



Ecotourism as an Environmental Management Instrument: Reassessing Biodiversity Conservation and Sustainable Rural Development in the Eastern Cape, South Africa

Larry Larsen Santos¹, Leonard Chitongo²

¹ Masters Student, Department of Biological & Environmental Sciences, Walter Sisulu University, Mthatha, South Africa. Email: 196605261@mywsu.ac.za

² Senior Lecturer Human Geography, Department of Biological & Environmental Sciences, Walter Sisulu University, Mthatha, South Africa. Email: lchitongo@wsu.ac.za

ARTICLE INFO

Article History:

Received: March 07, 2026
Revised: June 24, 2026
Accepted: June 26, 2026
Available Online: June 28, 2026

Keywords:

Protected Areas
Ecotourism
Biodiversity Conservation
Rural Development
Eastern Cape

JEL Classification Codes:

Q26, Q56, Q57, O18, R11

Funding:

This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

ABSTRACT

Ecotourism is increasingly suggested as a way of balancing biodiversity conservation with socio-economic development, but the effectiveness of ecotourism is disputed, especially in biodiverse but economically disadvantaged areas like the Eastern Cape Province in South Africa. This study employed a conceptual integrative literature review, guided by Stakeholder Theory, to reassess the conservation–development nexus by synthesising evidence from 58 purposively selected peer-reviewed journal articles, books, policy documents, and institutional reports based on their relevance to ecotourism, biodiversity conservation, community participation, and sustainable rural development in the Eastern Cape. The review focused on the role of ecotourism in the conservation of biodiversity, livelihoods, governance, benefit-sharing, and sustainable development in the province's key conservation landscapes. The synthesis shows that ecotourism has provided significant conservation and development outcomes such as protected-area management, employment, local enterprise development, environmental awareness, and tourism-based livelihoods. But progress is limited by inequities in benefit distribution, low community engagement, poor institutional coordination, governance gaps, and lingering issues of land rights and access to resources. The review adopts a stakeholder-based approach to conceptualize it as a multi-source evidence-based analysis of the institutional and governance context underpinning ecotourism outcomes across multiple conservation landscapes in the Eastern Cape. It concludes that ecotourism can contribute significantly to biodiversity conservation and sustainable rural development when supported by participatory governance, transparent institutions, and equitable socio-economic outcomes, thereby advancing Sustainable Development Goals 8, 15, and 17 and the African Union's Agenda 2063.



© 2026 The Authors, Published by iRASD. This is an Open Access Article under the [Creative Common Attribution Non-Commercial 4.0](https://creativecommons.org/licenses/by-nc/4.0/)

Corresponding Author's Email: lchitongo@wsu.ac.za

Citation: Santos, L. L., & Chitongo, L. (2026). Ecotourism as an Environmental Management Instrument: Reassessing Biodiversity Conservation and Sustainable Rural Development in the Eastern Cape, South Africa. *iRASD Journal of Energy & Environment*, 7(1), 55–76. <https://doi.org/10.52131/irasd-jee.2026.v7i1.3194>

1. Introduction

In the pursuit of global wealth and well-being, sustainability has become a crucial factor, directing initiatives to strike a balance between social justice, environmental preservation, and economic progress (Islam, 2025; Wang et al., 2025). Environmental sustainability has become a critical issue at the nexus of ecological preservation, social

justice, and economic viability in the current terrain of global issues (Naseer et al., 2025; Yang et al., 2024). Social sustainability ensures participatory decision-making and equitable development by encouraging community involvement, fair access to resources, and the preservation of cultural heritage. Adoption of global frameworks like the Paris Agreement and the Sustainable Development Goals (SDGs) emphasizes how crucial it is to include sustainability into governance and policy (Izah et al., 2025). As a result, ecotourism has emerged as a widely promoted strategy for achieving biodiversity conservation while simultaneously generating economic opportunities for local communities.

A variety of terms, including soft tourism, responsible tourism, green tourism, and alternative tourism, have been used to describe or relate to ecotourism. Ecotourism is a specialised form of nature-based tourism that involves responsible travel to natural areas while conserving biodiversity and ecosystems, minimising environmental impacts, and supporting the well-being and livelihoods of local communities (Hussain, 2022). According to Zingi et al. (2022), ecotourism mostly occurs in the nexus of environmental preservation and rural development, with an emphasis on the advantages that trickle down to the nearby communities. Ecotourism promotes residents' well-being, helps conserve biodiversity, and emphasizes local ownership of business prospects and participatory development (Gillani et al., 2026). Because ecotourism promotes community development by providing a variety of sources of income in areas with sound governance frameworks, it has the potential to help communities escape the cycle of poverty. It seeks to preserve biological diversity, conserve resources, and encourage sustainable resource use while providing economic benefits to local people. Ecotourism plays a crucial role in reducing conflict between humans and wildlife in situations where people reside near or on the edge of conservancies, as is the case in the Eastern Cape.

Many developing nations struggle to achieve sustainable socioeconomic development in regions set aside for ecological conservation. The relationship between ecological conservation and socioeconomic growth is especially complicated in these locations because the majority of them are situated in impoverished areas, and ecological conservation techniques limit their use of resources (Wu et al., 2020). Likewise, Chitongo (2021) highlighted that, despite being naturally endowed with natural resources that are used to further develop urban regions, African rural areas remain extremely poor in comparison to urban centres. National governments have developed rural-focused Local Economic Development (LED) programs to close the development gap between rural and urban areas. As a result, local governments around the world have accepted ecotourism as one of their development strategies.

Several tourists are drawn to South Africa by its wealth of natural and cultural resources, which present chances for economic expansion and development. Unsustainable tourism practices, however, have the potential to harm the environment, take advantage of local communities, and jeopardize the industry's long-term survival. The significance of integrating local communities into the tourism value chain and enabling them to actively engage in and profit from tourism-related activities (Chiwawa & Wissink, 2023). Local communities may experience both positive and bad outcomes from the tourism sector. It can have an impact on the sociocultural and ecological aspects of destinations, even while it is creating jobs and economic growth in several regions of the world. Residents' attitudes, actions, and quality of life may be negatively impacted by a large influx of tourists. Degradation of the land, air, water, plants, and animals can also result from it (Mtapuri et al., 2024). Thus, sustainable ecotourism in the Eastern Cape requires a delicate equilibrium between conservation and community engagement, aiming to minimize environmental degradation and ensure socio-economic sustainability.

The literature on ecotourism, biodiversity conservation and rural development is increasing but there are significant gaps in knowledge within the Eastern Cape context. Most of the research has been conducted on individual protected areas, on community-based tourism projects or conservation programmes individually, and on broad narrative or regional reviews, mostly dealing with ecotourism at national or international levels. Similarly, there is

limited evidence of the impact of ecotourism on biodiversity conservation, socio-economic development, governance and community participation and benefit-sharing in the various conservation landscapes of the province. The disaggregation of this knowledge makes it hard to discern commonalities, lessons learnt and policy priorities that can help to improve the conservation–development nexus in the Eastern Cape.

The study draws on Eastern Cape case studies including Addo, Dwesa-Cwebe, Hluleka, Mkambati, Baviaanskloof and the Wild Coast to illustrate how the outcomes of ecotourism differ according to context, emphasising the need for integrated approaches which combine the conservation of biodiversity with inclusive rural development. The aim of the review is to: (i) review the role of ecotourism in the conservation of biodiversity in the Eastern Cape; (ii) review the socio-economic benefits of ecotourism development; (iii) review governance, participation and benefit-sharing arrangements that shape outcomes of ecotourism development; and (iv) identify opportunities and challenges to strengthen the conservation–development nexus in the Eastern Cape.

2. Conceptual framework

2.1. Stakeholder Theory as the Analytical Lens for Ecotourism

More important, governments in developing countries, such as South Africa, may adopt Stakeholder Theory as a sustainable development model for the country's ecotourism industry. Originally developed by Freeman (2010), Stakeholder Theory argues that sustainable development is achieved when the interests of all stakeholders affected by development initiatives are recognised and balanced through inclusive participation, collaboration and shared decision-making (Ramaano, 2024; Walter et al., 2024) Walter et al., 2022). Within the ecotourism sector, these stakeholders include government departments, conservation agencies, local communities, traditional authorities, tourism operators, non-governmental organisations (NGOs), private investors and visitors (Litheko, 2022; Ramaano, 2024). Rather than viewing conservation and development as competing objectives, Stakeholder Theory provides a framework for understanding how collaborative governance can simultaneously promote biodiversity conservation and socio-economic development (Walter et al., 2024).

Ramaano (2024) posited that, while ecotourism aims to promote sustainable tourism by fostering social, economic, and environmental efficiencies, poorly planned and carried out ecotourism activities near protected areas can have disastrous environmental effects in remote and destination locations. Although environmental changes can happen naturally in certain locations, tourism, careless human activity, integrated lifestyles by people and nearby communities, and insignificant measures by area managers can worsen environmental issues and accelerate climate change. Litheko (2022) highlighted that more significantly, governments in developing nations like South Africa might embrace the stakeholder theory as a model for sustainable development, particularly in the country's ecotourism industry. One type of sustainable tourism that has been proposed is ecotourism, which is expected to help underprivileged communities and promote conservation. Globally, the foundation of ecotourism is linked to the reduction of poverty. In other words, ecotourism is thought to be important for generating revenue, raising living conditions, preserving the environment, enabling local societies politically, and promoting education. Low-income areas are home to many rural populations in Africa and Southern Africa.

Therefore, the stakeholder theory provides the conceptual foundation for this review by explaining how collaborative governance and the active involvement of multiple stakeholders contribute to sustainable ecotourism outcomes. The framework suggests that strengthening institutional quality, stakeholder participation, equitable benefit-sharing and conservation financing can enhance protected-area management, reduce resource conflicts, promote biodiversity conservation and improve the resilience of local livelihoods. Accordingly, this theoretical perspective guides the synthesis and interpretation of evidence from the Eastern Cape case studies reviewed in this paper.

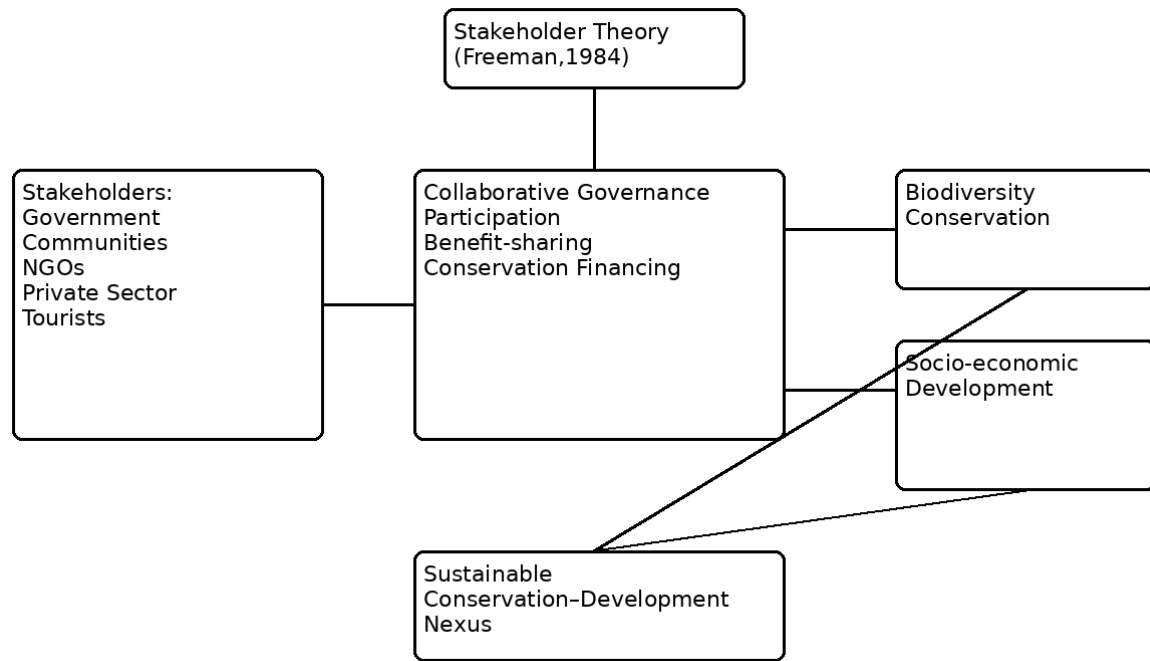


Figure 1: Conceptual Model of the Conservation-Development Nexus

Analytical Lens: Stakeholder Theory (Freeman, 1984)

The model shows that stakeholder collaboration strengthens governance, participation, equitable benefit-sharing and conservation financing, leading to biodiversity conservation and socio-economic development. These outcomes reinforce the sustainable conservation-development nexus.

2.2. Biodiversity Conservation and Protected Area Management

The term "biodiversity," short for "biological diversity," refers to the diversity of life on Earth. It is commonly classified into three levels: genetic diversity, species diversity, and ecological diversity (Rathoure, 2024). In Southern Africa, protected areas (PAs) are still essential for maintaining wildlife-based tourism, protecting biodiversity, and preserving rural livelihoods. However, substantial changes in PA management paradigms have been prompted by the region's quickly evolving socio-ecological landscape. To promote sustained conservation of nature and the related cultural and geo-heritage sites, a protected area is a geographically delimited landscape that has been selected, devoted, and administered through legal instruments or other effective ways. A variety of land uses, including national parks, safari areas, nature reserves, wilderness regions, wildlife management areas, and private conservancies, can be considered protected places (Zvidzai et al., 2025). Therefore, the sustainable management of protected areas is critical for safeguarding biodiversity and maintaining ecosystem integrity in the face of increasing environmental pressures.

2.3. The Conservation-Development Nexus

The Sustainable Development Goals (SDGs) emphasize the significance of reducing poverty and demand the adoption of policies that promote the socioeconomic advancement of those living in poverty (Niaz, 2022). One of the biggest global challenges is the intricate and dynamic link between human well-being, socioeconomic progress, and biodiversity conservation (Wang et al., 2024). Sustainable conservation measures are necessary because human reliance on ecosystems for vital resources like firewood, fish, and natural beauty frequently comes at the expense of biodiversity health (Ngongolo & Kyando, 2025). According to Cao et al. (2021), globally, ecological conservation and restoration are essential elements of sustainable development, especially in the current climate change period. But conservation and restoration cost a lot of resources that could be used for social and economic

advancement. As a result, over-conservation runs the risk of making poverty worse rather than better. Thus, to achieve a win-win scenario where both environmental degradation and poverty can be reduced, environmental preservation must strike a balance between the restoration of natural ecosystems and the requirement to give residents of project areas a means of subsistence.

Safarli (2024) mentioned that the complex relationship between environmental preservation and economic development is shown in this investigation, highlighting the urgent need to achieve sustainable growth. The environmental effects of cultures' intense pursuit of economic advancement intensify to the point where careful and sustainable measures become essential. Therefore, a conscious and concerted effort is required to ensure the harmonious co-existence of growth and environmental protection during societies that are dealing with the advantages and disadvantages of development. Vivien (2023) however pointed out that many businesses and governments prioritise short-term economic gains over long-term environmental impact. This practice frequently causes pollution, environmental destruction, and depletion of resources. To change this thinking requires an appreciation of the intrinsic value of environmental resources and an awareness of their long-term impact. Achieving sustainable growth and development is challenging and essential for countries to maintain economic success. It requires careful consideration of various factors such as social justice, economic policies, environmental sustainability, and global interdependence.

Sustainable development is comprehensive development that meets the needs of the present without the future generation's ability to do so. Ecotourism and sustainable development are connected by the possibility of positive impacts of tourism on the economy, society and the environment. The aggressive method and regulation that maintains the balance between the preservation of the wilderness value, the demand of local people, and responsible tourist behavior is essential for the tourism to truly align with sustainable development goals (Bhalerao et al., 2025). However, careless tourist spending practices can directly lead to the devastation of a destination's environmental system. In this way, a thorough review of environmental protection would need to consider both the conditions of locals and visitors. Therefore, there is a need for more rigor in the analysis of ecotourism given the growing strain on land and wildlife; the concept of ecotourism should be established as an expansion and refinement of links between tourism and conservation, built on the idea of using tourism for conservation while deepening sustainability criteria (Cossengue et al., 2025).

2.4. Community Participation and Sustainable Livelihoods

The long-term viability and sustainability of ecotourism depend on fostering a sense of local ownership and responsibility through community involvement in ecotourism programs. To guarantee the preservation and conservation of natural resources and to encourage responsible tourism behaviours, this long-term environmental stewardship is essential (Tiwari et al., 2024). Likewise, Gumede and Nzama (2021) opined that, since local communities have the power to choose whether ecotourism development initiatives succeed or fail, local community participation is seen as a crucial pillar of ecotourism development. Sustaining ecotourism development and fostering goodwill among stakeholders depend heavily on the socioeconomic and sociocultural well-being of local populations. Zingi et al. (2022) argue that local populations have not been actively involved in planning and decision-making processes related to ecotourism development, despite being promoted as a key pillar of ecotourism development. Corroborating the above, Chitongo (2013) mentioned that, if these initiatives are appropriately institutionalized, they will result in successful drought prevention initiatives that guarantee sustainable livelihoods.

Building bridges to span and build values among community members strengthens social links within the community by promoting cooperation. Families and individuals collaborate to create a profitable ecotourism business, which strengthens community cohesion (Kumar & Vyas, 2022). Considering Gumede and Nzama (2020) support from local residents is crucial to the success of ecotourism initiatives carried out in a particular area. The endeavour to completely incorporate local populations in the planning and/or decision-

making processes pertaining to ecotourism projects can be interpreted as community empowerment in the context of ecotourism development. Lack of expertise is one of the most common barriers to local community involvement in ecotourism development procedures. The impact of skill deficits, which may involve local community participation in ecotourism development projects, cannot be overlooked or minimized. The Department of Environmental Affairs and Tourism (1996) highlighted that local communities have not been sufficiently equipped with the knowledge and resources needed to participate in ecotourism development activities, including planning and decision-making.

2.5. Governance and Benefit-Sharing in Ecotourism

Ecotourism has a significant positive impact on the local economy and well-being as it provides communities with an opportunity to become self-sufficient through their own resources and strengths. The development of ecotourism has also benefited from the assistance of stakeholders (government, national-international organizations, and enterprises) on the friendliness of locals. However, the development of ecotourism in Indonesian communities is hampered by a shortage of raw materials, production space, and human resources as well as competition from industrial goods (Mulyani et al., 2021). In addition, Dinesh et al. (2025) suggested that the engagement of the local community in decision-making processes and empowerment are crucial for the success of the tourism efforts. Local support for tourism is affected by perceived economic rewards, environmental issues, and confidence in governmental institutions. To ensure that the advantages of ecotourism are distributed fairly and to mediate community engagement, governance structures especially Local Self-Government Institutions (LSGs) are essential. Studies in India, Nepal, Thailand and elsewhere have shown that the desire to participate and the success of ecotourism programmes are significantly affected by effective leadership, institutional support and policy support.

Ecotourism governance has concentrated on the quality of ecotourism to address these difficulties, despite the fundamental and crucial role that control, planning, and other government activities play in complementing and supporting ecotourism planning and delivery. The long-term survival and quality enhancement of a well-managed environment, which influences a more fruitful and pervasive culture of environmental protection, is the foundation of the sustainable ecotourism concept (Sanusi et al., 2026). Moreover, Ibrahim et al. (2025) postulated that, a balance between tourism and other current and future activities is necessary for sustainable development, as sustainable ecotourism is unlikely to be the only user of resources. Some of the main benefits of ecotourism goals include the inclusion of sustainable tourism, trade-offs between the governance sector that may be required to protect eco-tourism, such as natural resource conservation, environmental protection, cultural preservation, and economic enhancement. Planning and managing ecotourism, as well as drawing visitors to comprehend the ecotourism viewpoint, depend heavily on governance.

3. Methodology

3.1. Research Design

This study employed a conceptual integrative literature review to critically synthesise existing knowledge on the relationship between ecotourism and biodiversity conservation in the Eastern Cape Province of South Africa. An integrative review is appropriate for studies that seek to consolidate and reinterpret evidence from diverse sources rather than generate new empirical data. Unlike systematic reviews that primarily assess intervention effectiveness, conceptual integrative reviews facilitate the integration of empirical studies, theoretical contributions, policy documents and institutional reports to develop a comprehensive understanding of complex and multidisciplinary issues. The review was guided by the objective of reassessing the conservation–development nexus by examining the role of ecotourism in biodiversity conservation, rural livelihoods and sustainable development, and identifying governance and institutional factors that influence these outcomes in the Eastern Cape.

3.2. Literature Identification and Selection

Literature search was conducted in major academic databases like Scopus, Web of Science, ScienceDirect, Google Scholar and JSTOR. These searches were complemented by relevant policy documents, government publications and reports from conservation and tourism organisations to capture both academic and policy perspectives.

The searches included the keywords and Boolean operators: ecotourism, biodiversity conservation, protected areas, Eastern Cape, community participation, governance, benefit-sharing, sustainable tourism, and conservation–development nexus. While the study mainly reviewed literature from 2000 to 2025, seminal works earlier than this period were included if they contribute to theoretical or conceptual understanding of ecotourism and biodiversity conservation.

Following the search process, duplicate and irrelevant publications were excluded through iterative screening of titles, abstracts and full texts. Sources that focused on ecotourism, biodiversity conservation, protected area management, community participation, governance, sustainable livelihoods and rural development in the Eastern Cape or South African context were given priority. Studies that only addressed conventional mass tourism or did not clearly relate to the conservation and development issues were excluded.

The final review included evidence from 56 sources, including peer-reviewed journal papers, books and book chapters, doctoral theses, government policy papers and institutional reports. The variety of these sources facilitated the incorporation of theory, empirical results, and policy analysis germane to the conservation–development nexus.

3.3. Data Extraction and Synthesis

All selected publications were fully read and systematically analysed to obtain information on the purpose of the study, the context of the study, methodological approach, theoretical orientation, and major findings. Specific focus was placed on evidence on biodiversity conservation, protected area management, community engagement, governance and benefit sharing, and livelihoods and sustainable tourism.

Thematic synthesis was used to analyse the extracted information, which involved identifying recurring concepts and patterns and areas of similarity and differences across the literature and organising them into more general analytical themes. These themes subsequently informed the structure of the review and included: (i) contributions of ecotourism to biodiversity conservation; (ii) socio-economic and livelihood benefits; (iii) community participation and empowerment; (iv) governance and institutional challenges; (v) benefit-sharing and equity; (vi) land tenure and resource access; and (vii) emerging opportunities and future research directions.

The review therefore did not statistically summarise findings from the various disciplines and contexts in which the studies were conducted but rather used an interpretive approach to critically compare the evidence and gain a more holistic understanding of the impact of ecotourism on conservation and development outcomes in the Eastern Cape.

3.4. Quality Assurance and Limitations

To enhance the credibility of the review, emphasis was placed on peer-reviewed publications and authoritative policy and institutional documents. Where appropriate, evidence from multiple sources was compared to corroborate key arguments and minimise reliance on individual studies. However, the review is still constrained by the availability and quality of published literature and is based on secondary data only. In addition, there are some differences in research design, study context and analytical approaches among the studies reviewed that could limit the direct comparability of results. Despite these limitations, the conceptual integrative review provides a rigorous and comprehensive synthesis of current

knowledge and offers a robust basis for reassessing the conservation–development nexus within the Eastern Cape.

4. Ecotourism and Biodiversity Conservation in the Eastern Cape

4.1. Biodiversity and Protected Areas in the Eastern Cape

The objectives of the Eastern Cape Environmental Management Act, 2024 Act 2 of 2024 are to align the provincial legislation with national legislation on protected areas and biodiversity and to rationalize, consolidate and reform the legislation on environmental management (Eastern Cape Environmental Management Act, 2024 Act 2 of 2024). The establishment of protected areas is a good solution to prevent biodiversity loss. However, the creation of protected areas may have detrimental effects on nearby communities, resulting in strained relations and frequent disputes between these communities and the protected area management. The Eastern Cape Province has three national parks and twenty-one nature reserves (Angwenyi, 2020). The province is special because it lies at the intersection of several biomes such as grassland, savanna, forest, thicket, fynbos and coastal ecosystems, and is therefore a very rich biodiversity hotspot. This ecological diversity supports numerous endemic and threatened plant and animal species, thereby elevating the province's conservation importance at both national and international levels.

The preservation and management of species, ecosystems, and genetic diversity is known as biodiversity conservation. Therefore, sustainable utilization of biological resources helps humans as well as ecosystems (Tsoumani & Tsoumanis, 2020). Biodiversity is a key component of human survival and development and is linked to human well-being. The creation of PAs is a successful strategy for conserving biodiversity while preserving the many ecological services. Two worldwide hotspots and challenging environmental concerns are addressing climate change and biodiversity conservation. Addressing the current environmental problem requires promoting synergies between biodiversity protection and climate change adaptation. PA's are designated geographical areas whose primary purpose is to safeguard ecosystems. They are crucial to the preservation of biodiversity, the stability of ecosystems, the enhancement of the ecological environment, and the maintenance of national ecological security (He & Wei, 2023). Thus, protected areas remain a fundamental tool for safeguarding biodiversity and ensuring the continued provision of vital ecosystem services.

Globally, protected biodiversity conservation areas, which encompass both natural and cultural heritage conservation, are thought to be among the best methods for safeguarding natural resources. Mkhambati Nature Reserve (31°17'11.8°S, 29°58'14.8°E), Hlule ka Nature Reserve (31°49'19.4°S, 29°17'53.5°E), S ilaka Nature Reserve (31°39'16.0°S, 29°30'05.3°E), and Dwesa-Cwebe Nature Reserve (32°1), Maputaland and the Pondoland Center. Because of their rich biodiversity and scenic beauty, Pondoland regions have a great potential to promote ecotourism (Mokotjomela et al., 2023). These protected areas are essential for preserving ecosystem services, protecting biodiversity, and promoting environmental sustainability. In addition to their ecological value, protected areas are becoming more popular travel destinations for ecotourism and nature-based travel. Both domestic and foreign tourists are drawn to their picturesque landscapes, animal resources, cultural history, and recreational activities, which opens doors for local economic growth and conservation funding.

4.2. Ecotourism Development in the Province

Ecotourism has become the primary pillar of the tourism sector in several nations. This orientation appears to be the outcome of the fact that ecotourism exhibits traits for long-term sustainability out of all the industry's sectors. This view is becoming more prevalent as development-minded managers and business owners see ecotourism as a means of sustaining their enterprises and improving their standing with stakeholders (Cossengue et al., 2025). For unskilled, semi-skilled, and skilled workers in local communities, tourism is a major source of employment. The government has determined that coastal tourism is a

specialty industry with the potential to generate jobs, especially in rural areas. However, a study conducted by Goliath et al. (2018) on the Wild Coast community of Elliotdale titled "The impacts of coastal tourism on the Wild Coast community: a case study of Elliotdale" found that a barrier to hosting a large number of visitors was the absence of facilities to support tourism development. Goliath et al. (2018) revealed that the absence of community engagement in tourism development activities was a major constraint to the socioeconomic wellbeing of the Elliotdale community.

Similar findings were found in a study that looked at households' willingness to pay (WTP) for community-based ecotourism (CBE) projects in nearby communities of the Addo Elephant National Park (AENP). According to the survey, households in neighbourhoods close to the AENP favour the creation of CBE initiatives if they will benefit them and their community. The willingness of households to pay for the execution of community-based projects served as evidence of this support. Thus, it concluded that the implementation of a CBE project can create a market for crafts, village accommodation and village tours that can showcase the local communities to visitors to the park and assist the park management to improve the existing relationship between the park and the communities (Akinyemi & Mushunje, 2020). It has, therefore, become an emerging and potential important source of economic development in some rural communities of the Eastern Cape through ecotourism.

4.3. Major Ecotourism Attractions and Conservation Areas

The Marine Protected Areas South Africa (2026) indicated that the Dwesa Nature Reserve is made up of 3500 hectares of protected habitats that include rivers, open grasslands, coastal forests, and a varied coastline. The Mbashe River and Indian Ocean on one side and the grasslands of the old Transkei on the other encircle Dwesa Nature Reserve, which is in the middle Wild Coast. The conservation of the distinctive biodiversity of the coastal woods, the southern sourveld grassland type, and the Marine Protected Area is the main goal of the Dwesa Nature Reserve. It offers a vital habitat for the survival of several fish stocks that have collapsed. Local fishermen can access fish in the Dwesa Cwebe MPA's freshly expanded open areas and control zones (no take) if they have appropriate licenses.

Akinyemi and Mushunje (2020) posited that the Sundays River Local Municipality, Ndlambe Local Municipality, Ikwezi Local Municipality, Blue Crane Local Municipality, Nelson Mandela Metropolitan, and Cacadu District Municipality are the local and district authority boundaries that the Addo Elephant National Park crosses. Nomathamsanqa, Valencia, Paterson, Enon, Bersheba, Joe Slovo, Moses Mabida, and Colchester are the eight nearby communities that are close to the park. According to historical sources, Khoekhoen (Khoi Khoi) households arrived and established in the region that is now known as AENP between 2000 and 1500 years ago. Many of them perished during a smallpox outbreak that struck the region in the early 1700s.

The coastline between the Mtamvuna and Great Kei rivers is known as the "Wild Coast." Mbizana, Qaukeni, Port St. Johns, Nyandeni, King Sabata Dalindyebo, Mbhashe, and Mquma are the seven municipalities that comprise the region. It is acceptable to use the name "Wild Coast," particularly for marketing purposes in the travel and tourism sector. It also portrays the huge waves and choppy sea that batter its coastline. This region is significant both nationally and internationally due to its rich biodiversity. Over 72% of people in the Wild Coast are thought to be impoverished, a socioeconomic reality linked to centuries of racial marginalization of the area by different racist governments before to 1994 (Cheteni & Umejisi, 2023). The Wild Coast's rich natural heritage and globally significant biodiversity underscore the importance of conserving its ecotourism attractions and protected areas while promoting sustainable livelihood opportunities for surrounding communities.

4.4. Policy and Institutional Context

At the 2002 Tourism Indaba, the National Responsible Tourism Guidelines (2002) were introduced as South Africa's tourism strategy. It highlights the need of addressing the triple bottom line outcomes of sustainable development (economic, environmental, and social

sustainability) and sets goals for the tourism industry. To help the tourist sector demonstrate its progress toward the RT principles defined in the 1996 White Paper, it establishes national guidelines and benchmarks (Department of Tourism, 2021). Litheko (2022) emphasised the significance of this sub-component sector in the larger framework of tourist development and its potential to support the socioeconomic development of rural areas, particularly in South Africa, must be acknowledged by policymakers. Establishing a framework for accurate economic appraisal of the operations of ecotourism site management would be necessary to acknowledge the significance of private sector involvement in the growth of ecotourism. The development of eco-tourism laws that direct planning and development ideas and practices in South Africa is urgently needed. Eco-tourism must be exploited for sustainable development, especially in public protected areas. South Africa lacks a real national tourism policy and the country does not prioritize tourism growth and planning and development.

Significant changes were made to South Africa's administrative and legislative systems, including the introduction of new rules to encourage tourism-related economic growth with a focus on environmental preservation. To create and maintain the ecological amenities that sustain natural resources, environmental management laws, rules, and principles are necessary (Nazir et al., 2023). It is expected of business professionals to adhere to intergovernmental regulations designed to save the environment. Resource utilization, pollution avoidance and biodiversity preservation have all greatly benefited from environmental management initiatives undertaken by South African authorities and the public and private sectors (Mtapuri et al., 2024). Thus, effective environmental policies and institutional arrangements play a vital role in ensuring that ecotourism development contributes to biodiversity conservation, sustainable resource use, and socio-economic benefits for local communities (Nazir et al., 2026; Yang et al., 2026).

In the Southern African sub-region, it has been noted that the lack of sincere local participation has led to a lack of confidence in the government for the establishment of appropriate ecotourism governance in South Africa and Zimbabwe (Gadinga et al., 2022). According to the Department of Tourism (2021), in South Africa the adoption of responsible tourism practices promotes environmental management in the tourism industry. Guidelines for promoting sustainable growth in the nation's tourist industry may be found in the 1996 White Paper on tourist growth and Promotion in South Africa. The White Paper defines responsible tourism as an approach to tourism management that aims to minimize costs to destinations while maximizing economic, social, and environmental benefits. The triple-bottom-line goals of sustainable development economic growth, environmental integrity, and social justice are the focus of a responsible tourism strategy. Over the past few years, South Africa's public and corporate sectors have established and implemented a number of responsible tourism policies and practices.

5. Reassessing the Conservation–Development Nexus

5.1. Contributions of Ecotourism to Biodiversity Conservation

Tourism that uses or benefits biodiversity assets is known as "biodiversity-based tourism." This includes domestic and foreign same-day visitors and tourists that travel to South Africa to participate in and experience the country's ecosystems and animals. This includes using various resources related to biodiversity for leisure or enjoyment. Therefore, biodiversity-based tourism takes place in or alongside one or more native species and/or natural ecosystems (Statistics South Africa, 2024). Essential ecosystem services and commodities for sustainable usage are provided by biodiversity as a resource for ecotourism and nature-based travel. Ecotourism offers enormous potential for biodiversity conservation, protection, and sustainable use of nature reserves by motivating local and indigenous communities in host countries, including visitors, to preserve and value the natural and cultural legacy (Ardiansyah et al., 2023). In the Eastern Cape, ecotourism at Addo Elephant National Park, Dwesa-Cwebe Nature Reserve, Hluleka Nature Reserve, Mkambati Nature Reserve, Baviaanskloof Mega Reserve and the Wild Coast can therefore support biodiversity conservation by generating incentives for communities and authorities to protect ecosystems, wildlife and cultural heritage.

According to Statistics South Africa (2024) biodiversity and sustainable tourism are closely related, and tourism depends on biodiversity. In addition to supporting tourism, healthy, well-functioning natural habitats promote a deeper understanding of the intrinsic worth of nature for all people. Rivers, woods, mountains, and coasts are among the top tourist destinations worldwide, and wildlife safaris are a big draw in southern and eastern Africa. Biodiversity improves the quality, attractiveness, and competitiveness of destinations for a variety of tourism-related activities. For example, natural landscapes (like Table Mountain in South Africa or Victoria Falls in Zambia and Zimbabwe), ecosystems (like the Sahara Dunes in Morocco), or species (like mountain gorillas in Rwanda and Uganda) are the main features of Africa's top "bucket list" travel destinations. But the very biodiversity that draws tourists is under danger everywhere, especially in South Africa, where factors including habitat loss, altered river flows, overfishing, biological invasions, pollution, and climate change are major concerns. Therefore, well-managed ecotourism can protect biodiversity while supporting sustainable livelihoods and destination development.

It should be noted that many of the distinctive plant and animal species found on the Wild Coast have been preserved. For example, a portion of the Maputaland Pondoland Region (MPR), which is regarded as a significant center of floristic diversity and endemism in Africa, is situated there. The area's global significance is increased by the diversity and endemism of its mangroves, grasslands, and marine environment (Cheteni & Umejesi, 2023). Likewise, Statistics South Africa (2024) highlighted that tourist direct gross domestic product (TDGDP) rose from R127 251 million in 2013 to R208 316 million in 2019 (63,7% growth), while tourist direct gross value added (TDGVA) increased from R119 193 million in 2013 to R195 531 million in 2019 (64,0%). Biodiversity-based tourism's direct gross value added (BDTGVA) rose from R18 380 million in 2013 to R26 024 million in 2019 (a 41.6% increase), while its direct gross domestic product (BDTGDP) increased from R19,622 million in 2013 to R27,726 million in 2019 (a 41.3% increase). These statistical trends show that conserving the Wild Coast's biodiversity can also strengthen ecotourism's contribution to local and national economic development.

5.2. Economic and Livelihood Benefits for Local Communities

The employment opportunities available to residents of the communities surrounding host locations have been one of the most noticeable non-ecological advantages of ecotourism. The primary contribution of ecotourism to the socioeconomic growth of the area has been employment. Ecotourism-related employment opportunities directly support the development of local socioeconomics; as a result, they generate revenue that supports the socioeconomic well-being of nearby communities. Therefore, the United Nations Environmental Programme (UNEP) declares that ecotourism activities continue to offer amazing results in terms of both socio-economic development and employment creation worldwide (Gumede & Nzama, 2023). Moreover, Cossengue et al. (2025) highlighted that the Somkhanda community in the most isolated parts of northern KwaZulu-Natal is arguably the most notable example of this blend of economic, social, and environmental viewpoints. This town has found an important recipe for prosperity by adopting the values of ecotourism as a lifestyle. The average income per inhabitant in this village has increased from ZAR 450 to ZAR 1300 due to ecotourism. This is a good example of the way in which ecotourism can combine the environmental protection and the economic development of impoverished rural communities.

The Eastern Cape Province can be described as having a perfect environment for leisure ecotourism, thanks to its rich natural, cultural and historical resources. The province offers a wide range of tourism products due to its 800 kilometers of Indian Ocean coastline, several game reserves, and strong indigenous cultural attraction (Acha-Anyi, 2020). For instance, the Bulungula lodge's founding and the following growth of ecotourism in Nqileni village in the Eastern Cape Province have sparked efforts that have helped a community escape poverty and despair and achieve vitality and wealth. Initiatives including early childhood development and education, health care, food security, clean water and electricity, small company growth, and infrastructure development in the region have all identified tourism as their focal point. Furthermore, because the primary source of tourism is owned and operated by the community, the growth of tourism has given the Nqileni community a

chance to combat the inequalities that are frequently observed in tourist-dependent places (Setokoe & Ramukumba, 2019). Therefore, community-owned ecotourism can improve local livelihoods by creating employment, supporting small businesses and funding essential community services.

5.3. Community Participation in Ecotourism Development

In many African nations, including South Africa, ecotourism is a significant source of travel to rural, typically isolated periphery areas (Burton & Rogerson, 2023). However, to ensure the long-term viability and sustainability of ecotourism, it is essential to bring local communities into the process of ecotourism, creating a sense of ownership and responsibility for the activity. This long-term environmental stewardship is crucial to ensure the preservation and conservation of natural resources and to promote responsible actions among visitors (Tiwari et al., 2024). Accordingly, Gumede and Nzama (2020) suggested that local community support is vital to the success of ecotourism activities implemented in a specific area. Some ecotourism locations have not completely embraced local community engagement, despite it being regarded as a crucial element of ecotourism growth. One of these locations is the KwaZulu-Natal Province, which has been portrayed as not adhering to the integrated participatory approach (IPA) to ecotourism development due to alleged low local community involvement in the province's ecotourism initiatives.

Gumede and Nzama (2020) argued that for local communities to be involved in conservation and ecotourism development processes, the authorities of ecotourism destinations strive to maximize the benefits of ecotourism. However, because of being denied access to natural resources, locals' lack of interest in managing and/or developing ecotourism destinations has increased. Communities that are close to ecotourism sites typically make use of some natural resources for their own well-being. For example, they employ the flora and animals for both medical and subsistence purposes. The communities are typically either refused this chance or permitted to gather as little firewood and/or grass as possible while being closely monitored. According to Ramukumba (2018) study, "Limits to community participation in tourism: a case study of Amathole District Municipality, Eastern Cape Province, South Africa," other obstacles to community participation in tourism include a lack of qualified human resources staff, high participation costs, and a lack of funding. To reduce the high cost of community involvement in tourism, the government should concentrate on the practical aspects of tourism development and community involvement in addition to providing financial support.

5.4. Governance and Institutional Challenges

Many cities in the Global South have also developed into popular tourist destinations. However, national tourist policies in this region and particularly in sub-Saharan Africa tend to ignore urban tourism challenges in favour of concentrating on nature-based tourism and its effects on rural development (Burton & Rogerson, 2023). Mtapuri et al. (2024) alluded that South Africa lacks a suitable certification procedure that would provide guidelines and suggestions for assessing the abilities and service delivery standards of travel agencies. Several studies have also shown that the private sector has limited access to investment in the majority of ecotourism development areas, particularly protected zones. The public sector and government agencies are the only entities authorized to invest in and regulate safeguarded lands, with certain types of expertise being outsourced from the private sector. South Africa's natural resources play a major role in the country's tourism industry. However, the government still has to deal with serious environmental issues, which reduces the likelihood that these resources will be protected for future generations.

Institutions that oversee provincial protected areas frequently struggle with basic governance, expertise, and ordinary site maintenance as well as inadequate capacity, inexperienced or talented employees, or uncommitted employees. Additionally, poor upkeep of vehicles, equipment, infrastructure, supplies, or general operational resources is noted, as is the procurement procedure, which is thought to be unduly complex and "fit for purpose"

which negatively impact ecotourism in South Africa (Rivett-Carnac, 2026). In addition, Mnini and Ramoroka (2020) argued that ecotourism is thought to be linked to a number of issues, including cultural exploitation and degradation, environmental degradation, and an inability to support the local economy. The difficulties associated with ecotourism impede efforts to reduce poverty. Consequently, it is important to establish a balance between development and the environment. Environmental care and sustainable development should be encouraged.

5.5. Benefit-Sharing Mechanisms and Equity Concerns

Communities that strive to preserve natural resources and engage in ecotourism have stayed underdeveloped. The objectives of sustainable community development, such as lowering poverty, guaranteeing skill development, gender equity, high-quality education, good health, and decreasing hunger, are not complemented by their socioeconomic situation. As a result, communities now face isolation and challenges in achieving sustainable development. Many large, private businesses used ecotourism as a strategy to boost their reputation and make money, but it neglected to ensure that local populations were involved in the experiences and benefited from economic growth (Litheko, 2022). Community-based ecotourism has been suggested as a potentially significant way to include households that were previously excluded from protected-area benefits in communities near Addo Elephant National Park. According to Akinyemi and Mushunje (2020), households in five nearby communities expressed support for and willingness to contribute to community-based ecotourism programs. This implies that locals are aware of the potential benefits of development driven by tourism. However, there is no assurance that benefits will be shared just because someone is eager to participate or contribute.

The majority of studies on conflicts between people and conservation in relation to Dwesa-Cwebe Nature Reserve focus on the locals' dissatisfaction with their lack of consultation and their limitations on the use of the reserve's natural resources. However, the protected area's planning history demonstrates that these concerns were considered and suggestions were made. First, Moll and Stuber (1974) preliminary report on the Dwesa Forest Reserve acknowledged the historical use of the forests, grasslands, and marine life in addition to highlighting their scientific value. It also suggested that the forests be designated as a nature reserve to prevent their destruction (De Villiers & Kepe, 2023). Evidence from the Eastern Cape also demonstrates that equity issues go beyond state-managed reserves. Benefit-sharing agreements may replicate past patterns of exclusion, according to recent research on private conservation landscapes near Amakhala and Lalibela Game Reserves, where communities are left out of important decision-making processes and have restricted access to resources or benefits derived from tourism (Effossou et al., 2025). The results are significant because they indicate that, even in these reserves which are not similar to Addo, Baviaanskloof and the Wild Coast protected areas, the conservation benefits can be limited to a select group of reserve owners, tourism operators and a few associated beneficiaries, unless there is a deliberate effort to include the wider community.

This means that the distribution of ecotourism benefits is a critical issue in protected-area ecosystems throughout the Eastern Cape. Ecotourism is a widely promoted method for communities that are close to protected areas to gain employment, tourism-enterprise opportunities, infrastructure, training and revenue, but the benefits are not always equally distributed. The case studies on Addo, Dwesa-Cwebe, Hluleka, Mkambati and the larger Wild Coast demonstrate that the benefits of conservation are not necessarily equitably distributed between households or social groups.

5.6. Land Tenure and Resource Access Issues

Policy should focus on collective and enforceable land tenure, free, prior and informed consent (FPIC) as an enforceable mechanism, and benefit distribution to community ownership. Ecotourism may result in exclusion of indigenous peoples from ancestral territories and lack of livelihood options. Structural barriers involve exclusionary conservation paradigms, property rights regimes that favour state and private actors, and governance

regimes that make decisions outside of indigenous communities (Ramaprabha & Balamurugan, 2026). Some laws and policies have made it almost impossible for the communities of Dwesa-Cwebe to access some resources within the reserve, for instance, De Villiers and Kepe (2023) stated that the communities have not been able to fully benefit from the successful land claim in 2001. Furthermore, the state in all its departments has been put on the back burner since the "successful" land claim resolution of 2001, allowing misunderstandings and conflicts to simmer between communities and conservation managers.

The history of exclusionary conservation at Addo Elephant National Park is relevant to current debates on access to resources and participation in conservation. A recent study by Handi and Gotyi (2025) showed that conflicts among conservation and community rights have an impact on community participation in conservation. The report shows that local people are not involved to the extent they should be in decisions affecting land, environmental resources, and livelihood opportunities. This is very important in the context of ecotourism because local communities may think that the development of tourism is more useful for tourists, commercial companies or conservation groups than for themselves. Akinyemi and Mushunje (2020) also provide a study of five villages near Addo as further evidence for the importance of including previously unmanaged households in protected-area management. Their study of community-based ecotourism reveals that there is a close relationship between the community-based approach to ecotourism and the perception of the potential benefits of tourism and conservation on the part of the households. However, if communities are not included in opportunities to benefit from tourism, participation in decision making processes involving land or natural resources that they rely on for their livelihoods, involvement is insufficient.

6. Emerging Issues and Future Directions

6.1. Persistent Challenges Limiting Ecotourism Outcomes

People-conservation conflicts continue to be a major barrier to sustainable ecotourism at Dwesa-Cwebe Nature Reserve. De Villiers and Kepe (2023) said that conservation authorities have missed opportunities to resolve longstanding conflicts with neighbouring populations. These conflicts are related to past marginalisation, contested access to resources, and unresponsive governance. In places where communities still perceive conservation as restricting or not considering, the provision of visitor facilities, employment opportunities, or tourism projects may not lead to local support for ecotourism. Similar governance issues apply along the Wild Coast, including Hluleka and Mkambati, where tourism growth needs to be in line with local livelihoods, customary rights, and meaningful participation.

In their research of hiking tourism on the Wild Coast, Iqani and Bosch (2025) demonstrated how unequal cultural and social relations create ecotourism, including concerns about who gains from tourism experiences and whose labor, expertise, and landscapes are used to sustain them. This implies that planning for socially inclusive tourism should be integrated with environmental management. Likewise, ecotourism in the Eastern Cape is made even more precarious by climate change. Wildlife, water availability, beautiful landscapes, and visitor experiences can all be impacted by drought, shifting rainfall patterns, heat stress, wildfire danger, and ecosystem change. According to recent research on private conservation areas in the Eastern Cape, climate adaptation might exacerbate inequality in situations when neighbouring people are still at risk from climate change while reserves employ capital-intensive strategies to conserve land, water, and natural assets (Maphosa et al., 2026). This is vital to Baviaanskloof, Addo, and the Wild Coast, where future tourist plans must incorporate community-centered climate adaptation, environmental monitoring, water security, and disaster preparedness.

As a result, the Eastern Cape has a lot of potential for ecotourism because it has a variety of protected areas, coastal ecosystems, biodiversity hotspots, cultural landscapes, and rural communities. However, the cases of Addo, Dwesa-Cwebe, Hluleka, Mkambati,

Baviaanskloof, and the larger Wild Coast show that ecotourism does not always result in inclusive local development or conservation gains; instead, outcomes are still constrained by persistent governance flaws, unequal access to benefits, limited local influence over decisions, and fragmented institutional responsibilities.

6.2. Opportunities for Strengthening Conservation and Development Outcomes

The concept of low impact tourism products with a focus on hiking, coastal heritage, regional cuisine, cultural interpretation, and community led accommodation may be developed along the Wild Coast in essence. However, local culture shouldn't be treated like a tourist attraction in tourism development. The significance of analyzing privilege and power in Wild Coast hiking tourism is emphasized by Iqani and Bosch (2025). Therefore, future tourist goods should make sure that locals are partners with influence over how landscapes, cultural knowledge, and tourism revenue are managed, in addition to being guides or employees.

Corroborating the above, market access, visitor planning, and conservation decision-making can be enhanced by digital booking systems, destination marketing platforms, geographic information systems (GIS), biodiversity monitoring applications, and visitor management tools (Rivett-Carnac, 2026; World Tourism, 2024). Digital solutions could assist small businesses in reaching tourists, managing trail use, tracking visitor impacts, and disseminating climate-related safety information for Baviaanskloof and other scattered rural locations (Rivett-Carnac, 2026). However, to prevent rural businesses and community members from being shut out of tourism markets, technological interventions should be complemented by training in digital skills, dependable electricity, and reasonably priced connection (Department of Tourism, 2021; World Tourism, 2024).

However, partnerships play a pivotal role as well. Relationships can be enhanced between Eastern Cape Parks and Tourism Agency, municipalities, community organisations, private operators, universities and conservation organisations South African National Biodiversity Institute (2023) through cooperation, coordination and mobilisation of resources and evidence-based planning. It is important to ensure that partnerships are formal and have clearly defined roles, regular reporting, community engagement and benefit sharing to prevent informal partnerships that could be tilted in favor of the more (De Villiers & Kepe, 2023; Effossou et al., 2025). Therefore, ecotourism in the Eastern Cape has the potential of delivering more equitable benefits to the local community in combination with a well-governed ecotourism, while at the same time improving the long-term biodiversity conservation outcomes.

The comparative Assessment of Ecotourism as an Environmental management instrument in the major Protected Areas of the Eastern Cape is presented in Table 1 below.

6.3. Research Gaps in the Eastern Cape Literature

The literature on ecotourism and biodiversity conservation in the Eastern Cape remains fragmented across different protected areas, highlighting the need for comparative studies of Addo Elephant National Park, Dwesa-Cwebe, Hluleka, Mkambati, Baviaanskloof and the Wild Coast to identify effective governance, benefit-sharing and management models. One of the most significant research gaps is in the assessment of biodiversity outcomes, with few studies looking at how tourism can have a direct positive impact on ecological indicators like habitat condition, wildlife populations, invasive species control, water quality, waste management, and ecosystem restoration. Future research should also examine the distribution of tourism benefits within the community, examining access to employment, contracts, training, ownership, and decision-making, and determine whether ecotourism exacerbates or ameliorates inequalities. Finally, climate-resilient ecotourism requires greater attention through comparative studies exploring how state-managed reserves, private conservation areas and community-based tourism enterprises can adapt to drought, coastal

hazards, biodiversity change and extreme weather while sustaining conservation and local livelihoods.

Table 1
Comparative Assessment of Ecotourism

Protected Area	Governance Structure	Community Rights & Participation	Benefit-Sharing Arrangements	Tourism Infrastructure	Conservation Outcomes	Land-Tenure Challenges	Climate Risks
Addo Elephant National Park	SANParks	Participation but centralised	Employment, CBT, procurement; uneven	Highly developed	Elephant recovery, Albany Thicket	Historical dispossession	Drought, wildfire, water scarcity
Dwesa-Cwebe	ECPTA + claimant communities	Legal ownership, limited authority	Limited revenue sharing	Moderate	Forest/coastal conservation	Land claim implementation	Sea-level rise, erosion, floods
Hluleka	ECPTA	Limited participation	Small-scale jobs	Basic	Coastal ecosystem protection	Customary access issues	Storms, erosion
Mkambati	ECPTA + traditional authorities	Increasing participation	Jobs and tourism projects	Moderate	Pondoland biodiversity	Land claims	Flooding, invasives
Baviaanskloof	Collaborative	Variable	Stewardship, tourism	Well developed	Landscape conservation	Mixed tenure	Drought, wildfire
Wild Coast	Fragmented	Customary rights, weak planning voice	Community tourism, uneven	Mixed	Biodiversity hotspot	Customary tenure conflicts	Floods, erosion, sea-level rise

7. Conclusion and Policy Implications

7.1. Conclusion

This study reassessed the conservation-development nexus through a conceptual integrative review of ecotourism and biodiversity conservation literature relating to South Africa's Eastern Cape Province. Drawing on evidence synthesised from 56 academic and policy sources, the review critically examined how ecotourism contributes to biodiversity conservation and socio-economic development across key conservation landscapes, including Addo Elephant National Park, Dwesa-Cwebe Nature Reserve, Hluleka Nature Reserve, Mkambati Nature Reserve, Baviaanskloof Nature Reserve and the Wild Coast. The review shows that ecotourism supports biodiversity conservation through environmental awareness, conservation financing, protected area management and sustainable resource use. It also generates jobs, encourages local businesses and diversifies rural livelihoods. However, the results are far from uniform: governance issues, weak community involvement, unequal benefit distribution, poor coordination among institutions, land tenure problems and access to resources all contribute to poor effectiveness. Experiences from Dwesa-Cwebe, Addo Elephant National Park and the Wild Coast demonstrate that historical exclusion and weak governance reduce conservation success and local support for ecotourism. Overall, ecotourism depends on inclusive governance, meaningful community participation, equitable benefit-sharing, institutional capacity and stakeholder collaboration. Context-specific approaches recognising ecological, socio-economic and institutional differences are essential for strengthening policy and practice, improving biodiversity conservation, enhancing community livelihoods and advancing Sustainable Development Goals 8, 15, and 17.

7.2. Policy Implications

Several policy implications emerge from this review. Participatory governance should be strengthened by creating meaningful opportunities for local communities to influence

planning, decision-making, implementation and monitoring of ecotourism initiatives. Benefit-sharing arrangements require greater transparency to ensure neighbouring communities receive equitable tourism revenues through community funds, local procurement and community-owned enterprises. Investment in capacity development is essential to strengthen tourism management, entrepreneurship, and conservation as well as governance skills, particularly among youth, women and historically marginalised groups. Improved institutional coordination between government departments, conservation agencies, municipalities, private-sector organisations and local communities is necessary to reduce fragmentation and improve policy implementation. The policy makers also need to tackle historical issues of land tenure and access to resources that still affect conservation-development relations in the Eastern Cape. Finally, environmental sustainability should be at the forefront by means of effective visitor management, monitoring of biodiversity, adaptation to climate change and sustainable financing of conservation, which should enable the conservation of nature in the long run and the improvement of inclusive community livelihoods and resilience.

7.3. Recommendations for Future Research

The review demonstrates that ecotourism has considerable potential to contribute to biodiversity conservation and sustainable rural development in the Eastern Cape; however, important knowledge gaps remain that warrant further investigation.

The literature from the Eastern Cape highlighted the need for comparative studies in the major protected areas, such as Addo Elephant National Park, Dwesa-Cwebe Nature Reserve, Hluleka Nature Reserve, Mkambati Nature Reserve, Baviaanskloof Nature Reserve and Wild Coast. These studies all reveal significant differences in the governance structure, community engagement, land tenure and benefit-sharing outcomes in these destinations. Comparative studies would therefore help explain why ecotourism delivers stronger conservation and livelihood outcomes in some protected areas than in others.

Similarly, the reviewed Eastern Cape studies indicate that participatory governance and equitable benefit-sharing remain major challenges. However, at Dwesa-Cwebe, it has been identified that conflicts persist because of unequal resource access, insufficient implementation of land restitution agreements, and inadequate community involvement in decision-making processes concerning conservation (De Villiers & Kepe, 2023). Similarly, research conducted within the vicinity of Addo Elephant National Park (AEP) reveals that there is high support for ecotourism in the area but a need for more community-based ecotourism activities and community involvement in protected-area governance (Akinyemi & Mushunje, 2020). Future research is therefore needed to determine governance models that will enhance accountability, transparency and equitable representation in protected areas in the Eastern Cape.

The literature also reveals that the benefit sharing mechanisms should be further investigated. Protected areas and private conservation landscapes in the Eastern Cape indicate that the benefits of tourism are not always equitably shared, with poorer households, women and youth often being marginalised, while local elites or private or politically connected groups receive disproportionate benefits (Effossou et al., 2025). Future research should hence focus on the effectiveness of various benefit-sharing options, such as community trusts, revenue-sharing and community-owned tourism companies for inclusive rural development.

The other important literature gap identified was the absence of a longitudinal ecological assessment. Most Eastern Cape studies focus on governance, participation or socio-economic outcomes, while relatively few evaluate long-term ecological indicators such as habitat quality, species abundance, ecosystem restoration, invasive-species control or water quality. Future research should integrate ecological monitoring with socio-economic assessments to determine whether ecotourism contributes simultaneously to biodiversity conservation and community development.

Climate change also emerged as an increasingly important issue within the Eastern Cape literature. Recent studies suggest that drought, flooding, coastal erosion, biodiversity shifts and wildfire risks are likely to affect protected-area management, tourism infrastructure and local livelihoods, particularly in Baviaanskloof, Addo Elephant National Park and the Wild Coast (Maphosa et al., 2026). Future research should therefore investigate climate adaptation strategies that enhance both ecosystem resilience and community resilience while ensuring that adaptation benefits are distributed equitably among neighbouring communities.

Finally, recommendations relating to digital technologies and multi-stakeholder partnerships are derived primarily from broader international tourism and conservation literature rather than from extensive empirical evidence within the Eastern Cape. Future research should therefore evaluate whether technologies such as Geographic Information Systems (GIS), biodiversity-monitoring applications, online booking platforms, digital marketing systems and visitor-management tools improve conservation effectiveness, market access and community participation under Eastern Cape conditions. Similarly, empirical research should examine whether partnerships involving the Eastern Cape Parks and Tourism Agency, municipalities, community organisations, private tourism operators, universities and conservation organisations improve governance effectiveness, resource mobilisation and benefit-sharing within the province.

Future research should adopt interdisciplinary approaches that integrate ecological, socio-economic and governance indicators to provide a more comprehensive understanding of how ecotourism can contribute to biodiversity conservation and sustainable rural development in the Eastern Cape.

Authors Contribution

Larry Larsen Santos: The lead author conceptualised the study, which was derived from his Master's research project, and contributed significantly to the literature review, synthesis and analysis of evidence on ecotourism, biodiversity conservation and sustainable rural development in the Eastern Cape. He contributed to the development of the conceptual framework and methodology, interpretation of findings and preparation of the initial manuscript draft.

Leonard Chitongo: The corresponding author and Master's research supervisor provided academic guidance in the conceptualisation and development of the paper. He contributed significantly to restructuring and refining the conceptual framework, methodology, analysis, discussion and policy implications. He further contributed to the interpretation of findings, critical revision and finalisation of the manuscript and attended to reviewer comments.

Conflict of Interests/Disclosures

The authors declared no potential conflicts of interest w.r.t the research, authorship and/or publication of this article.

References

- Acha-Anyi, P. N. (2020). Leisure Tourism and Sustainable Livelihoods in the Eastern Cape Province of South Africa. *African Journal of Hospitality, Tourism and Leisure*, 9(4), 500–514. <https://doi.org/10.46222/ajhtl.19770720-33>
- Akinyemi, B., & Mushunje, A. (2020). Community-based ecotourism project in communities adjacent to the Addo Elephant National Park: Will households pay for it? *Koedoe: African Protected Area Conservation and Science*, 62(1), 1–10. <https://doi.org/10.4102/koedoe.v62i1.1571>
- Angwenyi, D. (2020). *Biodiversity conservation and rural livelihoods across four nature reserves in the Eastern Cape Province, South Africa: Striving towards a balance between livelihoods and conservation* [Doctoral dissertation, Rhodes University]. <https://researchrepository.ru.ac.za/server/api/core/bitstreams/397c86b0-3f86-4f30-8136-8fe80b2099bf/content>
- Ardiansyah, R., Yusmur, A., Marlinda, S., Supriyanto, S., & Bigcas, E. V. (2023). Ecotourism and biodiversity conservation: Paradigm shifting and future action. *BIODIVERS-*

- BIOTROP Science Magazine*, 2(1), 19–26.
<https://doi.org/10.56060/bdv.2023.2.1.1992>
- Bhalerao, V., Shinde, R. D., & Alkunte, M. (2025). Ecotourism and sustainable development: Balancing conservation and community well-being. *Aayushi International Interdisciplinary Research Journal*, 12(7), 40–44.
- Burton, C., & Rogerson, J. M. (2023). Challenges of planning and developing an urban ecotourism destination in South Africa. *Studia Periegetica*, 41(1), 45–64.
<https://doi.org/10.58683/sp.367>
- Cao, S., Liu, Z., Li, W., & Xian, J. (2021). Balancing ecological conservation with socioeconomic development. *Ambio*, 50(5), 1117–1122.
<https://doi.org/10.1007/s13280-020-01448-z>
- Cheteni, P., & Umejesi, I. (2023). Evaluating the sustainability of agritourism in the Wild Coast region of South Africa. *Cogent Economics & Finance*, 11(1).
<https://doi.org/10.1080/23322039.2022.2163542>
- Chitongo, L. (2013). Towards comprehensive disaster risk management in Zimbabwe: Evaluating Masvingo Rural District's Community Drought Management Program (MRDCCDMP). *International Journal of Economy, Management and Social Sciences*, 2(8), 644–653.
- Chitongo, L. (2021). Climate resilience strategies and livelihood development in dry regions of Zimbabwe. In G. Nhamo, D. Chikodzi, & K. Dube (Eds.), *Sustainable Development Goals for Society* (Vol. 2, pp. 225–235). Springer. https://doi.org/10.1007/978-3-030-70952-5_15
- Chiwawa, N., & Wissink, H. (2023). Sustainable tourism for local and regional development in South Africa: Unlocking economic potential through responsible tourism strategies. *African Journal of Hospitality, Tourism and Leisure*, 12(3), 1163–1175.
<https://doi.org/10.46222/ajhtl.19770720.423>
- Cossengue, P. R., Fraiz Brea, J. A., & Tavares, F. O. (2025). The transformative power of ecotourism: A comprehensive review of its economic, social, and environmental impacts. *Land*, 14(8). <https://doi.org/10.3390/land14081531>
- De Villiers, D., & Kepe, T. (2023). Missed opportunities in resolving people–conservation tensions in Dwesa-Cwebe, South Africa. *Koedoe*, 65(1).
<https://doi.org/10.4102/koedoe.v65i1.1750>
- Department of Environmental Affairs and Tourism, D. (1996). *White paper on the development and promotion of tourism in South Africa*.
- Department of Tourism. (2021). *Tourism environmental implementation plan (TEIP)*.
<https://www.tourism.gov.za/AboutNDT/Publications/Tourism%20Environmental%20Implementation%20Plan.pdf>
- Dinesh, P. K., Konnath, S., & Praveen, M. V. (2025). Local governance and ecotourism: Empowering communities for sustainable development. *Orissa Journal of Commerce*, 46(2), 42–64. <https://doi.org/10.54063/ojc.2025.v46i02.04>
- Effossou, K. A., Maphosa, M., & Moyo, P. (2025). Contested biodiversity conservation and benefit sharing in the context of climate change in Lalibela and Amakhala game reserves, South Africa. *Discover Sustainability*, 6. <https://doi.org/10.1007/s43621-025-01941-z>
- Freeman, R. E. (2010). *Strategic management: A stakeholder approach*. Cambridge university press.
- Gadinga, W., Awazi, N. P., & Kimengsi, J. N. (2022). Ecotourism governance in sub-Saharan Africa: A systematic review. *Environmental Research Communications*, 4(4).
<https://doi.org/10.1088/2515-7620/ac5f1c>
- Gillani, S., Wang, F., Sharif, A., Rexhepi, G., & Shafiq, M. N. (2026). The Role of Environmental Concern in Shaping Support for Green Business Practices: Evidence From the World Values Survey. *Business Strategy and the Environment*.
<https://doi.org/10.1002/bse.70852>
- Goliath, K., Mxunyelwa, S., & Timla, S. (2018). The impacts of coastal tourism on the Wild Coast community: A case study of Elliotdale. *African Journal of Hospitality, Tourism and Leisure*, 7(4), 1–7.
- Gumede, T. K., & Nzama, A. T. (2020). Enhancing community participation in ecotourism through a local community participation improvement model. *African Journal of*

- Hospitality, Tourism and Leisure*, 9(5), 1252–1272. <https://doi.org/10.46222/ajhtl.19770720-82>
- Gumede, T. K., & Nzama, A. T. (2021). Approaches toward community participation enhancement in ecotourism. In M. N. Suratman (Ed.), *Protected Area Management – Recent Advances*. IntechOpen. <https://doi.org/10.5772/intechopen.100295>
- Gumede, T. K., & Nzama, T. (2023). Ecotourism as a mechanism for local economic development: A case of communities adjacent to the Oribi Gorge Nature Reserve, KwaZulu-Natal, South Africa. *African Journal of Hospitality, Tourism and Leisure*, 8(4), 1–19.
- Handi, N., & Gotyi, Z. G. (2025). Beyond boundaries: Community participation in environmental conservation at Addo Elephant National Park. *Journal of Public Administration*, 60(3). <https://doi.org/10.53973/jopa.2025.60.3.a17>
- He, X., & Wei, H. (2023). Biodiversity conservation and ecological value of protected areas: A review of current situation and future prospects. *Frontiers in Ecology and Evolution*, 11, 1261265. <https://doi.org/10.3389/fevo.2023.1261265>
- Hussain, I. (2022). An overview of ecotourism. *Quality Index Research Journal*, 3(1), 122–128. <https://doi.org/10.53272/icrrd>
- Ibrahim, S., Abdullah, M. F. S., Zahari, M. K., Radzi, W. N. W. M., & Abdul Halim, T. F. (2025). Stakeholder's engagement and governance practices for sustainable ecotourism. *International Journal of Research and Innovation in Social Science*, 9(14), 517–523. <https://doi.org/10.47772/IJRISS.2025.914MG0039>
- Iqani, M., & Bosch, T. (2025). The politics of privilege when hiking the South African wild coast. *Journal of Ecotourism*, 1–17. <https://doi.org/10.1080/14724049.2025.2531034>
- Islam, H. (2025). Nexus of economic, social, and environmental factors on sustainable development goals: The moderating role of technological advancement and green innovation. *Innovation and Green Development*, 4(1). <https://doi.org/10.1016/j.igd.2024.100183>
- Izah, S. C., Ogwu, M. C., & Salimon, S. S. (2025). Principles of sustainable development and environmental management. In *Evaluating environmental processes and technologies* (pp. 29–63). Springer. https://doi.org/10.1007/978-3-031-85327-2_2
- Kumar, S., & Vyas, N. (2022). Socio-economic empowerment of local communities through ecotourism: A review analysis. *EPRA International Journal of Socio-Economic and Environmental Outlook (SEEO)*, 9(3), 10–18. <https://doi.org/10.36713/epra9654>
- Litheko, A. (2022). Management of Eco-Tourism through Public-Private Partnerships in South Africa. *African Journal of Hospitality, Tourism and Leisure*, 11(6), 2103–2127. <https://doi.org/10.46222/ajhtl.19770720.345>
- Maphosa, M., Effossou, K. A., & Moyo, P. (2026). Decolonising enclosures: Climate justice and community struggles around privately owned conservation landscapes in the Eastern Cape of South Africa. *Journal of Asian and African Studies*. <https://doi.org/10.1177/00219096261437113>
- Marine Protected Areas South Africa. (2026). Dwesa-Cwebe.
- Mnini, P., & Ramoroka, T. (2020). Industry 4.0 in Polish SMEs in the aspect of innovation possibilities. *International Journal of Economics and Finance Studies*, 12(2), 321–334. <https://doi.org/10.34109/ijefs.202012205>
- Mokotjomela, T. M., Vukeya, L. R., Pamla, L., & Scott, Z. (2023). The critical role of coastal protected areas in buffering impacts of extreme climatic conditions on bird diversity and their ecosystem services' provisioning in the Eastern Cape Province, South Africa. *Ecology and Evolution*, 13(10). <https://doi.org/10.1002/ece3.10452>
- Moll, R., & Stuber, C. (1974). Quantitative genetics—empirical results relevant to plant breeding. *Advances in agronomy*, 26, 277–313. [https://doi.org/https://doi.org/10.1016/S0065-2113\(08\)60874-3](https://doi.org/https://doi.org/10.1016/S0065-2113(08)60874-3)
- Mtapuri, O., Daitai, J., Camilleri, M. A., & Dluzewska, A. (2024). Sustainable tourism development: Insights from South Africa and the continent. In O. Mtapuri, J. Daitai, M. A. Camilleri, & A. Dluzewska (Eds.), *Tourism planning and destination marketing* (2nd ed., pp. 117–132). Emerald Publishing. <https://doi.org/10.1108/978-1-80455-888-120241006>

- Mulyani, S., Ahsani, R. D. P., & Wijaya, D. N. (2021). Collaborative governance on ecotourism: Towards sustainable tourism development. *Jurnal Borneo Administrator*, 17(3), 319–334. <https://doi.org/10.24258/jba.v17i3.958>
- Naseer, M. M., Hunjra, A. I., Palma, A., & Bagh, T. (2025). Sustainable development goals and environmental performance: Exploring the contribution of governance, energy, and growth. *Research in International Business and Finance*, 73(Part B). <https://doi.org/10.1016/j.ribaf.2024.102646>
- Nazir, R., Gillani, S., & Shafiq, M. N. (2023). Realizing direct and indirect impact of environmental regulations on pollution: A path analysis approach to explore the mediating role of green innovation in G7 economies. *Environmental Science and Pollution Research*, 30(15), 44795–44818. <https://doi.org/10.1007/s11356-023-25399-6>
- Nazir, R., Gillani, S., Shafiq, M. N., Nasrullah, M. J., & Shahzad, M. F. (2026). Fiscal and monetary policy for green growth: the role of institutional quality in South Asia. *Environment, Development and Sustainability*, 1–35. <https://doi.org/10.1007/s10668-026-07422-1>
- Ngongolo, K., & Kyando, M. (2025). Biodiversity conservation and socio-economic development for Africa's harmonious future: A scoping review. *BMC Environmental Science*, 2(1), 1–15. <https://doi.org/10.1186/s44329-025-00021-x>
- Niaz, M. U. (2022). Socio-economic development and sustainable development goals: A roadmap from vulnerability to sustainability through financial inclusion. *Economic Research-Ekonomska Istraživanja*, 35(1), 3243–3275. <https://doi.org/10.1080/1331677X.2021.1989319>
- Ramaano, A. I. (2024). Environmental consequences and climate change linked ecotourism activities in remote and protected areas of South Africa. *Rural Society*, 33(2), 97–115. <https://doi.org/10.1080/10371656.2024.2368301>
- Ramaprabha, N., & Balamurugan, J. (2026). What do tribes reveal about ecotourism, land, and livelihoods? A scoping review. *Frontiers in Ecology and Evolution*, 14. <https://doi.org/10.3389/fevo.2026.1826086>
- Ramukumba, T. (2018). Limits to community participation in tourism: A case study of Amathole District Municipality, Eastern Cape Province, South Africa. *EuroEconomica*, 37(2), 35–46.
- Rathoure, A. K. (2024). Biodiversity and its importance. *Biodiversity International Journal*, 7(1), 1–2. <https://doi.org/10.15406/bij.2024.07.00204>
- Rivett-Carnac, K. (2026). *Climate vulnerability of South Africa's ecotourism attractions*. https://tips.org.za/images/Climate_vulnerability_of_ecotourism_attractions.pdf
- Safarli, A. (2024). The economics of sustainable development: Balancing growth and environmental conservation. *Elmi Əsərlər (Scientific Works), Economics*, 1(24), 63–67. <https://doi.org/10.61413/WMVY4626>
- Sanusi, Juningsih, E. R., Hendrix, T., Fasa, A. W. H., Berliandaldo, M., & Harini, R. (2026). Government and communities' roles in collaborative governance for ecotourism policy. In A. Nawawi, A. N. Alami, J. Bautista, M. Aung-Thwin, D. Simandjuntak, & Y. E. Prasetyo (Eds.), *Managing disruption and developing resilience for a better Southeast Asia (SEASIA 2022)*. Springer. https://doi.org/10.1007/978-981-96-2116-3_2
- Setokoe, T. J., & Ramukumba, T. (2019). Benefits of sustainable rural tourism: A case of Nqileni village, Eastern Cape Province, South Africa. *African Journal of Hospitality, Tourism and Leisure*, 8(3), 1–13.
- South African National Biodiversity Institute. (2023). *South Africa's national biodiversity assessment 2023: Synthesis report*. <https://www.sanbi.org/biodiversity-science/state-of-biodiversity/national-biodiversity-assessment/>
- Statistics South Africa. (2024). *Natural capital series 5: Experimental biodiversity-based tourism estimates for South Africa, 2013 to 2019* [Discussion document D0401.5]. <https://www.statssa.gov.za>
- Tiwari, S., Marahatta, D., & Devkota, H. (2024). Aspects of community participation in ecotourism: A systematic review. *Journal of Multidisciplinary Research Advancements*, 2(1), 71–79. <https://doi.org/10.3126/jomra.v2i1.66650>
- Tsioumani, E., & Tsioumanis, A. (2020). *Biological diversity: Protecting the variety of life on Earth* [Brief No. 2](Still Only One Earth: Lessons from 50 Years of UN Sustainable

- Development Policy, Issue. <https://www.iisd.org/system/files/2020-09/still-one-earth-biodiversity.pdf>
- Vivien, S. (2023). Sustainable development: Balancing economic prosperity and environmental concerns. *Journal of Economics and Economic Education Research*, 24(4), 1–3.
- Walter, J.-L., Charifzadeh, M., & Herberger, T. A. (2024). Does Corporate Social Responsibility create value in acquisitions? Evidence from the German market. *Journal of Risk and Financial Management*, 17(6), 250. <https://doi.org/https://doi.org/10.3390/jrfm17060250>
- Wang, F., Gillani, S., Razzaq, A., Nazir, R., Shafiq, M. N., & Li, B. (2024). Synergistic impacts of technological advancement and environmental hazards on social change and human well-being in South Asia. *Technological Forecasting and Social Change*, 208, 123721. <https://doi.org/10.1016/j.techfore.2024.123721>
- Wang, F., Gillani, S., Sharif, A., Shafiq, M. N., & Farooq, U. (2025). Balancing well-being and environment: The moderating role of governance in sustainable development amid environmental degradation. *Journal of environmental management*, 386, 125803. <https://doi.org/10.1016/j.jenvman.2025.125803>
- World Tourism, O. (2024). Tourism and digital transformation.
- Wu, J., Guo, Y., & Zhou, J. (2020). Nexus between ecological conservation and socio-economic development and its dynamics: Insights from a case in China. *Water*, 12(3). <https://doi.org/10.3390/w12030663>
- Yang, X., Shafiq, M. N., & Gillani, S. (2026). Towards sustainable development: the synergistic impact of economic complexity, environmental regulation, and renewable energy on environmental performance in G20 economies. *International Environmental Agreements: Politics, Law and Economics*, 26(2), 387–416. <https://doi.org/10.1007/s10784-026-09717-0>
- Yang, X., Shafiq, M. N., Sharif, A., Gillani, S., & Zeng, X. (2024). Balancing progress and preservation: analyzing the role of technological innovation in mitigating environmental degradation caused by energy consumption in China. *Economic Analysis and Policy*, 84, 391–409. <https://doi.org/10.1016/j.eap.2024.09.001>
- Zingi, G. K., Mpofu, A., Chitongo, L., & Museva, T. (2022). Ecotourism as a vehicle for local economic development: A case of Tsholotsho District, Zimbabwe. *Cogent Social Sciences*, 8(1). <https://doi.org/10.1080/23311886.2022.2035047>
- Zvidzai, M., van der Merwe, P., & du Plessis, E. (2025). Paradigm shifts in the management of protected areas in Southern Africa: A narrative review. *Sustainable Environment*, 11(1). <https://doi.org/10.1080/27658511.2025.2556366>