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The Role and Nature of Government Support in the Establishment and Sustainability of SMMEs in the Biodiversity Economy

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An applied research project submitted to the Faculty of Commerce, Law and Management, University of the Witwatersrand, in partial fulfilment of the requirements for the degree of Master of Business Administration

Johannesburg, 2025

DECLARATION

I, Noma Sango Bolani, declare that this research report project is my own work except as indicated in the references and acknowledgments. It is submitted in partial fulfilment of the requirements for the degree of Master of Business Administration at the Wits Business School, University of the Witwatersrand. It has not been submitted before for any degree or examination in this or any other university.

_____

Noma Sango Bolani

28 March 2025

DEDICATION

This report is dedicated to:

To the women who dare to dream in a world set up to limit their ambitions and desires. The goodness we experience in this world is because of you. To the green warriors who are committed to preserving, restoring and protecting our environment for current and future generations. To my son, Sihe Ethan Nkosana Tshabalala, your insatiable quest for knowledge at your young age has served as the inspiration and motivation that has seen me to the finish line.

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I would like to express my appreciation and gratitude to my family for their patience and love. This journey has been as challenging for them as it was for me.

To my mother, Paulyn Modis, who taught and instilled in me the culture of reading and pursuing knowledge. To my son, Sihe Tshabalala, you truly are a representation of God's grace and mercy. To Rina Lechou, you have been the wind beneath my wings.

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LIST OF ACRONYMS

ABS	Access and Benefit-Sharing
AIS	Alien and Invasive Species
BABS	Bioprospecting Access and Benefit-Sharing Regulations
BEII	Biodiversity Economy and Investment Indaba
BIOFIN	Biodiversity Finance
BMP	Biodiversity Management Plan
CBD	Convention on Biological Diversity
CITES	Convention on the International Trade in Endangered Species of Wild Fauna and Flora
CPA	Communal Property Association
DALRRD	Department of Agriculture, Land Reform and Rural Development
DOA	Department of Agriculture
DEA	Department of Environmental Affairs
DFFE	Department of Forestry, Fisheries and the Environment
DMRE	Department of Mineral Resources and Energy
DSBD	Department of Small Business Development
DOT	Department of Tourism
DTIC	Department of Trade, Industry and Competition
DWS	Department of Water and Sanitation
EKZNW	Ezemvelo KZN Wildlife

EMI	Environmental Management Inspectorate
FSC	Forestry Stewardship Council
GBF	Kunming-Montreal Global Biodiversity Framework
GDARDE	Gauteng Department of Agriculture, Rural Development and the Environment
GDP	Gross Domestic Product
GEM	Global Entrepreneurship Monitor
GEF	Global Environment Facility
IDC	Industrial Development Corporation
IKS	Indigenous Knowledge Systems
LEDET	Limpopo Department of Economic Development, Environment and Tourism
MTPA	Mpumalanga Tourism and Parks Agency
NBES	National Biodiversity Economy Strategy
NDP	National Development Plan
NEF	National Empowerment Fund
NEMA	National Environmental Management Act, 1998
NEM:BA	National Environmental Management: Biodiversity Act, 2004
NEM:PA	National Environmental Management: Protected Areas Act, 2003
NYDA	National Youth Development Agency
PA	Protected Areas
SAHGCA	SA Hunters and Game Conservation Association
SANBI	South African National Biodiversity Institute
SARS	South African Revenue Service

SMME	Small, Micro and Medium Enterprises
TBL	Triple Bottom Line
TOPS	Threatened or Protected Species
WBS	Wits Business School

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ABSTRACT

South Africa's biodiversity economy presents a unique opportunity to advance inclusive economic growth, rural development, and environmental sustainability. Small, medium and micro enterprises (SMMEs) operating within this space, particularly in wildlife and bioprospecting, are positioned to drive conservation-compatible livelihoods. However, the extent to which these enterprises are supported by coordinated, accessible, and enabling institutional frameworks remains underexplored. This study investigates the forms of government support available to biodiversity-based SMMEs and critically evaluates entrepreneurs' experiences of the regulatory and institutional landscape.

Guided by Institutional Theory and the Triple Bottom Line framework, the study adopts a qualitative case study design. Semi-structured interviews were conducted with nine biodiversity entrepreneurs across several provinces. Thematic analysis of the interview data was complemented by comparative document and policy analysis to assess alignment between the policy intent and lived entrepreneurial experience. The research foregrounds the voices of entrepreneurs to explore how institutional systems enable or constrain their business viability, growth and contribution to environmental goals. Findings revealed that while various government departments, such as the Department of Forestry, Fisheries and the Environment, the Department of Agriculture, Land Reform and Rural Development, and provincial conservation agencies, provide intermittent support in the form of grants, training, and infrastructure. This support is however fragmented, delayed or poorly aligned with business needs. Entrepreneurs reported difficulties accessing information, navigating overlapping mandates, and engaging with institutions whose actions were inconsistent across spheres of government. Institutional fragmentation, policy misalignment, and weak enforcement capacity were cited as key barriers. Despite these challenges, the study identified examples of successful institutional partnerships and highlighted entrepreneurship-driven recommendations for improving support eco-systems. These included calls for integrated funding, capacity-building, policy clarity, market facilitation and stronger interdepartmental coordination.

The study concludes by recommending institutional reform, improved integrated government support strategies to better enable the growth of biodiversity-based SMMEs. To unlock the full potential of the biodiversity economy, reforms are required to strengthen governance, align support mechanisms and ensure that economic, social and environmental dimensions of sustainability are equally addressed.

Keywords: **Biodiversity economy; SMMEs; institutional support; sustainable entrepreneurship; Triple Bottom Line; policy alignment.**

CHAPTER 1: INTRODUCTION & BACKGROUND TO THE STUDY

1.1 Introduction

This study aimed to identify the role and the nature of government's support in the establishment and the sustainability of small, micro and medium enterprises (SMMEs) within South Africa's biodiversity economy. The purpose was to ascertain how government policies and services affect environmental entrepreneurs operating specifically within the biodiversity economy to not only set up their enterprises but also aid in sustainability of those businesses.

Biodiversity enterprises refers to businesses that derive economic value from biodiversity-based resources while contributing to their conservation and sustainable use. These include commercial ventures in sectors such as wildlife management, bioprospecting, eco-tourism, aquaculture, and other nature-based activities that generate income, create jobs whilst supporting environmental stewardship. What essentially distinguishes biodiversity enterprises from the broader "green" businesses is their direct and intentional interaction with living resources and ecosystems as core inputs for value creation (Subramanian, et al., 2011; DEA, 2017).

It can be argued that the biodiversity economy is dependent on access to land or land ownership – which has been a contentious issue in South Africa given its historical context. Indigenous communities such as those in the Khomani San in the Northern Cape, iSimangaliso in KwaZulu-Natal and Makuleke in Limpopo had been removed during the oppressive regime from protected areas (PAs) to make way for wildlife and conservation associated businesses (DFFE, nd). Since the dawn of democracy along with restorative redress, there have been significant strides made in the land reform process with land being returned to local communities. However, the optimal use of this land for conservation and socio-economic development remains limited (DFFE, nd). Although certain rural communities have regained control over nature reserves or segments of national parks located in high-potential tourism zones, they frequently face challenges due to limited managerial capacity and inadequate financial investment to transform these areas into sustainable economic ventures (World Bank, 2021). Challenges such as market access, incentives for conservation, and limited resources for expansion persist. The World Bank (2021), however, is optimistic and believes there is still room for improvement to make the sector more sustainable and inclusive. The National Tourism Sector Strategy 2017 together with the National Biodiversity Economy Strategy (NBES) 2024 aim to attract and support new entrants that would promote transformation in the sector, participation from rural communities while creating jobs and boosting rural economies.

1.2 Background to the Study

SA is the third largest mega-diverse country in the world, rich in biodiversity with many endemic species. A tenth of the planet's plants are found in SA, while being home to 7% of land animals and 15% of the world's marine species (CBD, nd). This abundance in biodiversity lends to the country's food security as well as clean water sources and is a major contributor to the economy through eco-tourism, wildlife, marine and bioprospecting businesses. The Department of Forestry, Fisheries and the Environment (DFFE) estimates that biodiversity-based economic activity contributes more than R50 billion annually to the country's economy (DFFE:1, 2024).

Many biodiversity SMMEs are based in rural and remote areas with both fauna and flora located across communal and privately owned land. Landowners play a crucial role in unlocking the value of biological resources—whether through sustainable harvesting of wildlife, marine, and bioprospecting resources, or by leveraging eco- and botanical tourism opportunities (Salle, 2011). These biodiversity enterprises contribute to the growth of localised rural economies by generating employment, improving infrastructure, and supporting conservation efforts (Emerton, 1997). South Africa, like many nations, is facing alarming levels of biodiversity decline. The National Red List reports that between 10–20% of the country's animal species and 13% of its plant species are currently endangered or at risk (CBD, n.d.). This ongoing loss threatens not only ecological stability but also water security, public health, climate resilience, and rural livelihoods (DFFE, 2024:2).

Meanwhile, SA's unemployment rate remains over 30% (Stats SA, 2024) and the economy has a persistent pattern of underachieving, evidenced by a continual decline in the growth of real GDP per capita since 2011 (Bowmaker-Falconer & Meyer, 2022). To drive job creation and stimulate innovation-driven growth, it is essential to prioritise entrepreneurship by fostering an enabling environment - this includes the development of supportive policy frameworks and the strengthening of functional entrepreneurial ecosystems (Bowmaker-Falconer & Meyer, 2022).

Government acknowledges the dire need to conserve, restore and protect of the country's biodiversity whilst simultaneously creating meaningful employment opportunities to address poverty and drive economic transformation (DFFE, 2023). Therefore, Cabinet approved a series of policies including the White Paper on the Conservation and Sustainable Use of South Africa's Biodiversity and the NBES, which are aligned with the Kunming-Montreal Global Biodiversity Framework (GBF), that aim to regulate and promote the sustainable use of biological resources and support the transformation and economic

development of the sector. The most recent NBES aims to "*optimise biodiversity-based business potentials and contribute to economic growth with local beneficiation, job creation, poverty alleviation, and food security, whilst maintaining the ecological integrity of the biodiversity resource base, for thriving people and nature*" (DFFE:2, 2024, p4).

However, it is important to note that legislative and administrative frameworks governing the environment and nature conservation fall under different levels of government and crosscut across different departments within government. For example, the establishment of a new game reserve owned by a CPA in KZN would require multi-level legislative approvals including adherence to national laws such as NEMA, NEM:BA, NEM:PA and CITES regulations which regulate the acquisition of certain wildlife species. Concurrently, the land use approvals would need to be obtained through the DALRRD, and zoning permits acquired from the local/district municipality. At provincial level, BMPs must be approved through the KZN EDTEA and EKZNW, to ensure alignment with provincial laws and conservation strategies (DEA, 2017).

Conflicts between the functional areas listed under Schedules 4 and 5 of the Constitution have been noted, particularly regarding the intersection of national and provincial environmental laws. While case law has provided some clarity, ongoing tensions persist due to overlapping mandates and ambiguities in the constitutional text. For instance, in *Minister of Local Government, Environmental Affairs and Development Planning v Habitat Council* (2014), the Constitutional Court affirmed the national government's authority to set minimum environmental standards, even where provinces or municipalities may have exclusive or concurrent legislative powers (Shangoni, 2016; *Minister of Local Government, Environmental Affairs and Development Planning v Habitat Council*, 2014).

Considering this context, this study seeks to illuminate enabling policy and frameworks, supportive services while revealing vulnerabilities in government's approach to supporting biodiversity entrepreneurs.

1.3 Problem Statement

SA's biodiversity economy holds significant potential to contribute to rural development, job creation and environmental sustainability. Government has introduced multiple strategies, such as the NBES, aimed at catalysing SMMEs in the sector (DFFE:2, 2024). However, despite these interventions, many biodiversity-based SMMEs struggle to access coordinated government support, navigate fragmented regulatory systems, or build viable business models (Slavova et al., 2015).

Existing research tends to focus on either biodiversity conservation or general entrepreneurship constraints, but there is a notable gap in understanding how biodiversity entrepreneurs experience government support structures and institutional arrangement in practice. A few studies critically examine the institutional and regulatory enablers and barriers faced by these SMMEs within the broader green economy (Slavova et al., 2015; Gregori et al., 2019).

This study addresses this theoretical and practical gap by examining how biodiversity-based entrepreneurs experience institutional support structures and whether these mechanisms are enabling or constraining. It uses Institutional Theory as a guiding lens to assess how institutional arrangements shape entrepreneurial decision-making and outcomes alongside the Triple Bottom Line (TBL) framework to evaluate sustainability performance.

The study's findings aim to contribute to the academic literature by providing a bottom-up, practice-based perspective on institutional governance in the biodiversity economy. It also seeks to offer evidence-based recommendations to government departments and entities, and policymakers tasked with aligning conservation, transformation and economic development goals – ultimately supporting more effective, inclusive and sustainable entrepreneurship in South Africa.

1.4 Research Questions and Objectives

The biodiversity sector is heavily regulated through legislation and other mechanisms in efforts to balance the conservation and sustainable use of biological resources with economic development and transformation priorities. These biological resources are often found in rural and/or remote locations - thus, creating additional barriers for start-up ventures and/or growth expansions by biodiversity entrepreneurs than those faced by traditional entrepreneurs.

Research Question 1: What is nature of government support provided to biodiversity entrepreneurs?

Objective 1: To assess the type and effectiveness of government support provided to biodiversity entrepreneurs.

Research Question 2: How to biodiversity-based entrepreneurs experience and perceive the regulatory and institutional environment in which they must operate in?

Objective 2: To evaluate the regulatory and institutional landscape for biodiversity entrepreneurs, through a focus on the coordination, accessibility, and strategic alignment of policies across different government spheres and institutions.

1.5 Justification of the Study

Government continues to face challenges in fulfilling its core economic development priorities, which include expanding markets, driving transformation, and tackling persistent unemployment and poverty (Maluleke, 2023). The recent review of the National Development Plan (NDP) 2030 by the National Planning Commission revealed that "*economic targets have not only been missed but are moving in the wrong direction"* (NPC, p2, 2023). The Commission found that hinderances are based on poor governance and unaligned planning by government (at all spheres) and their agencies.

Moreover, NBES which has been designated as the vehicle to transform and grow the biodiversity economy has drawn heavy criticism, particularly concerning its lack of clear implementation plans (Pinnock, 2024). While the strategy sets out broad goals and objectives, it is criticised for not providing detailed, actionable steps and timelines for execution, which could hinder effective implementation and progress monitoring. Additionally, the strategy has also been criticised for not sufficiently addressing the financial constraints faced by many biodiversity-based enterprises, particularly rural SMMEs, with calls for more robust financial mechanisms and incentives to support these ventures (Pinnock, 2024).

Recognising that successful biodiversity-based enterprises require both structural support and streamlined processes, the results of the study highlight the gaps in cooperative governance, identify the misalignment by government institutions when providing sufficient support for the establishment and operations of SMMEs within this sector.

1.6 Delimitations of the Study

Theofanidis and Fountouki (2018) define delimitations as the boundaries, or the limits intentionally set for the research study. They explain that these are the decisions made by the researchers to define what will and will not be included in the study, helping to ensure that the study's goals and objectives are achievable. This study set out to identify the role and determine the nature of government support in establishment and sustainability of biodiversity-based SMMEs and is limited to enterprises operating in the biodiversity economy as recognised by NBES. The delimitations are defined by its focus on semi-structured interviews with 12 owners/managers of enterprises, specifically those registered with the DFFE's online platform showcasing registered biodiversity-related businesses across SA. The portal aims to promote investment in the biodiversity by profiling small and emerging businesses operating within the wildlife, bioprospecting, and eco-tourism sectors. It serves as a centralised information hub for identifying active enterprises, facilitating stakeholder engagement, and supporting sector development initiatives. These businesses are located in Gauteng, Limpopo, KwaZulu-Natal, the Eastern and Northern Capes, and Mpumalanga.

The study, guided by institutional theory and the TBL framework, sought perspectives on how government support within the biodiversity economy has influenced entrepreneurs venturing into biodiversity-based businesses. The scope is limited to the specific regions and business types, providing a focused yet comprehensive understanding of the challenges and opportunities in this sector.

1.7 Structure of Research Report

This research report consists of six chapters. Chapter One introduces the study and presents its purpose, problem statement, research objectives and questions, as well as the rationale and theoretical framing. Chapter Two provides a review of relevant literature on biodiversity entrepreneurship, institutional theory, and the Triple Bottom Line, with a focus on the role of government in sustainable enterprise development. Chapter Three outlines the research design and methodology employed in the study, including the sampling approach, data collection methods, data analysis strategy, and ethical considerations. Chapter Four presents the research findings based on the thematic analysis of participant responses, supported by visualisations and direct quotations from interviews. Chapter Five discusses the findings in relation to the research objectives, theoretical framework, and existing literature, highlighting key patterns and interpretations. Chapter Six concludes the study by summarising the main findings, offering policy and practical recommendations, identifying limitations, and suggesting areas for future research.

CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

As early as the late 1990s, it became clear that African governments needed to develop strategies for leveraging the economic value of their ecological assets to attract entrepreneurs and investors into the biodiversity economy (Emerton, 1997). Numerous factors continue to influence the decision-making process involved in establishing businesses in this area of the green economy. According to Emerton (1997), these factors include evaluating the potential financial benefits for landowners through biodiversity-based use of land, in comparison to the opportunity costs of alternative land uses such as commercial development.

Understanding the interplay between biodiversity-based entrepreneurs and the institutional environment is essential for effective policy design, resource allocation, and capacity-building initiatives. This literature review is grounded in Institutional Theory, which examines how formal shape entrepreneurial behaviour, influence access to resources, and create regulatory constraints or enablers within the biodiversity economy. Additionally, the TBL framework provides a lens through which to assess the sustainability of biodiversity enterprises, emphasising their economic viability, social impact, and ecological responsibility. By exploring existing literature, this review aims to illuminate the dynamic relationship between entrepreneurs and institutional structures and highlight key challenges and opportunities.

The theoretical framework provides the foundation for understanding the institutional environment in which biodiversity entrepreneurs operate, while the conceptual framework defines the key concepts derived from these theories that relate to sustainable entrepreneurship. Together, these frameworks guide the rationale for this study by examining how government institutions influence the establishment and sustainability of biodiversity-based enterprises.

2.2 Theoretical Framework: Institutional Theory

Institutional Theory provides a useful lens for understanding how formal structures (such as laws, policies, and regulations) and informal norms (such as political culture and social expectations) shape entrepreneurial behaviour and influence the success or failure of enterprises (Ahlstrom & Bruton, 2002). The theory posits that institutions create both constraints and enablers for entrepreneurship by

legitimising certain practices and shaping access to resources (Eijdenberg et al., 2019, Casson et al., 2010).

Casson et al. (2010) distinguish between formal institutions, including constitutions, laws, and bureaucracies, and informal institutions such as social norms, trust, and cultural values. They argue that the effectiveness of development efforts is directly influenced by the quality and interaction of these institutions. In South Africa, biodiversity entrepreneurs operate at the intersection of formal state structures and traditional governance systems, particularly in rural areas. This duality creates both opportunities and tensions, especially when government support mechanisms do not align with local institutional realities (Kepe et al., 2005).

In the context of biodiversity entrepreneurship, Institutional Theory helps to explain how entrepreneurs in this sector are often required to comply with a complex web of regulations issued by national, provincial, and sometimes local authorities. These overlapping mandates are frequently the source of delays, misalignment, and confusion in the implementation of biodiversity-related business activities (Förster et al., 2021).

Evans et al. (2017) argue that modern governance models must embed sustainability at their core in order to create long-term value for both enterprises and society. This notion reinforces the idea that institutional frameworks must be responsive, coordinated, and consistent to enable sustainable enterprise. This aligns with Pacheco et al. (2010), who introduce the concept of *institutional entrepreneurship*, where actors such as sustainability-oriented businesses attempt to reshape institutions to reduce barriers and promote collective outcomes. In contexts where regulations are misaligned or outdated, entrepreneurs often act as institutional change agents, challenging norms and advocate for reform that will align with sustainability goals. This perspective is particularly relevant in the biodiversity economy, where community-based ventures and green entrepreneurs often push for more inclusive, participatory, and sustainable institutional arrangements.

This theory is particularly relevant to Research Objective 2, which seeks to evaluate the regulatory and institutional landscape facing biodiversity entrepreneurs. It allows the study to examine how conflicting or unclear institutional arrangements and the lack of coordination between spheres of government impact the accessibility, effectiveness, and coherence of support for biodiversity-based SMMEs.

However, Institutional Theory is also important in addressing Research Objective 1, which focuses on the type and effectiveness of support offered. By applying this framework, the study can assess whether

institutions, in both their design and practice, are enabling or hindering access to the financial, operational, and capacity-building support entrepreneurs need to thrive in this sector.

2.3 Conceptual Framework: Sustainable Entrepreneurship and the Triple Bottom Line

While Institutional Theory provides insight into the external regulatory and governance environments that shape biodiversity entrepreneurship, the TBL framework offers a complementary conceptual lens for assessing the sustainability performance of these enterprises. Developed by John Elkington in 1994, the TBL expands traditional business metrics by incorporating three key dimensions: "*profit, people, and planet*" (Elkington, 2018) and in doing so, it recognises that a sustainable business must be economically viable, socially inclusive, and environmentally responsible.

In the context of biodiversity-based enterprises, the TBL framework is particularly relevant. These businesses often depend directly on natural resources, such as game, plants, or land, many of which are situated in rural communities. As such, they are inherently positioned at the intersection of conservation, economic development, and social equity. For example, a game reserve venture may generate income (profit), contribute to rural employment and traditional land claims (people), and manage ecological habitats (planet).

TBL is particularly useful for addressing Research Objective 1. By using this framework, the effectiveness of government support can be evaluated not only in terms of financial input or operational assistance but also in relation to broader sustainability outcomes such as social upliftment and ecological stewardship. For instance, a grant or technical assistance programme may be financially helpful, but if it excludes local beneficiaries or fails to support conservation outcomes, it falls short of its TBL potential.

Sargani et al. (2020, p.24) aptly describe sustainable entrepreneurship as "*the discovery, creation and exploitation of opportunities to create future goods and services that may sustain the agricultural, natural and communal environment and planet*." This framing aligns closely with biodiversity entrepreneurship, where sustainability is not just an outcome, but a foundational part of the business model. In the South African context, where biodiversity is closely tied to rural livelihoods and land reform, a TBL lens ensures that the value of these businesses is assessed holistically, rather than only through profit margins.

While debates continue around the monetisation of nature, authors such as Correia (2019) argue that the quantification of ecological assets can support strategic planning, policy design, and impact measurement. However, this requires careful navigation to ensure that financial valuation does not

override ethical, cultural, or conservation priorities (Thomson et al., 2024). The TBL framework provides a conceptual safeguard by balancing these dimensions.

Ultimately, the integration of TBL into this study allows for a more comprehensive evaluation of whether institutional support structures truly enable biodiversity entrepreneurs to succeed - not only in economic terms but also in their contribution to inclusive development and biodiversity conservation.

2.4 Government Support for Biodiversity Entrepreneurs

Biodiversity-based enterprises require a range of support mechanisms (financial, regulatory, technical, and infrastructural) to operate successfully (DFFE, 2024:1). These enterprises frequently rely on state or donor support to fund start-up costs, acquire permits, access markets, and build internal capacity. The effectiveness of these support mechanisms is critical for ensuring not only business viability, but also alignment with conservation and socio-economic development goals (Kanayo et al., 2020).

In South Africa, government support for biodiversity entrepreneurs is delivered through a range of departments and entities, including the DFFE, provincial departments of Economic Development and Environmental Affairs as well as national and provincial entities such as the South African Biodiversity Institute (SANBI) and EKZNW. Initiatives such as the Biodiversity Economy Investment Portal, the Game Donation and Restocking Programme, and the BioTrade and Bioprospecting programmes alongside policies such as the NBES and the Game Meat Strategy, aim to build capacity, transfer resources, and stimulate green enterprise development. However, these initiatives are fragmented, short-term, and not always responsive to the practical needs of entrepreneurs on the ground (Förster et al., 2021).

Support is also often perceived as misaligned or inaccessible. Slavova et al. (2015) found that despite the existence of formal strategies and institutional platforms, the effectiveness of government support is limited by bureaucratic inefficiencies, poor interdepartmental coordination, and a lack of monitoring and evaluation. They found that entrepreneurs struggle to access timely funding, experience significant delays in programme implementation, and often find that support is conditional, inconsistent, or based on donor agendas rather than long-term planning. The Global Entrepreneurship Monitor (GEM) South Africa Report 2022 further reinforces this concern, identifying weak government support, regulatory burdens, and limited access to information as key barriers to entrepreneurial activity.

From a Triple Bottom Line perspective, support that is purely financial or regulatory is insufficient unless it also enables social and environmental impact. As highlighted by Sargani et al. (2020), sustainable

entrepreneurs must be supported holistically, with tools that facilitate ecological stewardship, community participation, and long-term resilience.

Institutional theorists such as Pacheco et al. (2010) and Eijdenberg et al. (2019) argue that institutional support is not only about the presence of resources, but about the rules of access, the credibility of processes, and the inclusiveness of delivery mechanisms. In many rural contexts, entrepreneurs report difficulty navigating complex application processes, uncertainty around eligibility, and minimal follow-up or aftercare (Kanayo et al., 2020). This institutional opacity undermines trust and reduces the likelihood of long-term engagement with government programmes.

SA's biodiversity economy remains decentralised, and its support infrastructure is still developing. There is therefore a need to evaluate how well existing mechanisms are performing, and whether they are truly enabling biodiversity entrepreneurs to meet their sustainability and growth objectives.

2.5 Institutional and Regulatory Landscape

The institutional and regulatory environment in which biodiversity-based entrepreneurs operate is inherently complex, particularly in SA where environmental, economic, and rural development functions are distributed across national, provincial, and municipal levels of government.

South Africa's Constitution divides government responsibilities between the three spheres with environmental governance falling under both Schedule 4 (concurrent competence) and Schedule 5 (exclusive provincial functions). This creates blurred lines around authority, especially in areas like nature conservation, land use planning, and environmental permitting. Case law, such as *Minister of Local Government, Environmental Affairs and Development Planning v Habitat Council* (2014), confirmed the national government's authority to set minimum environmental standards, even where provinces hold legislative powers. However, the *Le Sueur v EThekwini Municipality (2014)* case further illustrated the ongoing confusion, when the KwaZulu-Natal High Court ruled that municipalities had the power to legislate on environmental issues such as biodiversity and conservation, highlighting the jurisdictional disputes that emerge when mandates are not clearly delineated or coordinated.

These challenges are not only legal but administrative. According to Förster et al. (2021) and Slavova et al. (2015), many provincial and municipal authorities lack the capacity to implement national biodiversity strategies, claiming interdepartmental coordination is weak or non-existent. According to them, programmes are implemented in silos, with limited communication between relevant departments. This

institutional fragmentation translates into delays in permitting, duplication of efforts, and inconsistent messaging to entrepreneurs.

Gregori et al. (2019) point out that when entrepreneurs are subject to multiple, unaligned institutional logics, they are forced to engage in regulatory arbitrage or institutional work to navigate the system. Accessibility of information is another core challenge. Many entrepreneurs, especially in rural or under-resourced areas, are unaware of the policies that apply to them or lack the institutional literacy to engage meaningfully with government processes. As one study by Slavova et al. (2015) found, this disconnect is worsened by the fact that institutional communication tends to favour formal, urban-based enterprises, marginalising biodiversity-based SMMEs operating on communal land.

Additionally, there is often a misalignment between policy intent and implementation. While the National Biodiversity Economy Strategy (NBES) articulates a clear vision for inclusive green growth, its translation into practice has been uneven. Cruise (2024) and Förster et al. (2021) found that the lack of intergovernmental integration, including poor cooperation between DFFE and its provincial counterparts, has impeded the roll-out of benefit-sharing mechanisms and community partnerships. Strategic alignment remains a key gap, especially in delivering targeted support to biodiversity entrepreneurs.

2.6 Biodiversity Entrepreneurship in South Africa

In SA, biodiversity entrepreneurship has gained strategic attention through frameworks like the NBES, which positions the biodiversity economy as a lever for rural development, conservation finance, and economic transformation. Many of these ventures are established by CPAs, cooperatives, or rural entrepreneurs, often with limited capital or technical expertise but strong cultural and territorial linkages to the land. Despite its potential, the literature on biodiversity entrepreneurship in South Africa remains limited and underdeveloped. Much of the existing scholarship focuses on broader environmental economics, green entrepreneurship, or small business development, without directly interrogating the unique intersection of conservation imperatives and enterprise development.

2.6.1 Barriers to Biodiversity Entrepreneurship in South Africa

Biodiversity entrepreneurs in SA face a range of barriers that intersect with the broader challenges facing SMMEs. These include poor access to markets, insufficient capital, infrastructural constraints, and a lack of technical and business management training (Babalola & Agbenyegah, 2016; Kanayo et al., 2020). Operational challenges are among the most significant constraints on rural entrepreneurs. According to

Babalola and Agbenyegah (2016), factors such as inadequate infrastructure, difficulty accessing energy and water, and the remoteness of enterprise locations create high operational costs and limit scalability. Furthermore, skills deficits and low levels of education among owners and employees diminish the growth potential of these enterprises.

The empirical evidence from Babalola (2016) confirms that lack of support from government and inadequate business knowledge were among the key predictors negatively affecting micro-enterprise growth. Similarly, Kanayo et al. (2020) find that contextual factors, including external environments, labour relations, and access to start-up capital, significantly affect the sustainability of entrepreneurship in SA. These findings resonate strongly in the biodiversity space, where enterprises must also comply with strict environmental legislation and secure permits that are often expensive and bureaucratically demanding (SAHGCA, 2022). Moreover, the inconsistent implementation of conservation and economic policies at different levels of government creates uncertainty for investors and entrepreneurs (Humby, 2014).

2.6.2 Opportunities for Institutional Support and Alignment

Despite these barriers, the literature also identifies several institutional opportunities that can support biodiversity entrepreneurship in SA. Government has the potential to play a transformative role through coordinated funding, training, and infrastructure development (Fairer-Wessels, 2013; Kanayo et al., 2020). Kanayo et al. emphasise the importance of government support, both financial and non-financial, as a key enabler of sustainable entrepreneurship.

Babalola and Agbenyegah (2016) highlight the need for policy interventions tailored to the realities of rural entrepreneurship, including the decentralisation of services and improved access to business development support in under-served areas. These interventions could help address the institutional voids that currently hinder biodiversity enterprises, especially those led by historically disadvantaged individuals. The NBES offers a policy framework for facilitating the growth of biodiversity enterprises. If executed in alignment with provincial and local government initiatives, as recommended by Forster et al. (2021), the NBES could offer a platform for addressing gaps in infrastructure, capacity building, and market linkages.

2.7 Conclusion

The reviewed literature offers a broad understanding of the role of institutions, government support, and sustainability frameworks in shaping entrepreneurship in South Africa. It provides useful insights into the systemic barriers facing small businesses, the limitations of policy coordination across government spheres, and the theoretical grounding for examining these challenges through Institutional Theory and the TBL. Research has also identified the need for inclusive, sector-specific support models that account for environmental, social, and economic dimensions, particularly in underserved rural areas.

However, a notable gap remains in the literature specific to biodiversity entrepreneurship. While the NBES and related policy instruments emphasise the potential of biodiversity-based enterprises, academic research has not sufficiently explored the lived experiences of entrepreneurs operating within this space. There is limited empirical evidence on how biodiversity entrepreneurs navigate institutional frameworks. Much of the literature tends to address environmental governance or SMMEs as separate domains, without adequately bridging them through the lens of biodiversity enterprise development. Furthermore, there is a scarcity of research evaluating whether the existing support structures are accessible, effective, or aligned with the objectives of biodiversity conservation and inclusive growth. The perspectives of rural entrepreneurs, who are often at the forefront of biodiversity ventures, remain underrepresented in policy discourse and academic literature.

CHAPTER 3: RESEARCH METHODOLOGY

3.1 Introduction

Conducting qualitative research requires a deliberate and nuanced approach to exploring the depth and complexity of human experiences, behaviours, and institutional dynamics. Creswell and Poth (2018) emphasise that qualitative research is context-dependent, prioritising participants' subjective interpretations and the researcher's immersion in the study environment. This study adopts qualitative methods such as interviews, and observations, and document analysis to generate rich and descriptive data (Denzin & Lincoln, 2018). By capturing detailed narratives and institutional interactions, this approach enables a deeper understanding of the challenges, opportunities, and policy frameworks shaping the biodiversity economy.

3.2 Research Paradigm

This study is guided by an interpretivist paradigm, which emphasises the importance of understanding the subjective meanings that individuals attach to their experiences and social interactions. Interpretivism is grounded in the belief that reality is socially constructed and context-dependent, and that multiple realities exist based on individual perceptions and lived experiences (Creswell, 2014). As such, the aim of interpretivist research is not to generalise findings but to uncover deep, nuanced insights into how people make sense of their world.

From an ontological perspective, this study assumes a relativist view, that reality is not objective or fixed but shaped by social, political, and cultural contexts (Lincoln et al., 2015). Each entrepreneur's experience with government institutions and regulatory systems is influenced by their location, history, and institutional relationships. The epistemological stance is subjectivist, recognising that knowledge is co-created between the researcher and participants (Creswell & Poth, 2018). In this study, the data collected through semi-structured interviews reflects not just facts, but personal interpretations and lived realities, shaped by institutional environments. From an axiological standpoint, this research acknowledges the role of values, including those of the researcher. Rather than claiming neutrality, the study is reflexive, recognising that the researcher's positionality, background, and choices influence how data is interpreted and presented.

By adopting an interpretivist paradigm, the study is able to explore the complex interplay between biodiversity entrepreneurs and institutional systems, allowing for rich contextual insights into how support structures are experienced and navigated in practice (Mertens, 2015; Tracy, 2010).

3.3 Research Design

According to Saunders et al. (2023), research design is the structured process of planning how a study will be conducted to effectively address its research objectives and answer key research questions. This involves selecting appropriate data collection methods, analytical techniques, study constraints, and ethical considerations to ensure a rigorous and credible investigation.

The research adopts a qualitative case study design, which is well-suited for investigating intricate, context-dependent issues as they unfold in real-life settings (Tisdell et al., 2025). The case study approach enables a detailed examination of biodiversity-based SMMEs operating in South Africa and their interactions with government institutions, regulatory frameworks, and support mechanisms. By focusing on a bounded group of enterprises within the biodiversity economy, the design facilitates the generation of rich, in-depth insights into their institutional experiences and the impact of government interventions.

Other qualitative designs were considered but found to be less appropriate for the scope of this study. Phenomenology, which focuses on the essence of lived experiences, was not suitable as the study is not centred on participants' internal emotional perspectives, but rather on their interactions with institutional systems (Creswell & Poth, 2018). Grounded theory, which aims to develop a new theoretical model, was also not applicable, as this research applies existing theories to examine institutional influences. Lastly, while generic qualitative approaches offer flexibility, this study aligns well with the case study design due to its focus on a bounded group of biodiversity-based SMMEs and its goal of generating rich, contextual insights into their experiences with government support and regulatory environments (Tisdell et al., 2025).

3.4 Data Collection

Semi-structured interviews served as the primary data collection method, allowing for an in-depth exploration of the lived experiences and perceptions. This method provided a flexibility for probing deeper into specific issues while ensuring consistency through predefined themes aligned with the research

objectives. The interviews focused on participants' engagement with government institutions, perceptions of policy alignment, interdepartmental coordination, and accessibility of support structures.

Although the study initially proposed a formal policy and document analysis, this component was reconsidered during the research process to focus more intensively on the experiential realities of the entrepreneurs. This adjustment foregrounded the voices of those most directly affected by institutional arrangements and still addressed Research Objective 2 by exploring how these arrangements manifest in practice. The participant narratives thus form the foundation for evaluating the regulatory and institutional landscape, particularly regarding policy accessibility, implementation alignment, and multi-level governance. Their insights help uncover how government policies, funding mechanisms, and institutional structures influence the establishment and sustainability of these businesses.

3.4.1 Population

According to Sekaran and Bougie (2013), the population refers to the entire group of individuals, objects, or events that possess the characteristics relevant to the research study. It is essential that the selected participants adequately represent the diversity and variability within the broader population to ensure credible and generalisable findings. For this study, the target population comprises owners and managers of SMMEs operating within SA's biodiversity economy.

3.4.2 Sample and Sampling Method

Sampling is the process of selecting a subset of individuals or entities from the broader population to participate in a study, allowing the researcher to draw insights without studying the entire population (Sekaran & Bougie, 2013). A purposive sampling method is adopted for this study, which is appropriate for qualitative research as it allows for the intentional selection of participants with specific knowledge and experience relevant to the research objectives; and strategy is designed to gather rich, context-specific insights into the experiences of biodiversity entrepreneurs.

A total of 12 owners and/or managers of biodiversity-based SMMEs were selected from businesses listed on DFFE's portal. These businesses are geographically spread across Limpopo, Gauteng, KwaZulu-Natal, Eastern Cape, and Mpumalanga, ensuring regional diversity and capturing experiences from enterprises operating in different ecological and institutional contexts.

3.5 The Research Instrument

This study used a semi-structured interview guide (see Appendix B) as the primary data collection instrument. The interviews allowed for a balance between pre-determined questions aligned with the research objectives and the flexibility to probe further based on participant responses. The interview questions are designed to explore participants' experiences, perspectives, and challenges regarding government support for biodiversity-based SMMEs. Probing questions are included to clarify responses and elicit deeper insights directly relevant to the study's objectives. Given the remote locations of many SMMEs in the wildlife and bioprospecting sectors, interviews were conducted virtually (via Microsoft Teams or Zoom) or telephonically to accommodate accessibility and logistical constraints. The interview schedule also captured basic demographic and contextual information, including the location of the business, years of operation, and number of staff employed. This information is critical for understanding the operating environment and drawing comparisons across different contexts within the biodiversity economy.

3.6 Data Analysis Strategies & Interpretation

Ensuring alignment between data analysis strategies, research objectives, and the theoretical framework is critical to producing valid and insightful findings (Tisdell et al., 2025) Thematic interpretative analysis was applied to the qualitative data collected. Interview transcripts were systematically coded, allowing for the identification of recurring patterns, emerging themes, and diverse experiences across participants. This process was guided by a flexible iterative structure typical of generic quality inquiry, which accommodates multiple perspectives while maintaining thematic focus (Kennedy, 2016). Special attention was paid to entrepreneurs' perceptions of government support, regulatory barriers, institutional challenges, and opportunities within the biodiversity sector; allowing for the identification of recurring patterns, issues, and perceptions across participant responses. Four key themes emerged from the data: (1) types and effectiveness of government support, (2) institutional and regulatory challenges, (3) perceptions of policy alignment and interdepartmental coordination, and (4) recommendations for improving support. These themes were analytically mapped against the two research objectives to maintain a direct line between data and analytical focus.

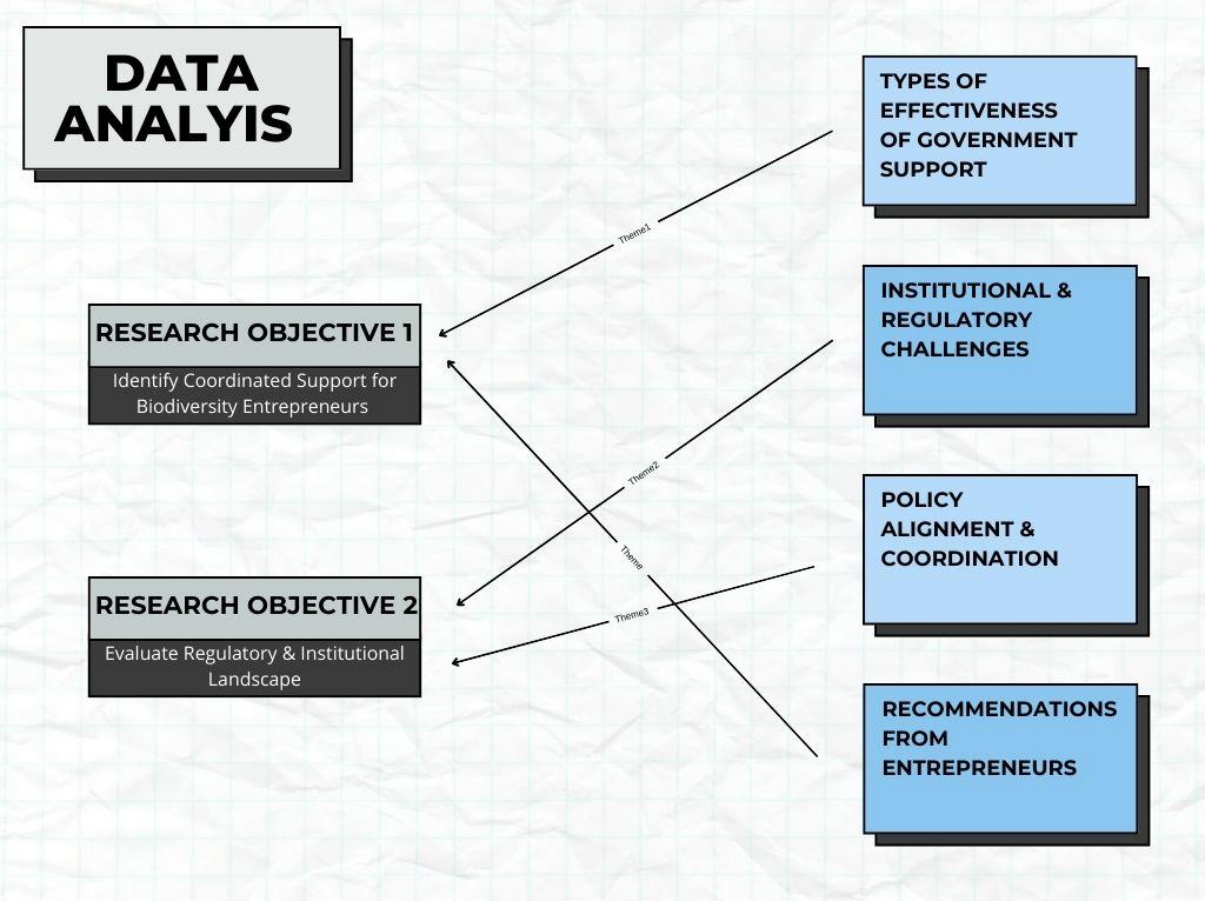


Figure 1: Mapping of Key Themes to Research Objectives. Source: Author's Own

This thematic map illustrates the relationship between the four core themes identified through data analysis and the two research objectives guiding this study. The mapping provides a visual reference for how the thematic findings were integrated into the structure of the discussion and analysis chapters.

This approach ensured that the discussion remained focused on addressing the study's aims, while still allowing the thematic insights to shape the interpretation of the data in a structured and meaningful way.

3.7 Quality Assurance

Assessing the quality of qualitative research remains a contested area, primarily due to the diverse nature of qualitative methodologies. Given the varying contexts, purposes, and designs of qualitative research, applying a single set of rigid criteria may not always be appropriate. As Altheide and Johnson (2011, p.582) note, *"there are many ways to use, practice, promote, and claim qualitative research, and in each,*

there is a proposed or claimed relationship between some field of human experience, a form of representation, and an audience."

Consequently, notions of validity, credibility, trustworthiness, dependability, and confirmability must be tailored to fit the research context as proposed by Guba and refined by Shenton (2004). These dimensions align with the practical realities of qualitative research and provide a flexible yet rigorous framework for evaluating validity (Tracy, 2010). Additionally, verification strategies such investigator reflexivity, audit trails and comparative constant comparative analysis were incorporated into the research process as recommended by Morse et al. (2002) — aligning with generic qualitative designs, which rely on thematic consistency and methodological transparency rather than statistical generalisation (Kennedy, 2016). This study, therefore, draws on widely accepted standards of validity, dependability, and credibility to ensure the integrity and reliability of the research process and findings.

3.7.1 Transferability

Transferability refers to the extent to which research findings can be applied or transferred to other contexts, populations, or settings. In qualitative research, transferability is less about statistical generalisation and more about providing rich contextual detail that enables readers to determine the relevance of the findings to other settings (Shenton, 2004; Saunders et al., 2023).

This study focuses on a purposive sample of biodiversity-based SMMEs, primarily in the wildlife and bioprospecting streams. However, given the shared regulatory and institutional landscape across the biodiversity economy, it is anticipated that the findings will offer valuable insights transferable to other streams, including the marine economy, and aquaculture. To enhance transferability, care was taken to design interview questions (see Appendix B) that directly align with the research objectives. This ensured that the responses were contextually grounded, and participants were prompted to share information relevant to the study's aims. This alignment enhances the likelihood of collecting data that is meaningful, credible, and transferable to allow future researchers and practitioners to assess the study's relevance to other institutional or entrepreneurial settings.

3.7.2 Credibility

Credibility refers to the logical coherence of the research design and the degree to which the findings accurately represent participants' experiences (Stenfors et al., 2020). It involves ensuring that the research questions, methodology, theoretical framework, and data analysis are consistently aligned.

Credibility was further enhanced through methodological triangulation, which involved the integration of multiple data sources and analytical lenses. The primary data consisted of semi-structured interviews, which were complemented by a review of key government policies and sectoral strategies relevant to the biodiversity economy. These secondary documents provided contextual grounding for the interview findings and helped assess alignment between institutional mandates and lived entrepreneurial realities. Additionally, the interpretation of data was guided by Institutional Theory and the Triple Bottom Line framework, enabling theoretical triangulation.

3.7.3 Dependability

Dependability refers to the stability and consistency of the research process over time and across researchers. It involves ensuring that, if the study was replicated under similar conditions, comparable results could be obtained (Stenfors et al., 2020). While absolute replication in qualitative research is challenging due to its interpretive nature, this study enhances dependability by:

- Documenting the research process clearly, including sampling decisions, interview protocols, and analytical steps;
- Maintaining an audit trail of decisions made during data collection and analysis; and
- Using direct quotations from participants to illustrate findings and minimise researcher interpretation bias.

Although qualitative interpretations may vary depending on context and researcher, the clear articulation of research design and rationale supports the credibility and consistency of the study's findings (Kennedy, 2016).

3.8 ETHICAL CONSIDERATIONS

This study was granted ethical clearance by the Wits Business Schools' (WBS) Ethics Clearance Committee (see Appendix D) prior to commencing any data collection. As the study involves human subjects, ethical considerations are paramount, particularly in the areas of informed consent, confidentiality, voluntary participation, and data protection. Prior to participation, all respondents were provided with a detailed information sheet (see Appendix C) explaining the purpose of the study, the nature of their participation, the voluntary nature of their involvement, and how the data will be used. Informed consent (see Appendix A) was obtained either in writing or verbally for virtual and telephonic

interviews before any data collection takes place. Respondents were informed of their right to withdraw at any stage of the research process without facing any negative consequences. No identifying information has been included in the final research report or shared with third parties. Data will be retained only for the duration necessary to complete the research and comply with the university's data protection guidelines.

CHAPTER 4: RESULTS

4.1 Introduction

This chapter presents the key findings that emerged from the semi-structured interviews conducted with the aim of providing insight into how entrepreneurs experience and interpret government support, policy coordination, and institutional engagement in the context of biodiversity-based enterprise development. The data was analysed thematically and the themes presented reflect both the frequency and depth of participant experiences in relation to the research objectives.

The chapter is organised around four core themes derived from the research objectives:

1. Types and Effectiveness of Government Support
2. Institutional and Regulatory Challenges Encountered
3. Perceptions of Policy Alignment and Interdepartmental Coordination
4. Recommendations for Improving Government Support

Where relevant, direct quotes from participants are used to support the thematic analysis and offer deeper insight into the practical realities of operating in SA's biodiversity economy. These voices help illuminate the broader institutional dynamics at play, offering a lived-experience perspective on how government structures, policies, and programmes are perceived and accessed at ground level.

4.2 Demographic Assessment of Respondents

Participant ID	Primary Sector	Operating Business	Business Development Stage	Type of Ownership	No. of Staff	Location
P-1	Wildlife Economy	Game Farming/Hunting	Established (>5 years)	CPA	8	Limpopo

	Eco-Tourism	Game Reserve / Lodge				
P-2	Bioprospecting	Natural Product Development	Growth phase (3–5 years)	Private Company	15	Eastern Cape
P-3	EcoTourism Bioprospecting	Conservation/Nature Reserve Forestry Plantation	Established (>5 years)	CPA	127	Mpumalanga
P-4	EcoTourism	Conservation/Nature Reserve	Established (>5 years)	NPO	n/a	Gauteng
P-5	EcoTourism	Conservation Farm	Emerging (<3 years)	CPA	3	Mpumalanga
P-6	Wildlife Economy Eco-Tourism	Game Farming/Hunting Game Reserve / Lodge	Growth phase (3–5 years)	CPA	5	KwaZulu-Natal
P-7	EcoTourism	Conservation Farm	Emerging (<3 years)	CPA	4	Mpumalanga
P-9	Bioprospecting	Natural Product Development	Growth phase (3–5 years)	Private Company	20	Eastern Cape

P-11	Bioprospecting EcoTourism	Conservation/Nature Reserve	Emerging (<3 years)	CPA	5	Eastern Cape

Table 1: Demographic Profile of Respondents Source: Author's Own

This table summarises key demographic and operational characteristics of the biodiversity-based enterprises that participated in the study. The diversity of respondents reflects the range of enterprises operating in the eco-tourism, wildlife and bioprospecting economies streams, and helps contextualise their perspectives on government support and institutional engagement.

4.3 Thematic Findings

4.3.1 Types and Effectiveness of Government Support Experienced

Participants described varying forms of government support received, which ranged from financial contributions to operational assistance, regulatory support, and access to infrastructure. While the types of support differed across businesses, most respondents identified some level of government intervention as either beneficial or necessary to their business's sustainability.

Participant ID	Sub-Theme	Quote
P-9	Financial Support	"We got funding for our equipment and start-up capital. Without that, we wouldn't have launched."
P-2	Operational Assistance	"DFFE donated herbicides, which helped because we could use the money elsewhere."
P-4	Regulatory Support	"We didn't get money, but the stewardship process gave our land formal protection after 25 years."

P-1	Infrastructure Support	"They gave us solar panels, game donation and helped us with some game relocation logistics"
P-6	Training & Capacity Building	"EKZNW helped us with biodiversity training and fixed some infrastructure."

Table 2: Theme 1: Types and Effectiveness of Government Support Quotes, Author's Own

Several participants referenced financial support in the form of grants, donations, or stipends. For instance, P-1 mentioned receiving grant funding, game donations, skills development training, and the provision of solar panels — all of which contributed positively to their business's sustainability. Similarly, P-9 explained that grant funding played a significant role in launching the business by covering the costs of equipment, machinery, and start-up capital. P-3 echoed this sentiment, stating that government grants and tax incentives enabled infrastructure investment and job creation, while training and mentorship programs enhanced their business management capabilities.

Other participants highlighted the value of in-kind and operational support, which although not always monetary, had a tangible impact on the functioning of their enterprises. For example, P-2 detailed how a donation of herbicides from DFFE allowed them to redirect funds originally budgeted for chemicals toward other operational needs. The participant also acknowledged a Social Employment Fund grant, which helped pay stipends during a period of low income. P-6 shared that EKZNW provided biodiversity training, infrastructure repairs, and game donations, which were central to operational continuity. P-5 and P-7 received livestock, feed, and training from various departments, alongside land allocations from the DALRRD.

Interestingly, not all participants experienced direct financial benefits. P-4 noted a lack of financial support but highlighted the importance of regulatory and policy frameworks provided by government. They described how the stewardship framework enabled legal protection of land, a milestone that had been elusive for 25 years. This illustrates that, for some entrepreneurs, the effectiveness of government support lies in providing enabling environments and legal recognition, rather than material resources.

Conversely, P-11's response illustrates a conditional dependency on future government support. The business, not yet located in a declared protected environment, anticipates that financial assistance would be necessary for sustainability once formal recognition was achieved. This demonstrates how some

enterprises remain in a liminal state, waiting for institutional processes to conclude before accessing vital support mechanisms.

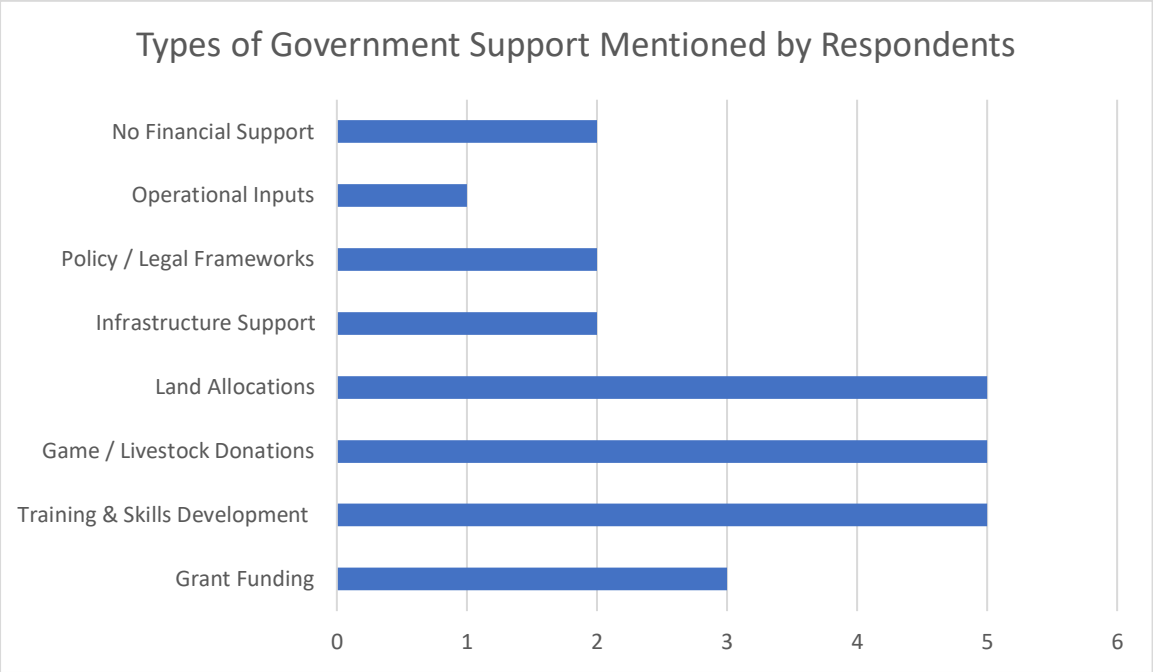


Figure 2: Types of Government Support Mentioned by Respondents

This bar chart illustrates the different forms of government support referenced by participants during interviews. Support types ranged from financial assistance to operational aid and regulatory support. Training and skills development emerged as the most frequently mentioned, followed by grant funding, donations of game or livestock, and land allocation. Less frequently cited forms of support included infrastructure assistance, legal/policy frameworks, and operational inputs such as herbicides.

Overall, participants reported that while government support was uneven and sometimes indirect, it had meaningful operational and financial impacts where provided. Training, land access, donations, and legal frameworks were cited as critical to business continuity. However, the variation in support types, timing, and delivery highlights the fragmented nature of institutional assistance in the biodiversity economy.

4.3.2 Institutional and Regulatory Challenges Encountered

Across the participant responses, a range of institutional and regulatory challenges were reported, reflecting widespread frustration with both the structure and function of government support systems.

These challenges significantly impacted the ability of biodiversity entrepreneurs to access timely assistance, navigate legal frameworks, and sustain their operations.

Participant ID	Sub-Theme	Quote
P-1	Delays in Implementation	"Delays in implementation of promises. For example, they will issue you the grant funding 5 years after the approval of the business plan, and the costs have gone up."
P-2	Poor Communication & Information Access	"I have to travel to town… to access the internet. When I get to the municipal library – they say there's no network. Then I book myself in a guesthouse to use the Wi-Fi there."
P-4	Inconsistencies in Policy Application	"Tshwane municipality's planning department is not aligned with national and provincial policies… They approved new development in our protected area against the NEM:PA."
P-5	Lack of Enforcement Capacity	"MTPA… ended up abandoning us, especially when we raised issues of environmental crime enforcement matters."
P-2	Discrimination and Institutional Mistrust	"Officials would come under the guise of wanting to profile your business and offer assistance, then turn around and take your ideas to initiate the same project. elsewhere."

Table 3: Theme 2: Institutional & Regulatory Challenges Quotes, Author's Own

The most cited issue was poor communication and limited access to information. Participants described how they often relied on word-of-mouth, NGOs, or isolated departmental engagements to learn about available support. As P-2 explained, rural connectivity issues and unhelpful regional offices forced them to travel and personally fund internet access, only to be met with confusion or indifference.

Others, like P-5 and P-7, reported that they "still don't know where to turn to" and rely on third-party intermediaries to engage with government programmes. These findings suggest a systemic disconnect between government and grassroots entrepreneurs, particularly in remote or under-resourced areas.

A recurring frustration was the delays in implementation and response times. P-1 highlighted that their approved grant was only disbursed five years later, rendering the original business plan outdated. P-9 similarly experienced rejection or indefinite postponement of funding applications without due diligence. Such delays undermine business planning, strain resources, and erode trust in government interventions.

Several respondents identified inconsistencies in policy application and inter-departmental coordination. For example, P-4 described how municipal decisions often contradicted national or provincial biodiversity laws, leading to the approval of developments in PAs. This participant also expressed concern that departments such as the DMRE actively undermined conservation efforts, while enforcement agencies like SAPS failed to act against violations. Similar issues were echoed by P-6, who was caught in jurisdictional disputes between two municipalities, resulting in inadequate firebreak assistance during wildfire season.

Enforcement failures and lack of capacity also emerged as key challenges. Participants noted a shortage of officials, poor resourcing, and weak implementation of environmental legislation. P-5, for instance, reported that MTPA failed to act on poaching concerns, despite being the designated enforcement agency. In this context, government appears both overextended and underprepared to manage complex, locally grounded biodiversity challenges.

Discrimination and lack of trust were mentioned by participants like P-2, who expressed fear that sharing business models with government officials could result in their ideas being appropriated and implemented elsewhere without consent or benefit. The participant also felt marginalised for being both a business owner and an environmental activist, highlighting tensions between advocacy and entrepreneurial identity.

A noteworthy theme was the over-reliance on NGOs to bridge gaps in communication and support. While some NGOs provided vital assistance, their involvement appeared more reactive than strategic. P-5 remarked that instead of developing direct relationships with entrepreneurs, government departments deferred to NGOs to carry out training, coordination, and even funding referrals — effectively outsourcing public responsibility.

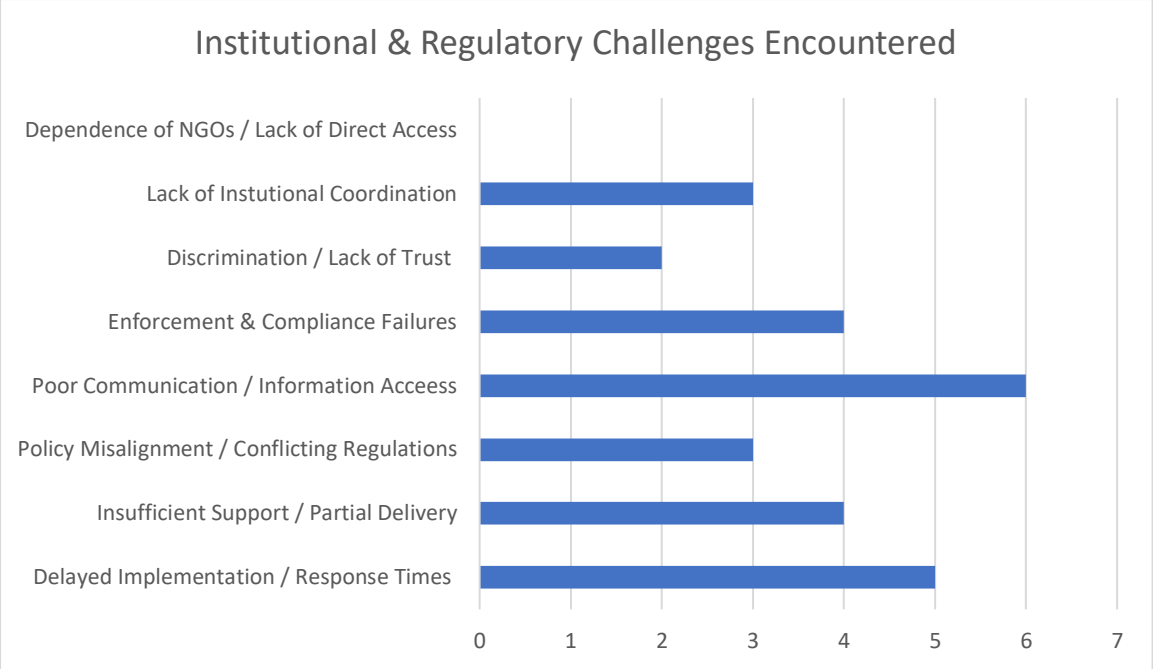


Figure 3: Institutional & Regulatory Challenges Encountered.

The chart presents the most reported institutional and regulatory challenges affecting biodiversity-based SMMEs. Poor communication and limited access to information emerged as the most frequently cited issue, followed by delays in implementation, enforcement failures, and insufficient or fragmented support from government entities. Participants also noted misalignment between policy frameworks, a lack of intergovernmental coordination, and an over-reliance on NGOs to mediate access to resources. A few respondents highlighted experiences of discrimination and a lack of trust in state institutions.

Collectively, these findings reveal a fragmented institutional landscape where support for biodiversity entrepreneurs is inconsistent, poorly coordinated, and often inaccessible. Challenges such as bureaucratic inefficiency, limited interdepartmental collaboration, inadequate enforcement, and exclusionary information practices are not just operational hurdles—they represent systemic barriers to transformation, participation, and sustainability in the biodiversity economy.

4.3.3 Perceptions of Policy Alignment and Interdepartmental Coordination

Participant responses revealed a range of perspectives regarding how government departments are structured and how well their roles are understood and coordinated within the biodiversity economy. Most respondents were able to identify specific departmental responsibilities, suggesting a clear understanding of policy mandates and institutional functions. Departments such as DFFE, DALRRD, provincial DEDEATs, and DWS were commonly mentioned in relation to conservation, land rights, water quality, funding, and training.

Participant ID	Sub-Theme	Quote
P-1	Clarity on Departmental Roles	"The DALRRD should provide land, grant funding for projects, agricultural support as well as skills development. DFFE and LEDET should provide support on issues of wildlife trade, conservation, bioprospecting and sustainable use of natural resources within the legal boundaries."
P-11	Clarity on Departmental Roles	"For [our protected area], DFFE, DEDEAT, and ECPTA facilitated the declaration process. DALRRD was responsible for facilitating communal resolution."
P-2	Clarity on Departmental Roles	"FSC makes sure the forestry processes are followed and monitors the social impact. DFFE regulates conservation. DWS tests water quality and DoA issues compliance regulations."
P-6	Lack of Visibility or Uncertainty	"I'd be lying if I said I did know. I'm not sure. The only thing I can speak of is EKZNW because we have a healthy relationship with them. With the municipalities – they aren't visible."
P-4	Policy Misalignment at Local Level	"The National Department sets the policy and frameworks which are then promulgated at provincial levels. The municipality is then supposed to implement those through their planning department."

Table 4: Theme 3: Perceptions of Policy Alignment and Interdepartmental Coordination, Author's Own

Several participants, such as P-1 and P-3, outlined well-articulated expectations of government's role in enabling SMME growth—highlighting support through skills development, regulatory clarity, market access, and shared services. P-3, for instance, provided a comprehensive list of government functions, including training, infrastructure investment, and the development of enabling policies that reduce bureaucratic hurdles. Similarly, P-2 emphasised the need for technical support and training from sector-

specific departments, such as forestry ecology guidance from DFFE and water monitoring tools from DWS.

Despite these insights, a subset of participants—such as P-5, P-6, and P-7—expressed uncertainty or limited understanding of departmental roles, particularly at the provincial and municipal levels. P-6, for example, acknowledged having strong ties with EKZNW but admitted to not knowing what other departments were meant to do. This suggests that while some entrepreneurs have developed strong relationships with specific agencies, they lack broader institutional visibility, which may inhibit their ability to access more comprehensive or cross-cutting support.

Many respondents also described an expectation of coordinated support between departments, which in reality appeared fragmented. Participants envisioned a system where national policy sets the framework, provincial departments localise implementation, and municipalities facilitate delivery. However, the actual experience of coordination across these levels was inconsistent. P-4 articulated this well, noting that while the national and provincial biodiversity frameworks were clear, local municipalities often failed to apply them appropriately in planning processes.

Some participants pointed to a policy focus on stewardship and conservation as a defining feature of government's biodiversity agenda. P-4 and P-6 mentioned that their biodiversity management plans had to be approved by both national and provincial authorities, reinforcing the institutional emphasis on regulatory alignment. Yet, this layered approval process also hinted at potential bureaucratic bottlenecks, particularly where roles were duplicated or misunderstood.

Finally, a few respondents expressed that in the absence of clear departmental engagement, they had become reliant on NGOs to mediate their interaction with government. P-5, for instance, highlighted that WWF played a key role in helping their enterprise navigate various stakeholders and government programmes. This pattern, while helpful in bridging gaps, may reflect an underlying institutional weakness in direct, accessible government-to-entrepreneur engagement.

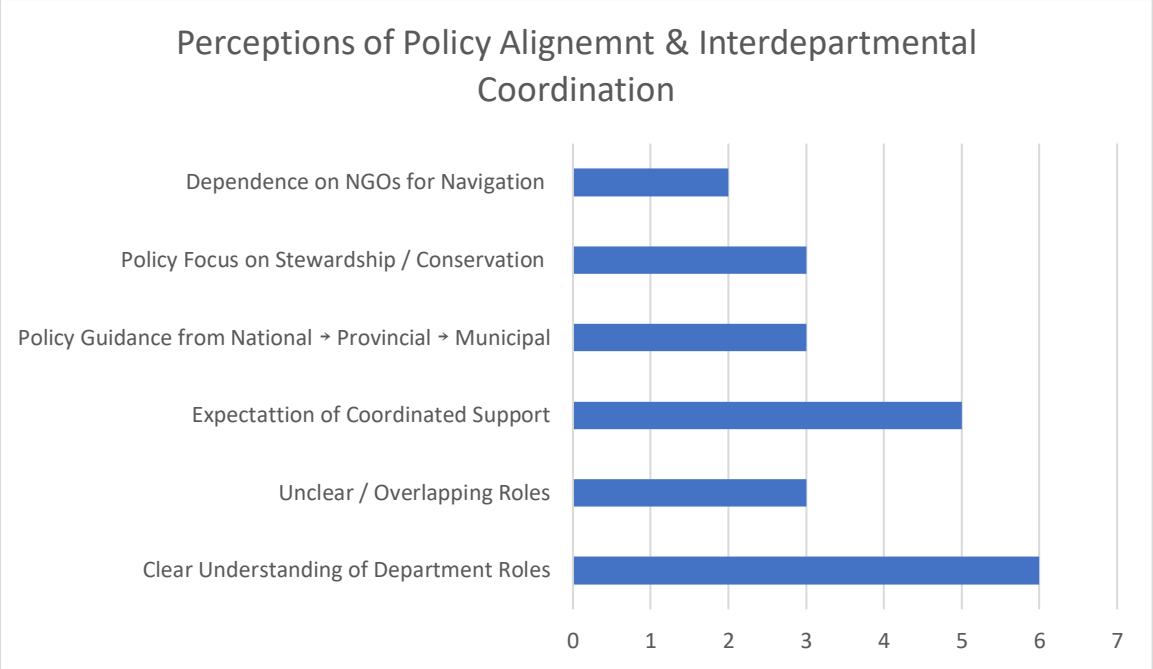


Figure 4: Perceptions of Policy Alignment and Interdepartmental Coordination

This chart highlights common themes in how biodiversity entrepreneurs perceive the role and coordination of government institutions. Several participants expressed an expectation that support across departments should be coordinated, and some emphasized the importance of policy cascading from national through to municipal levels. A subset of respondents noted their reliance on NGOs to navigate unclear government structures.

In summary, the data shows that while biodiversity entrepreneurs generally understand what government departments are *supposed* to do, their actual experiences are shaped by uneven visibility, fragmented coordination, and a lack of sustained interdepartmental collaboration. These insights underscore the need for more integrated policy implementation, better role clarity at all levels of government, and proactive outreach to ensure support frameworks are truly accessible and effective.

4.3.4 Recommendations from Entrepreneurs for Improving Support

When asked how government could better support biodiversity-based SMMEs, participants provided a wide range of practical and strategic recommendations that reflect both their lived experiences and structural gaps in current support mechanisms. A consistent theme across interviews was the call for more comprehensive and sustained funding support. Multiple respondents, including P-1, P-3, and P-6, emphasised that partial or delayed funding compromises project viability. Instead, they advocated

for complete, upfront funding aligned with the full scope of enterprise plans, rather than fragmented or piecemeal disbursements.

Participant ID	Sub-Theme	Quote
P-1	Comprehensive Funding Support	"They must stop giving pieces of support. The project must be funded properly from the beginning to the end."
P-5	Capacity Building and Technical Skills Training	"We need business training. We come from rural communities and don't have experience running enterprises like this."
P-7	Localised Government Services	"Government officials are too far. We don't have people to ask unless we wait for community meetings."
P-6	Interdepartmental Coordination	"After Land Reform gave us the land, where was DFFE or Tourism? Each department works on its own."
P-3	Market Access and Incentives	"There must be a push for local products in stores or even government to buy from us. That helps small biodiversity businesses."

Table 5: Theme 4: Recommendations for Improving Government Support, Author's Own

A similarly frequent recommendation was the need for capacity-building and technical training. Several participants, including P-7 and P-5, explained that many biodiversity enterprises, particularly those run by community-based groups or first-time entrepreneurs, lacked the management, technical, or compliance-related skills to run successful ventures. P-6 went further to suggest that government collaborate with local FET colleges to create hands-on learning opportunities that serve both businesses and students — highlighting the potential for mutually beneficial partnerships.

Another common concern was the lack of supporting infrastructure, especially for enterprises in remote and rural areas. P-2, for example, noted that basic access roads were lacking, forcing them to spend heavily on specialised transport. Participants recommended that government invest in infrastructure like roads, equipment, and facilities to reduce operational inefficiencies and boost productivity.

In terms of market access, participants such as P-1 and P-3 recommended government-facilitated linkages to local and international markets, including support for branding, trade exhibitions, and procurement policies favouring biodiversity-friendly goods. P-3 also advocated for biodiversity-sensitive procurement policies and tax incentives, which would help incentivize conservation-based enterprises.

Several participants, particularly P-4 and P-6, called for improved coordination between departments. These entrepreneurs envisioned an ecosystem in which different government units, from Land Reform to Tourism, work together toward shared goals, rather than operating in silos. P-6 highlighted that after receiving land, there was no follow-up from environmental or small business departments to assist with development, indicating a lack of continuity in government programming.

Participants also advocated for better institutional responsiveness and enforcement capacity, especially around environmental protection, and compliance. P-4 emphasized the need for stronger law enforcement mechanisms, noting that quicker and more effective responses from environmental compliance officers (such as Green Scorpions) would empower landowners to take conservation initiatives more seriously.

Finally, some entrepreneurs highlighted the need for greater proximity and access to government services. P-5 expressed frustration that many rural businesses have little to no contact with relevant departments due to the centralization of services in capital cities. Others, like P-6, underscored the potential of public-private partnerships and recommended more collaborative efforts between government, NGOs, and local institutions.

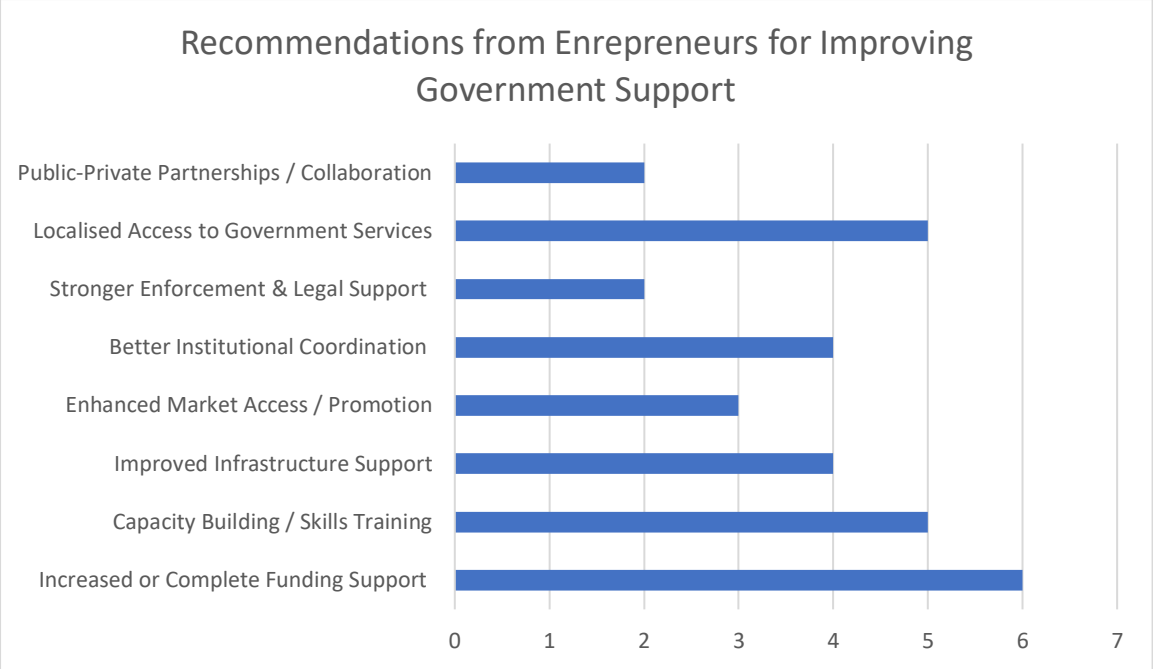


Figure 5: Recommendations from Biodiversity Entrepreneurs for Improving Government Support

This chart illustrates the most frequently cited recommendations made by biodiversity entrepreneurs to enhance government support for their enterprises. Top suggestions included increased or complete funding support, capacity building and technical skills training, and improved infrastructure development. Participants also emphasized the importance of enhanced market access, stronger institutional coordination across departments, localised government support services, and more effective law enforcement in the biodiversity sector.

Overall, the participants' recommendations reflect a desire for more holistic, coordinated, and community-sensitive approaches to supporting biodiversity entrepreneurship. They call not just for funding, but for a full ecosystem of support — from skills and infrastructure to markets and interdepartmental alignment — that reflects the unique challenges of operating within the biodiversity economy.

4.4 Conclusion

This chapter presented the findings of the study based on interviews with biodiversity entrepreneurs operating across various regions and sub-sectors in South Africa. The data revealed critical insights into

the nature, accessibility, and effectiveness of government support structures, as well as the institutional challenges and opportunities encountered by SMMEs in the biodiversity economy.

The first theme explored the types and effectiveness of government support, showing that while some entrepreneurs had received financial support, land access, infrastructure, or training from various departments, others experienced only limited or fragmented assistance. Many reported that operational and regulatory frameworks, though not directly financial, had also played a critical role in enabling business sustainability.

The second theme revealed a wide range of institutional and regulatory challenges, including delayed implementation of support, inconsistent enforcement of policies, poor interdepartmental coordination, and lack of accessible information. Several participants described a disconnect between local government structures and national biodiversity policies, with some relying on NGOs to mediate government interactions.

In the third theme, participants shared their perceptions of policy alignment and interdepartmental coordination. While many demonstrated a strong understanding of departmental roles, they highlighted overlapping mandates, policy misalignment, and weak municipal engagement as key concerns. There was a consistent call for clearer institutional pathways, stronger relationships across spheres of government, and improved alignment between national priorities and local implementation.

The final theme captured entrepreneurs' recommendations for improving government support. These included comprehensive and timely funding, targeted capacity-building, infrastructure investment, better market access, stronger law enforcement, and improved accessibility to government services. Entrepreneurs emphasized the need for government to operate less in silos and more collaboratively, through cross-sectoral partnerships and integrated planning.

Together, these findings point to a biodiversity entrepreneurship ecosystem that holds great promise but is often hindered by systemic gaps, institutional fragmentation, and uneven access to support. The next chapter will interpret these findings through the lens of Institutional Theory and the Triple Bottom Line, drawing connections between the data and broader frameworks of governance, sustainability, and entrepreneurship development.

CHAPTER 5: DISCUSSION AND ANALYSIS

5.1 Introduction

This chapter presents a critical analysis and interpretation of the findings discussed in Chapter 4. Drawing on the theoretical lens of Institutional Theory and the TBL framework, it explores the implications of the lived experiences of biodiversity entrepreneurs in navigating government support systems, institutional structures, and regulatory frameworks in SA. By revisiting the research objectives, this chapter examines how the perspectives of biodiversity-based SMMEs provide insights into the effectiveness of institutional arrangements, interdepartmental coordination, and policy accessibility.

5.2 Discussion Aligned to Research Objectives

5.2.1 Addressing Research Objective 1

Research Objective 1: To establish what type of coordinated support is offered and provided to biodiversity entrepreneurs in the wildlife and bioprospecting economies.

The findings from this study indicate that biodiversity entrepreneurs in the eco-tourism, wildlife and bioprospecting sectors have received various forms of government support — albeit inconsistently and often without sustained coordination. Participants cited support in the form of grant funding, land allocation, training programmes, game donations, infrastructure development, and mentorship. Departments such as the strategy is designed to gather rich, context-specific insights into the experiences of biodiversity entrepreneurs DFFE, DALRRD, provincial conservation agencies like EKZNW and MTPA, and local municipalities were all mentioned as playing a role in providing this support. However, this assistance was often described as sporadic, delayed, or incomplete, suggesting that while support mechanisms exist, their delivery is not sufficiently strategic or aligned.

For example, P-1 noted, “They will issue you thee grant funding five years after the approval of the business plan, and the costs have gone up.” P-2 explained, “DFFE gave us a donation of herbicides… that made a huge difference because I’ve managed to reinvest the money meant for herbicides.” These accounts echo studies by Eijdenberg et al. (2019) and Gibbs & O’Neill (2015), who argue that support for sustainable or green enterprises often suffers from short-termism, bureaucratic delays, and misalignment between goals and delivery mechanisms.

From a TBL perspective, the data shows that government support often emphasises environmental and social pillars (e.g., land access, conservation training) but frequently neglects the economic viability of these enterprises. Most participants highlighted the difficulty of generating revenue, accessing markets, or scaling up operations — partly due to the absence of coordinated value chain support. This suggests that government support structures, while well-intentioned, may fail to holistically enable sustainability across all three TBL dimensions.

Participants also expressed strong views on how support could be improved. Key recommendations included:

- Comprehensive and timely funding, rather than fragmented support
- Operational infrastructure, especially in remote areas (e.g., roads, access to transport)
- Shared services like game counting and wildlife monitoring
- Integrated training, combining business management with biodiversity knowledge.
- Collaborative relationships with NGOs and FET colleges to extend capacity-building.

These insights reinforce the argument by Evans et al. (2017) that sustainability-oriented entrepreneurs require not only funding, but also supportive ecosystems that integrate skills, infrastructure, policy coherence, and stakeholder collaboration.

In summary, while biodiversity entrepreneurs do receive support from various government institutions, the findings suggest that the lack of coordinated, sustained and demand-driven support undermines the long-term success of these ventures. This fragmentation reflects a missed opportunity to enable biodiversity enterprises to thrive as vehicles of both conservation and socio-economic development.

5.2.2 Addressing Research Objective 2

Research Objective 2: To evaluate how biodiversity-based entrepreneurs experience the regulatory and institutional landscape, with particular attention to the coordination, accessibility, and alignment of government support across different departments and spheres of government.

The findings reveal that biodiversity entrepreneurs frequently experience institutional fragmentation, unclear mandates, and regulatory delays, which undermine the intended enabling environment for biodiversity-based enterprises. Participants reported a number of interdepartmental coordination failures,

inconsistencies between national, provincial, and municipal actions, and a general lack of clarity around which department is responsible for specific support functions.

Several respondents expressed frustration with the misalignment of roles across government spheres. P-4 described how, despite clear national and provincial frameworks for stewardship and protected areas, municipal planning departments still approved developments within biodiversity zones, effectively contravening environmental regulations. Such findings reflect the consequences of institutional gaps, conflicting logics and a lack of procedural legitimacy as theorised by Tolbert et al. (2011). Entrepreneurs operate in a context where formal institutions (laws, regulations, frameworks) exist, but implementation is fragmented, slow, or unevenly enforced.

The issue of accessibility was particularly prominent. Many participants indicated that information on biodiversity-related policies or support programmes was not proactively shared and that they relied on NGOs, informal networks, or personal initiative to find what they needed. As P-5 put it, "we rely on community upliftment meetings… without those, we really don't have access to information about how to interact with government." This underscores a key point in the literature: that policy visibility and communication are as important as policy design, particularly for rural and historically disadvantaged communities (Gregori et al., 2019).

The data also highlights a lack of vertical integration. While national departments may adopt progressive mandates, such as DFFE's biodiversity stewardship model or NBES, these are not consistently reflected in the actions or implementation practices of provincial and municipal counterparts.. Participants in Limpopo, KwaZulu-Natal, and the Eastern Cape reported inconsistent enforcement of environmental laws, limited visibility of government officials, and little follow-up or cross-departmental collaboration once a project had begun.

Moreover, the study revealed a sense of institutional distrust and power imbalance. P-2, "*Officials would come under the guise of wanting to profile your business and offer assistance, then turn around and take your ideas to initiate the same project elsewhere*." This dynamic not only violates ethical standards of collaboration but also undermines the legitimacy of institutional engagement. These findings echo Gregori et al. (2019), who describe how institutional asymmetry (where formal structures exist but are not perceived as trustworthy or legitimate) can severely impact entrepreneurs' willingness to engage.

Despite these challenges, a few participants were able to navigate the system successfully, often due to strong personal networks or longstanding relationships with individual officials or NGOs. This reinforces Tolbert et al.'s (2011) assertion that institutional environments do not impact all actors equally.

Entrepreneurs with access to informal institutional capital, through personal ties or non-state actors, can often bypass bureaucratic obstacles. Casson et al. (2009) similarly highlight that development is uneven in weak institutional contexts, and that networks and informal structures often replace formal systems as sources of support and legitimacy. This further highlights the non-uniform experience of institutional engagement, suggesting that success may depend more on who you know than on a consistent, structured support framework.

In conclusion, the findings show that biodiversity entrepreneurs are not operating in a vacuum of policy, but rather within a complex, under-coordinated institutional landscape. The absence of strategic alignment across government levels and departments, combined with poor information dissemination and weak enforcement mechanisms, constrains the ability of entrepreneurs to comply with regulations, access opportunities, and grow sustainable businesses. These challenges point to the need for deliberate, systemic reform to streamline interdepartmental coordination, ensure consistent policy implementation, and make support services truly accessible.

5.3 Interpreting the Findings Through Theoretical Frameworks

This study was guided by Institutional Theory and the TBL framework to investigate how biodiversity-based entrepreneurs experience government support and navigate institutional structures. The use of both frameworks provided a robust lens through which to interpret the lived realities of entrepreneurs operating in highly regulated and often underserved sectors.

5.3.1 Institutional Theory

The findings affirm several key premises of Institutional Theory — particularly that entrepreneurial behaviour is shaped by the institutional environment in which it operates, including formal laws, policies, norms, and enforcement mechanisms (Tolbert et al., 2011). The study revealed that biodiversity entrepreneurs must navigate a complex and fragmented institutional landscape in which roles are unclear, regulatory processes are slow, and policy implementation often varies across provinces and municipalities. As (P-4) expressed, "*Tshwane municipality's planning department is not aligned with national and provincial policies… They don't abide by NEM:PA or other laws*."

In line with Casson et al. (2009), the quality of institutions appears to have a direct impact on enterprise development. Entrepreneurs who encountered supportive institutional actors or well-aligned local

processes were able to advance their businesses, whereas others found themselves excluded due to bureaucratic silos, delayed funding, or weak enforcement mechanisms. For example, P-6 shared, "*We have a good relationship with EKZNW. They've really helped us with training and biodiversity awareness… They even came to repair parts of our fencing and assisted with some game. If we had that kind of help from all departments, we'd be so far*." These findings also reinforce the argument that institutions are not static but can evolve through pressure and feedback from actors such as entrepreneurs, NGOs, and communities (Gregori et al., 2019). Several participants expressed a desire to see entrepreneurs play a more active role in shaping policy and contributing to institutional reform. P-2 reflected this view, "I think transparency goes a long way… they shouldn't steal the information. We want real partnerships where our input counts."

The research also highlighted institutional asymmetry where formal policies exist but lack the legitimacy or capacity to be meaningfully implemented on the ground. This disconnect between policy intention and practice illustrates a critical gap in institutional functionality, especially in rural and restitution contexts (Slavova et al., 2015). In some cases, entrepreneurs like P-2 actively avoided engaging with government due to fear of exploitation, co-option of ideas, or outright dismissal, revealing an erosion of institutional trust.

5.3.2 Triple Bottom Line Framework

The TBL framework, which emphasizes the integration of economic, social, and environmental sustainability (Elkington, 2018), proved useful in evaluating how government support (or the lack thereof) enables or hinders truly sustainable biodiversity enterprises. While many government interventions supported conservation and social development goals, participants expressed concern about the economic viability of their enterprises. *"We received training and biodiversity support, but nothing on how to run the business part… there's no market support or follow-up," revealed P-6. "We want access to sustainable markets, both local and international," added P-1. T*raining, land access, and conservation programmes were offered in many cases, but these were rarely matched by long-term market access, operational support, or financial incentives.

The study confirms what Sargani et al. (2020) described as the need for sustainable entrepreneurship to be supported through holistic ecosystems, where environmental stewardship is tied to financial empowerment and community upliftment. The entrepreneurs interviewed here consistently argued for coordinated support across departments — not only to protect biodiversity, but to ensure that businesses could generate income, retain staff, and reinvest in local communities. P-2 said, ""*We need proper roads,*

infrastructure and marketing platforms — not just training," their sentiments echoed by P-6 and P-5." Without addressing all three pillars of the TBL, there is a risk of overburdening entrepreneurs with conservation responsibilities without adequate economic return.

In summary, the theoretical frameworks applied in this study help to deepen our understanding of the systemic constraints and missed opportunities within the biodiversity economy. They illustrate how institutional weaknesses and policy fragmentation not only complicate entrepreneurship but can also undermine broader national goals for inclusive growth, rural development, and environmental protection.

5.4 Conclusion

This chapter has presented a critical discussion and interpretation of the study's key findings in relation to the two research objectives, drawing on Institutional Theory and the Triple Bottom Line framework. Through the voices of biodiversity-based entrepreneurs, the chapter unpacked the types of support currently available, the challenges associated with navigating institutional systems, and the limitations of current government interventions in achieving long-term sustainability for biodiversity enterprises.

The findings show that while there are efforts by various departments to support biodiversity entrepreneurs, these efforts are often fragmented, delayed, or disconnected from broader institutional and policy frameworks. Entrepreneurs frequently face difficulties accessing consistent, coordinated support, and navigating a complex regulatory environment. This reflects deeper institutional misalignments, as well as gaps in strategic coordination across the three spheres of government.

Institutional Theory helped to frame the challenges participants face as part of a broader governance and legitimacy issue, while the Triple Bottom Line lens revealed how support tends to focus on environmental and social pillars, without sufficient attention to economic sustainability. The analysis also surfaced important recommendations from entrepreneurs, calling for more integrated support models, better communication, stronger enforcement, and more inclusive partnerships.

The next chapter provides a synthesis of the overall conclusions, outlines practical recommendations for government and stakeholders, and reflects on the study's limitations and implications for future research.

CHAPTER 6: CONCLUSIONS AND RECOMMENDATIONS

6.1 Introduction

This concluding chapter presents the overall conclusions drawn from the research and outlines a set of practical recommendations informed by the findings. The study set out to explore how government institutions influence the establishment and sustainability of biodiversity-based small, micro, and medium enterprises (SMMEs) in South Africa, with a focus on the wildlife and bioprospecting sectors. Guided by Institutional Theory and the Triple Bottom Line framework, the research aimed to understand the types of coordinated support available, the regulatory and institutional landscape entrepreneurs operate within, and the alignment of government policies and departments in supporting this emerging sector.

In this chapter, the key findings are synthesised in relation to the two central research objectives. Based on these findings, the chapter proposes context-sensitive recommendations for policymakers, government departments, and implementation partners. The chapter also outlines the study's limitations and offers directions for future research. It concludes by reflecting on the broader significance of the study for promoting inclusive, sustainable entrepreneurship in South Africa's biodiversity economy.

6.2 Summary of Key Findings

The research set out to explore the role of government in enabling biodiversity-based entrepreneurship, focusing on the nature of support available and the regulatory and institutional environment within which these businesses operate. Two research objectives guided the inquiry, each addressed through the thematic analysis of primary data collected from biodiversity SMME owner-managers.

6.2.1 Findings for Research Objective 1

Participants identified various forms of government support received at distinct stages of their business journey. These included:

- Grant funding, often from national or provincial departments
- Donations of game, livestock, and agricultural inputs
- Training and skills development in conservation and business operations
- Land restitution and post-settlement support (in some cases)

However, this support was described as fragmented, delayed, and inconsistent. Entrepreneurs reported challenges accessing timely and sufficient funding, limited market support, and a lack of long-term operational assistance. Moreover, infrastructure and access to shared services (e.g., game counting, road maintenance, storage) were highlighted as major gaps. Overall, while support exists, its delivery is not always aligned with the practical needs of biodiversity enterprises, particularly those based in remote or rural areas.

6.2.2 Findings for Research Objective 2

Entrepreneurs operate in a complex, bureaucratic, and often siloed institutional environment, where different departments at the national, provincial, and municipal levels lack effective coordination. Participants noted:

- Inconsistent enforcement of environmental laws and stewardship frameworks
- Delays in issuing permits and licences
- Lack of clarity regarding departmental roles and mandates
- Limited visibility of government officials and weak communication channels

In many cases, NGOs or informal networks served as intermediaries between entrepreneurs and government, suggesting a breakdown in formal support systems. Participants also described situations where local government decisions directly contradicted national policies, such as approving developments in protected biodiversity zones. The findings point to a disconnect between the progressive intentions of national biodiversity policies and their implementation on the ground. This disjuncture constrains entrepreneurs' ability to comply with regulations, access support, and grow their businesses.

6.3 Recommendations

The findings of this study reveal both the potential and fragility of government support for biodiversity entrepreneurs in South Africa. Based on the challenges and suggestions raised by participants, the following recommendations are proposed to strengthen institutional support, promote alignment across departments, and foster a more sustainable and inclusive biodiversity economy.

6.3.1 Improve the Coordination and Delivery of Support Across Government Spheres

- Establish a dedicated biodiversity enterprise support office or “one-stop-shop” to streamline support services across departments such as DFFE, DALRRD, Tourism, and Small Business Development.

- Develop interdepartmental coordination mechanisms at national and provincial levels to align environmental, economic, and development goals.
- Ensure that support offerings (e.g., funding, training, infrastructure) are packaged holistically and delivered in a coordinated, time-sensitive manner.

6.3.2 Strengthen Operational and Market Support

- Expand support beyond initial funding by including infrastructure development (e.g., roads, storage, access to electricity), particularly in remote rural areas.
- Facilitate access to local and international markets through government procurement programmes, exhibitions, and export assistance.
- Offer shared services such as game capture, fencing, and compliance monitoring for enterprises that cannot afford them independently.

6.3.3 Improve Policy Implementation and Regulatory Clarity

- Train municipal and provincial officials to understand and implement national biodiversity and land-use frameworks consistently.
- Develop clear, accessible guidelines for licensing, permits, and compliance to reduce uncertainty and delays.
- Foster accountability in enforcement, including resourcing the Environmental Management Inspectorate (Green Scorpions) and ensuring better responsiveness to violations such as poaching or illegal development.

6.3.4 Enhance Communication and Accessibility

- Improve the visibility and communication of support programmes by using community radio, local offices, and partnerships with local NGOs and FET colleges.
- Ensure government websites are user-friendly, updated regularly, and designed for low-bandwidth rural users.
- Deploy outreach officers to rural communities to raise awareness about programmes and build trust.

6.3.5 Foster Entrepreneurial Capacity and Inclusion

- Integrate capacity-building into all support programmes, including business management, marketing, financial literacy, and biodiversity compliance training.

- Facilitate partnerships between biodiversity enterprises and TVET/FET colleges to build mutual skills pipelines.
- Design support models that are inclusive of CPAs, community trusts, and co-operatives, recognising their unique governance and support needs.

6.3.6 Encourage a Culture of Mutual Trust and Collaboration

- Promote transparent engagement practices between government and entrepreneurs to rebuild trust, especially in communities that have experienced exclusion or idea theft.
- Involve entrepreneurs in co-designing support programmes, ensuring that their realities and insights inform future interventions.
- Institutionalise feedback mechanisms where SMMEs can report on barriers or inefficiencies in government support systems.

6.4 Study Limitations

While this study provides valuable insights into the institutional landscape and lived experiences of biodiversity-based entrepreneurs in South Africa, it is important to acknowledge several limitations that may influence the scope and generalisability of the findings.

The study was limited to entrepreneurs who were part of, or connected to, existing support initiatives. This may have excluded voices from businesses operating entirely outside formal support systems or those with more marginalised experiences. Time and resource constraints restricted the ability to conduct in-person interviews or site visits, particularly in rural and remote locations. Virtual and telephonic interviews, while effective for data collection, may have limited rapport-building and context-rich observation.

Furthermore, the study originally aimed to include a desktop analysis of biodiversity-related policies and regulatory frameworks across government departments. While some policy context was still analysed through literature and participant commentary, this element was removed to maintain the feasibility and focus of the study.

Lastly, the study focused primarily on the perspectives of entrepreneurs and did not include direct interviews with government officials or policymakers. Their inclusion could have provided a more balanced institutional perspective and may be worth exploring in future research.

Despite these limitations, the research offers meaningful contributions to knowledge and policy by surfacing grounded, practitioner-informed insights into the real-world challenges and opportunities of operating a biodiversity-based enterprise in South Africa.

6.5 Contribution to Knowledge

This study makes a valuable contribution to the growing body of research on sustainable entrepreneurship, governance in the biodiversity economy, and the role of institutional environments in enabling or constraining enterprise development. While much of the existing literature focuses on policy frameworks or macroeconomic indicators, this research adds an important bottom-up perspective, capturing the lived experiences and insights of biodiversity entrepreneurs themselves.

Firstly, the study highlights the fragmentation of institutional support across departments and government spheres. Although numerous policies and programmes exist to promote biodiversity-based enterprises, entrepreneurs report facing significant challenges related to policy implementation, interdepartmental coordination, and access to information. These insights offer a grounded understanding of how institutional misalignment at operational levels weakens the intended impact of national biodiversity and economic development strategies.

Secondly, the research contributes to the theoretical application of Institutional Theory in the context of South African biodiversity entrepreneurship. It illustrates how institutional voids, competing mandates, and weak enforcement mechanisms undermine the legitimacy and functionality of regulatory frameworks. The study affirms that entrepreneurs are not only shaped by these institutional pressures but also possess the capacity to influence and challenge them — for example, by voicing their concerns, innovating independently, or forging alternative pathways through NGO and community networks.

Thirdly, the application of the TBL framework in this study provides a nuanced understanding of how biodiversity entrepreneurs strive to balance economic viability, social impact, and ecological responsibility. The findings show that current support mechanisms often prioritise conservation and community elements, while leaving entrepreneurs without sufficient operational support or market access

to sustain their businesses. This imbalance raises questions about the sustainability of government interventions themselves, and whether they truly enable transformative economic inclusion.

Finally, the study contributes methodologically by centring entrepreneurial voices, particularly from rural and historically marginalised communities, in a conversation often dominated by policy and institutional narratives. By surfacing these practitioner perspectives, the research offers evidence-based guidance for government officials, policymakers, funders, and other stakeholders who are committed to realising the goals of the National Biodiversity Economy Strategy (NBES) and the broader developmental vision set out in the National Development Plan (NDP).

6.6 Suggestions for Future Research

This study has opened up several potential avenues for future research within the biodiversity economy, particularly as it relates to institutional governance, sustainable entrepreneurship, and policy implementation in South Africa.

Future research could expand the scope and scale of the current study by incorporating a larger and more geographically diverse sample. Including enterprises across all five streams of the biodiversity economy — such as marine, eco-tourism, and aquaculture — would allow for a more comprehensive view of the sector and enable comparative insights across different subsectors and ecological contexts.

These studies should consider including government officials, policymakers, and support agency representatives as participants. Their perspectives could shed light on the operational, administrative, and political constraints that influence the implementation of support mechanisms. A multi-stakeholder approach would also help identify areas of misalignment between institutional intent and practical outcomes.

A policy and regulatory review, including national and provincial legislation, strategic frameworks, and budget allocations, could offer a complementary layer of analysis to explore how institutional arrangements influence access to funding, compliance processes, and business incentives. This would be especially useful when paired with stakeholder interviews and implementation data.

There is a need for longitudinal research that follows biodiversity-based enterprises over time to assess how institutional support (or its absence) influences their sustainability, growth, and contribution to biodiversity conservation. Such studies could also explore how changing political or economic conditions shape institutional responsiveness and impact. Given the increasing emphasis on localisation, inclusion, and transformation, future research could focus on community-owned enterprises, such as Communal Property Associations (CPAs), cooperatives, and trusts. These models have unique governance challenges and opportunities and are often at the frontline of both conservation and rural development agendas.

In summary, future research should aim to deepen and diversify our understanding of the intersection between policy, entrepreneurship, and biodiversity, while contributing to more responsive and equitable institutional models.

6.7 Conclusion

This study set out to explore the role of government in enabling biodiversity-based entrepreneurship in South Africa, with a specific focus on the types of coordinated support available and the institutional and regulatory landscape within which these enterprises operate. Grounded in Institutional Theory and the Triple Bottom Line framework, the research provided a platform for biodiversity entrepreneurs to share their lived experiences, revealing both the potential and the persistent barriers that shape their ability to operate sustainably and scale their impact.

The findings reveal that while government has made strides in supporting biodiversity enterprises through funding, training, and stewardship programmes, these efforts are often fragmented, poorly coordinated, and inadequately aligned with the practical realities of rural, conservation-driven businesses. Entrepreneurs continue to navigate complex, inconsistent regulatory systems, and in many cases, support is delayed, insufficient, or accessible only through intermediaries. Despite these constraints, entrepreneurs demonstrated resilience and a clear vision for what meaningful government support could look like.

The study has contributed new insights into how institutional environments, both enabling and constraining, affect the sustainability of biodiversity-based SMMEs. It has also highlighted the importance of government accountability, policy coherence, and the need to co-design support mechanisms with the very entrepreneurs they are intended to serve. Importantly, the research surfaces the critical need for

interdepartmental coordination and long-term investment in enterprise infrastructure, capacity-building, and inclusive rural development.

In conclusion, this research reinforces the idea that biodiversity entrepreneurship is not only an ecological or economic issue but also an institutional one. If South Africa is to meet its conservation and transformation goals, then supporting biodiversity enterprises must go beyond rhetoric — requiring consistent, integrated, and inclusive governance that values entrepreneurs as partners in national development.

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APPENDICES

APPENDIX A: CONSENT FORM

I, _____ agree to participate in the research project titled: *The Role and Nature of Government Support in the Establishment and Sustainability of Biodiversity Entrepreneurs* being undertaken by Noma Bolani, a Master of Business Administration candidate at the University of the Witwatersrand.

I confirm that the research project was discussed with and explained to me. I have had the opportunity to ask questions about this research and I have received satisfactory answers. I understand the general purposes, risks and methods of this research.

I consent and agree to participate in the research project under the following conditions:

- My participation is voluntary.
- My participation will be and shall remain anonymous.
- I have the right to withdraw my participation from the research project without any implications to myself.
- I have been made aware of the steps taken to minimise any possible risks associated with the research project.
- I am able to request for a copy of the research findings and final report.
- My security and confidentiality will not be compromised.

In addition, I consent to:

- audio recording of any part of or all research activities
- publication of results from this study on the condition that my identify will not be revealed.

Name: _____ (PLEASE PRINT)

Signature: _____

Date: _____

APPENDIX B: INTERVIEW SHEET

Thank you for agreeing to participate in this interview for my Masters Research Paper titled "The role and Nature of Government Support in the Establishment and Sustainability of Biodiversity Entrepreneurs". The interview is estimated to take 45 minutes and will be recorded, to assist me to review your answers and notes. The recordings and accompanying notes will be kept confidential and used solely for data collection purposes. All participants will remain anonymous.

INTERVIEWEE DETAILS

BE Stream: _____ Date: _____ Staff: _____

Business Type: _____

Location: _____ Turnover: _____

_____

QUESTIONS

Question #1: What attracted you to the biodiversity economy (why did you open up this business)?

Answer: _____

Question #2: How many government institutions did your business need to comply with in order to operate? Please list all of them?

Answer: _____

Question #3: What is your understanding of government's role in relation to the support and development to SMMEs?

Answer: _____

Question #4: Can you differentiate the differing roles of each government departments / municipalities?

Answer:

Question #5 What type of government support have you received during the lifespan of your business?

Answer:

Question #6 What challenges or obstacles have you experienced when dealing with government institutions?

Answer:

Question #7 How do you think these challenges should be addressed?

Answer:

Question #8 Are you aware of government support programmes for biodiversity SMMEs? If yes, please elaborate.

Answer:

Question #9 Is there anything else you would to add?

Answer: _____

Question #10 _____

Answer: _____

Additional Notes

APPENDIX C: RESEARCH PARTICIPANT INFORMATION SHEET

Dear Participant,

My name is Noma Bolani and I'm a Master of Business Administration candidate at the University of the Witwatersrand, Johannesburg. My research supervisor is Dr. Robert Venter. I am undertaking a research study about government's role in the establishment and sustainability of small, medium and micro enterprises in the biodiversity sector, titled: *The Role and Nature of Government Support in the Establishment and Sustainability of Biodiversity Entrepreneurs*.

I am inviting you to take part in an interview to provide your experiences with government institutions and their regulatory frameworks. If you decide to take part, the interview is estimated to take 45 minutes via virtual means (Zoom / MS Teams) or telephonically at a date convenient to you. With your permission, the interviews will be audio recorded. This data will be stored in my personal cloud storage system for 2 years, to be deleted thereafter. Only I, as the researcher, will have access to this data.

The interview will be confidential and anonymous. When I share the results of the research study, I will not include your name or anything else that could identify you. With your permission, other researchers may use the data collected from this research study, but your name and any personal information will not be used or passed on.

If you decide to take part in the research study, it should be because you want to volunteer. You do not have to take part. You can stop being in the study at any time. You do not have to answer any questions if you do not want to. You will not get any direct benefits if you choose to join the research study. You will not lose any services, benefits or rights you would normally have if you decided not to join. Taking part in the research study will not cost you anything. You will also not be paid for being in this research study.

This research study will be written up as a research report. The report will be available on the university library website. If you would like to receive a summary of this report, I will be happy to send it to you. If you have any questions during or afterwards about this research study, feel free to contact me or my supervisor on the details listed below. If you have any concerns or complaints about the ethical procedures of this research study, you are welcome to contact the University Human Research Ethics Committee (Non-Medical), telephone +2711 717 1408, email hrecnon-medical@wits.ac.za.

Kind regards,

Researcher: Noma Bolani
missbolani@gmail.com; 072 927 06367

Supervisor: Dr. Robert Venter
robert.venter@wits.ac.za

APPENDIX D: ETHICS CLEARANCE CERTIFICATE

Graduate School of Business Administration

University of the Witwatersrand, Johannesburg

Wits Business School Ethics Committee

Constituted under the University Human Research Ethics Committee (Non-Medical)

Ethics Clearance Certificate

Ethics protocol number: WBS/BA761906/469

This certificate is only valid with a legitimate ethics protocol number and signed by the Researcher (below).

Project title	The role and nature of government support in the establishment and sustainability of SMMEs in the biodiversity economy
Investigator / Researcher	Ms Noma Sango Bolani
Nature of Project	MBA (Research Article)
Decision of the Committee	Approved, provided stakeholders and participants are guaranteed confidentiality.
Issue Date of Certificate	11/07/2024
Expiry date	Date of submission of the project / research report
Chairperson	Dr Ayanda Magida ☎ +27 11 717 3953 ayanda.magida@wits.ac.za

Declaration by Researcher

One copy must be signed by the Researcher and returned to the Chairperson of the Wits Business School Ethics Committee.

I fully understand the conditions under which I am authorized to carry out the abovementioned research and I guarantee to ensure compliance with these conditions. Should any departure to be contemplated from the research procedure as approved I undertake to resubmit the protocol to the Committee.

Signature	Date: