

# Maximizing Agricultural Impact: A Desk Review of Stakeholder Engagement in Donor-Funded Public Sector Projects in Zambia

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## Abstract

Agriculture is a cornerstone of Zambia's socio-economic development, employing 51% of the labor force and providing a primary food source for over half of the population, predominantly through smallholder farming. This desk review professionally examines the critical role of stakeholder engagement in the successful implementation of donor-funded agricultural projects in Zambia, where reliance on external aid can often overshadow local ownership of development initiatives. Using an expert review methodology, this study synthesizes literature from peer-reviewed journals, project reports, and case studies to analyze stakeholder engagement practices and their impact on project outcomes. Findings reveal that, in such contexts, projects frequently encounter challenges that disrupt intended outcomes, underscoring the importance of effective stakeholder engagement. Results show that insufficient understanding of stakeholder expectations and inconsistent involvement frequently lead to project delays, unmet objectives, and diminished impact. Drawing on insights from similar international projects, particularly within African contexts, this review identifies common causes of implementation delays and effective engagement strategies that improve project outcomes. The findings emphasize that prioritizing stakeholder involvement is essential for achieving sustainable and impactful development results. Policy recommendations include the integration of the 4P framework and tailored stakeholder engagement strategies to enhance community buy-in, ensure relevance, and promote long-term benefits in Zambia's agricultural sector.

## Keywords

Delays, Project Implementation, Donor-Funded Agricultural Projects, Stakeholder Engagement, Agricultural Stakeholder Coordination

## 1. Introduction

Agriculture stands as a foundational sector underpinning the economic development of many nations, and Zambia is no exception. The Zambian government, with support from international donors, has increasingly sought to leverage agriculture as a means to reduce poverty, improve food security, and diversify its economy away from dependence on copper production. With a series of donor-funded projects implemented across various sectors—including agriculture, industry, water, sanitation, and energy—Zambia has benefited from over USD 1 billion in investments from the African Development Bank since 1971 [1]. However, despite these significant financial inflows, delays have frequently hindered the timely implementation of agriculture-focused donor-funded projects. Understanding and addressing these delays is crucial to ensure that funds are utilized effectively to achieve intended developmental outcomes.

In recent decades, many developing countries, including Zambia, have relied on donor funding to advance key projects across diverse sectors such as Water and Sanitation, Education, Social Welfare, and Agriculture. As defined by the [2], a project is a temporary endeavor to create a unique product, service, or result, typically with a definitive beginning and end. This temporality implies that a project concludes once objectives are either met or deemed unattainable. Yet, many donor-funded projects face persistent challenges, particularly during implementation, where delays often result in missed objectives and reduced impact. Within Zambia's agriculture sector, the consequences of such delays are acutely felt, given the sector's potential to improve food security, create employment, and enhance rural livelihoods.

Agriculture remains a crucial component of Zambia's economy, especially for rural areas. While the sector employed 48% of the working population as of 2017, its contribution to the Gross Domestic Product (GDP) has declined, dropping from 17.3% in 2004 to 8.2% in 2017 [3]. This downward trend highlights a significant challenge, as low labour productivity within agriculture and barriers to accessing productive assets, improved technologies, and markets have perpetuated subsistence farming as the norm [4]. The need for a comprehensive approach involving stakeholder engagement is paramount. Active involvement of other stakeholders such as farmers, beneficiaries, co-operatives, farmers unions and local authorities is essential not only to introduce new technologies and practices but also to ensure these align with farmers' needs and aspirations, ultimately supporting sustainable project outcomes [5].

Effective stakeholder engagement is central to maximizing the impact of agricultural initiatives. By fostering open communication and involving stakeholders at each stage of project development, donor-funded projects can better identify and address the specific needs of communities, leading to more effective interventions. As [6] notes, the modern concept of agriculture encompasses a broad range of activities, from crop production to forestry and livestock management. Realizing this vision of agriculture as a dynamic economic driver hinges on robust stake-

holder engagement practices that align project objectives with the broader goals of sustainable and inclusive growth. Achieving long-term growth in Zambia's agriculture sector requires the commitment and active participation of stakeholders across multiple levels. The [7] emphasized that the growth of Zambia's agriculture sector is crucial to realizing the country's Vision 2030—an efficient, competitive, and export-driven agricultural sector that ensures food security and higher incomes. Thus, the need for structured, meaningful stakeholder engagement cannot be overstated, especially when donor-funded projects have the potential to catalyse transformative changes in rural communities.

The Government of Zambia recognizes agriculture as a cornerstone of economic development, with initiatives such as the Farm Block Development Program, Livestock Breeding Centres, and Aquaculture Development Projects spearheaded to drive sectoral growth [8]. Despite this, persistent challenges like poverty and project delays impede progress toward sustainable development. [9] highlights that between 2006 and 2021, public projects in Zambia experienced recurring issues, including cost overruns, quality concerns, and delays during implementation. This pattern has prompted both past and current Zambian Presidents to appoint special project monitoring units to address these recurring challenges [10] [11]. Notably, while Zambia continues to secure financial resources for development, there is growing concern over the efficiency and effectiveness of project execution in the agriculture sector.

This desk review examines how stakeholder engagement influences the implementation of donor-funded agricultural projects in Zambia, with the goal of providing insights for improving project outcomes. Four major projects in the Livestock and Aquaculture sub-sectors, Agriculture and Rural Development (*i.e.* Enhanced Smallholder Livestock Investment Programme, Cashew Infrastructure Development Project, Livestock Development and Animal Health Project and Zambia Aquaculture Enterprise Development Project). The study investigates factors that affect stakeholder engagement and their impact on project delays. Specifically, it explores how different engagement approaches (such as participatory versus top-down) affect project success, the role of the 4P factors (Project, Practices, Participants, Procurement) in shaping stakeholder engagement, lessons learned from case studies that help mitigate delays, and tailored recommendations for improving stakeholder engagement in future donor-funded agricultural projects in Zambia.

## 2. Methodology

This section outlines the study design, data collection sources, analytical framework, and data analysis procedures for the desk review. The study aims to assess stakeholder engagement in donor-funded agricultural projects and its impact on project delays in Zambia. The methodology presents a clear, structured approach to analyzing stakeholder engagement, providing valuable insights into the factors that influence project success and delays.

## 2.1. Study Design

This study followed a qualitative desk review methodology, synthesizing existing literature, reports, and case studies related to stakeholder engagement in donor-funded agricultural projects. The review incorporated peer-reviewed articles as well as grey literature, including reports, policy documents, and project evaluations. This approach enabled a professional examination of existing knowledge, offering a broader perspective from non-peer-reviewed sources. The review followed a professional review methodology; instead, it utilized a narrative review approach, synthesizing key themes and insights from a variety of sources.

## 2.2. Data Collection Sources and Procedures

The data for this study was sourced from a variety of materials, including peer-reviewed journal articles obtained from academic databases such as Google Scholar, JSTOR, and Scopus, case studies that highlight the experiences of donor-funded agricultural projects in Zambia and other similar sub-Saharan African countries, project and policy reports from donors, government agencies, and NGOs offering insights into project outcomes and stakeholder engagement in Zambia, and grey literature, including project evaluations, white papers, and research briefs.

To ensure the relevance and quality of the sources, inclusion criteria focused on materials published within the past 10 years, with a geographic emphasis on Zambia and other sub-Saharan African countries with comparable agricultural contexts. Exclusion criteria removed any outdated or irrelevant sources, and those not directly related to agricultural projects. The following search terms were used: “stakeholder engagement”, “donor-funded agricultural projects”, “Zambia”, “project delays”, and “agricultural development”.

## 2.3. Analytical Framework: The 4P Framework

The analysis was guided by the 4P framework for project success and delays, which encompasses four core components: project-related factors, focusing on issues related to project design, objectives, and execution; practices, referring to the methods and processes used in project implementation; participants, which involves the roles and interactions of stakeholders, including donors, government officials, and local communities; and procurement, which covers the processes of selecting and managing suppliers and contractors.

This framework was adapted to the context of agricultural projects in Zambia to examine how stakeholder engagement influences project outcomes. The 4P framework was particularly suitable for this analysis due to its flexibility in capturing the multi-faceted nature of stakeholder relationships and project challenges.

## 2.4. Data Analysis Procedures

The analysis utilized thematic content analysis, a qualitative technique for identi-

ifying and interpreting patterns (themes) within the data. The process involved several steps: first, data familiarisation, where the collected literature was reviewed to gain a comprehensive understanding of key themes; second, code development, where an inductive approach was used to create codes from the literature, allowing new themes to emerge, while predefined codes based on the 4P framework also guided the analysis; third, theme identification, where recurring issues related to stakeholder engagement, project delays, and the interaction between various project components were identified; and finally, interpretation, where the identified themes were analyzed to discern the main factors contributing to delays in donor-funded agricultural projects in Zambia. To facilitate the analysis, NVivo software was used to assist with coding and data management, ensuring an expert approach to handling and analyzing the literature.

### 3. Results

#### 3.1. Strategies for Effective Stakeholder Engagement in Implementing Donor-Funded Agricultural Development Projects in Zambia

[12] introduced the 4P concept—encompassing project-related factors, practices, participants, and procurement—as a structured framework to identify and analyse within the internal environment of the project development process [13]. This framework highlighted that delays are often discussed as isolation, lacking comprehensive methods for analyzing delay sources. Validated through literature synthesis, the 4P framework addresses this gap by professionally categorizing delay sources. Although originally applied in the construction sector [14] [15], it has broader applicability in other sectors, such as agriculture, where delays impact food security and rural livelihoods [3].

In Zambia, where agriculture is critical for development, applying the 4P framework could provide insight into delays specific to donor-funded agricultural projects, including coordination challenges, procurement delays, and management issues [5]. Combining the 4P framework with stakeholder engagement strategies could further enhance project outcomes, as stakeholder engagement fosters alignment with local needs [16] [17]. This combined approach would be particularly relevant in addressing agriculture-specific issues in Zambia, such as input access and market linkage constraints [9].

#### 3.2. A Comprehensive Analysis of Engagement Approaches in Public Sector Agriculture

##### 3.2.1. Implementation of Donor-Funded Projects in Ghana and Mali

[18] examined implementation challenges for African Development Bank-funded projects in Ghana and Mali. Based on a review of 53 projects, findings indicated common issues like poor Quality-at-Entry (QAE), weak control mechanisms, and cognitive biases in project management, which significantly contribute to project failure. Addressing these issues through improved design and oversight could en-

hance project outcomes and sustainability in donor-funded initiatives, providing lessons applicable to Zambian agricultural projects.

### **3.2.2. Implementation of Donor-Funded Projects in Ethiopia**

[19] studied donor-financed projects in Ethiopia's public sector, focusing on European Union cooperation. Findings revealed challenges such as high staff turnover, low salaries, complex donor regulations, limited capacity, and reporting delays. These insights underline the need for improved engagement practices, stronger project ownership, and enhanced capacity. [20] further identified factors critical to success, including intellectual capital, effective planning, personnel competencies, and strong stakeholder engagement. These findings highlight the importance of structured stakeholder involvement for successful project implementation.

### **3.2.3. Implementation of Donor-Funded Projects in Kenya**

[21] and [22] both examined factors affecting the implementation of donor-funded projects in Kenya, identifying stakeholder involvement as a key factor in project success. Both studies emphasized the negative impact of donor conditions, inadequate skills, and procurement delays on project outcomes. Streamlining procurement and involving stakeholders are crucial to improving the effectiveness of donor-funded projects.

## **3.3. Exploring the Influence of Stakeholder Participation on Project Success and Sustainability**

### **3.3.1. Stakeholder Engagement**

According to the [2], stakeholders include all project team members and other interested entities, both internal and external. Stakeholders must be identified across various dimensions—internal versus external, positive versus negative, and performing versus advising—to understand project requirements and expectations. Effective stakeholder engagement goes beyond listening; it involves building collaborative relationships to achieve mutually beneficial outcomes. Neglecting stakeholder interests, especially negative ones, can lead to increased risks of project failures and delays. Therefore, managing stakeholder expectations is a key responsibility for project managers, as it ensures that diverse objectives are balanced and that engagement continues iteratively throughout the project lifecycle [23] [24].

### **3.3.2. Supplier/Contractor Selection**

In Zambia, public sector procurement, including supplier and contractor selection, follows the guidelines of the Public Procurement Act No. 8 of [25], and Public Procurement Act No. 17 of 2023, and the Public Procurement Regulations Statutory Instrument No. 30 of 2022, with specific guidelines for donor-funded projects depending on the funder's agreements with the government.

Supplier selection, as defined by [26] is a process through which buyers identify and evaluate potential suppliers to ensure they meet the project's needs while of-

fering value for money. This involves assessing suppliers based on criteria such as quality, reliability, and past performance. The Chartered Institute of Procurement and Supply [27], supplier selection is essential for choosing the best supplier that offers value for money and can efficiently meet the organization's needs. The growing importance of effective supplier relationships fosters long-term cooperation, helping to mitigate risks and enhance benefits for both parties. [27] highlights that structured supplier selection processes strengthen consistency, foster long-term cooperation, and build trust between organizations and suppliers. Properly conducted supplier selection can help mitigate procurement inefficiencies, positively impacting project performance [28]. Further, as highlighted by [29] the challenges of poor supplier performance in Zambian projects especially the rural areas can be addressed through increasing incentives, supplier training and continuous development.

### **3.4. Challenges and Opportunities in Stakeholder Collaboration for Agricultural Progress**

#### **3.4.1. Contract Management**

According to the Public Procurement Act No. 8 of [25], a contract is defined as an agreement between a procuring entity and a supplier for the provision of goods, works, or services. The [30] defines a contract as an enforceable agreement that establishes mutual obligations. For a contract to be legally binding, certain fundamental requirements must be satisfied, including mutual assent (expressed through a valid offer and acceptance), adequate consideration, capacity, and legality.

The [30] defines a contract as an agreement between parties that creates mutual obligations enforceable by law. For an agreement to be legally enforceable, certain basic requirements must be met, including mutual assent expressed through a valid offer and acceptance, adequate consideration, capacity, and legality.

Management, as defined by McFarland, cited in [31], involves the process through which managers create, direct, maintain, and operate purposeful organizations through systematic and coordinated cooperative human effort. [32] describes contract management as the process of creating, implementing, and reviewing contracts. As organizations grow, contract management becomes increasingly complex, necessitating effective strategies and processes. It is essential to focus on both the pre-award and post-award stages of contract management, as large-scale, high-value contracts come with significant associated risks. A poorly managed contract can lead to substantial financial losses, while a well-structured contract can enhance business relationships and create considerable value.

[33] note that scientific research underscores the various roles and effects of contracts, suggesting that their primary function is to facilitate coordination and control among the parties involved. They further define contract management as the creation, execution, and analysis of the contract. [34] emphasize that contract management is frequently inadequately addressed, with a predominant focus on post-award actions necessary to ensure suppliers compliance. The World Bank, as



cited by [34], highlights that effective contract management is crucial for ensuring that suppliers, contractors, or consultants meet their commitments concerning time, cost, quality, and other agreed-upon parameters. Effective contract management entails systematic planning, execution, monitoring, and evaluation to ensure fulfillment of contractual obligations, ultimately aiming to achieve value for money and desired outcomes.

The [35] affirms that contract management is a multi-stage process that continues throughout the duration of the contract, ensuring that parties meet their obligations and achieve the specific objectives outlined. As discussed, effective contract management is vital for the successful and timely implementation of various projects.

### 3.4.2. Comparative Analysis of Research Studies

**Table 1** presents a comparative analysis of four studies focusing on challenges in implementing donor-funded development projects. Each study investigates different factors contributing to project failures, including project quality, human resources, stakeholder engagement, and procurement processes.

1) [18]: This study seeks to uncover the underlying reasons for International Development Project (IDP) failures. It identifies predictors of failure and their impacts through secondary research. Findings indicate that poor project quality, weak structures, and cognitive biases contribute significantly to failures. However, it does not address stakeholder engagement, supplier selection, or contract management.

2) [19]: This study investigates challenges in Ethiopian public sector projects funded by the European Union. It highlights critical issues such as unmotivated staff, complex donor procedures, and beneficiary involvement. Although the study uncovers important factors affecting project success, it similarly overlooks stakeholder engagement, supplier selection, and contract management.

3) [21]: This research examines the influence of project management on implementing donor-funded projects in Busia County, Kenya. It assesses factors such as monitoring and evaluation, managerial influences, and stakeholder empowerment. While it acknowledges stakeholder engagement, it does not explore contract management or supplier selection.

4) [22]: This study investigates factors affecting donor-funded projects within Kenya's Ministry of Transport and Infrastructure. It focuses on donor conditions, procurement issues, and project management skills. Findings indicate that donor conditions and procurement factors negatively impact project timelines and objectives. Like the previous studies, it fails to consider stakeholder engagement, supplier selection, and contract management.

Overall, this comparative analysis reveals a recurring theme across these studies: while various factors are recognized as contributors to donor-funded project success or failure, critical areas like stakeholder engagement, supplier selection, and contract management are largely neglected. This highlights the need for future research to address these gaps, offering a more comprehensive understanding of the dynamics influencing project outcomes in international development contexts.



**Table 1.** Summary of research studies on challenges in international development projects (IDPs).

No.	Reference	Author/Year	Purpose	Objectives	Methods	Findings	Gap
1	The underlying reasons why International Development Projects (IDPs) Fail: The case of African Development Bank (Adb)-Funded Projects	[18]	To uncover the underlying reasons why IDPs fail.	<ul style="list-style-type: none"> <li>Identify those underlying reasons of IDP failure that have significant correlation with IDP failure (predictors of IDP failure).</li> <li>Find out how the identified significant underlying reasons of failure impact IDP failure</li> </ul>	Desk Review (Secondary research)	Poor project Quality-at-Entry (QAE), weak project structure, poor control mechanisms, weak implementation capability and cognitive bias as the underlying reasons for their failure of major concern.	The study did not consider stakeholder engagement, supplier selection and contract Management as areas of major concern.
			To investigate the Challenges of Donor Financed Development Project in Ethiopian Public Sector at federal level the case of European Union Cooperation	<ul style="list-style-type: none"> <li>To explore the Challenge that exists in public sector development projects financed by EU.</li> <li>To see weather donors rules and procedures are correctly applied or not at public sector.</li> <li>To assess the involvement of beneficiaries during the project design.</li> <li>To examine the cause of underutilization of EU Development funds at public sector.</li> <li>To evaluate the influence of monitoring and evaluation on effective implementation of donor funded development projects in Busia County in Kenya.</li> <li>To assess the influence of managerial factors on effective implementation of donor funded development projects in Busia County in Kenya.</li> <li>To investigate the influence of empowerment of primary stakeholders on effective implementation of donor funded development projects in Busia County in Kenya.</li> <li>To assess the influence of factors attributed to donor behavior on effective implementation of donor funded development projects in Busia County in Kenya.</li> </ul>	Mixed approach	Most important for unsuccessful implementation of development project in Ethiopian public sector were: unmotivated project staff, high turnover of project staff, low salary scale, rigged and complex nature of donor rules and procedures, lack of capacity of project planner, inappropriate project manager, lack of strong ownership of a project, delays of progress and implementation report, unclear lines of authority and responsibility due to structural of the organization, and so forth	The study considered more of human resources and procedural issues. Hence it did not consider stakeholder engagement, supplier selection and contract Management as areas of major concern
3	Project management and effective implementation of donor funded development projects in Busia County, Kenya	[21]	To investigate the influence of project management on effective implementation of donor funded projects in Busia County, Kenya	<ul style="list-style-type: none"> <li>To assess how conditions imposed by donors influence implementation of donor funded projects.</li> <li>To investigate how procurement related factors influence implementation of donor funded projects</li> <li>To determine influence of skills in project planning and management on implementation of donor funded projects</li> </ul>	Descriptive research design	All the four factors examined were key in influencing effectiveness of projects implementation of donor funded development projects in Busia County, Kenya	Although the study touched on stakeholder engagement, it did not look at contract management and supplier selection as areas of major concern.
4	Factors influencing Implementation of Donor Funded Projects In Government Ministries: A Case of Ministry of Transport and Infrastructure - Kenya.	[22]	To investigate factors influencing implementation of donor funded projects in government: a case of Ministry of Transport and Infrastructure.	<ul style="list-style-type: none"> <li>To assess how conditions imposed by donors influence implementation of donor funded projects.</li> <li>To investigate how procurement related factors influence implementation of donor funded projects</li> <li>To determine influence of skills in project planning and management on implementation of donor funded projects</li> </ul>	Descriptive research design for open ended questions with a survey used as a method of collecting data	Donor conditions, inadequate skills and procurement process negatively affected the project implementation. Donor funded projects were not completed on time and objectives were not always achieved. Project cost escalated during the procurement process. Project commencement date were always experiencing delays hence affecting the implementation of the projects	The study did not consider stakeholder engagement, supplier selection and contract Management as areas of major concern.

### 3.5. Insights into Stakeholder Contributions to Agricultural Innovation and Growth

Stakeholder engagement is pivotal in the success of donor-funded agricultural projects, with numerous studies emphasizing its role in project implementation and adaptation processes. According to [36] stakeholders are divided into internal and external groups. Internal stakeholders include organizational members such as employees and executives, while external stakeholders encompass a broader community and societal members, including customers, suppliers, and government bodies. [37] further stress that stakeholder involvement is essential to project fulfillment, with effective stakeholder management being necessary to avoid hindrances.

The [2] highlights that stakeholders consist of both internal and external members, and successful project outcomes depend on managing their diverse influences. ISO 26000, as referenced by [38], aligns with this view, stating that stakeholders have interests in an organization's activities and that stakeholder engagement should aim for dialogue and informed decision-making. Furthermore, neglecting adverse stakeholder interests increases the risk of project delays or failures, as the [2] notes.

The engagement of stakeholders throughout the project cycle, rather than just at the onset, is essential for successful outcomes. [23] recognize that involving stakeholders in vulnerability assessments and adaptation interventions enhances adaptation success. [24] underscores that stakeholder engagement should be an ongoing process, addressing evolving concerns and incorporating new perspectives throughout project implementation.

## 4. Discussion

The implementation of donor-funded agricultural projects in Zambia presents both opportunities and challenges that can significantly impact food security and poverty alleviation. The integration of effective stakeholder engagement, structured frameworks such as the 4P model, and robust procurement practices is paramount to overcoming these challenges and enhancing project outcomes.

### 4.1. Stakeholder Engagement as a Catalyst for Success

Effective stakeholder engagement is foundational to the success of agricultural projects, aligning the objectives of various parties and reducing potential conflicts. Research emphasizes that stakeholder engagement should be a continuous process, rather than a one-time task [2]. This perspective is particularly relevant in the context of Zambia, where diverse stakeholder interests—including government agencies, local communities, NGOs, and private sector players—can complicate project dynamics. For instance, [24] and [23] argue that iterative engagement, which encourages ongoing dialogue and feedback, is essential for project adaptability. This approach not only fosters trust but also empowers stakeholders by making them active participants in the project's lifecycle.

However, managing conflicting stakeholder objectives remains a complex challenge. In Zambia's socio-economic landscape, where inequalities and diverse priorities exist, project managers must possess the skills to balance these interests effectively. Engaging stakeholders from the project's inception allows for a more nuanced understanding of their needs and perspectives, enabling project teams to adapt strategies accordingly [24]. Such inclusivity not only maximizes positive outcomes but also enhances the sustainability of agricultural initiatives by ensuring they are grounded in the realities of the communities they aim to serve.

#### **4.2. The Role of the 4P Framework in Project Implementation**

The 4P framework—People, Processes, Projects, and Performance—emerges as a valuable model for enhancing project delivery in the Zambian agricultural sector, as highlighted by [12]. By tailoring this framework to local contexts, project teams can address common challenges such as inadequate project design and procurement delays that frequently hinder project effectiveness. Research from other African countries, including Ghana, Mali, Ethiopia, and Kenya, corroborates these findings, revealing that similar challenges persist across diverse contexts [39] [40]. Further, the 4P concept could help address the issues raised by [41], which documented widespread corruption in procurement processes across African countries. This can be done through enhancing training of the personnel involved in project implementation, and strengthening the processes and procedures.

Integrating the 4P framework with effective stakeholder engagement strategies can enhance community buy-in and project relevance. This alignment not only fosters a sense of ownership among local stakeholders but also ensures that project objectives resonate with community needs, which is critical for long-term sustainability [40].

#### **4.3. Procurement Practices and Contract Management**

Robust procurement practices are integral to the successful execution of donor-funded projects. In Zambia, adherence to public procurement regulations promotes transparency and accountability, which are essential for building stakeholder trust. As noted by [42], collaboration with suppliers is crucial for fostering innovation, efficiency, and shared success in procurement. Furthermore, [42] agrees with [43] that maintaining long-term supplier partnerships requires focus on commitment, communication, cooperation, and trust, and that these elements are essential for enhancing procurement performance and ensuring that relationships with suppliers remain strong and resilient over time.

Moreover, effective contract management is crucial for ensuring projects are delivered on time, within budget, and to the expected quality standards. [44] indicates that contract management is an art of risk management, which is a key aspect of project management therefore, successful contract execution depends on making appropriate strategic and informed decisions, sufficient funding, assembling competent teams, maintaining positive stakeholder relationships, fostering

adaptability, promoting proactive measures, and having a supportive regulatory framework. Additionally, there is need for clear communication and alignment among project stakeholders to ensure a cohesive approach for effective contract administration and performance management [44]. By prioritizing these practices, agricultural projects can better achieve their objectives and contribute to broader development goals.

## 5. Lessons Learned and Best Practices for Sustainable Project Implementation

According to [45], project management has increasingly become an integral part of various organizations, including corporations, defense and security forces, governments, and social and political organizations. Many companies and governments have incurred significant financial losses due to project failures. These substantial losses have prompted organizations to focus on identifying the causes of project failures and developing strategies to ensure project success. Project failure is a widely discussed topic among management professionals, governments, political and social organizations, as well as researchers and project managers [45]. The need for sustainable project management cannot be overemphasized.

The introduction of the 4P concept—encompassing project-related factors, practices, participants, and procurement—provides a structured framework to systematically identify, analyze, and classify delays within the internal environment of the project development process. As noted by [12], this framework serves as a best practices tool for understanding sources of delays and offering a theoretical lens for their analysis and classification. When well-planned and coordinated to analyze the internal environment, this approach can lead to sustainable project implementation both now and in the future.

Additionally, a close examination of the issues identified by [18] as significant predictors of project failure—including poor project quality at entry, weak control mechanisms, and cognitive biases—can further enhance best practices for sustainable project implementation in Zambia’s agricultural sector. [20] provided a comprehensive analysis of engagement approaches in the Ethiopian public sector, highlighting the importance of structured stakeholder engagement, effective communication channels, and a clear division of roles in managing donor-funded projects. Addressing these factors can significantly improve donor-funded project outcomes, offering valuable insights for similar agricultural initiatives in other developing countries, including Zambia.

The studies conducted by [22] and [21] in Kenya underscore the critical importance of stakeholder involvement, adequate skills, and streamlined procurement processes in enhancing the effectiveness of donor-funded projects in the public sector. While there is a substantial emphasis on policy frameworks from both donors and recipient governments, strong local ownership and adaptability, along with thorough consultation during project planning and throughout the project lifecycle, are essential for successful project outcomes.

To achieve these goals, it is imperative that those entrusted with project management responsibilities devise robust stakeholder engagement policies to avoid delays during project implementation. This includes:

**1) Early and Continuous Stakeholder Engagement:** Involving stakeholders from the outset helps ensure that their perspectives and needs are considered, fostering ownership and commitment to project objectives.

**2) Capacity Building and Skills Development:** Investing in training and capacity-building initiatives for local stakeholders enhances their ability to effectively contribute to project implementation and sustainability.

**3) Transparent Procurement Processes:** Streamlined and transparent procurement practices not only build trust among stakeholders but also mitigate risks associated with delays and inefficiencies.

**4) Monitoring and Evaluation Mechanisms:** Implementing robust monitoring and evaluation frameworks allows for continuous assessment of project progress, facilitating timely adjustments and enhancing overall effectiveness.

**5) Leveraging Technology:** Utilizing technology and digital tools can improve communication, streamline processes, and enhance stakeholder participation, leading to more effective project management.

By adopting these best practices, stakeholder engagement in Zambia's agricultural sector can enhance the sustainability and success of donor-funded projects, ultimately contributing to improved agricultural productivity and development outcomes. Further, stakeholders such as the local authorities plays an essential component in the process of devolution [46].

## 6. Limitations of the Study

The main limitation of the study was its focus on stakeholder engagement in donor-funded agricultural projects within the public sector in Zambia. The private sector and other fields may have different perspectives on stakeholder engagement compared to the agricultural public sector. However, the public sector provides a more holistic view, as it plays a central role in acquiring and disbursing donor funding for agriculture [5]. Additionally, the study relied on secondary data sources, which may have overlooked current developments in practice, limiting the ability to generalize the findings. Several limitations affected the scope and applicability of the findings. Firstly, **generalizability** posed a challenge, as while the review drew from international contexts, applying some findings directly to Zambia's unique socio-political and economic environment was difficult. Secondly, **literature scope** limited the breadth of insights, as the availability of relevant studies, particularly those focused on Zambia, was limited. Moreover, some sources lacked detailed project-level data, making it difficult to draw definitive conclusions regarding the causes of project delays. Lastly, **bias in available literature** was a concern, as the reliance on published studies and reports may have introduced publication bias, with an overrepresentation of projects that had positive outcomes.



## 7. Conclusion and Recommendations for Future Research

In conclusion, the synthesis of studies underscores the importance of prioritizing stakeholder engagement, enhancing procurement practices, and improving contract management to address the challenges faced by donor-funded agricultural projects in Zambia. Effective stakeholder engagement is essential for maximizing agricultural impact in these projects and is recognized as a critical success factor. The literature reviewed highlights the necessity of incorporating a multi-stakeholder approach, emphasizing the design of development-oriented processes that facilitate social learning and foster long-lasting impacts.

Key issues relevant to the Zambian context—such as adaptability, project ownership, and sustainability—underscore the need for a paradigm shift away from the traditional mindset of handouts. Early identification and engagement of stakeholders allow for meaningful interactions and information exchange, which are vital in defining problems, designing solutions, implementing interventions, and ensuring sustainability beyond the project's lifespan. Without effective stakeholder engagement prior to implementation, interventions may struggle to achieve sustainability, often being imposed by project managers without a thorough understanding of local needs and contexts.

Furthermore, rather than reinventing the wheel, efforts should focus on strengthening existing initiatives through the introduction of new technologies and financing strategies. This approach ensures that stakeholder engagement becomes an integral, ongoing process throughout project implementation, ultimately leading to successful project delivery.

To further enhance the implementation of donor-funded agricultural projects, continued research in these areas is essential to bridge existing gaps in the literature and provide actionable insights that can improve project outcomes. Future studies should explore innovative engagement strategies that incorporate technology and social media to enhance stakeholder participation. Additionally, assessing the long-term impacts of robust procurement practices on project sustainability is vital.

Lastly, documenting lessons learned from both failures and successes in stakeholder engagement serves as a vital resource for future agricultural projects. Such documentation provides valuable insights into effective practices and helps create a framework for addressing common challenges, thereby reducing the likelihood of delays and failures in future implementations. Prioritizing stakeholder engagement is fundamental to enhancing agricultural development outcomes in Zambia, ensuring that projects are delivered effectively and are sustainable and beneficial to the communities they aim to serve.

## Supplementary Material

The authors declare that all the data and materials used in this study are sufficiently included within the manuscript and therefore no further data or link to the data will be provided.

## CRediT Authorship Contribution Statement

**MZ:** Writing—review & editing, original draft preparation, visualization, validation, software development, methodology design, investigation, data curation, conceptualization, coordination, formal analysis, and project supervision.

**ES:** Writing—review & editing, original draft preparation, visualization, software implementation, methodology development, investigation, conceptualization, formal analysis, and data validation.

**ES and EMM:** Writing—review & editing, supervision, resource management, project administration, conceptualization, methodology oversight, and data interpretation.

All authors read, reviewed and approved the final manuscript for publication consideration.

## Ethics Approval and Consent to Participate

As part of the master's study, ethical clearance was obtained from the University of Zambia Humanities and Social Sciences Research Ethics Committee. The clearance reference number is **2024-SEP-038 (EXPRESS: REC 2035344)**. The study did not involve humans or animals, and it does not contain any data from individual people that would require consent.

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## Conflicts of Interest

The authors declare that the study was undertaken without any commercial or financial associations that could be perceived as a potential conflict of interest.

## References

- [1] African Development Bank (2022) African Development Bank Group. <https://www.afdb.org/en/countries/southern-africa/zambia/zambia-and-the-afdb>
- [2] Project Management Institute (2013) A Guide to the Project Management Body of Knowledge, 5th Edition, Project Management Institute.
- [3] World Bank Group (2020) The World Bank Annual Report 2020: Supporting Countries in Unprecedented Times. (Vol. 1 of 3): Main Report (English). <http://documents.worldbank.org/curated/en/585151601566378168>
- [4] Siankwilimba, E., Hiddlestone-Mumford, J., Hoque, M.E., Hang'ombe, B.M., Mumba, C., Hasimuna, O.J., et al. (2023) Sustainability of Agriculture Extension Services in the Face of COVID-19: A Study on Gender-Specific Market Systems. *Cogent Food & Agriculture*, **9**, Article 2284231. <https://doi.org/10.1080/23311932.2023.2284231>
- [5] Siankwilimba, E., Mumba, C. and Hang'ombe, B.M. (2024) The Dynamics of Small-holder Cattle Business Systems in Zambia: Geographical Opportunities, Challenges and Sustainability Business Implications. *Cogent Food & Agriculture*, **10**, Article 2349339. <https://doi.org/10.1080/23311932.2024.2349339>



- [6] Dane, K. (2022) Agriculture Goods. <https://agriculturegoods.com/why-is-agriculture-important/#>
- [7] Institute of Economic and Social Research, University of Zambia (2022) Agricultural and Rural Development. <https://www.unza.zm/institutes/inesor/research/agricultural-and-rural-development>
- [8] Zambia Development Agency (2024). <https://www.zda.org.zm/agriculture/>
- [9] Tembo, C.K., Muleya, F. and Kalumbi, P. (2022) An Investigation into Pre-Project Planning Challenges on Public Building Projects in Zambia. In: Musonda, I. and Mwanaumo, E., Eds., *Building Smart, Resilient and Sustainable Infrastructure in Developing Countries*, CRC Press, 43-51. <https://doi.org/10.1201/9781003325321-5>
- [10] Lusaka Times (2015) Lucky Mulusa Gets State House Job. <https://www.lusakatimes.com/2015/03/03/lucky-mulusa-gets-state-house-job/>
- [11] Nkomesha, U. (2023) News Diggers. <https://diggers.news/local/2023/03/18/hh-sets-up-a-presidential-delivery-unit/>
- [12] Ansah, R.H. and Sorooshian, S. (2018) 4P Delays in Project Management. *Engineering, Construction and Architectural Management*, **25**, 62-76. <https://doi.org/10.1108/ecam-09-2016-0199>
- [13] Maulu, S., Hasimuna, O.J., Chibesa, M., Bbole, I., Mphande, J., Mwanachingwala, M., et al. (2024) Perceived Effects of Climate Change on Aquaculture Production in Zambia: Status, Vulnerability Factors, and Adaptation Strategies. *Frontiers in Sustainable Food Systems*, **8**, Article 1348984. <https://doi.org/10.3389/fsufs.2024.1348984>
- [14] Duedyev, S. and Hosseini, M.R. (2018) Causes of Delays on Construction Projects: A Comprehensive List. *International Journal of Managing Projects in Business*, **13**, 20-46.
- [15] Omoregie, A. and Radford, D. (2006) Infrastructure Delays and Cost Escalation: Causes and Effects in Nigeria.
- [16] Mok, K.Y., Shen, G.Q. and Yang, J. (2015) Stakeholder Management Studies in Mega Construction Projects: A Review and Future Directions. *International Journal of Project Management*, **33**, 446-457. <https://doi.org/10.1016/j.ijproman.2014.08.007>
- [17] Muriithi, S.G., Walters, B.A., McCumber, W.R. and Robles, L.R. (2022) Managerial Entrenchment and Corporate Social Responsibility Engagement: The Role of Economic Policy Uncertainty. *Journal of Management and Governance*, **26**, 621-640. <https://doi.org/10.1007/s10997-021-09569-7>
- [18] Boakye, L.G. (2015) The Underlying Reasons Why International Development Projects (IDPS) Fail: The Case of African Development Bank (AfDB)-Funded Projects. Ph.D. Thesis, University of Sydney.
- [19] Challa, B. (2016) Challenges of Donor Financed Development Projects in Ethiopian Public Sector-Federal Level A Case Study of European Union Cooperation. St. Mary's University School of Graduate Studies.
- [20] Bayiley, Y.T. and Teklu, G.K. (2016) Success Factors and Criteria in the Management of International Development Projects. *International Journal of Managing Projects in Business*, **9**, 562-582. <https://doi.org/10.1108/ijmpb-06-2015-0046>
- [21] Omollo, E.S. (2017) Project Management and Effective Implementation of Donor Funded Development Projects in Busia Country, Kenya. Kenyatta University.
- [22] Oganyo, O.J. (2015) Factors Influencing Implementation of Donor Funded Projects in Government Ministries: A Case of Ministry of Transport and Infrastructure-

- Kenya. University of Nairobi.
- [23] Sherman, M.H. and Ford, J. (2013) Stakeholder Engagement in Adaptation Interventions: An Evaluation of Projects in Developing Nations. *Climate Policy*, **14**, 417-441. <https://doi.org/10.1080/14693062.2014.859501>
  - [24] Kvam, R. (2019) Meaningful Stakeholder Engagement: A Joint Publication of the MFI Working Group on Environmental and Social Standards. Inter-American Development Bank, 1-36. <https://doi.org/10.18235/0001990>
  - [25] (2020) Public Procurement Act No. 8. Lusaka: National Assembly.
  - [26] Beil, D. (2009) Supplier Selectio. Stephen M. Ross School of Business University of Michigan.
  - [27] CIPS (2024) Chartered Institute of Procurement and Supply. <https://www.cips.org/intelligence-hub/managing-suppliers/supplier-selection>
  - [28] Mulongo, S., Aila, F. and Obura, J. (2021) Supplier Selection Practices and Procurement Performance: A Critical Analysis. *European Journal of Business and Management*, **13**, 86-94.
  - [29] Bosa, W. (2019) Supplier Development and Supplier Performance in Organizations in Uganda. Doctoral Dissertation, Kampala International University, College of Economics and Management.
  - [30] Legal Information Institute, Cornell Law School (2022) Contract. <https://www.law.cornell.edu/wex/contract#>
  - [31] Ramasamy, T. (2014) Principles of Management. Himalaya Publishing House Pvt. Ltd.
  - [32] Chartered Institute of Procurement and Supply (2022) Contract Management. <https://www.cips.org/intelligence-hub/contract-management>
  - [33] Schuhmann, R. and Eichhorn, B. (2020) Contractual Management (Managing Through Contracts). Springer.
  - [34] Lysons, K. and Farrington, B. (2020) Procurement and Supply Chain Management. 10th Edition, Pearson Education Limited.
  - [35] National Council for Construction (2020) National Council for Construction Introduction to Contract Management and Administration. National Council for Construction.
  - [36] Hill, C.W. and Jones, G.R. (2001) Strategic Management Theory. 6th Edition, Houghton Mifflin Company.
  - [37] Silvius, G. and Schipper, R. (2019) Planning Project Stakeholder Engagement from a Sustainable Development Perspective. *Administrative Sciences*, **9**, Article 46. <https://doi.org/10.3390/admsci9020046>
  - [38] Gutterman, A.S. (2023) Stakeholder Engagement.
  - [39] Akaateba, M.A., Ahmed, A. and Inkoom, D.K.B. (2021) Chiefs, Land Professionals and Hybrid Planning in Tamale and Techiman, Ghana: Implications for Sustainable Urban Development. *International Journal of Urban Sustainable Development*, **13**, 464-480. <https://doi.org/10.1080/19463138.2021.1971990>
  - [40] Mwangi, M., Kituyi, E. and Ouma, G. (2021) A Systematic Review of the Literature on the Contribution of Past Climate Information Services Pilot Projects in Climate Risk Management. *Scientific African*, **14**, e01005. <https://doi.org/10.1016/j.sciaf.2021.e01005>
  - [41] Ameyaw, C., Mensah, S. and Osei-Tutu, E. (2012) Public Procurement in Ghana: The Implementation Challenges to the Public Procurement Law 2003 (Act 663). *Interna-*

- tional Journal of Construction Supply Chain Management*, **2**, 55-65.  
<https://doi.org/10.14424/ijcscm201012-55-65>
- [42] Lawrence, S.A. and Mupa, M.N. (2024) Organizational Efficiency as an Instrument of Improving Strategic Procurement in West Africa through Lean Supply Management. *Iconic Research and Engineering Journals*, **8**, 262-285.
  - [43] Korir, L. (2015) Effect of Buyer-Supplier Relationships on Procurement Performance: Evidence from Kenyan Supermarket. *European Scientific Journal*, **11**, 54-70.  
<https://eujournal.org/index.php/esj/article/view/6679>
  - [44] Kafula, B., Mwanza, G. and Mwanaumo, E. (2023) Contract Management as a Tool for Successful Project Performance: A Pragmatic Study on Construction Projects in Zambia, Livingstone.
  - [45] Madhavan, S. (2018) Delays and Failures in Projects: Using Soft Systems and Action Research Methods to Explore Integration Issues in Research and Practice. Abu Dhabi.
  - [46] Mukwena, R.M. (2020) Comparative Analysis of Local Government in Zambia between 1991-2010 and 2011-2020. *The International Journal of Social Sciences and Humanities Invention*, **7**, 6135-6161. <https://doi.org/10.18535/ijsshi/v7i09.01>