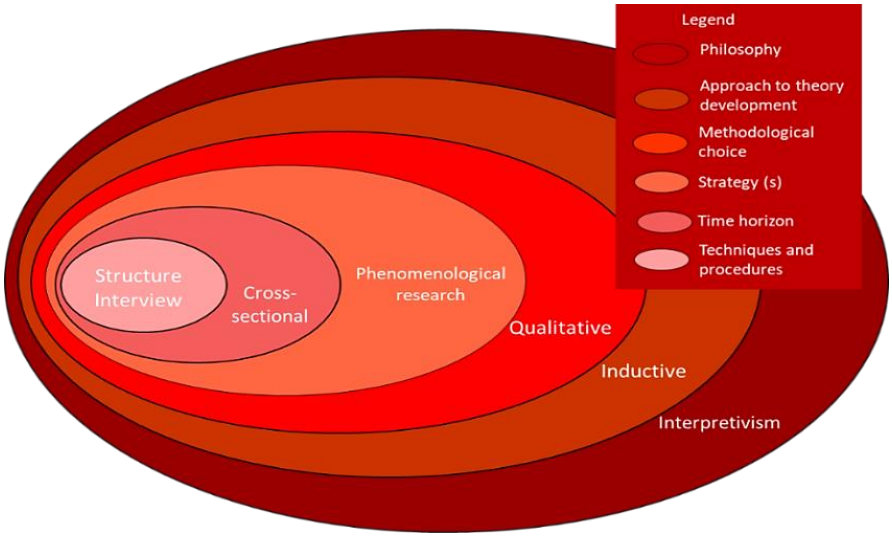

Figure 1. Methodology to follow.

Note: Saunders et al. (2019).

In this context, the primary data obtained from the interview technique are analyzed and evaluated by establishing a binary matrix and applying Ucinet for Windows (Software for Social Network Analysis) (**Figure 2**).

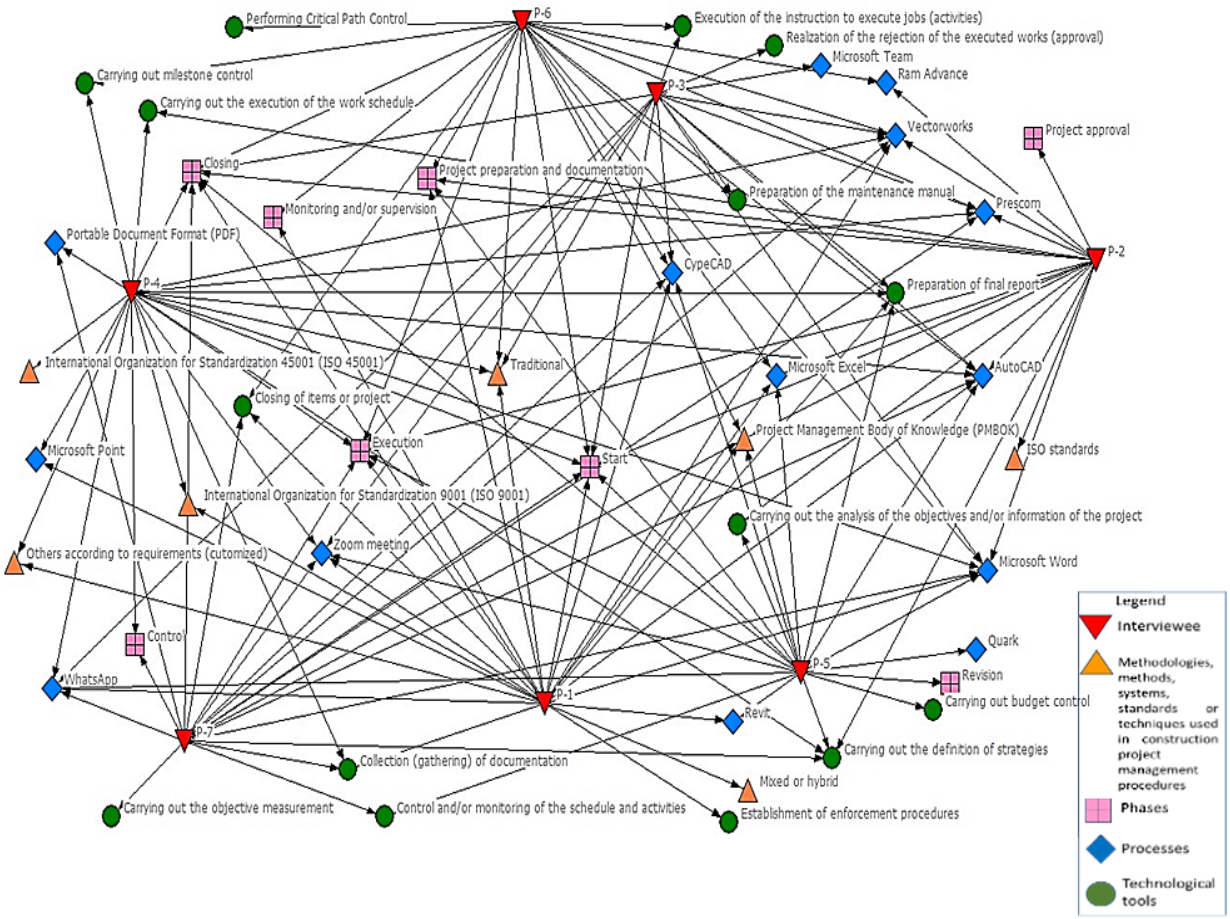

Figure 2. Centrality obtained of the elements that make up the configuration of a construction project resulting from the interview technique carried out.

These identify the components of greatest centrality, which are presented in descending order, within the project management system used by the main managers in the study area, which are:

- The methodologies and (or) methods that make up the hybrid typologies are PMBOK, traditional, ISO 9001, others.
- The phases that make up the methodologies and (or) methods are initiation, execution, closure and preparation of the project (planning), others.
- The processes that make up the phases are establishing project execution strategies, preparing the final report, carrying out the project closure, and collecting project documentation within the processes used, among others.
- Technical tools used: AutoCAD, Microsoft Word and Vectorworks, others.

On the other hand, the primary data obtained from the interview (questions established based on project management methodologies, their structure and those with the best results in their application to professionals with experience in the area) were analyzed using the MAX Qualitative Data Analysis [MAXQDA] computer program, which allows qualitative data to be analyzed. This allowed the following results to be established:

- Type of construction project management system: customized, hybrid, ISO 45,001, among others.
- Methodologies and (or) methods of project management: PMBOK, traditional,

ISO 9001, among others.

- Phases identified: Initiation, execution, closure and preparation of the project (planning).
- The processes used do not respond to the same methodology, but are a set of these and are collected from the project documentation, from the analysis of the project objectives, the establishment of strategies for the execution of the project, the execution of the project items (activities), the control of the project milestones, the closure of the project items, the preparation of the final report and the preparation of the maintenance manual, among others.
- Technological tools used are AutoCAD, Microsoft Word, WhatsApp, Zoom meeting, Prescom, CypeCAD, among others.

The organization of the configuration of a construction project is established in a sequential manner: Phases, activities, actions, work tasks. **Figure 3** shows the interrelation and interaction between its components, the premises, conditions and links that intervene and are required because of the study, analysis and research of the configuration of construction project management systems for better results in their application.

The phases are established and organized for successful management throughout the project execution process. These are established based on the evolution of the implementation process aimed at achieving the planned and programmed results and benefits of the project (**Figure 4**).

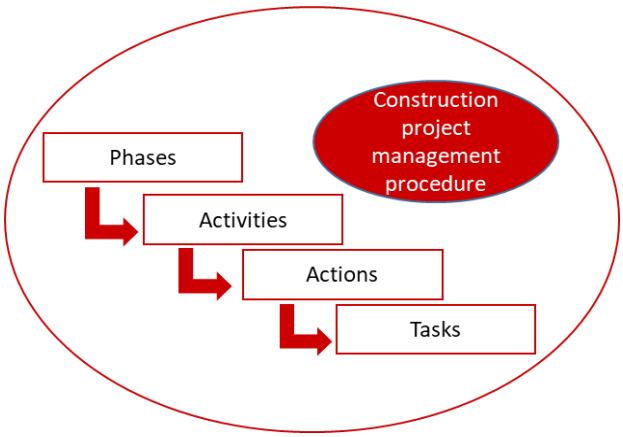

Figure 3. Base structure of the specific configuration of a construction project.
Note: Modified from Rojas Molina (2023).

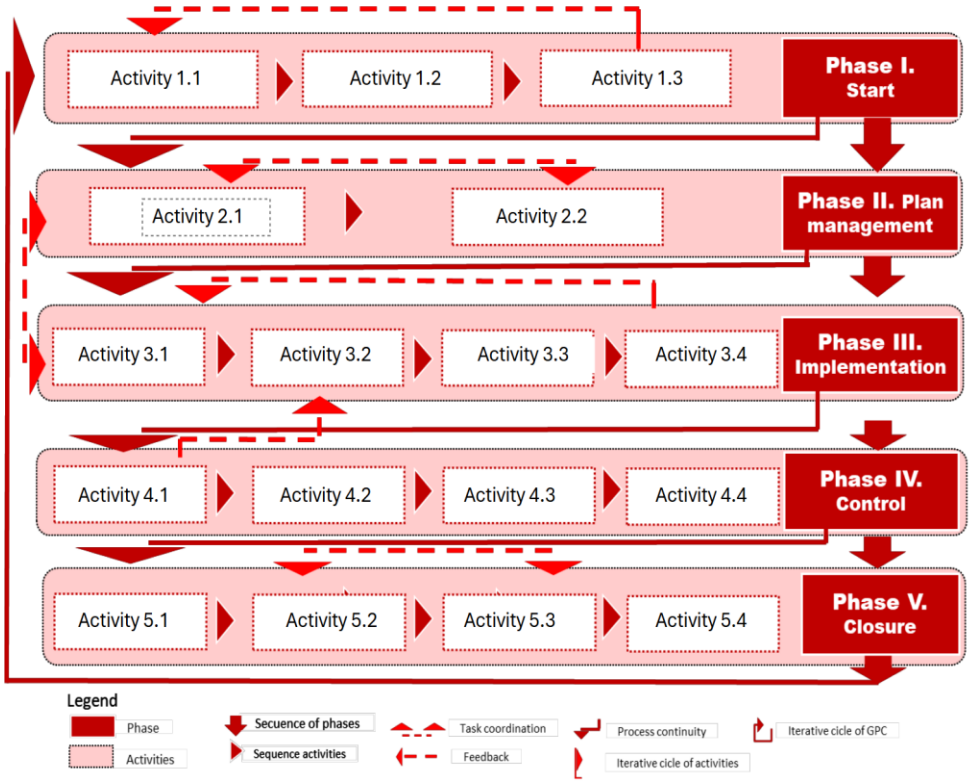

Figure 4. Organizational detail of the specific configuration of a construction project based on the methodologies analyzed according to the authors studied.

Note: Modified from Rojas Molina (2023).

Within each phase, activities are developed, which are interrelated and are aimed at developing the phases with precise objectives individually and collectively; and are made up of specific actions with established purposes for achieving the expected results. These actions structure the activities that concern them; and are organized efficiently aimed at the optimal use of resources: Human, material, economic; the use of regulations that regulate implementation processes; and local technical-construction parameters. In turn, work tasks are part of the actions when they require greater detail for the fulfillment of the process. These are specific and involve the use of work techniques: document collection, text analysis, observation, among others; evaluation and monitoring tools: technical sheets, forms, among others; software: AutoCAD, Revit, Microsoft Word, among others; and documents: Reports, reports, records, plans, among others.

3. Results

A specific and detailed configuration (phases, activities, actions and construction tasks) is modeled, obtained from the analysis, evaluation and systematization of the information collected from the theoretical and empirical methods used with the procedural way in which the construction project must be managed for the implementation of the Rojas Molina (2022) model; which reflects an interaction between all the phases, activities, actions and construction tasks established, according to the iterative cycles of continuous improvement and the

comparative and iterative feedback loops that occur in the development of the configuration of a construction project in general (Rojas Molina, 2023).

The specific configuration of the construction project responds to the particularity of the way of life of the Weenhayek indigenous people, in the way of building and preserving their habitat. Different guidelines were necessary to carry out the construction and rehabilitation project of their homes.

To do so, various established methods were integrated to develop other construction projects that are commonly carried out in any construction, which present a very varied classification, and respond according to their dimensions (cost, duration, equipment, etc.), type (new, maintenance, operational, others), application (software development, new products, among others), their complexity and uncertainty (Wysocki, 2010). This same author expresses that due to changes in applied construction technologies and the demands of the global project market, dozens of methodologies and methods have arisen (Agile, LEAN, PRINCE2, Project Management Body of Knowledge [PMBOK], Kanban methodology, Scrum methodology, among others), which offer a systemic order, digital tools, process-oriented approaches, methods on information processing, decision-making and support that impact the development of projects.

These varied ways of conceiving and executing projects allowed the present configuration, which in its conception was specifically designed to contribute to the implementation of social programs for the conservation of indigenous peoples in Bolivia, and specifically of the Weenhayek under the principles of new technologies and current construction methodologies focused on the elimination of unnecessary operations, reduction of consumption of materials and energy, reduction of data entry and processing errors, compliance with existing environmental standards, in addition to reflecting the benefits and profitability that they present in the long term.

This configuration of projects presented has the advantage of serving as a model for the rescue and conservation of other peoples, such as the Quechuas and Aymaras, with original and contemporary techniques. For example: It preserves the use of the technique of burying beams for the foundation where stones and geotextiles are added for greater resistance to climatic events; the technique of splashing mud for the walls that adds the use of geotextiles and nails for greater rigidity; the mud cake technique on the roof, which uses, in addition to traditional materials, plastic, zinc corrugated iron, metal mesh, thermal insulation and ventilation grille for better consistency; protection and thermal conditioning inside the house, among other aspects contemplated from the established configuration process.

The particularity of this configuration is also recognized by the incorporation of the stakeholders throughout the process, with the particularity of the Autonomous Municipal Government of Yacuiba; the native groups that contribute to the planning, organization and control of the process as a mediating entity between the government and the company executing its projects; which includes a set of plans, such as: management of benefits, participation of the stakeholders; and the environmental management plan. These differentiating components are transversalized in each of the phases configured for the rehabilitation and construction of native housing of the Weenhayek people. Therefore, this model is a tacit contribution to the manual of social housing construction of the Ministry of

Public Works, Services and Housing of Bolivia that establishes as one of the parameters of housing appropriate to cultural adjustment, where the expression of cultural identity is respected and considered. It also helps the Bolivian Guide for Building Construction that establishes typologies of basic housing aimed at low-income sectors (of social interest); as well as the Bolivian Construction Regulations, Technical Housing Standards-minimum quality and habitability conditions of the Vice Ministry of Urban Development and Housing, among other regulations issued by the Ministry of Economic Development and Ministry of Public Works of the Plurinational State of Bolivia.

3.1. Organization of the detailed configuration of the model construction project

The organized components of the established detailed configuration were established, which involve the use of evaluation and monitoring tools: tables, matrices, reports, reports, among others; work techniques: Interview, brainstorming, document collection, observation, among others; and different software: Microsoft Team, Autodesk Construction Cloud, Autodesk Revit, AutoCAD, among others. All of these are customized according to the requirements for the scope of the objectives of each phase.

In general, each phase developed presents its own characteristics, strategies and technical, economic and social tools adapted to the requirements and needs, in addition to legal and environmental parameters specific to the model's location area. The results for each phase are detailed below.

3.2. Detail of the structure of the construction project

3.2.1. First phase

The first phase, Start, defines the project guidelines to create the organizational conditions for the successful development of the rest of the organizational phases of the construction project configuration. It involves the use of evaluation and monitoring tools: Tables, matrices, reports, technical sheets, forms, summaries and emails; work techniques: interview, brainstorming, document collection, observation, text analysis, focus group, responsible matrix, accountable, matrix of strengths, opportunities, weaknesses and threats; and different software: Microsoft Word, Microsoft Excel, Microsoft Team, Portable document format (PDF), Autodesk Construction Cloud (ACC), Autodesk Revit and AutoCAD.

It is made up of three activities in sequential order (**Figure 5**), which are: selection and structuring of the work team, which defines who and how the work team is formed; the establishment of stakeholders, which establishes the parties that may affect or perceive themselves to be affected by a decision or activity in the project execution; and the collection of the technical and legal information of the project, which collects the technical, legal and financial information of the project necessary for the development of the project from beginning to end. The configuration of the phase is detailed below: activities, actions and work tasks.

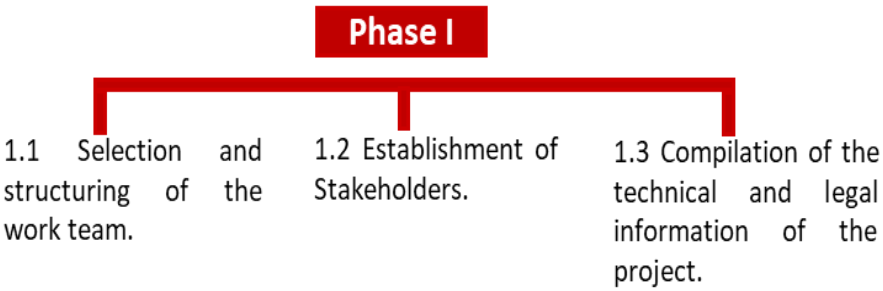

Figure 5. Phase I configuration diagram.

Note: Modified from Rojas Molina (2023).

Activity 1.1: Selection and structuring of the work team. Contains the following five actions:

1) Elaboration of the organization chart of the project and definition of functions;
2) Establishment of communication lines;
3) Appointment of staff of the Autonomous Municipal Government of Yacuiba;
4) Conduct of public bidding; and
5) Assignment of functions.

Activity 1.2: Establishment of stakeholders. It contains the following six actions:

1) Identification and evaluation of stakeholders;
2) Classification of interested parties and establishment of their interests in the execution of the project;
3) Determination of the degree of influence of stakeholders
4) Establishment of the media;
5) Establishment of the media calendar; and
6) Establishment of the schedule of meetings and visits.

Activity 1.3: Compilation of the technical and legal information of the project. It contains the following two actions:

1) Establishment of project characteristics, which includes the following ten work tasks: Preparation of the initial report; preparation of the justification of the project and the scope; preparation of the executive summary; establishment of technical parameters; establishment of financial parameters; establishment of legal parameters; establishment of phases, activities, actions and tasks; establishment of metrics for project control; establishing the duration of the project and the initial budget; and establishment of technical specifications.
2) Establishment of project execution strategy documents, which includes the following ten work tasks: Establishment of the benefits management plan; Establishment of the stakeholder engagement plan; establishment of the communication management plan; establishment of the work plan; establishment of the project control plan; establishment of the resource management plan; establishment of the supply chain strategic plan; establishment of the quality plan; establishment of the occupational health and safety plan; and establishment of the environmental management plan.

3.2.2. Second phase

Plan management is the second phase. This phase organizes, plans and establishes the content based on strategic guidelines of the established documents that make up the project. It involves the use of evaluation and monitoring tools: Work templates, plans, matrices, reports, technical sheets, forms, graphs, summaries and emails; work techniques: Gantt charts, program evaluation and review technique (PERT) method, precedence relationships, work breakdown structure, critical path, stakeholder map, decision matrix, baseline, brainstorming, document collection, observation, text analysis and focus group; and software: Microsoft Word, Microsoft Excel, Microsoft Team, Portable document format (PDF), Autodesk Construction Cloud (ACC), Autodesk Revit and AutoCAD.

It establishes the execution of two activities (**Figure 6**): The administration of the planning of the management of the success of the project, which plans the use of human, technical and economic resources involved in the project through strategies for the execution and control of the objectives; and the coordination of the integration and development of the project execution plans, which establishes how the development of the different plans established jointly for the successful administration of the project should be coordinated. The configuration of the phase is detailed below: Activities, actions and work tasks.

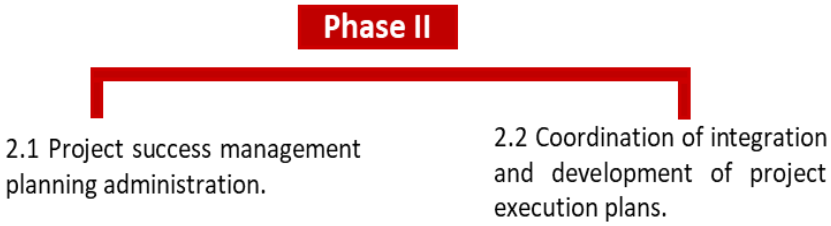

Figure 6. Phase II configuration diagram.

Note: Modified from Rojas Molina (2023).

Activity 2.1: Project success management planning administration, which includes the following three actions:

1) Task iteration coordination, which in turn contains the following six work tasks: Conduct the initial meeting of the project team, which includes the organizational structure of the community group; identification of the tasks to iterate; assignment of iteration managers; establishing the schedule of iterations; assignment of resources (human, material) for iterations; assignment of measurement indicators.
2) Administration of the work plan: scope, time, resources. With the following six work tasks: Preparation of the work breakdown structure; realization of the work schedule; development of the critical path of the project; evaluation and complementation of the technical specifications; preparation of work procedures; and assignment of those responsible for each procedure of the project items.
3) Budget management. With the following seven work tasks: Realization of the breakdown of materials, tools, equipment, and services for the project; evaluation and acquisition of quotes; establishment of personnel costs,

operating expenses, and administrative expenses; realization of the unit prices of the project; realization of the general budget of the project; carrying out the financial evaluation: Value-added network; internal rate of return; and establishment of the disbursement schedule.

Activity 2.2: Coordination of integration and development of project execution plans, which involves the action of: Management of the development of plans and baselines of the project, which in turn includes the following ten work tasks:

1) Preparation of the benefits management plan;
2) Preparation of the stakeholder participation plan;
3) Preparation of the communications management plan;
4) Preparation of the work plan;
5) Elaboration of the project control plan;
6) Preparation of the resource management plan;
7) Preparation of the supply chain strategic plan;
8) Preparation of the quality plan;
9) Preparation of the occupational health and safety plan; and
10) Preparation of the environmental management plan.

3.2.3. Third phase

The third phase is implementation. It starts and executes the different activities, actions and work tasks planned to comply with the plans and strategies planned and programmed to achieve the project objectives. It also involves decision-making in the face of unforeseen events or situations that could compromise the execution and scope of the project. It uses resources such as evaluation and monitoring tools: Work templates, plans, newsletters, work guides, matrices, lists, reports, technical sheets, forms, graphs, summaries and emails; work techniques: Choosing goals, training, delegating responsibilities, work schedule, decision matrix, baseline, brainstorming, observation, text analysis and focus group; and software: Microsoft Word, Microsoft excel, Microsoft team, Portable document format (PDF), Autodesk Construction Cloud (ACC), Autodesk Revit and AutoCAD.

It establishes the execution of four activities (**Figure 7**), which are: The implementation of the work teams and project tasks at the construction site, which implements the actions and tasks planned and scheduled to execute the project at the construction site, as well as the functions of the members of the work team as established in the previous phases; the application of the strategic plan of the supply chain, which implements the parameters and strategies for the execution of the different resources to be used in the project (materials, services and tools) and ensures the supply of resources during the execution time of the project; the execution of the creation of deliverables, which executes the creation of deliverables to ensure the scope of the planned and scheduled objectives of the project; and the implementation of the continuous review of the status of the work tasks, which implements the continuous review, monitoring and control of the different work tasks to achieve the established project objectives and results.

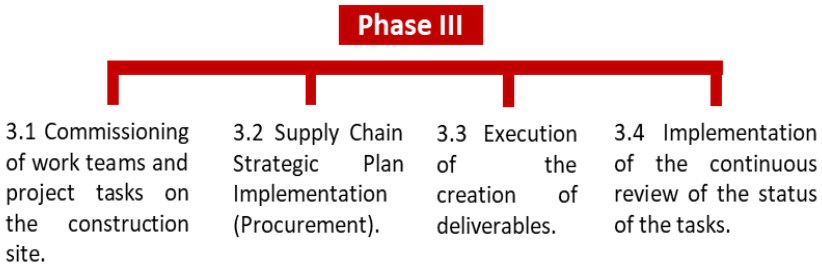

Figure 7. Phase III configuration diagram.

Note: Modified from Rojas Molina (2023).

The phase configuration is detailed below: Activities, actions and work tasks, which are:

Activity 3.1: Commissioning of work teams and project tasks on the construction site. It contains the following five actions:

1) Implementation of the work plan, which includes the following six work tasks: Delimitation of the work site and the different work areas. In addition to the installation of tasks; construction site inspection; carrying out the initial meeting, coordination, and socialisation of the work plan with the work team; carrying out staff training; implementation of copies of the work plan in the work areas; and carrying out the opening of the record book of work orders, meeting minutes and requirements.
2) Implementation of the quality plan, which includes the following six work tasks: Installation of the soil and topography laboratory; coordination meeting and socialisation of the quality plan with the work team; carrying out staff training; implementation of copies of the quality plan in work areas; requirement of quality certificates for materials, equipment and instruments; and realization of the opening of the book of records of quality procedures.
3) Application of the occupational health and safety plan. which includes the following seven work tasks: Installation of the occupational health and safety office; organization of the occupational health and safety plan coordination and socialisation meeting with the work team; carrying out staff training; Implementation of copies of the occupational health and safety plan in work areas; requirement of equipment calibration and maintenance certificates; implementation of signage on safety and health measures at work; and provision of personal protective equipment to the team and work personnel.
4) Implementation of the environmental management plan, which includes the following five work tasks: Organization of the coordination and socialisation meeting of the environmental management plan with the work team; conducting staff training; implementation of copies of the environmental management plan in work areas; implementation of signage on environmental measures; and establishment of recycling areas and garbage deposits.
5) Execution of the stakeholder participation plan, which includes the following five work tasks: Installation of the social coordination office; organization of the coordination and socialization meeting of the stakeholder participation plan; implementation of copies of the stakeholder participation plan in work areas;

provision of the participation plan to all stakeholders; and carrying out the opening of the meeting and attendance minutes book.

Activity 3.2: Supply chain strategic plan implementation (Procurement). It includes the following eight actions:

1) Establishment of the warehouse or deposit of materials, tools, equipment;
2) Organization of the supply chain strategic plan implementation coordination and socialization meeting with the work team;
3) Establishment of input requirement forms;
4) Prepare the list of materials, tools, instruments, equipment, and services required by the project;
5) Making quotes and requests for proposals for service supplies or others;
6) Selection and establishment of suppliers;
7) Acquisition of inputs; and
8) Carrying out the deposit of materials in the warehouse.

Activity 3.3: Execution of the creation of deliverables. It includes the following five actions:

1) Realization of the coordination meeting with the work team to disseminate the work plan and the benefits management plan;
2) Establishment of the prioritisation of deliverables;
3) Appointment of those responsible for the deliverables;
4) Implementation of copies of the work plan, the benefits management plan, and the list of deliverables in each work area; and
5) Implementation of the deliverable forms in each work sector.

Activity 3.4: Implementation of the continuous review of the status of the tasks. It includes the following five actions:

1) Coordination meeting and socialization of the project control plan with the work team;
2) Establishment of the standards, indicators and scope requirements of the processes to be carried out;
3) Appointment of those responsible for continuous reviews;
4) Implementation of the copies of the deliverables in the work areas; and
5) Realization of opening the record books of deliverables in the workplaces.

3.2.4. Fourth phase

Control is the fourth phase. It monitors, supervises, controls and adjusts and controls in the different work tasks that comprise the execution of the project; as well as allows comparing the planned data and values with the data and values in execution to identify possible deviations from the planned goals and scopes to amend them. In this phase, evaluation and monitoring tools intervene: Work templates, plans, matrix, reports, technical sheets, forms, graphs and summaries; work techniques: data collection sheet, stratification, control charts, data analysis matrix, relationship diagram, arrow diagram, decision process diagram, affinity diagram, work schedule, stakeholder matrix, decision matrix, observations, notes, change orders, modifying contracts and work orders; and software: Microsoft Word, Microsoft Excel, Microsoft Team, Portable document format (PDF), Autodesk Construction Cloud (ACC), Autodesk Revit and AutoCAD.

It establishes four activities in its execution (**Figure 8**) which are: Supervision of project implementation, which monitors and supervises the project implementation process to control the strategies and plans established in the different phases of the project, and also allows to detect possible risks and opportunities, make decisions to redirect the different activities, execute preventive or corrective measures, and accept or reject the activities carried out; inspection of project control work, which inspects and verifies the different project control mechanisms such as milestones, performance indicators, among others, to detect possible deviations during the execution of the different work tasks, and also allows to reduce the uncertainty of the project's success, guarantee compliance and scope of the established objectives, and make decisions such as preventive or corrective measures; monitoring of the work plan, which monitors and controls the use of resources in reference to the times and costs assigned to the different items planned and scheduled in the work schedule, in addition to the procedures and strategies established within the work plan; and the supervision of the benefits management plan, which monitors the execution and compliance with the different procedures and parameters established in the benefits management plan to ensure the obtaining of the benefits and (or) scopes expected as a result of the execution of the project.

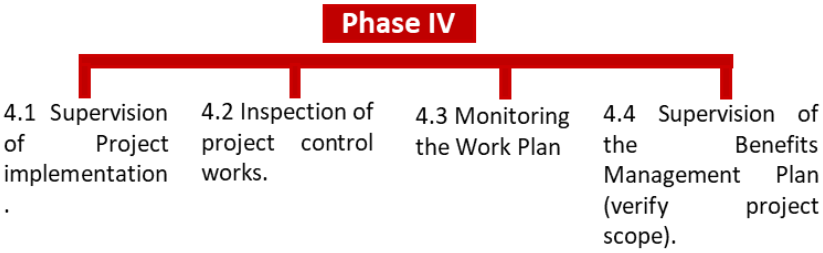

Figure 8. Phase IV configuration diagram.

Note: Modified from Rojas Molina (2023).

The configuration of the phase is detailed below: activities, actions and work tasks, which are:

Activity 4.1: Supervision of project implementation. Contains the following eight actions:

1) Carrying out the initial inspection of the works in progress according to the schedule established in the project control plan;
2) Requirement of periodic reports of each area of the project;
3) Review of compliance with strategic plans;
4) Control of compliance with procedures;
5) Making observations of the tasks, making reports and submitting inspection forms;
6) Updating the status of strategic plans;
7) Acceptance or rejection of the executed or running tasks; and
8) Carry out instructions for modifications, improvements, or adding tasks during the execution of the project.

Activity 4.2: Inspection of project control works. Includes the following five actions:

1) Carrying out budget control. Includes the following five work tasks: Requirement of updated periodic reports of the tasks carried out, expenses incurred, and registration of deposits in the warehouse; preparation of periodic reports of the executed budget; update of the general budget; realization of the analysis and evaluation of the current data with the programmed ones; and making budget increases and/or decreases to the project upon request from the technical party and approval of the entity.
2) Realization of time control. Includes the following six work tasks: Realization of the request for updated periodic reports of the times executed by each task; assessment of compliance with control mechanisms for the execution of tasks; work plan update; realization of the analysis and evaluation of the current data with the planned and programmed ones; modification and/or adjustment of the execution time of the tasks; and extension and/or reduction of the time upon request of the technical part for approval of the municipal entity.
3) Carrying out quality control. Includes the following seven work tasks: Inspection of quality certificates for materials, instrument calibration certificates, and equipment and machinery maintenance certificates. Also, staff training records; review of the procedures carried out and the comparison with those established in the quality plan; approval or rejection of the executed tasks; carrying out the analysis and evaluation of the procedures in execution or planned and making modifications and/or complement missing procedures; requirement of reports to those responsible for the different tasks of the project; verification of the quality standards achieved of the results obtained; and carrying out routine and unforeseen controls.
4) Carrying out the control of the occupational health and safety plan at work. Includes the following seven work tasks: Carrying out the inspection of the work procedures of health and safety at work executed, in execution, and programmed. Also, staff training records; stoppage of tasks in case of non-compliance with the procedures established in the occupational health and safety plan; carrying out the analysis and evaluation of the procedures in execution or planned, and making modifications, and/or complementing missing procedures; review of the training technical sheets of daily tasks; realization of the request for reports to those responsible for the different tasks; verification of the occupational health and safety standards achieved in the tasks carried out or in progress; and carrying out routine and unforeseen controls.
5) Conduct environmental management plan monitoring. It includes the following eight work tasks: Carry out the inspection of executed, ongoing and scheduled environmental work procedures. Also, staff training records; stoppage of tasks in case of non-compliance with the procedures established in the environmental management plan; carrying out the analysis and evaluation of the procedures in execution or planned and making modifications and/or complementing missing procedures; review of the daily task training technical sheets; realization of the request for reports to those responsible for the different tasks; verification of environmental management standards applied; supervision of environmental mitigation tasks; and carrying out routine and unforeseen controls.

Activity 4.3: Monitoring the work plan. Contains the following eight actions:

6) Carrying out inspections of the work procedures of works executed, in execution, and program. In addition to staff training records;
7) Carrying out the analysis and evaluation of the work procedures in execution or planned and making modifications and/or complement missing procedures;
8) Stoppage of tasks in case of non-compliance with procedures established in the work plan and requirement of repetition of tasks in case it corresponds;
9) Requirement of progress reports to those responsible for the different tasks;
10) Coordinating tasks with the financial advisor to control economic resources in the work schedule;
11) Carrying out the analysis, evaluation, verification, and update of the project work schedule, critical path, and established milestones;
12) Adjusting and modifying the work schedule before authorization and technical-administrative request; and
13) Carrying out routine and unforeseen controls.

Activity 4.4: Supervision of the benefits management plan (verify project scope). Contains the following seven actions:

1) Carrying out inspections of the results obtained from the execution of the tasks;
2) Requirements for reporting results to those in charge of the project areas;
3) Carrying out the analysis, evaluation, and comparison of the results obtained between the requested reports, the inspection reports, and those established at the beginning of the project;
4) Approval or rejection of the scope obtained (benefits);
5) Execution of preventive or corrective measures if the benefits to be obtained are compromised;
6) Making changes to the benefits management plan based on the results of the reports, inspections, or changes made and/or requested during project inspections; and
7) Carrying out routine and unforeseen controls.

3.2.5. Fifth phase

The fifth and final phase is project closure. It closes the project by completing the different actions and work tasks, and evaluating the results and benefits obtained from each of the plans established for the execution of the project. It involves resources such as evaluation and monitoring tools: Work templates, as-built plans, matrices, reports, technical sheets, forms, graphs and summaries; work techniques: data collection sheet, data analysis matrix, relationship and observation diagram; and software: Microsoft Word, Microsoft Excel, Microsoft Team, Portable document format (PDF), Autodesk Construction Cloud (ACC), Autodesk Revit and AutoCAD.

This activity involves four activities (**Figure 9**) which are: Closing the project according to the scope of the tasks, which completes the different tasks that make up the project in the time established in the work plan or according to whether the planned and programmed objectives have been achieved, and in addition to the assigned and planned resources; the preparation of the final report, which establishes a document that provides a summary of the status of the project to compare the progress and achievements in relation to the expected objectives and scope; it also reflects the benefits and objectives achieved, and the final technical documents of the

execution of the different tasks of the project; the preparation of the maintenance manual, which prepares a document with parameters, measures, procedures and references to preserve the products obtained from the execution of the project; and the completion of the delivery and obtaining of the acceptance of the project, which carries out the delivery of the results obtained from the execution of the project to the client through the final report for its acceptance.

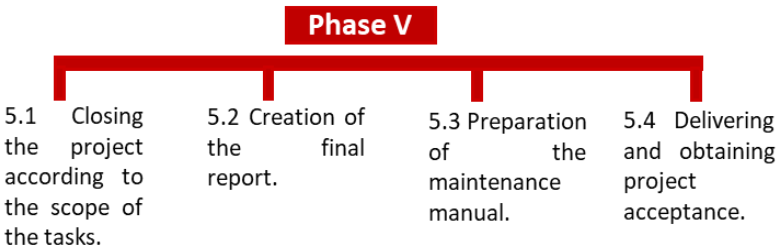

Figure 9. Phase V configuration diagram.

Note: Modified from Rojas Molina (2023).

The phase configuration is detailed below: Activities, actions and work tasks, which are:

Activity 5.1: Closing the project according to the scope of the tasks, which involves the action of: Completion of benefit plan closing. Contains the following five work tasks:

1) Requirement of the final report to all those in charge of the project areas;
2) Holding the closing meeting with the entire work team to coordinate the scope of the benefits obtained;
3) Carrying out the evaluation and comparison of the results obtained with the indicators established in the strategic plans;
4) Preparation of the final report on benefits achieved in all project areas (quality, occupational health, safety, environmental, among others); and
5) Communication and socialization of the results obtained presented in the final report.

Activity 5.2: Creation of the final report, which involves the action of: Preparation of the lessons learned report. Includes the following four work tasks:

1) Requirement of the report of lessons learned to all work team members;
2) Closing meeting with the entire work team to coordinate the lessons learned;
3) Evaluation for the analysis, summary, and establishment of the final report of lessons learned; and
4) Communication and socialisation of the results obtained presented in the final report of lessons learned.

Activity 5.3: Preparation of the maintenance manual. Contains the following nine actions:

1) Establishment of the functional areas that make up the project;
2) Requirement of as built plans;
3) Definition of the objectives;
4) Determination of assets that require maintenance;
5) Establishment of technical personnel that provide and carry out the maintenance service;

6) Establishment of technical procedures for preventive and/or corrective maintenance, if applicable;
7) Establishment of the maintenance schedule based on the project life cycle;
8) Establishment of the budget; and
9) Establishment of indicators for monitoring, control and review of maintenance.

Activity 5.4: Delivering and obtaining project acceptance. Contains the following five actions:

1) Preparation of the document with all the information generated from the project approved by all those in charge of the different areas of the project;
2) Realization of the final socialization of the project to all stakeholders;
3) Carrying out the final inspection of the project executed with all stakeholders;
4) Complementation of the final report of the project according to observations of the inspection and socialization; and
5) Request for project approval from the client.

Likewise, this organization of the detailed configuration of the construction project for the Weenhayek housing, presents a process of feedback and continuous improvement, with the purpose of applying this configuration based on the lessons learned and carrying out a review of the executed project, and (or) validating the results according to the procedure. This allows identifying weaknesses during the project execution process, establishing corrections within the planning of the different phases, adjusting in the activities, actions and work tasks; all of these, based on the typology and purpose of the project to be executed, and implementing in other types of projects or similar ones. In this way, at the end of the configuration from the closing of this (activity 5.4, phase V) to its beginning (activity 1.1, phase I), according to **Figure 4**.

4. Discussion

The results presented show the feasibility of using the contributions of previous research (Allan, 2018; Ahmad and Días, 2021; Borgatti et al., 2002; International Standard Organization, 2003) in its methodological scope, and in turn incorporate the methodological peculiarities that allow incorporating and responding to the peculiarities that require the execution of construction projects while respecting and responding to the housing needs of the people of the Weenhayek community, in accordance with the methodological proposal of Rojas Molina (2023). The proposed configuration integrates the previous contributions and incorporates the peculiarities of the homes of the Weenhayek community, which favors the social development of the community while allowing the identity traits of the aforementioned culture to be preserved, as well as better participation in the construction of their homes.

5. Conclusions

The organization of the implementation process for the detailed configuration of a construction project for the Weenhayek housing adaptation model is established. It presents components that interrelate and interact with each other through five phases, organized in a sequential and progressive order, composed of 17 activities. These respond to precise objectives individually and collectively, in accordance with the

established scope of each phase; and are complemented by 84 actions for the success of each phase.

These actions have established organized purposes for the efficient use of the resources assigned to the project during its execution, the use of regulatory standards of the different implementation processes and technical-constructive parameters in the scope of execution of the project. In turn, this implementation process structures 120 work tasks developed in a concrete way and defined as part of the actions that present greater detail for the achievement of their objectives, according to the purpose of the project.

This detailed configuration implies an alternative on how to execute the model developed by Rojas Molina (2022) based on project management methodologies with the best results in its application for the conservation and maintenance of traditional Weenhayek houses in Bolivia, and implies a configuration structure adaptable to the characteristics of different projects. On the other hand, it establishes the basis for future research in reference to other construction models, and other types of alternatives for the configuration of different projects in the region.

Author contributions: Conceptualization, JMRM and LMZI; methodology, LMZI and RPC; software, RMV, GGV and RPC; validation, ASR, RPC and YFO; formal analysis, JMRM; investigation, JMRM, LMZI, GGV and ASR; resources, ASR; data curation, JMRM, GGV and RMV; writing—original draft preparation, JMRM; writing—review and editing, ASR and LMZI; visualization, RMV and GGV; supervision, RPC; project administration, RPC. All authors have read and agreed to the published version of the manuscript.

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Conflict of interest: The authors declare no conflict of interest.

References

Addyman, S., Pryke, S., Davies, A. (2020). Re-Creating Organizational Routines to Transition Through the Project Life Cycle: A Case Study of the Reconstruction of London's Bank Underground Station. Project Management Journal, 51(5), 522–537. https://doi.org/10.1177/8756972820943436

Ahmad, N., Días, K. (2021). Validating "Data Validation". Computer, 54(10), 129–132. https://doi.org/10.1109/MC.2021.3099045

Ajam, M. (2018). Project Management Beyond Waterfall and Agile. CRC Press.

Al Maamzi, J., Tawfik, T. (2022). The effectiveness of agile management on traditional projects within public organisations. In: Proceedings of the Creative Construction Conference (CCC 2021); 28–30 June 2021; Budapest, Hungary.

Aljamee, H.K., Naeem, S. (2020). The benefits of applying project management methodology on project delay: A study in construction projects in Iraq. In: Proceedings of the Fourth Scientific Conference for Engineering and Postgraduate Research; 16–17 December 2019; Baghdad, Iraq.

Allan, B. (2018). Project management: tools and techniques for today's ILS professional. Cambridge University Press.

Aparicio-Effen, M., Arana, I., Aparicio, J., et al. (2016). Climate Change and Health Vulnerability in Bolivian Chaco Ecosystems. In: Filho, W. L., Azeiteiro, U. M., Alves, F. (editors). Climate change management. Springer-Verlag Publishing.

Axelos. (2020). Effective Project Management: The PRINCE2 method, 6th ed. TSO Publishing.

Bellicoso, A., Berti, K., Nuñez, M. J. A. (2025). The Active Conservation of an Andalusian Patio House: A Project Experience Between Italy and Spain. In: Corrao, R., Campisi, T., Colajanni, S., et al. (editors). Proceedings of the 11th International Conference of Ar.Tec. (Scientific Society of Architectural Engineering). Springer Publishing.

Belling, S. (2020). Succeeding with Agile Hybrids: Project Delivery Using Hybrid Methodologies. Apress L.P.

Benevolenskiy, A., Roos, K., Katranuschkov, P., Scherer, R. (2012). Construction processes configuration using process patterns. Journal of Advanced Engineering Informatics, 26(4), 727–736. https://doi.org/10.1016/j.aei.2012.04.003

Bentley, C. (2020). Adaptable Project Management—A Combination of Agile and Project Management for All (PM4A). IT Governance Publishing.

Bērziša, S., Vangelski, L., Zorc, A., et al. (2015). Platform for Management of Business and Educational Projects. Procedia Computer Science, 77, 26–134. https://doi.org/10.1016/j.procs.2015.12.369

Borgatti, S. P., Everett, M. G., Freeman, L. C. (2002). Ucinet 6 for Windows: Software for Social Network Analysis. Analytic Technologies.

Bushuiev, D., Kozyr, B. (2020). Hybrid Infrastructure Project Management Methodologies. Innovative Technologies and Scientific Solutions for Industries, 1(11), 35–43. https://doi.org/10.30837/2522-9818.2020.11.035

Čabarkapa, J. (2019). Analysis and comparison of ISO 21500-Guidance on project management and PMBOK 6th Guide. In: Proceedings of the 5th IPMA SENET Project Management Conference (SENET 2019); 19–21 May 2019; Belgrade, Serbia.

Carlton, D. W., Perloff, J. M. (2015). Modern Industrial Organization, 4th ed. Pearson Global Editions.

Dawson, C., Ashmore, P. (2025). Quantifying geomorphic form variation for assessing habitat complexity of river restoration designs. Ecological Engineering, 210, 107437. https://doi.org/10.1016/j.ecoleng.2024.107437

Dinsmore, P., Cabanis-Brewin, J. (2011). The AMA Handbook of Project Management, 3th ed. AMACOM American Management Association.

Ebekozien, A., Ahmed, M. A. H., Aigbavboa, C., et al. (2024). Appraising the impact of climate change on construction activities: Are the Nigerian practitioners prepared? Journal of Infrastructure, Policy and Development, 8(6), 3861. https://doi.org/10.24294/jipd.v8i6.3861

García, J., Echeverry, D., Mesa, H. (2013). Project Management. Application to building construction projects (Spanish). Universidad de los Andes.

Gauthier, J.-B., Ika, L. A. (2012). Foundations of Project Management Research: An Explicit and Six-Facet Ontological Framework. Project Management Journal, 43(5), 5–23. https://doi.org/10.1002/pmj.21288

Gemino, A., Horner Reich, B., Serrador, P. M. (2021). Agile, Traditional, and Hybrid Approaches to Project Success: Is Hybrid a Poor Second Choice? Project Management Journal, 52(2), 161–175. https://doi.org/10.1177/8756972820973082

González-Gaudiano, E. J., Maldonado-González, A. L. (2017). Climate hazards and risks in vulnerable populations. The role of education in community resilience (Spanish). Teoría de la Educación. Revista Interuniversitaria, 29(1), 273–294. https://doi.org/10.14201/teoredu291273294

Guerra Vera, C. (2015). Ensuring value in construction projects: Proposal for a configuration management system in construction projects (Spanish) [PhD thesis]. Pontificia Universidad Católica del Perú.

Habitat for Humanity Argentina-Samsung. (2016). Towards housing solutions in the Gran Chaco (Spanish). Available online: https://issuu.com/hphargentina/docs/diagnostico_gran_chaco_hpha2015 (accessed on 2 June 2024).

Herrera Castillo, C. N., Picado Aráuz, D. J. (2016). Proposal for housing with autonomous characteristics located in the Pacific and Atlantic regions of Nicaragua (Spanish) [Master thesis]. Universidad Centroamericana.

Ika, L. A., Hodgson, D. (2014). Learning from international development projects: Blending Critical Project Studies and Critical Development Studies. International journal of project management, 32(7), 1182–1196. https://doi.org/10.1016/j.ijproman.2014.01.004

International Standard Organization. (2003). ISO 10007-2003. Quality management systems-Guidelines for configuration management. ISO.

Joslin, R., Müller, R. (2015). Relationships between a project management methodology and project success in different project governance contexts. International Journal of project management, 33(6), 1377–1392. https://doi.org/10.1016/j.ijproman.2015.03.005

Jovanović, P. M., Berić, I. M. (2018). Analysis of the Available Project Management Methodologies. Management: Journal of Sustainable Business and Management Solutions in Emerging Economies, 23(3), 1–13. https://doi.org/10.7595/management.fon.2018.0027

Kapoor, G., Singhal, M. (2025). Impact of Building Form on Energy Efficiency of Residential Buildings in Composite Climatic Regions. In: Varma, A., Chand Sharma, V., Tarsi, E. (editors). Proceedings of the 2nd International Conference on Trends in Architecture and Construction. ICTAC 2024. Springer Publishing.

Karmila, L., Rachmiatie, A., Fardiah, D., et al. (2024). The role of social media in the political construction of identity: Implications for political dynamics and democracy in Indonesia. Journal of Infrastructure, Policy and Development, 8(14), 9171. https://doi.org/10.24294/jipd9171

Kononenko, I., Lutsenko, S. (2018). Evolution of the generalised body of knowledge on Project management. Bulletin of NTU 'KhPI'. Series: Strategic Management, Portfolio, Program and Project Management, 1(1277), 10–17. https://doi.org/10.20998/2413-3000.2018.1277.2

Kononenko, I., Lutsenko, S. (2019). Application of the Project Management Methodology Formation's Method. Organizacija, 52(4), 286–308. https://doi.org/10.2478/orga-2019-0018

Marcelino-Sábada, S., Pérez-Ezcurdia, A., Echeverria-Lazcano, A., Villanueva, P. (2014). Project risk management methodology for small firms. International Journal of Project Management, 32(2), 327–340. https://doi.org/10.1016/j.ijproman.2013.05.009

Masciadra, E. (2017). Traditional Project Management. In: Knowledge and Project Management. Springer Publishing. pp. 3–23.

McHugh, O., Hogan, M. (2011). Investigating the rationale for adopting an internationally recognized project management methodology in Ireland: The view of the project manager. International Journal of Project Management, 29(5), 637–646. https://doi.org/10.1016/j.ijproman.2010.05.001

Mejía Montoya, J. W., González, S. A., Vargas, J. J., Rios, R. (2024). Environmental Expectations, Socioeconomic Demands and Sustainability of the Zapatosa Marsh, Colombia: Perspectives from Local Stakeholders. Sustainability, 16(24), 10806. https://doi.org/10.3390/su162410806

Mousaei, M., Gandomani, T. J. (2018). A New Project Risk Management Model based on Scrum Framework and Prince2 Methodology. International Journal of Advanced Computer Science and Applications, 9(4), 2018. http://dx.doi.org/10.14569/IJACSA.2018.090461

Parker, D., Charlton, J., Ribeiro, A., Pathak, R. D. (2013). Integration of project-based and change management: Intervention methodology. International Journal of Productivity and Performance Management, 62(5), 534–544. https://doi.org/10.1108/IJPPM-10-2012-0108

Pérez Mínguez, J. B., Sabador Moreno, A. (2013). Design Quality in Construction (Spanish). Díaz de Santos Publishing.

Prasetyo, G., Sutanto, M. E., Putra, A. M., et al. (2024). Insights and challenges of sustainable project management implementations in construction sectors: Systematic literature analysis. Journal of Infrastructure, Policy and Development. 8(10), 8104. https://doi.org/10.24294/jipd.v8i10.8104

Project Management Institute. (2016). Requirements Management. Project Management Institute.

Reiff, J., Schlegel, D. (2022). Hybrid project management–a systematic literature review. International Journal of Information Systems and Project Management, 10(2), 45–63. https://doi.org/10.12821/ijispm100203

Ribera, F., Rainero, C., Neri, G., Cucco, P. (2025). Heritage, Identity and Nationality. The Italian Club in Rosario, Santa Fe: An International Research Experience Italy-Argentina (Spanish). In: Corrao, R., Campisi, T., Colajanni, S., et al. (editors). Proceedings of the 11th International Conference of Ar.Tec. (Scientific Society of Architectural Engineering). Springer Publishing.

Riveros Hurtado, C. F. (2005). Construction project management indicators (Spanish) [PhD thesis]. Universidad de los Andes.

Rodríguez Jiménez, A., Pérez Jacinto, A. O. (2017). Scientific methods of inquiry and knowledge construction (Spanish). Revista Escuela de Administración de Negocios, (82), 175–195. https://doi.org/10.21158/01208160.n82.2017.1647

Rojas Molina, J. M. (2022). Model for adaptation to climate change in traditional dwellings of the Weenhayek people. Gran Chaco Province, Bolivia (Spanish) [PhD thesis]. Universidad Internacional Iberoamericana.

Rojas Molina, J. M. (2023). Configuration of a construction project for Weenhayek housing [Master thesis]. University of the West of England.

Roudias, J. (2015). Mastering Principles and Practices in PMBOK, PRINCE2, and Scrum: Using Essential Project Management Methods to Deliver Effective and Efficient Projects (FT Press Project Management). Ft Pr Publishing.

Saunders, M., Lewis, P., Thornhill, A. (2019). Research Methods for Business Students, 8th ed. Pearson Global Editions.

Sépulveda Rivillas, C. I. (2020). Project management: antecedents and consequences in the context of the project and the organization [PhD thesis] (Spanish). University of Valencia.

Snyder, C. (2017). A project manager's book of forms: a companion to the PMBOK guide, 6th ed. John Wiley & Sons Publishing.

Takagi, N., Varajão, J. (2022). ISO 21,500 and success management: an integrated model for project management. International Journal of Quality & Reliability Management, 39(2), 408–427. https://doi.org/10.1108/IJQRM-10-2020-0353

Titov, S., Titova, N. (2022). Hybrid project management methodologies signify organisational ambidexterity. Management Sciences, 12(2), 55–67. https://doi.org/10.26794/2304-022x-2022-12-2-55-67

Turner, R., Ledwith, A., Kelly, J. (2010). Project management in small to medium-sized enterprises: Matching processes to the nature of the firm. International Journal of Project Management, 28(8), 744–755. https://doi.org/10.1016/j.ijproman.2010.06.005

Uher, T., Loosemore, M. (2004). Essentials of construction project management. New South Publishing.

Ungureanu, A., Ungureanu, A. (2014). Methodologies used in Project Management. Annals of Spiru Haret University. Economic Series, 14(2), 47–54. https://doi.org/10.26458/1425

United Nations Environment Programme. (2017). Climate Change Vulnerability and Impact Assessment in the Gran Chaco Americano. UNEP.

Valle, B., Velázquez, J., Gülçin, D., et al. (2024). The Design and Application of a Regional Management Model to Set Up Wind Farms and the Adaptation to Climate Change Effects—Case of La Coruña (Galicia, Northwest of Spain). Land, 13(12), 2201. https://doi.org/10.3390/land13122201

Varajão, J., Colomo-Palacios, R., Silva, H. (2017). ISO 21,500: 2012 and PMBoK 5 processes in information systems project management. Computer Standards and Interfaces, 50, 216–222. https://doi.org/10.1016/j.csi.2016.09.007

Verga Matos, P., Romão, M., Miranda Sarmento, J., Abaladas, A. (2019). The adoption of project management methodologies and tools by NGDOs: A mixed methods perspective. Journal of Business Research, 101, 651–659. https://doi.org/10.1016/j.jbusres.2019.01.067

Weinstein, J., Jacques, T. (2013). The government manager's guide to project management. Berrett-Koehler Publishers.

Williams, T, (2010). Construction Management: Emerging Trends and Technologies. Delmar Cengage Learning Publishing.

Wysocki, R. K. (2010). Effective Software Project Management. John Wiley & Sons Publishing.

Zasa, F. P., Patrucco, A., Pellizzoni, E. (2020). Managing the Hybrid Organization: How Can Agile and Traditional Project Management Coexist? Research-Technology Management, 64(1), 54–63. https://doi.org/10.1080/08956308.2021.1843331