



# **Navigating Conservation Complexities**

Exploring Actor Dynamics in the  
Udzungwa Mountains of Tanzania

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August 31, 2023

# Abstract

Situated within the realm of biodiversity conservation, this study addresses the evolving global context marked by biodiversity loss, sustainable development imperatives, and the heightened significance of conservation initiatives. In response, Landscape Conservation has emerged, uniting diverse stakeholders to foster sustainable impact. However, the approach's complexity necessitates a thorough exploration of stakeholder dynamics, pivotal to conservation efforts. Centered on Tanzania's Udzungwa Mountains, this research unravels intricate actor dynamics. Drawing on Actor-Network Theory, Environmental Justice, and conservation paradigms, the study unveils stakeholder roles, interactions, and expectations, exposing convergent and conflicting viewpoints. Through qualitative fieldwork, it captures perspectives of communities, NGOs, businesses, government, donors, and researchers, revealing a multifaceted tapestry shaped by economic, social, ecological, and political factors. The findings present controversies arising from actors' self-identification versus ascribed roles, indicating clashes in expectations that hinder well-intentioned efforts. This research recognizes the need for harmonized perspectives, equitable partnerships, and the acknowledgment of power dynamics. Future research can further explore these dynamics by going beyond the Udzungwa Mountains, forging a stronger link between global goals and local implementation. Addressing power imbalances through a nuanced understanding of stakeholder dynamics could enhance conservation efficacy.

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# 1 Introduction

Embedded within the framework of global biodiversity conservation, this research is contextualized within the evolving backdrop of climate change, biodiversity decline, and the imperatives of sustainable development. As nations navigate the intricate nexus of economic growth, environmental degradation, and societal well-being, the significance of conservation initiatives has heightened. Amid these challenges, the Convention on Biological Diversity (CBD) and the UN Sustainable Development Goals stand as pivotal agreements, underlining the critical role of biodiversity in fostering robust ecosystems and human prosperity.

The transition from community-based conservation models to landscape-based approaches, driven by the identification of limitations within the former, introduces a heightened level of intricacy to the conservation realm. While landscape conservation offers promise by linking disparate areas, formulating long-term strategies, and engaging multiple stakeholders, they also introduce complex challenges that necessitate careful consideration and resolution. Notably, the growing engagement of private entities, including international donors and corporations, in supporting conservation initiatives has diversified the range of stakeholders involved in the field. This shift has given rise to 'complex partnerships,' forming conservation networks comprising diverse actors to manage priority landscapes including humans and wildlife in the name of environmental stewardship. However, the outcomes stemming from these endeavors have proven to be contentious, underscoring the need for a discerning evaluation of such partnerships and initiatives to navigate their complexities effectively.

Central to this study is the acknowledgment that a diversity of actors engenders an array of interests, needs, and priorities. As such, this research employs the concept of dynamics to examine these facets and how they influence conservation outcomes. It is within this analytical framework that the study advances, with the aim of unraveling the complex interplay between various stakeholders within the 'Udzungwa Landscape Network.'

This thesis is centered around the Udzungwa Mountains located in central Tanzania, a region that falls within the Eastern Arc Mountains and the broader Eastern Afromontane biodiversity hotspot. The geographical focus of this study encompasses several key areas and their surroundings, including the Udzungwa Mountains National Park (UMNP), the Udzungwa Scarp Nature Reserve (USNR), and the Kilombero Nature Reserve (KNR). Among the array of stakeholders under examination are district and local government authorities, local NGOs, a major corporation, conservation researchers, communities residing adjacent to the protected areas, and the Hempel Foundation, which assumes the role of a donor. This comprehensive spectrum of stakeholders has been systematically included in the analysis to provide a nuanced understanding of the intricate dynamics at play.

This research has been undertaken in collaboration with the Danish Hempel Foundation, with the objective of assisting in the development of a long-term landscape strategy for the Udzungwa Mountains. The foundation's strategic focus on key biodiversity hotspots worldwide, including the Eastern Afromontane region, explains their interest in the Udzungwa Mountains. With the support of experts, the foundation partnered with a well-established local NGO in Tanzania to create the Udzungwa landscape strategy. This strategy aims to guide future efforts, fostering stakeholder collaboration, and garner donor support. The local NGO received a grant from the foundation to propose a strategy within a year, while involving all relevant local stakeholders in the process to understand the complexities and develop suitable solutions. The thesis emerged from this collaborative process involving fieldwork in Tanzania, traveling with my colleague to take part in stakeholder workshops, meetings with NGOs and government officials, and conducting interviews and group discussions to gain a nuanced understanding of the local context. This thesis was written between February and August 2023, with two weeks of fieldwork conducted in Tanzania from April 13-27.

The research methodology hinges on the exploration of dynamics within the 'Udzungwa Landscape Network.' Employing a qualitative research approach, the study seeks to uncover nuanced insights from various perspectives, guided by the research question: *What are the dynamics between conservation actors within the Udzungwa Landscape Network, and how do these dynamics impact conservation success?* Actor-Network Theory (ANT) forms the theoretical foundation, facilitating an understanding of how different stakeholders, both human and non-human, are interconnected and exert influence within a network. This framework together with the 'environmental justice' paradigm, enables the analysis of relationships, conflicts, and collaborations among stakeholders engaged in conservation efforts. The research employed various qualitative methods, including in-depth interviews, focus group discussions, and participant observations. By combining qualitative methods with ANT, the aim was to bridge theory and practice, revealing the complex workings of conservation landscapes. Environmental justice is incorporated as a theoretical paradigm in this study to shed light on the dynamics of conservation landscapes and the link between conservation and social equity. Environmental justice offers a lens to examine how stakeholder dynamics might potentially create imbalances within conservation networks. This framework enables the exploration of power dynamics, inequalities, and potential winners-and-losers scenarios in conservation initiatives. By applying an environmental justice perspective, the research aims to ensure that conservation efforts yield equitable outcomes for all stakeholders and uphold sustainability. This approach can not only deepen the understanding of complex stakeholder interactions but also underscores the ethical dimensions inherent in conservation practices.

This thesis is structured into the following six chapters. The opening chapter of this thesis initiates with a comprehensive review of the scholarly discourse surrounding global biodiversity conservation efforts. It then narrows its focus to the Tanzanian context, tracing the historical trajectory of conservation practices within the country and focusing on complexities and controversies in conservation. The subsequent chapter delves into the explication of the theoretical framework and foundational constructs for this study. Discussing diverse conservation paradigms and approaches will lead to the concept of environmental justice. Actor-Network Theory (ANT) is presented as a pivotal analytical framework, facilitating the understanding of actors shaping conservation dynamics. Thereafter, the methodology chapter explores the theoretical and practical dimensions of the research design. A comprehensive overview of the methods employed for data collection is presented, encompassing a range of approaches utilized during the fieldwork phase. Subsequently, a detailed presentation of the collected data ensues, along with an exposition of the methods utilized to meticulously analyze its intricacies. The analysis chapter unfurls the organized and systematically coded data, revealing the intricate interplay of actors. These interactions are encapsulated through the prism of ANT-based models, articulating the multifaceted relationships binding each actor to its network. This chapter concludes with an introspective examination of inherent limitations. Within the discussion section, the findings will be linked to the existing theoretical groundwork, giving rise to reflections that delve into their intersections and implications and position the research within a broader theoretical and practical context. The final chapter presents concluding remarks summarizing key findings, their broader implications, and potential limitations. Furthermore, possibilities of future research will be explored.

## 2 Developments in Biodiversity Conservation

Within the context of this thesis centered on biodiversity conservation, it is essential to commence by defining these concepts and acknowledging their global significance. The Convention on Biological Diversity (CBD), signed by 150 government leaders at the 1992 Rio Earth Summit (Unit 2022), underscores the vital role of biodiversity in functioning ecosystems that directly impact human health and well-being. The emergence of the 'biodiversity crisis' is evidenced by ecosystems and species struggling to adapt to contemporary environmental changes (Šijačić-Nikolić and Nonić 2021, 82). Notably, agriculture emerges as a key driver contributing to deforestation, and the Industrial Revolution has left a lasting imprint on the environment (ibid., 83). The authors advocate for increased investments to combat soil erosion and pollution, enhance connectivity among fragmented areas through natural corridors, and champion the restoration of pivotal habitats (2021, 88). This stance signifies a significant shift in the conservation paradigm over recent decades. Especially in recent years, numerous African nations have redirected their focus toward agriculture and rural land use as pivotal arenas for investment, economic growth, and poverty reduction, as articulated by Milder et al. (2014). This evolving perspective acknowledges rural landscapes as the crossroads where intertwined challenges of food security, energy production, economic advancement, ecosystem preservation, and climate change converge (ibid., 68).

Inogwabini (2020) elucidates this transition in many African countries from species-centric conservation to an all-encompassing approach recognizing human populations as pivotal determinants in biodiversity distribution and its sustained survival. The author identifies moral concerns as one of the drivers for this shift, raising questions about conservation organizations allocating financial resources to safeguard wildlife while local communities grapple with hardships (ibid., 3–4). Furthermore, the author cites international political agreements on conservation that have significantly influenced this paradigm shift (CBD, Kyoto Protocol). Additionally, the 2002 world summit on sustainable development in South Africa played a crucial role in shaping consequential decisions regarding priority conservation landscapes in Africa. The summit acknowledged Africa's environmental and developmental needs, highlighting the imperative of substantial financial commitments from the global community (ibid., 12). In summary, the driving forces behind this paradigm shift encompass robust political commitment to the internationally recognized challenge of climate-induced environmental effects, the acknowledgment of the dependency of many communities on natural resources, and the integration of socioeconomic dimensions in landscape conservation (ibid., 13–14). The subsequent section will delve into the localized context of conservation in Tanzania, aiming to comprehend how this global paradigm influences the country-specific emphasis on biodiversity.



## 2.1 Conservation in Tanzania

The trajectory of conservation in Tanzania is characterized by a historical evolution in forest management and governance. Prior to the 1890s, natural forests were traditionally overseen by local chiefs. Between the late 1890s and 1960, Colonial state institutions established and managed Nature Forest Reserves. Notably, community involvement in forest management was absent from 1896 to the early 1990s, undergoing a transformation with the introduction of the Participatory Forest Management approach (PFM). This approach encouraged local communities to establish Village Forest Reserves under the community-based conservation approach (CBC) (Kalumanga et al. 2018, 20).

Tanzania, then known as Tanganyika, was colonized by Germany in 1891 and later came under British control in 1920 following Germany's defeat in World War One. Bluwstein (2018) suggests that prior to colonialism, forest resources remained largely unexploited. The colonial powers' access to technology and markets triggered the establishment of the timber industry and large plantations. German authorities created the first forest reserves with restrictions on local settlement and cultivation in 1904. The British expanded these zones, relocating local communities and converting indigenous forests to tea, coffee, fruit, and timber estates. Post-independence in 1961, many colonial structures and laws persisted. The National Forest Policy of 1963, the first forest law after independence, centered on how the country could benefit from forest resources, without encompassing non-state actors. Forests were cleared in the 1970s for food production, export crops, and mining, causing Tanzania to lose 25% of its forest land between 1980 and 1993 (ibid., 5–8).

Tanzania's conservation estate has witnessed rapid expansion, with wildlife-protected areas covering 26% of its land surface. The country boasts 15 national parks, the Ngorongoro Conservation Area, 28 game reserves, and around 33 game-controlled areas and/or Wildlife Management Areas. This extensive conservation estate designates Tanzania as possessing one of the world's most substantial areas dedicated to conservation, encompassing over 40% of its land (Ponte et al. 2022).

The focus of this thesis centers on the Udzungwa Mountains in central Tanzania, which are part of the Eastern Arc Mountains and encompass thirteen distinct mountain blocks. These mountains support approximately 3300 km<sup>2</sup> of sub-montane, montane, and upper montane forests, and are renowned in Africa for high concentrations of endemic species of animals and plants. In terms of prioritization of biodiversity conservation, the Udzungwas count as one of the most important mountain blocks of the Eastern Arc Mountains. Most of the forest areas are managed nationally for water catchment, biodiversity, and soil conservation (Burgess et al. 2007, 209–10). There are two National Parks within the Eastern Arc Mountain chain, the Udzungwa Mountains National Park with 1900 km<sup>2</sup>, and Mikumi National Park with 1450 km<sup>2</sup>.

Both National Parks are managed by the Tanzania National Parks Authority (TANAPA) (ibid., 213). Additionally, there are 32 protected areas with natural forests in the Udzungwa Mountains alone, with TANAPA also managing the largest ones. The Tanzania Forest Service Agency (TFS) manages two Nature Forest Reserves and eleven National Forest Reserves. Nature Forest Reserves are defined as “land covered by forest used principally to protect nature and scenic areas of national or international significance and to maintain and enhance biodiversity and genetic resources in an undisturbed, dynamic and evolutionary state” in the Forest Act 2002. National Parks, on the other hand, are there “to preserve the country’s heritage encompassing natural and cultural resources...including fauna and flora, wildlife habitat, natural processes, wilderness [etc.]”, as described in the National Policies for National Parks in Tanzania (Doggart and Meshack 2023, 13).

Tanzania's Eastern Arc Mountains hold national significance for providing drinking water to around 60% of the urban population and accounting for approximately 50% of the country's hydroelectricity generation capacity (2007, 220). Recent research by Doggart and Meshack (2023) reveals that the Udzungwa Mountains supply water for hydropower stations generating 23% of Tanzania's electricity. Internationally, the Eastern Arc Mountains are recognized as a global biological priority, with many species facing extinction, thereby affecting global ecosystems. Consequently, international actors recognize the pressing need to conserve these areas (UNESCO World Heritage 2006).

Tanzania's Environmental Policy 2021 is significantly influenced by new national, regional, and international policy developments. One such influence is the Agenda 2030 on Sustainable Development Goals (THE UNITED REPUBLIC OF TANZANIA 2021, 37). The country has also engaged in various international conservation agreements, such as the CBD, the United Nations Framework Convention on Climate Change (UNFCCC), CITES, the Nagoya Protocol, and the Ramsar Convention on Wetlands (Doggart and Meshack, 2023, 19-20). Denier et al. (2015) highlight the potential of such international funding to incentivize conservation efforts and drive transitions toward multi-stakeholder collaboration.

## 2.2 Community in Conservation

The past few decades have witnessed a growing emphasis on community inclusion in conservation efforts, driven by the realization that the success and sustainability of conservation depend on the well-being of local communities. The evolution of conservation programs from protected areas to development initiatives, aiming to address both biodiversity and socioeconomic needs, reflects a significant shift in focus (Inogwabini 2020). However, this explanation alone does not fully illuminate the emergence of community-based conservation (CBC).

The global conservation discourse, coupled with poverty alleviation goals in developing nations shown in the 2015 Millennium Development Goals (MDGs), necessitated the integration of local communities into conservation strategies. Furthermore, studies indicate that areas richest in biodiversity yet most threatened are often inhabited by vulnerable populations dependent on natural resources for their livelihoods (Conservation International n.d.).

Bhaskar and Kontoleon (2012) base their study on the dependency of local communities on natural resources, highlighting that the connection between biodiversity and poverty remains not entirely understood. They identify two types of links: (1) "biodiversity as a means of subsistence or income" and (2) "biodiversity as insurance, providing a buffer against risks and shocks" (2012, 52). The first link underscores the importance of natural resources to local livelihoods, which can be compromised when conservation initiatives limit access. Consequently, the CBC approach gained prominence in the 1980s, introducing a fresh dimension to conservation efforts. Lele et al. (2010) present CBC as a poverty-alleviation strategy, aiming to promote participation and governance within Protected Areas (PAs). However, they acknowledge the mixed success of CBC due to political tensions, actor dynamics, and the limited rights granted to communities within the context of conservation.

Brockington and Wilkie (2015) advocate for the integration of community participation, empowerment, and the improvement of local livelihoods for long-term success of PAs. They argue that conservation and socioeconomic development should be intertwined, emphasizing the ethical obligation to ensure that disadvantaged communities do not bear the cost of conservation. Similarly, Brooks et al. (2012) contend that successful community conservation requires participation, capacity building, equitable distribution of economic benefits, and support. They propose that projects balancing economic incentives, community empowerment, and secure rights can achieve success. However, long-term engagement is crucial for success, as it allows for development opportunities and income generation. Limited time and interventions solely focused on PAs can result in limited, unsustainable outcomes.

Nonetheless, some studies indicate that enhancing livelihoods might not always align with conservation goals. Exclusionary approaches can yield biodiversity gains in specific locations but trigger suffering among local communities due to displacement, economic shifts, and cultural impacts (Lele et al. 2010). Evidence suggests that conservation interventions can lead to displacement, restrictions on PAs, and poverty, while benefiting livelihoods in some cases (Brockington and Wilkie 2015). Brockington (2004) challenges the notion that local support is imperative for protected areas' survival, presenting evidence from the Mkomazi Game Reserve in Tanzania where conservation succeeded despite local opposition. He argues that conservation can be imposed when rural communities lack the power to resist and emphasizes understanding the underlying forces that make PAs dominant.

To address inequalities and injustices, conservationists must engage proactively with the political, social, and economic factors that perpetuate them (ibid.). Lele et al. (2010) stress the need for a broader approach, suggesting that while local communities may not always be critical to conservation, a more comprehensive perspective on conservation as an ethical social process is essential.

Amid the arguments for and against community inclusion, an essential debate centers on the efficacy of community participation and its impact on livelihoods. With CBC's goal being poverty alleviation, a critical examination of this conservation approach is warranted. Keane et al. (2019) assessed the impact of CBC in Tanzania's Wildlife Management Areas (WMAs) on household wealth and found small and variable impacts from 2007 to 2015, with limited evidence of poverty reduction. This prompts a reevaluation of WMA policies to ensure positive economic development. Recognizing rural people's dependence on land and natural resources, the authors underscore the importance of comprehending the social repercussions of interventions aimed at safeguarding and enhancing local communities' well-being (ibid.).

Various technical responses have emerged under CBC, including alternative livelihood programs, compensation, benefit-sharing schemes, and payments for ecosystem services, all aimed at improving livelihoods while conserving natural resources. However, Martin (2021) suggests that while affected communities generally support these mechanisms, those only partially address the negative experiences individuals face. Mgonja and Uswege (2022) echo this sentiment based on their study in Ikona and Makao WMAs in Tanzania, where community attitudes toward conservation interventions were assessed. The findings indicate that while communities accept conservation interventions, they remain dissatisfied with the benefits received. This underscores the need to prioritize community needs and challenges in conservation efforts (ibid.). Similar conclusions arise from the case study of Burunge WMA, often regarded as Tanzania's conservation success story due to enhanced biodiversity. This case highlights the disconnect between conservation policies and communities' realities, often leading to conflict and dissatisfaction among locals (Moyo et al., 2016).

Given these complexities and limitations, the landscape conservation approach has gained traction as a more holistic strategy, encompassing ecological, economic, and social objectives. To delve into specifics regarding landscape conservation, adopting a temporal perspective will aid in understanding the evolution of these diverse approaches.

Bluwstein (2018) refers to various biodiversity conservation approaches in Tanzania, coexisting at different scales and phases. Fortress conservation, which aimed to separate humans from wildlife through displacement and force, initially aimed to protect both groups from each other and later shifted toward advancing national development through international tourism. Parallely, CBC emerged in the 1980s, aiming to bridge the gap between people and wildlife by incorporating economic benefits for local development.

Additionally, landscape conservation, a more ecological approach, emerged in the 1990s, promoting shared spaces for people and wildlife across extensive geographical areas and integrating wildlife corridors for enhanced connectivity between protected areas. The landscape approach has come to dominate contemporary biodiversity conservation discussions, seeking to reconcile basic human needs with conservation imperatives (Inogwabini 2020).

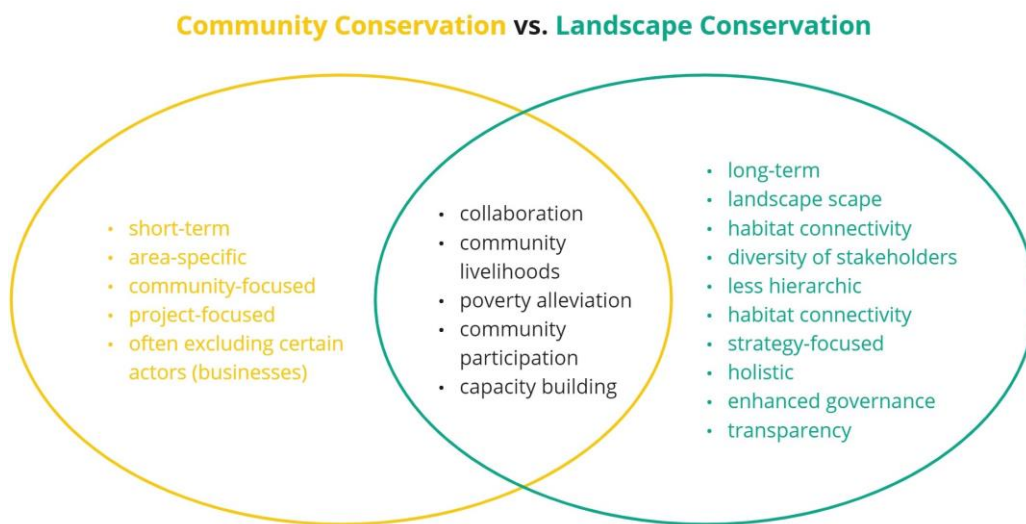


Figure 1: Community-based vs. Landscape Conservation

This visualization aims to show the major differences and similarities between the focus areas of CBC and Landscape Conservation to further discuss arguments for the latter.

## 2.3 Landscape Conservation: A Complex Approach

The emergence of landscape thinking, as outlined by Bluwstein (2021), aligns with the sustainable development agenda, with conservation science expanding its scope to include socioecological considerations. 'Ecological connectivity' has become central to this approach, with significant support from international organizations like the World Bank and WWF (ibid., 905). According to Sayer et al. (2017), landscape conservation is a collaborative, long-term process that seeks to balance multiple and sometimes conflicting objectives within a landscape or seascape. This approach hinges on capacity building, local empowerment, enhanced governance, and transparent resource management negotiations. Despite broad support from government programs, international development bodies, the private sector, foundations, and NGOs, the effectiveness and impact of landscape approaches need validation (ibid.). Milder et al. (2014) describe landscape conservation as Integrated Landscape Initiatives (ILI), aimed at enhancing food production, ecosystem preservation, and rural livelihoods.

Operating at a landscape scale, ILIs entail inter-sectoral coordination, multi-stakeholder participation, and a focus on capacity building, setting them apart from community-based conservation efforts (ibid., 77).

By concentrating on landscapes and their pivotal role in agriculture, initiatives have aimed to concurrently address conservation and livelihood concerns. Agriculture holds particular significance for the Udzungwa Mountains, a fact highlighted by Doggart and Meshack (2023). Several projects have promoted agricultural activities, recognizing targeted agricultural support as a pathway for poverty alleviation in this region. However, the success of landscape conservation hinges on various factors.

Milder et al.'s (2014) systematic assessment of ILIs in sub-Saharan Africa aims to bridge a research gap, asserting that this approach is likely the best, if not the sole, way to reconcile growing human demands for resources with their finite availability. Their study reveals that 47% of the 87 initiatives across 33 African countries successfully balanced participation from diverse actors, including marginalized groups and women. Four domains – agriculture, conservation, livelihoods, and institutional planning – reflect the initiatives' focus areas. Encouragingly, 63% of ILIs reported positive outcomes in at least one domain, with 72% demonstrating success in at least three (ibid., 75). Successful aspects encompassed conservation of soil, water, and biodiversity, enhanced local capacity, and improved livelihoods, including increased income and food security. Nevertheless, challenges involving stakeholder coordination, trust-building, conflict reduction, and securing ongoing funding were prevalent (ibid., 76). The ongoing funding requirement and external pressures posed difficulties, but overall, 63% of initiatives achieved positive outcomes across all four domains, demonstrating landscape conservation's potential to harmonize seemingly incompatible objectives (ibid., 77).

In the context of the Udzungwa Mountains, Doggart and Meshack (2023) identified agroforestry, agroecology, and microfinance as successful poverty alleviation strategies. These initiatives generated employment and granted communities access to forest benefits, incentivizing their involvement in forest protection. Community relations could be enhanced through environmental education, governance support, and the mitigation of protected-area-related risks.

In Tanzania, the landscape paradigm has been enshrined in law through the Wildlife Conservation Act of 2009. This legal framework allows the Ministry of Natural Resources and Tourism to designate protected areas on legally recognized village land. However, communities hold only conditional rights to their own land, a dynamic criticized by Bluwstein (2018) as biopolitical interventions.

He contends that conservation landscapes are charged with political and emotional agendas that can reinforce pre-existing power dynamics, undermine local knowledge, and marginalize livelihoods. Recognizing these complexities, this thesis endeavors to uncover and map overlooked dynamics that could significantly impact conservation efforts.

Given these arguments, the forthcoming section will delve into the intricate complexities inherent in conservation, aiming to provide a comprehensive understanding of the challenges in conservation practices.

## 2.4 Navigating Conservation Controversies and Complexities

The preceding section illuminated the contentious debates surrounding conservation practices, a realm marked by both positive and negative outcomes. According to Brockington and Wilkie (2015), conservation is rife with controversies that dispense both fortune and misfortune. On one hand, PAs hold significance as integral components of national identities, emblematic of modernity, progress, and development. Yet, their establishment has led to both poverty and improved community livelihoods in various instances.

Lele et al. (2010) advocate for a comprehensive examination of structural and process-based elements that shape conservation efforts. In this view, biodiversity conservation is entwined with environmental governance. The author highlights institutional arrangements, social processes, and political-economic forces as factors influencing CBC. Delving into local histories of conflict and cohesion can aid conservation endeavors. The call for future research centers on understanding conservation as a social and political process, involving a diverse array of actors entangled in complex power dynamics. Additionally, conservation interventions are intrinsically embedded in political-economic contexts, demanding multifaceted solutions that demand substantial time and resources.

As conservation necessitates increasingly intricate partnerships among government bodies, NGOs, donors, scientists, and local communities, the role of complex dynamics gains prominence. Ponte et al. (2022) underscore how such partnerships stem from the ecological significance of village lands and their economic potential in tourism. De Schepper et al. (2014) similarly found that such partnerships make stakeholder environments more complex, more dynamic, and more problematic to appoint responsibilities (*ibid.*, 1219). Notably, different stakeholders harbor distinct interests and requirements, potentially influencing conservation initiatives. Schusser (2012) asserts that conservation outcomes hinge on the interests of influential actors, reinforcing the importance of involving such actors in initiative development from the outset. This ensures their use of power aligns with the betterment of nature and humanity.

Similarly, Boiral and Heras-Saizarbitoria (2017) emphasize the need for collaboration with diverse stakeholders due to the complexity, scale, and societal sensitivity of conservation initiatives. While acknowledging this, they also underline the intricate challenge of involving resource-based industries as essential actors in biodiversity conservation.

These complexities call for research on the diversity of stakeholders involved in conservation, as the following authors aimed to contribute to. Gileard Sifuel et al. (2023) tried to address ongoing concerns of wildlife management in the Loliondo Game Controlled Area in Tanzania, such as lack of community involvement, poorly defined property rights and the inequitable distribution of economic tourism benefits. In their study they used multi-criteria analysis to gather multiple stakeholders and found that the joint venture management scheme is a way to manage nature effectively while distributing benefits equally among the stakeholders. Masao et al. (2022) chose a similar approach to assess stakeholder perspectives on nature, people and sustainability at Mount Kilimanjaro in Tanzania. Based on a participatory workshop involving five distinct stakeholder groups (local community members, researchers, conservationists, resource management professionals and tourism sector representatives) the authors conclude that a broad spectrum of stakeholders should be central to research endeavors to avoid overlooking pertinent social aspects. Stakeholder perceptions wield substantial influence over decision-making processes, rationalize actions, and guide the resolution of conservation trade-offs. As they assert, "the integration and synthesis of knowledge from both academic and non-academic sources, facilitated through a co-production process, is pivotal in addressing intricate sustainability inquiries" (2022, 2).

The landscape approach holds particular relevance in scenarios marked by ambiguity and disagreements over desired outcomes. Sayer et al. (2017) suggest that landscape approaches strive for a balance between conflicting objectives by accounting for trade-offs and potential synergies, transcending conventional spatial planning or sectoral strategies. Couix and Hazard (2013) emphasize the potential to overcome biodiversity conservation complexity through collaborative efforts among a diverse array of actors. By integrating various forms of knowledge through a transdisciplinary lens, projects can achieve success. However, the discourse should not solely center on technical and methodological issues; it must also encompass stakeholder values and worldviews, given that conservation biology is inherently value-driven. Coupled with this, transdisciplinary endeavors demand prolonged project durations to facilitate learning and sustain success over time (ibid.). Similarly, Brockington et al. (2006) advocate for ecologists and social scientists collaborating to unravel the intricate tapestry of local politics, economics, and society. This understanding can shed light on how coexistence can be fostered. Keane et al. (2019) echo this sentiment, asserting that grasping how conservation activities affect specific areas or groups is pivotal.



While many resources have been invested in landscape initiatives, Ponte et al. (2022) argue that we still do not know if these partnerships deliver better conservation outcomes. However, there is a growing enthusiasm about these complex interventions because they promise more equitable and sustainable outcomes with a focus on participation. This research aims to contribute to this gap by creating a deeper understanding about stakeholder dynamics. According to Masao et al. (2022) a systematic stakeholder mapping that places stakeholders at the center of the research can focus on relevant social aspects that are often overlooked in predominantly ecological and economic conservation approaches.

## 3 Theoretical Framework and Concepts

### 3.1 Biodiversity, Conservation, and Justice

The contemporary concerns surrounding biodiversity loss have emerged more recently compared to those pertaining to individual species and specific geographic areas. This focus on biodiversity is intrinsically tied to comprehending the anthropogenic forces driving mass extinction events that pose existential threats to life on Earth. Coined in the late 1980s, the term 'biodiversity' encapsulates the array of life forms on our planet, encompassing genetic, species, and ecosystem diversity. The acceleration of biodiversity loss directly jeopardizes the integrity of ecosystems that constitute the bedrock of human well-being and sustenance (Martin 2021, 132).

In 1989, the concept of 'biodiversity hotspots' gained traction, championed notably by *Conservation International* subsequent to British ecologist Norman Myers' publication identifying ten tropical forest hotspots (CEPF n.d.). This conceptual framework aimed to maximize species conservation impact at minimal cost, presenting a systematic response to the challenges posed by large-scale extinctions (Myers et al. 2000). Presently, 36 global regions qualify as 'biodiversity hotspots,' characterized by the presence of at least 1,500 vascular endemic plant species and the loss of over 70 percent of primary native vegetation (Conservation International n.d.). These areas are ecologically vibrant yet profoundly threatened. This marks a transition from exclusive species and protected area preservation toward a more holistic approach centered around landscapes. In this context, "landscapes are defined as cultural, biological, and physical entities with spatial functions that assume that the global needs of human populations are fully and sustainably met while ecological processes and the biodiversity found therein are preserved" (Inogwabini 2020, 5). Notably, it's imperative to acknowledge that while not all conservationists and organizations operate under this paradigm, it is progressively gaining traction and garnering consensus.

The concept of biodiversity hotspots rests upon the foundational premise that species serve as imperative components for human survival. It is noteworthy that regions where biodiversity is at its zenith yet highly threatened coincide with vulnerable populations relying on nature for sustenance (Conservation International n.d.). The hotspot framework endeavors to engage local communities in conservation dialogues, fostering links between environmental and developmental objectives.

As articulated by Inogwabini (2020), the shift from species-centric conservation to a more inclusive approach is intrinsically linked to moral considerations. The contention arose that it was unacceptable for organizations to prioritize nature preservation at the cost of denying local communities access to natural resources within protected areas proximate to their settlements. This reflects a human rights perspective that crystallized within the conservation context.

Martin (2021) asserts that the decline of biodiversity intersects with the concept of 'environmental justice.' He argues that the adverse consequences of biodiversity loss are not equitably distributed; instead, they disproportionately impact marginalized social groups, manifesting as cultural or economic losses (ibid., 133). For instance, the Mkomazi Game Reserve in northeast Tanzania, while succeeding ecologically, has exacted a heavy toll on the lives and rights of indigenous communities, as argued by Brockington (2004). These communities struggled to resist evictions and secure adequate compensation for their losses. Thus, according to Martin (2021), harm emanates not only from biodiversity loss itself but also from the measures aimed at safeguarding nature. The author contends that all interventions in environmental governance inevitably generate winners and losers. Especially, protected areas, often operating under area-based conservation approaches, have frequently entailed the displacement of local communities, curtailing resource access, and instigating threats from wildlife to human life, crops, and livestock (2021, 133).

Considering escalating endeavors to avert species extinction and tackle the climate crisis, it is imperative to recognize that the outcomes will favor some while disadvantaging others. This dynamic underscores power differentials, a pivotal theme in this. By analyzing the factors contributing to the success of specific actors, hidden mechanisms and obstacles that confer them with favorable positions can be revealed, as will be discussed in the upcoming chapters. Inogwabini (2020) augments this perspective by emphasizing that empowering communities in conservation initiatives is insufficient; true success necessitates the engagement of African governments, emphasis on good governance, and the active involvement of local communities. Landscape conservation directs attention towards a diverse array of actors, and this study will utilize it as a lens to uncover the underlying factors driving the accomplishments of those who succeed.

Guided by critical social science, this thesis endeavors to examine the complex interplay between the social, political, economic, and environmental dimensions of conservation in Tanzania's Udzungwa Mountains. Increased collaboration between natural science and human dimensions is necessary to pluralize and politicize these conservation discussions to challenge established assumptions, values, and power structures as part of conservation policy and practice (Massarella et al. 2021).

Prior to delving deeper into the discourse on justice, the subsequent section will elucidate relevant conservation approaches and paradigms, tracing their evolution and the origin of contemporary biodiversity values and paradigms.

## 3.2 Conservation Approaches and Paradigms

As expounded upon in the literature review, the trajectory of conservation efforts has encompassed a spectrum of approaches over the decades, including 'fortress conservation,' 'community-based conservation' (CBC), and 'landscape conservation.' Revisiting these concepts in this section aims to illuminate the evolutionary path that led to the prominence of landscape conservation, the central focus of this thesis. 'Fortress conservation,' as the earliest approach, is linked by Martin (2021) to the establishment of protected areas, marked by the eviction or exclusion of land users. This approach can be correlated with the ecological climax theory of the early 20th century, which postulated that ecosystems could attain their zenith only in the absence of human interference (ibid., 139). Furthermore, Massarella et al. (2021) elucidate how this 'naturalism' paradigm propagated the segregation of nature and humans as a strategy to achieve conservation objectives.

Protected-area conservation practices have undergone transformation, evolving into endeavors that emphasize engagement with local communities. The catalyst for this shift can be traced to global agreements prioritizing poverty reduction and sustainable development. This shift reflects a more optimistic conviction that conservation and local development can be concurrently pursued (Martin 2021, 140). The ascendancy of community-based conservation and interventions geared towards alternative livelihood generation attests to this changing perspective. I contend that CBC is deeply intertwined with the ethos of 'new conservation,' recognizing that the dichotomy between nature and humans can no longer be sustained; instead, the goal should be harmonious coexistence (Massarella et al. 2021, 81). The increased emphasis on people as both beneficiaries and custodians of nature has intertwined conservation aims with development objectives. In acknowledging the present era as the Anthropocene, characterized by human-induced degradation, the authors advocate for a paradigm shift in biodiversity conservation to tackle these escalating challenges. Hence, a redefinition of humanity's relationship with and management of the environment becomes imperative (ibid., 79). Consequently, conservation efforts should align with broader societal goals such as economic growth and poverty alleviation (Martin 2021, 141). Despite the manifold advantages of the 'new conservation' paradigm over 'naturalism,' the author contends that it falls short in addressing fundamental inequalities and concerns.

Distinguishing these various approaches lies primarily in their criteria for evaluating conservation success. While fortress conservation primarily focused on ecological achievements while disconnecting humans from nature, CBC incorporates socioeconomic progress into its purview, concurrently aiming for enhanced national development. Nonetheless, due to the limitations of CBC outlined in the preceding chapter, the landscape approach emerges as a potential solution by advocating holistic conservation, combining ecological, economic, social, and political goals. Coinciding with this discourse is the 'environmental justice' paradigm, which seeks to spotlight power dynamics, political influences, and injustices in environmental practices. This rights-based approach encompasses not only humans but also non-human species in conservation dialogues (Massarella et al. 2021, 81). I posit that aligning the landscape approach with the 'environmental justice' paradigm holds the potential to uncover multifaceted dynamics among conservation actors, including social, political, economic, and ecological dimensions that shape outcomes and impact stakeholders. The visual illustration presented below aims to show the historical progression of the three conservation approaches, situated within the context of the preceding chapter's discussions, while also drawing connections to the mentioned paradigms and success focus. It is essential to acknowledge that this visualization is illustrative rather than exhaustive, aiming to underline the vital concept of overlapping and parallel development of diverse conservation approaches. Depending on the specific initiatives, one or more approaches may be simultaneously operationalized. However, Landscape Conservation stands out as the prevailing approach within contemporary conservation discourse and practice (Bluwstein 2018).

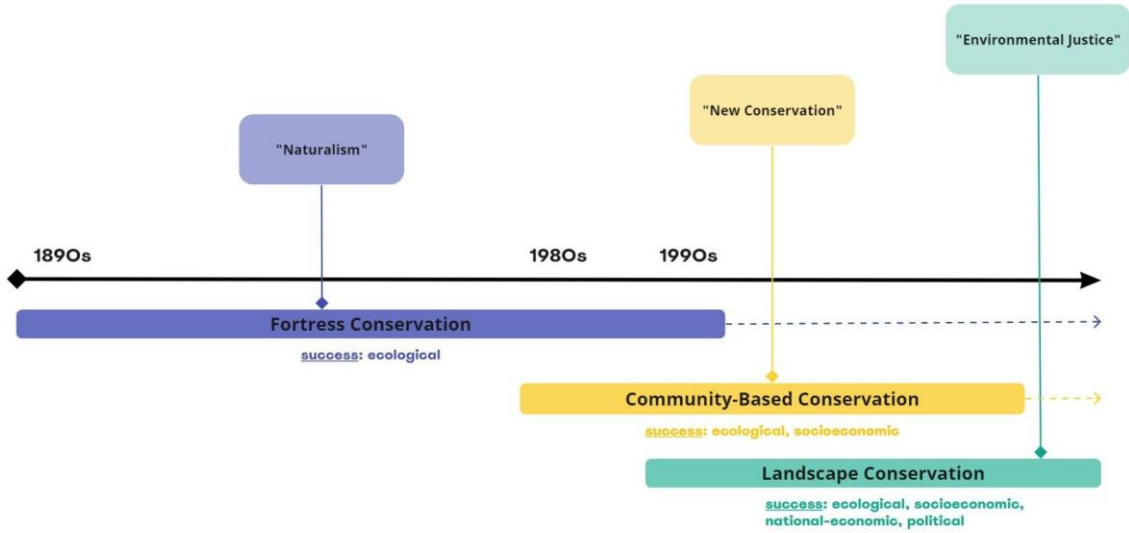


Figure 2: Conservation Paradigms

Functioning as an extended collaborative undertaking, Landscape Conservation integrates a diverse array of actors to strike a balance amid often conflicting objectives (Sayer et al. 2017, 466). While it elevates the individual interests of stakeholders in conservation initiatives, its core ethos underscores a utilitarian standpoint – the success of conservation hinges on enhancing human well-being through biodiversity conservation (Inogwabini 2020). However, the author underscores that this perspective does not directly translate to the African context. Instead, it underscores a pragmatic reality: genuine environmental management takes root only when individuals possess the means to sustain their livelihoods. Therefore, the African landscape approach intertwines economic considerations into the conservation narrative.

Given that landscape conservation necessitates more time and wider-reaching interventions, it demands even greater resources than previous conservation approaches (2020, 14). Hence, the potential for financial support lies in multi-stakeholder collaboration facilitated through international partnerships.

Integrating Landscape Conservation with Environmental Justice introduces an additional potential to unveil and address gender inequality. MacGregor (2021) suggests that a direct connection exists between inadequate environmental conditions and socio-economic inequality, where gender plays a role in distributing resources influenced by economic differences. Statistics from UN Women mentioned by the author highlight that women possess lower financial resources compared to men, rendering them less equipped to bolster their resilience against climate change threats (ibid., 243). Moreover, procedural justice in conservation practice calls for a closer examination of who participates in shaping conservation policies and plans. The author underscores that women's dependence on land and place for household sustenance engenders a disproportionate burden when their ability to provide is compromised, magnifying gender-based injustices (ibid., 248). This matter will receive in-depth exploration in the analysis and discussion chapter.

### 3.3 Actor-Network Theory

Given this thesis' central focus on stakeholder interests, interactions, and dynamics, Actor-Network Theory (ANT) has been chosen as the guiding theoretical framework, shaping both the methodology and analysis. Acknowledging the dynamic nature of multi-stakeholder environments has prompted demands for a thorough examination of interactions among stakeholders, the political landscape of opportunities, and conflicting interests within stakeholder collectives. (De Schepper, Dooms, and Haezendonck 2014, 1220).

ANT's core principle revolves around tracing interactions and relationships among actors to comprehend how networks emerge. Here, actors encompass both human and non-human entities capable of initiating action and influencing social interactions. ANT delves into the genesis of networks, the enrollment of actors, the establishment of network stability, and the factors contributing to network instability.

In this thesis, the term "actors" will predominantly be employed to signify the entities participating in the conservation efforts of the Udzungwa Mountains Landscape. This delineation draws inspiration from Jepson et al. (2011), who categorize conservation actors as individuals, groups, and organizations that actively contribute to conservation objectives. This definition also encompasses constituents, communities, corporations, and governmental bodies that provide collaboration and backing for conservation pursuits. Moreover, the term "stakeholders" will be used interchangeably, indicating groups or individuals with the capacity to impact, or be impacted by, biodiversity conservation objectives (Inogwabini 2020).

ANT posits that non-human entities possess agency and should be considered as actors, while human action is fundamentally intertwined with these non-human counterparts. The agency of non-human actors emerges from their relationships within the network, catalyzing action. Within the Udzungwa Landscape Network, human actors encompass local communities, NGOs, government bodies, conservation scientists, businesses, and donors. Non-human actors, equally pivotal according to this theory, encompass wildlife, protected areas, global agreements, scientific knowledge, and paradigms underpinning conservation. However, in the forthcoming analysis and network mapping, only wildlife will be represented as a non-human actor, as the remaining elements have been addressed extensively throughout this thesis. Notably, Jepson et al.'s characterization of conservation actors as entities possessing agency aligns with this framework. Within this context, wildlife emerges as a significant actor wielding agency that influences local communities, shapes the actions of NGOs and the broader implementation of conservation initiatives by governmental and non-governmental organizations.

The paradigms expounded in preceding sections elucidate how conservation approaches evolved through the influence of global agreements, such as the UN Sustainable Development Goals, solidifying into potent and stable biodiversity conservation networks. ANT endeavors to explicate how networks generate effects, including power dynamics, through the interactions between actors that form the social fabric. Latour's concept of "translation" encapsulates the process of redefining phenomena to prompt other actors to act within the specific requirements of the network. In this sense, networks consolidate their presence by enrolling additional actors.

This process contributes to the formation of dominant concepts, methodologies, institutions, and power structures that become entrenched and unquestioned, often culminating in a state of irreversibility where exiting the network becomes untenable (Latour 2005). This phenomenon can be observed in conservation NGOs altering their organizational strategies to secure ongoing funding, politicians realigning their governance priorities to attract international revenue, and local communities adapting their behaviors, such as income-generating activities, due to their proximity to protected.

The integration of Actor-Network Theory into this thesis leverages its comprehension of actors and networks to unveil the roles, interests, and needs of various groups. As a result, it helps map out the relationships among these actors, resulting in the identification of the Udzungwa Landscape Network. By adopting this approach, a more concrete and contextually appropriate conservation practice can potentially be envisioned.

Echoing Jepson et al. (2011), this thesis advocates that distinct actors assume specific roles within the landscape conservation. Uncovering these can yield novel insights into conservation dynamics, ultimately guiding future practice (ibid., 234). However, ANT posits that actors "become" as a consequence of their interactions with others. Thus, the identity of an actor remains multifaceted and dynamic, subject to how other actors perceive them and their expectations. Consequently, the attributes of other actors may shift through this process (ibid. 230). ANT further contends that an actor is inseparable from the network it inhabits (Latour 2005). As a result, interactions between actors shape decisions, roles, outcomes, and co-produce individual and collective actions (Jepson et al. 2011). Considering this, illuminating these relationships becomes imperative for a comprehensive understanding of conservation initiatives.

The Udzungwa Landscape Network operates within a web of social, economic, ecologic, and political connections, serving as the basis for the execution of actions. As such, comprehending the experiences of each actor group within this network assumes paramount importance, enabling an understanding of the underlying logic driving specific interventions and the management of interactor relationships (Persson 2021, 121). Informed by these insights, four categories of complexity will guide the analysis in the subsequent chapter. I contend that social, ecological, economic, and political complexities constitute the foundation of the Udzungwa Landscape Network. These terms underscore diverse focus points of actors, aiding in uncovering their interests, needs, and dynamics that decisively shape conservation endeavors. Jepson et al. assert that ANT's comprehension of actors can stimulate innovative strategic thinking, ensuring that influential or marginalized actors are not overlooked, and pointing towards new avenues of research in conservation biology (2011, 230).



The authors advocate for the adoption of an actor-network perspective to unveil the contextual specificity, emphasizing the significance of analyzing local actors in the design of new interventions (ibid., 233). By adopting Actor-Network Theory as the foundational theoretical approach in this thesis, the objective is to construct a map of the dynamics among actors within the Udzungwa Mountains Landscape. This depiction is envisioned as a catalyst for shaping future conservation practices anchored in principles of environmental justice.

## 4 Methodology

This thesis employs a qualitative methodology to explore the dynamics between actors in the Udzungwa Mountain Landscape and their influence on conservation success. The complexity of conservation necessitates a comprehensive examination of the interplay between social, political, economic, and environmental factors. Rather than accepting conventional conservation practices unquestioningly, this study seeks to uncover the underlying assumptions, values, and power structures shaping conservation efforts (Massarella et al., 2021). By adopting a multi-dimensional approach encompassing ecological, economic, social, and political perspectives, this research includes a diverse array of actors, each with their distinct understandings of conservation success. The interactions and interventions of these actors can significantly impact conservation outcomes, making it imperative not to overlook any influential or marginalized groups (Jepson et al., 2011).

To understand these complexities this study uses Actor-Network Theory as its conceptual framework. It allows for an in-depth exploration of the various conservation actors and their specific contextual influences (Massarella et al., 2021). By adopting this perspective, the research endeavors to move beyond simplistic views of conservation partnerships and assess the emerging complex collaborations between donors, governments, NGOs, businesses, researchers, and other stakeholders in the Udzungwa Mountain Landscape (Ponte et al., 2022).

By mapping the Udzungwa Landscape Network with its multiple actors, local complexities will be made visible and the ecological, economic, social, and political aspects of conservation uncovered. The research question guiding this study is as follows:

*What are the dynamics between the actors in the Udzungwa Mountain Landscape, and how do these dynamics affect conservation efforts?*

In this chapter, the chosen methodology and research design will be presented, emphasizing the significance of employing qualitative research methods in the investigation. Subsequently, the methods used during the fieldwork will be outlined, followed by an exploration of the data analysis approach.

### 4.1 Methodological Framework

Qualitative methodology is particularly well-suited for this research, as it allows for a detailed exploration of the complex dynamics between conservation actors in the Udzungwa Mountain Landscape. By adopting a qualitative approach, the aim was to understand how these actors interpret their experiences and construct their realities, capturing the socially constructed, multiple meanings attached to conservation (Merriam and Tisdell, 2015).

Qualitative research focuses on context and aims to comprehend the actions of individuals and the structures that shape their behaviors (Tracy, 2013). In line with the research goals, the thesis tries to provide a rich description of the conservation context, map actor networks, and understand the dynamics between stakeholders. This inductive approach enabled concepts, hypotheses, and theories to emerge gradually from the data, prioritizing the perspectives of the actors and their specific context (Tracy, 2013). The inductive nature of qualitative research aligns with my research journey, wherein I began with a broad focus on multi-stakeholder collaboration and partnership models for conservation but narrowed my focus based on fieldwork findings. The research process involved continuous refinement of the research question and conceptual framework based on emerging data (ibid.). Instead of solely basing my research on 'stakeholders' I broadened it to the concept of 'actors' based on Actor-Network Theory. This allowed me to also include wildlife as a non-human actor, which was important in the context of conservation due to its effect on certain actors. Further, conservation itself was broken apart and not left unquestioned. Rather, fieldwork uncovered the complexities of this concept allowing for a more in-depth analysis. As Rust et al. (2017) argue, it is not sufficient to study conservation as a technical problem but accept it as a social and pragmatic problem that should be studied to gain deep contextual understanding with the purpose of conserving the environment more effectively (ibid., 1308).

Understanding potential biases introduced by the researcher's positionality is essential in qualitative research. In this study, my affiliation with the Hempel Foundation could have influenced responses and interactions with stakeholders. To address this, I took several measures to minimize potential biases. While I was aware that eliminating biases might not be possible, I focused on identifying and monitoring them to uncover how they might shape the collection and interpretation of data (Merriam and Tisdell 2015, 16). Therefore, I clearly stated my role before interviews, ensured confidentiality, and emphasized that participants' sharing would not result in any negative consequences (Wackenhut, 2018). Additionally, an employee of a local NGO that the Hempel Foundation is cooperating with assisted me in moderating focus groups and translating Swahili. In the next section I will refer to this person as my interpreter because he not only supported translation, but also navigated the cultural setting. While Fujii (2013) would say translators can help mitigate biases and foster natural interactions within the cultural context, there is a risk of translation affecting the accuracy of collected data due to the translators position and individual background.

Although my affiliation with the donor facilitated access to the field, it is crucial to consider the potential impact it might have had on the precision of responses provided by political actors and NGO members. The presence of bias could have been influenced by interdependencies rooted in financial support, possibly shaping their responses in alignment with their funding interests.

## 4.2 Methods and Fieldwork

The research initiation involved an extensive review of the existing literature on conservation in Tanzania, aimed at cultivating a more profound comprehension of the local milieu. This preliminary analysis played a pivotal role in shaping the focus of my research. Collaborative engagements with experts and local NGOs, coupled with preparatory discussions, further augmented my insight into the subject matter and facilitated the establishment of connections with political figures and community entities (Bergmann Blix & Wettergren, 2015).

Adhering to Fujii's approach (2013), my interpreter has provided unwavering support throughout the entire process, assisting in not only translation but also in forging links with political actors and community groups, as previously noted. Beyond translation, his contributions were especially instrumental in navigating access to the field and fostering a deeper understanding of the local dynamics. During preparatory meetings, we delved into discussions regarding the local landscape, appropriate researcher conduct within the country, and the most effective approach to engage specific stakeholders. In line with Bergmann Blix and Wettergren's observations (2015), the preliminary phase of field entry emphasizes the importance of initiating preparatory groundwork with 'people in the know'. This approach leverages connections, such as those with my colleague, experts, and the local NGO, enabling the accumulation of essential knowledge and the preservation of field access.

Fieldwork was conducted during two weeks in the Udzungwa Mountains Landscape, primarily in the village of Mangula, adjacent to the Udzungwa Mountains National Park. Data collection involved a combination of individual and focus group interviews with diverse stakeholders, including NGO representatives, researchers, donors, government officials, and community members. The latter was particularly useful in revealing group interactions and uncovering attitudes, beliefs, and opinions within the community (McLafferty, 2004). Revealing these dynamics can be of great importance in the context of future conservation project implementation (Ryan et al. 2014).

Due to limited time and resources for my research, I chose to focus on fewer more in-depth interviews. I ended up with five individual interviews with local NGO members (2), researchers from local universities and a monitoring center (2) and the donor (1). I also received email responses from political actors (3) and conducted focus group interviews in two villages with 6-8 participants each (4). Small sizes and homogenous composition of focus groups supported me in doing my research in this context (McLafferty 2004). Especially focus group discussions serve to make stakeholders the center of sustainability research and practice, as Masao et al. (2022) claim. "This is essential in reconnecting top-down management and policy mechanisms with grassroots knowledge and needs and in identifying socially acceptable pathways towards sustainability that are owned and endorsed locally across stakeholder groups" (2022, 14).

I employed purposive sampling to select participants based on their diversity, availability, and my interpreter's access. The incorporation of snowball sampling added a degree of flexibility to the selection process, allowing me to particularly focus on engaging marginalized groups, such as women in rural communities (Rust et al., 2017). Regarding availability, the participants of the organized stakeholder workshop were chosen to encompass a range of perspectives, including government and NGO representatives, and researchers from local universities and the monitoring center. However, I encountered challenges when attempting to individually interview government actors during and after the workshop. This compelled me to revise my approach and subsequently connect with them via email to obtain responses to my inquiries. Conducting separate focus groups for men and women in two distinct villages was a deliberate choice, informed by an awareness of the intricate social dynamics and gender considerations within the Tanzanian context (Ryan et al., 2014). This decision aligns with the observations of Killian and Hyle (2020), who underscore the absence of women's voices in decision-making bodies. Despite their presence in meetings, women frequently refrain from speaking, influenced by a lack of confidence within a predominantly male-dominated environment (ibid., 9). My interpreter played a pivotal role in assisting with the organization of the focus groups. Opting for focus groups over individual interviews was a strategic choice aimed at maximizing participation and capturing a broader range of perspectives. This approach facilitated the exploration of shared viewpoints and divergent experiences, while also ensuring the inclusion of marginalized groups' insights.

Facilitating the discussions was entrusted to my interpreter, who possessed the linguistic proficiency and cultural familiarity necessary for effective moderation. Given that political actors and rural community members communicated primarily in Swahili, my interpreter's language skills were indispensable. Fujii (2013) underscores the significance of collaborating with a translator to ensure the research process remains unbiased and inclusive, particularly in contexts where English proficiency varies. This approach safeguards against potential biases, promotes data richness, and prevents the exclusion of less educated individuals. Nonetheless, as addressed earlier, translation also introduced potential risks.

Furthermore, my interpreter's unique positionality, considering his gender and social status, played a constructive role in data collection. His adeptness in engaging with government officials was invaluable, while his participation in the men's focus groups proved beneficial. Simultaneously, my identity as a woman provided a conducive environment for natural interactions during the women's focus groups, fostering open discussions on sensitive subjects.

In Tanzania, a stringent hierarchical protocol governs interactions with political actors. In the process of organizing focus groups, adherence to this protocol required initiating contact with the village executive officer, followed by engagement with the village chairman. These initial steps involved introducing ourselves and articulating our research intentions. Both village leaders from the respective villages consented to cooperate, with a nominal fee provided in exchange for their assistance. Similarly, community members were also remunerated for their participation, a decision guided by Gelinas et al.'s (2018) "framework for ethical payment" and informed discussions with my interpreter regarding appropriate compensation for their time. In alignment with Gelinas et al.'s perspective, payment for respondents was perceived as commensurate with other compensated research activities, such as employment-related compensations (ibid., 769).

The initial village was chosen because it had not been engaged in recent conservation interventions by local NGOs. Conversely, the second village was selected precisely due to its recent involvement in such initiatives. This selection approach aimed to mitigate bias and enhance comprehension of the impact of conservation efforts. These two villages were also picked due to their proximity to the Udzungwa Mountains National Park, and both can be characterized as impoverished rural communities. In the course of the focus groups, participants were asked about their comprehension of conservation efforts, the primary issues and challenges prevailing in their local context, their individual roles, as well as their perceptions and anticipations regarding other stakeholders.

To ensure confidentiality, the identities of all participants engaged in this study have been safeguarded through anonymization. They will be denoted as Community 1 and 2, NGO 1 and 2, Donor, Local Business or Corporation, Conservation Researcher 1 and 2, and Government Authorities. Acknowledging the presence of tensions inherent in stakeholder dynamics within the Udzungwa Landscape, it was deemed imperative to avert any potential harm to participants arising from their involvement in this research.

### 4.3 Data and Methods of Analysis

After completing the data collection phase, I had gathered nine interview transcripts from various stakeholders, excluding government officials. Additionally, I had obtained email responses from Protected Area managers, along with my own fieldnotes, the donor's biodiversity strategy, a researcher's analysis of the area, and sections from the business' website discussing their strategy related to growth, sustainability, and social responsibility. This collection of diverse materials aimed to provide a comprehensive understanding of the different viewpoints held by stakeholders, revealing the complexities of conservation in the Udzungwa Landscape.

To make the analysis process clear and efficient given the limited time and extensive documents, I opted for Nvivo 12 software for qualitative data analysis. The process of coding was crucial for organizing, breaking down, and categorizing the data, enabling a more holistic view beyond individual research instances. This coding method helped track occurrences of data tied to my ideas, allowing me to trace them back to their sources. This guarantees transparency and provides a basis for justifying my interpretation of ideas, as highlighted by Beekhuyzen et al. (2010). In this study's specific context, coding was especially useful for systematically managing the complex interactions among conservation actors.

To initiate the analysis process, deductive coding was implemented on the transcripts and documents. In this approach, codes were established beforehand, derived from a blend of theoretical frameworks, existing literature, and insights gained from the fieldwork phase. These pre-defined codes, referred to as 'complexities,' were shaped by specific themes identified within respondent perspectives. The resulting codes encompassed: economic focus<sup>1</sup>, ecological focus<sup>2</sup>, political focus<sup>3</sup>, and social focus<sup>4</sup>. These codes directly corresponded to the diverse conservation approaches and paradigms elucidated in the theoretical section. Notably, while the Fortress Conservation primarily emphasizes ecological outcomes, the 'new conservation' paradigm, often associated with CBC, integrates both ecological and social considerations, with an emerging concern for economic development as well. On the other hand, Landscape Conservation is believed to unite all four complexities -economic, ecological, social, and political - making it an apt candidate for alignment with the paradigm of 'environmental justice.' By incorporating a political focus, this paradigm illuminates discussions surrounding power dynamics within conservation efforts (Massarella et al., 2021).

Categorizing the data using these codes aimed to reveal the positions of various actors, facilitating a deeper comprehension of their motivations and contributions. This process of identifying commonalities and disparities among their interests within the landscape helps unveil complex relationships within the conservation network (Beekhuyzen et al. 2010).

The subsequent stage involved inductive coding of the interactions between actors. Drawing inspiration from Latour's (2005) Actor-Network Theory, the objective was to uncover the roles and interconnections of actors within the collaborative network they form. Codes were devised based on actors' self-descriptions and their perceptions of each other, encompassing their defined roles and mutual expectations. This allowed me to spotlight potential points of contention and conflicts among stakeholders that could potentially impact future cooperation.

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<sup>1</sup> focus on economic development (mainly government and communities), funding (researchers, donors), or economic interests of businesses

<sup>2</sup> focus on the environment and unique and/or essential biodiversity

<sup>3</sup> focus on policy connecting conservation and economic development, also power relations between government and other actors

<sup>4</sup> focus on human well-being and how conservation affects people

A total of 62 dynamic codes were established, grouped under major categories like business, community, donor, government, NGOs, researchers, and wildlife. These codes will be described in the analysis chapter.

This process was followed by a review of the dynamic codes, involving merging some and refining others. This inductive approach contributed to structuring the findings and enhancing the focus of this research.



## 5 Analysis

The analysis will be divided into three main sections: (5.1) Matrix coding queries carried out using Nvivo 12 to illustrate dynamics specific to each actor, (5.2) the interpretations of conservation success as shared by the actors through interview data, and (5.3) the construction of an Actor-Network Model rooted in the coded data. The chapter will conclude by outlining the methodological and data-related limitations.

### 5.1 Actor-specific Dynamics

The linkage between both sets of codes (complexities and dynamics) was established using Matrix Coding Queries within Nvivo. The objective was to highlight the alignment of actors' emphasis with the identified dynamics. This approach aimed to clarify the reasons behind the existence of particular dynamics. As such, I conducted two distinct queries for each actor group, revealing the dynamics identified by other actor groups concerning a specific actor, as well as the dynamics recognized by an actor group about themselves. By later comparing these queries, any discrepancies leading to tensions or controversies could be readily interpreted and clarified.

#### 5.1.1 Business Dynamics

To examine the perceptions of various actor groups regarding businesses' dynamics, I initiated a matrix coding query. This query encompassed all the complexities – economic, ecologic, political, and social focus – and included the dynamics associated with businesses (business as advocate<sup>5</sup>, as contributor<sup>6</sup>, attracting businesses<sup>7</sup>, business being non-cooperative<sup>8</sup>, depends on environment<sup>9</sup>, business focused on growth<sup>10</sup>). However, I restricted the data selection solely to inputs from other actors (interviews, fieldnotes, etc.), thereby excluding the self-perspective of businesses. In the subsequent query, I employed the same set of complexities and business dynamics, but this time, I focused solely on selected data related to businesses (coded content from the corporation's website, and stakeholder workshop fieldnotes) to understand their self-presentation. The findings from the first query indicated a pronounced emphasis on economic aspects, followed by occasional references to political dynamics, and minimal attention to ecologic and social elements.

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<sup>5</sup> advocating for climate action, with a potential to influence the government

<sup>6</sup> contributing to society and conservation efforts through investments

<sup>7</sup> contributing to the establishment of more businesses in the area

<sup>8</sup> being non-cooperative by using most land for their own benefit, returning little investment

<sup>9</sup> depending on the environment - water flows from the forests and good-quality soil for success

<sup>10</sup> primarily focused on financial growth rather than environment

The identified dynamics included (1) business being non-cooperative, (2) business as contributor, (3) business as advocate, and (4) business depends on environment, with (1) mentioned most and (4) least.

To illustrate, a scenario surfaced wherein an NGO representative revealed that businesses had been advocating for sugarcane cultivation instead of tree planting, posing challenges to the NGO's conservation endeavors. Notably, community members occasionally disengage from NGO-led conservation and livelihood initiatives due to the quicker financial returns offered by other pursuits (transcript in appendix J). On the contrary, insights garnered from the donor interview propose the prospective role of businesses as conservation advocates. Should businesses collaborate closely with conservation initiatives and contribute actively, they could emerge as valuable allies, characterized as potentially "fantastic partners." This stems from their potential to effectively lobby the government, backed by their financial influence (transcript in appendix F).

A contrast becomes evident in the second query, wherein the business profile manifests with a pronounced economic and social orientation. However, minimal emphasis is directed towards ecological considerations, and political dimensions are notably absent. The trio of dynamics that emerged comprises (1) business as contributor, (2) business as advocate / business attracting businesses, and (3) business focused on growth.

Illustratively, the local business positions itself as a significant contributor to both the local community and the broader Tanzanian economy (Kilombero Sugar Company, 2023). Their strategic objective centers on expanding sugar production to enhance Tanzania's self-reliance. This entails collaborating with local farmers to source sugarcane and distributing the resulting sugar through a network of resellers.

### 5.1.2 Community Dynamics

The initial matrix query concentrated on elucidating the dynamics within communities as perceived by other actor groups. In this context, the complete array of complexities and dynamics associated with communities (communities adapting slowly<sup>11</sup>, communities as beneficiaries<sup>12</sup>, as conservationists<sup>13</sup>, as cooperators<sup>14</sup>, as decision-makers<sup>15</sup>, communities being left out<sup>16</sup>, being unsupportive<sup>17</sup>, communities depending on resources<sup>18</sup>, communities in

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<sup>11</sup> adapting slowly to new conservation activities

<sup>12</sup> as beneficiaries of conservation activities that improve their livelihoods

<sup>13</sup> acting as conservationists implementing activities, such as tree planting

<sup>14</sup> acting in a cooperative way for conservation to succeed

<sup>15</sup> acting as decision-makers in conservation initiatives, selecting fitting activities

<sup>16</sup> experiencing exclusion - not chosen for specific projects or fail to receive benefits

<sup>17</sup> being unsupportive of conservation due to lack of awareness or negative effects

<sup>18</sup> depending on forest resources for their everyday survival

poverty<sup>19</sup>, lacking knowledge<sup>20</sup>, lacking capacity<sup>21</sup>, communities mistrusting<sup>22</sup>, without power<sup>23</sup>, unemployed<sup>24</sup>, irresponsible men<sup>25</sup>, responsible women<sup>26</sup>, unproductive youth<sup>27</sup>) was encompassed. The selection solely comprised interviews, fieldnotes, and documents from the perspective of other actor groups. The findings reveal a focal point on socio-economic considerations, a measure of ecological attention, and a relatively limited political dimension. The dynamics identified were (1) communities as conservationists, (2) as beneficiaries, (3) depending on resources, (4) in poverty / as decision-makers, (5) as cooperators, (6) being unsupportive, (7) lacking knowledge, (8) being left out, (9) mistrusting, (10) lacking capacity, (11) adapting slowly.

Illustrating the notion of communities operating as conservationists and beneficiaries, an instance highlighted by an NGO member underscores this concept. In this scenario, community members gain employment opportunities through conservation initiatives that stimulate tourism and generate revenue for the nation. However, the importance of fostering a sense of ownership and accountability is emphasized by the NGO member. The National Park is an integral part of the community, serving as an avenue for potential benefits like improved infrastructure due to tourist influx. Yet, the paramount outcome is the sustained presence of the forest itself. This perspective posits that the forest is fundamentally theirs, thereby incurring a responsibility to safeguard it. The notion of ownership is pivotal, aiming to instill a sense of stewardship. The interviewee advocates for active community involvement, coupled with tangible benefits that demonstrate the symbiotic relationship between conservation and community well-being (transcript in appendix J).

The subsequent query encompassed all complexities along with community dynamics, focusing solely on interview files from the community. The results underscore a prevailing socio-economic orientation. Among the dynamics highlighted were (1) responsible women, (2) in poverty, (3) without power, (4) depending on resources, (5) irresponsible men / unproductive youth / unemployed, (6) as cooperators, (7) lacking capacity, (8) lacking knowledge, (9) mistrusting / as beneficiaries.

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<sup>19</sup> living in poverty - affecting their behavior and perceptions of conservation

<sup>20</sup> lacking knowledge in connection to environmental education and conservation laws

<sup>21</sup> lacking capacity to manage businesses sustainably > projects need to be monitored and evaluated

<sup>22</sup> mistrusting the government, NGOs and actions taken due to previous bad experiences

<sup>23</sup> feeling powerless when it comes to negative consequences of conservation (e.g. wildlife)

<sup>24</sup> talking about unemployment issues that could be solved through conservation activities

<sup>25</sup> women refer to men as not carrying as much responsibility as they do

<sup>26</sup> women having most responsibility for community and households

<sup>27</sup> youth lacking employment which leads to issues in communities

Insights gained from community focus discussions unveil that women predominantly bear the responsibilities of tending to family and household chores. This role encompasses critical tasks such as collecting firewood, an essential resource for cooking. This dynamic unequivocally reflects the community's reliance on forest resources. One woman shared, "conservation is important but especially challenging for women because they are the ones who cook at home for the family, taking care of the family and they have no alternative for fuel" (transcript in appendix D). Consequently, an insightful suggestion emerged, advocating for providing loans specifically to women, as this would support the entire family.

### 5.1.3 Researcher Dynamics

The initial matrix query included all complexities and dynamics associated with researchers (researchers as accommodators and educators,<sup>28</sup> researchers as conservation strategists<sup>29</sup>, and researchers being fund-dependent<sup>30</sup>), while excluding interviews with researchers. The results distinctly highlight an ecological orientation, indicating that other actor groups primarily perceive researchers as aligned with ecological objectives within conservation efforts. The most prominent dynamic identified was (1) researchers as conservation strategists, denoting researchers' involvement in shaping the strategies of conservation initiatives.

Particularly, Protected Area (PA) managers expressed their anticipations concerning conservation researchers in the region. They emphasized the need for research focused on the Udzungwa Mountains' species, aiming to contribute to the formulation of a comprehensive, enduring conservation strategy. Furthermore, they highlighted the importance of sharing the outcomes of this research with the government (email in appendix K&L).

The subsequent query encompassed all complexities and dynamics associated with researchers, specifically targeting researcher interview files and the situation analysis penned by a conservation researcher. This analysis unveiled a predominant ecologic orientation, coupled with certain economic aspects. The identified dynamics included (1) researchers as accommodators and educators, and (2) researchers being fund dependent.

A conservation researcher articulated the extensive research efforts and its significance for conservation endeavors. Nonetheless, a sense of frustration was conveyed due to the research findings not being effectively utilized by other stakeholders for the implementation of conservation initiatives (transcript in appendix H).

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<sup>28</sup> hosting international students and researchers, also educate others to improve knowledge on conservation importance

<sup>29</sup> contributing to creating strategies for conservation interventions

<sup>30</sup> mostly dependent on funds for doing their conservation research

#### 5.1.4 Donor Dynamics

The first matrix query included all complexities and dynamics associated with donors (donors as advisors<sup>31</sup>, as capacity-builders<sup>32</sup>, as catalysts<sup>33</sup>, as connectors<sup>34</sup>, as money-givers<sup>35</sup>, and donors harmonizing policy<sup>36</sup>). The donor interview and strategy document were excluded. The findings reveal a primary emphasis on economic matters, followed by a focus on social aspects, and a combination of ecologic and political considerations. The identified dynamics encompassed (1) donors as money-givers, (2) as capacity-builders, (3) as connectors, (4) as advisors, and (5) donors harmonizing policy.

For instance, PA manager 2 anticipates donors to offer guidance to the government "on improved forest management methods, securing funds for conservation-related activities" (email in appendix L). PA manager 3 also envisions them introducing novel pilot technologies, offering equipment, and supplying technical knowledge (email answer in appendix M). Furthermore, an NGO member articulated that donors should allocate resources for community awareness initiatives, while emphasizing the need for well-equipped implementers, an area where donor assistance would be beneficial (transcript in appendix J).

The second query encompassed all complexities and donor dynamics, with only the donor interview and strategy document selected. The results underscore an economic emphasis, succeeded by a social focus, followed by an ecologic consideration, albeit without a distinct political focus. The identified dynamics include (1) donors as connectors / as catalysts, (2) donors as capacity-builders / money-givers.

The findings spotlight the donor's role as a connector and capacity-builder, demonstrated by their commitment to fostering collaboration through "networks, conferences, and other activities aimed at generating fresh insights, facilitating knowledge sharing, and highlighting both failures and best practices" (Hempel Foundation, 2021).

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<sup>31</sup> advising other actors on conservation activities and strategies

<sup>32</sup> supporting capacity-building of other actors

<sup>33</sup> acting as catalysts for additional funding, improving collaboration and influencing global strategies

<sup>34</sup> connecting multiple actors to come together and find solutions for complex issues

<sup>35</sup> financially supporting conservation initiatives

<sup>36</sup> able to influence government and potentially policies for the sake of conservation

### 5.1.5 Government Dynamics

The initial matrix query included all complexities and government dynamics (government as employer<sup>37</sup>, as middleman<sup>38</sup>, as supporter<sup>39</sup>, government being financially dependent<sup>40</sup>, being misleading,<sup>41</sup> restrictive<sup>42</sup>, unsupportive<sup>43</sup>, government in power<sup>44</sup>, confusing system<sup>45</sup>, PAs as competitors<sup>46</sup>, conservationists<sup>47</sup>, park managers<sup>48</sup>, as tourism promoters<sup>49</sup>, PAs enforcing laws<sup>50</sup>, PAs lacking capacity, technology, and funding<sup>51</sup>, powerful park rangers<sup>52</sup>, unreliable park rangers<sup>53</sup>). The selected files included all interviews, fieldnotes, and documents, excluding email responses from PA managers and fieldnotes containing government voices. The results emphasize a political focus, succeeded by economic, social, and lastly ecologic considerations. The identified dynamics include (1) government being unsupportive, (2) confusing system (3) being financially dependent, (4) government as supporter, (5) government being restrictive, (6) government in power, (7) unreliable park rangers, (8) government being misleading, (9) powerful park rangers, (10) PAs as tourism promoters, (11) government as middleman / employer, (12) PAs as conservationists / lacking capacity, technology and funding, (13) PAs as park managers / enforcing laws. Notably, the first two dynamics were significantly more frequently mentioned by actor groups.

Communities expressed their concerns regarding the lack of adequate government support in providing proper compensation when wildlife enters their villages and damages crops. A specific instance was recounted, where a farmer received only 1000 TSH (equivalent to 0.37 Euro) from the government after an animal destroyed two hectares of crops. One woman referred to this amount as "nothing" (see transcript in Appendix B). Conservation researcher 1 shared insights into the confusing policies of the government. Tanzania has disparate policies (National Park, Nature Reserves, Wildlife Management Areas) that govern the same natural resources, namely forests.

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<sup>37</sup> creating conservation jobs

<sup>38</sup> acting as middleman primarily between organizations and communities

<sup>39</sup> supporting conservation projects, implementing actors and communities

<sup>40</sup> depending on financial resources from businesses or international actors

<sup>41</sup> not keeping promises to communities

<sup>42</sup> restricting people in the name of conservation

<sup>43</sup> not providing support to actors for conservation activities

<sup>44</sup> being very powerful, the other actors have to follow protocol

<sup>45</sup> contradicting policies and laws that make conservation interventions more difficult

<sup>46</sup> competing for essential funding

<sup>47</sup> acting as conservationists, implementing key activities

<sup>48</sup> acting as park managers to protect nature

<sup>49</sup> promoting conservation tourism activities

<sup>50</sup> enforcing laws by catching and arresting intruders

<sup>51</sup> stressing their lack of capacity, technology and funding to implement activities properly

<sup>52</sup> enact their power by enforcing laws and sometimes treating people brutally

<sup>53</sup> being unreliable concerning their role of protecting communities from wildlife

Another illustration he provided related to water resources: while Tanzania's environmental regulations stipulate a 60-meter distance people must maintain from water sources, the forest policy dictates 30 meters, and the agricultural policy specifies 20 meters. This inconsistency confuses people and hinders conservation efforts (see transcript in Appendix G).

The second query encompassed the entirety of complexities and governmental dynamics, utilizing solely government files such as fieldnotes and email responses. The results indicate a prioritization of economic aspects, succeeded by political, ecological, and, finally, social considerations. The identified dynamics were (1) PAs lacking capacity, technology and funding, (2) government as middleman, (3) PAs as tourism promoters, (4) government in power, (5) government as supporter, (6) being financially dependent, (7) confusing system and government as employer.

### 5.1.6 NGO dynamics

The initial matrix coding query for NGO dynamics encompassed all complexities and dynamics associated with NGOs (NGOs as capacity-builder<sup>54</sup>, as connector<sup>55</sup>, as conservationist<sup>56</sup>, as educators and community managers<sup>57</sup>, as employers<sup>58</sup>, as fundraisers<sup>59</sup>, NGOs being exclusive<sup>60</sup>). This query included all relevant files except for fieldnotes and interviews focusing solely on NGO interactions, allowing for insights into actors' perceptions of NGOs. The results reveal a predominant social focus, followed by economic and ecologic considerations, along with some political attention. The identified dynamics include (1) NGOs as educators and community managers, (2) as connectors, (3) as capacity-builders, (4) as conservationists, (5) as fundraisers, (6) as employers, and (7) NGOs being exclusive.

The findings indicate that NGOs are expected to fulfill various roles such as fundraising, implementing conservation awareness, supporting pilot projects, promoting local livelihoods, boosting tourism, and facilitating the development of conservation professions through training and scholarships (email in appendix M). This insight sheds light on the multifaceted role required for NGOs to achieve these objectives. "The best NGOs are those that have local knowledge, are rooted in the context, and are seen as close collaborative partners that are trusted, transparent, and well-received" (transcript in appendix F). This diverse range of tasks positions NGOs as connectors, educators, and community managers.

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<sup>54</sup> building capacity of community members for conservation

<sup>55</sup> connecting all actors, understanding multiple roles, needs and issues

<sup>56</sup> implementing conservation activities to protect the environment

<sup>57</sup> Educating, managing communities - raise awareness, enable them to implement project activities

<sup>58</sup> expected to employ community members

<sup>59</sup> applying for and managing funds for conservation activities

<sup>60</sup> following their own plans instead of community needs - selecting certain villages, excluding others

The subsequent query encompassed all complexities and dynamics related to NGOs, specifically targeting interviews with NGO members and fieldnotes concerning interactions with NGOs. The results indicate a parallel emphasis on social aspects, followed by economic considerations, along with some ecologic and political dimensions. The identified dynamics include (1) NGOs as educators and community managers, (2) as conservationists, (3) as capacity-builders, (4) as connectors, and (5) as fundraisers.

Their positioning closely aligns with the aforementioned approach, focusing on knowledge integration and forging connections among conservationists, governments, and NGOs, as conveyed during the stakeholder workshop. Furthermore, an NGO representative highlighted their positive rapport with local and district-level government authorities, attributing it to consistent information exchange and the engagement of government officials throughout the project stages (transcript in appendix I). This approach necessitates the flexibility of implementation plans to ensure alignment with evolving political priorities (transcript in appendix J).

## 5.2 Conservation Success

Transitioning from the initial phase of analysis, the subsequent segment delves into the findings concerning the diverse definitions shared by actors pertaining to the concept of conservation success. Recognizing that varying definitions can significantly shape expectations and actual conservation practices; it is paramount to make these definitions transparent. These perspectives can be aligned with the four dimensions of conservation complexity—economic, ecological, social, and political—previously introduced, which also mirror the areas of focus for the different actors in the realm of conservation.

An interesting convergence emerges among communities, NGOs, and the donor representative with regards to their notions of conservation success. Communities advocate for a harmonious coexistence of socio-economic benefits alongside the preservation of nature. The donor representative, during the interview, articulated that the essence of conservation success is when society comprehends and sustains the value of nature to humanity, while concurrently fostering improvements in the livelihoods of local communities (transcript in appendix F). Similarly, representatives from both NGOs describe conservation success as a safeguarding of nature coupled with the active involvement of communities. One representative emphasized the absence of elephant fatalities, the mitigation of crop loss, and enhanced livelihoods as indicators of success (transcript in appendix I). Researcher 1 defined conservation success as the valuation and preservation of biodiversity, in tandem with the maintenance of ecosystem services linked to it (transcript in appendix G).



Researcher 2 supplemented this by asserting that success is accomplished when communities are educated about conservation and cultivate an understanding of the imperative to safeguard biodiversity (transcript in appendix H). Insights culled from the stakeholder workshop and engagements with diverse stakeholders illuminate the government's perspective, which largely equates conservation success with amplified tourism fostering national economic growth.

## 5.3 Actor-Network-Model

The final phase of the analysis encompassed the development of the Udzungwa Landscape Network model. By utilizing the dynamic codes and tracing their origins back to the actors attributing them, a visual representation was constructed, illustrating the interconnectedness of actors and their corresponding roles. I opted for a map format to present this data rather than a table, as it enhances the comprehension of dynamics within this research. This visualization captures the flow of dynamics as perceived by actors and highlights the varying degrees of emphasis on different dynamics. The utilization of distinct-colored arrows helps denote the sources of ascribed dynamics. This approach facilitates the clear demonstration of actors' expectations and perceptions of one another. When an arrow points to a dynamic term in a color distinct from the group's, it signifies that another actor has used this term to characterize the particular actor. Multiple arrows of different colors connected to the same dynamic term indicate that several actors have assigned the same dynamic to that actor. If a dynamic term is represented by a line in the same color, it signifies that the actor in question describes itself in that manner. The model employs specific colors for each actor group, such as purple for government, yellow for communities, dark blue for businesses, red for NGOs, turquoise for donors, brown for wildlife, and green for researchers. Subsequent sections of the overarching map will be presented to expound upon the analyzed data, while the full map can be found in appendix A.

### 5.3.1 Government

According to accounts from various actors including NGOs, donors, communities, and researchers, the government is often characterized as possessing restrictive and authoritative tendencies. In some instances, it is also depicted as lacking support, as indicated by researchers, donors, and communities, and as being financially reliant, a perception shared by NGOs, researchers, and donors. Communities, in particular, underscore the government's misleading behavior and express criticism toward the efficacy of government-employed park rangers, whom they consider unreliable when assistance is required. It is noteworthy that only NGOs describe the government as an intermediary between communities and conservation organizations, refraining from labeling them as unsupportive.

NGOs and researchers emphasize the confusing system of laws and policy that impede the effective implementation of conservation initiatives. Additionally, researchers and the government itself highlight the lack of resources in terms of capacity, technology, and funding.

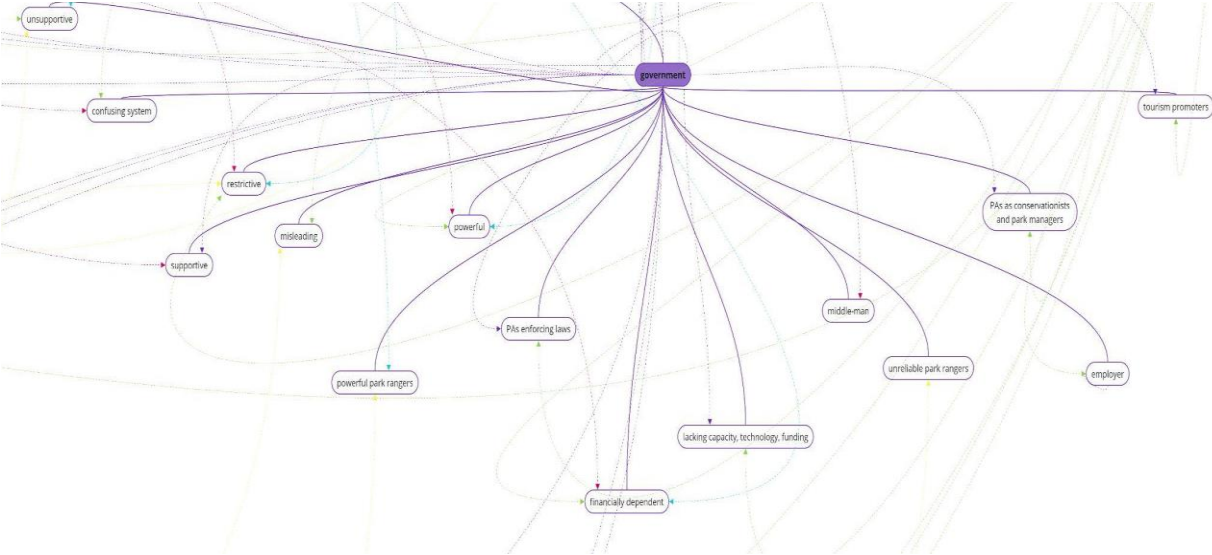


Figure 3: Government Dynamics

### 5.3.2 Communities

Communities are characterized by various actors, including donors, government entities, NGOs, and researchers, as beneficiaries, poor, and reliant on natural resources. However, there is also a perception of communities as sometimes unsupportive yet occasionally cooperative, an observation shared by the government, researchers, and NGOs. Expectations from donors, the government, and researchers imply a role for communities as conservationists, although the communities themselves do not identify with either the label of conservationists or beneficiaries. Conversely, communities portray themselves as disempowered, unemployed, and excluded, underscoring significant gender roles intertwined with conservation endeavors. Notably, researchers uniquely highlighted the role of women in this context. While a consensus exists among NGOs, government bodies, researchers, and communities regarding communities' lack of knowledge and capacity, donors did not raise this concern. Furthermore, the element of mistrust within communities is acknowledged by NGOs, researchers, and the communities themselves, potentially affecting the success of conservation interventions.

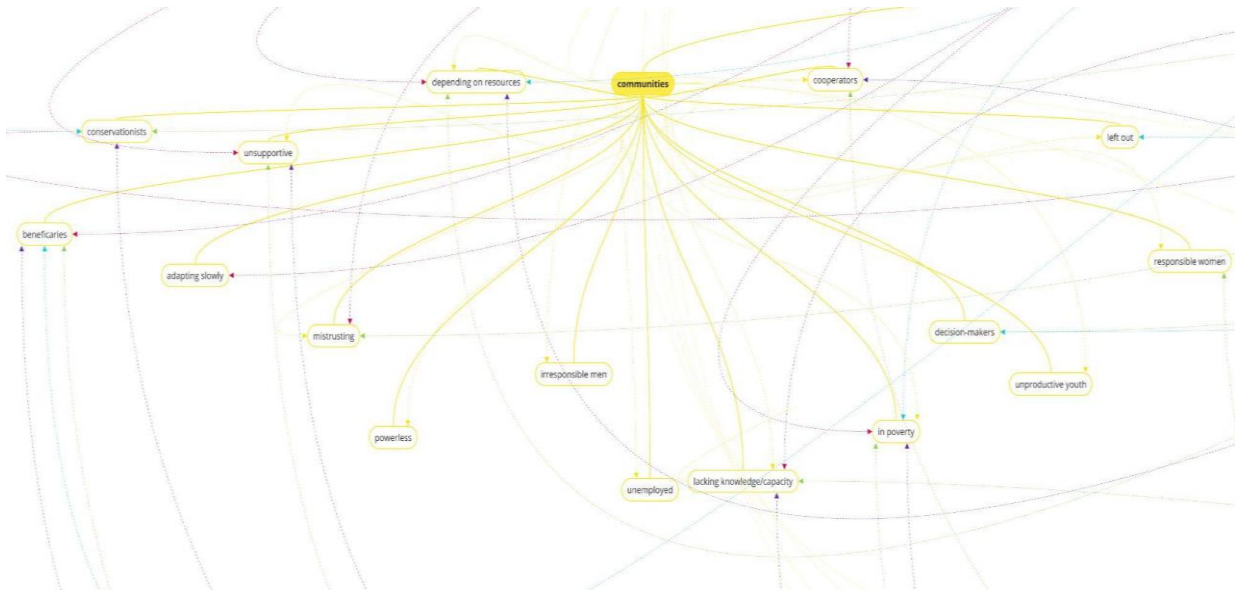


Figure 4: Community Dynamics

### 5.3.3 Businesses

Businesses are notably less present within the network map. Remarkably, both communities and NGOs omit any substantial mention of business-related dynamics. Conversely, donors and researchers attribute the potential for businesses to act as conservation advocates. This potential hinges on businesses exerting influence on policies and decisions through their established rapport with the government and their financial interdependence. Paradoxically, researchers underscore their lack of cooperation despite their reliance on the environment, primarily driven by economic growth objectives. Strikingly, only the government and businesses themselves identify them as contributors to conservation efforts.

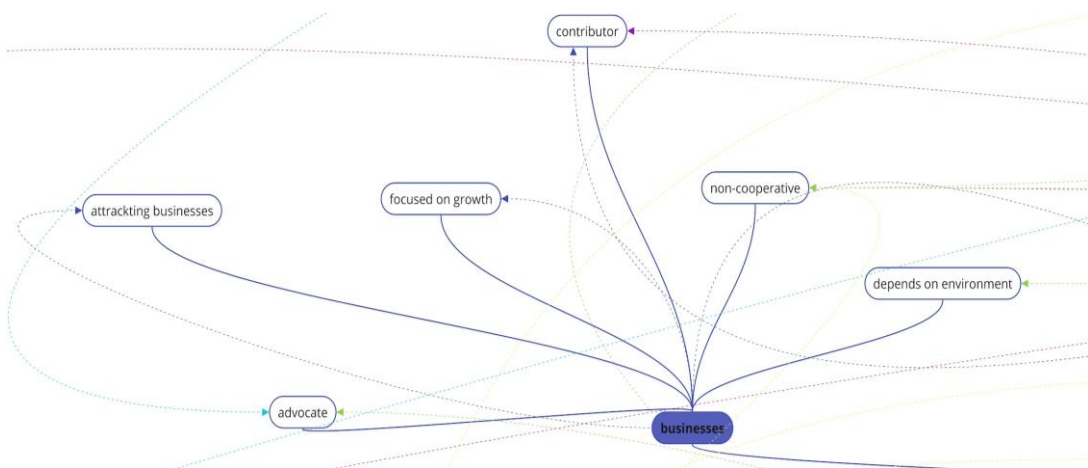


Figure 5: Business Dynamics

### 5.3.4 NGOs

NGOs are perceived as conservationists and fundraisers, a perception shared by the government and the NGOs themselves. Additionally, government and communities see them as employers. However, communities criticize NGOs for being exclusive. This implies that NGOs' ideas might not fully align with the actual needs of communities, and this sentiment is echoed by the donor. Furthermore, NGOs are recognized as connectors between stakeholders, a role highlighted by the donor, NGOs themselves, and the government. The role of capacity-builder is attributed to NGOs by the government, researchers, and the NGOs themselves. Notably, a frequently mentioned role is that of educators and community managers, as indicated by researchers, NGOs, and the government, indicating the prevailing expectations from them.

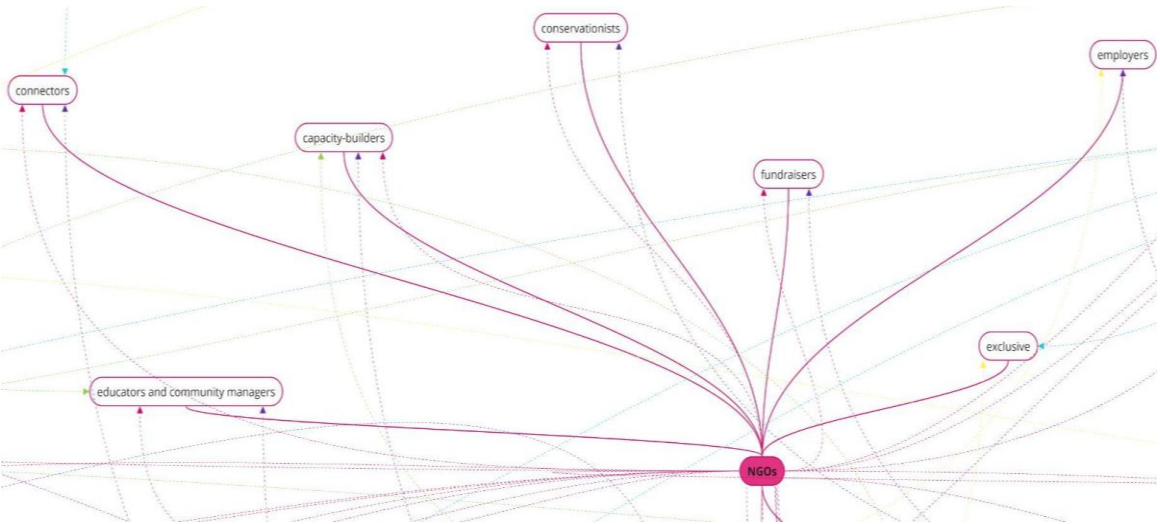


Figure 6: NGO Dynamics

### 5.3.5 Donors

Communities did not assign any roles to donors. Only government perceives donors as advisors. On the other hand, only NGOs mention the potential for donors to harmonize policy. Donors are characterized as capacity-builders by NGOs, the government, and themselves. They are also recognized as connectors by NGOs, researchers, and themselves. Additionally, donors are acknowledged as money-givers by NGOs, researchers, the government, and donors themselves. Notably, the donor itself introduces the concept of being a catalyst,

emphasizing the aspiration for sustainable funding that extends beyond the current scope, potentially involving more donors and institutions.

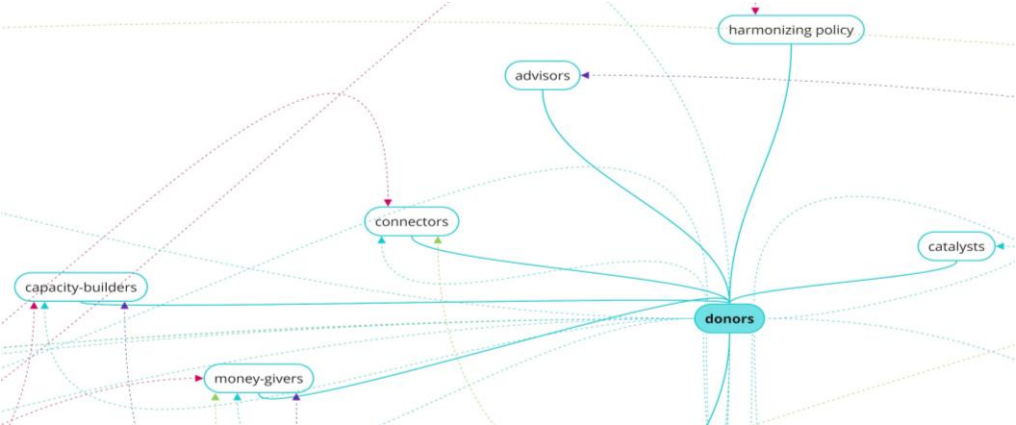


Figure 7: Donor Dynamics

### 5.3.6 Wildlife

Wildlife was predominantly referenced by communities, who characterized it as mostly destructive and occasionally unique. In contrast, donors, researchers, and NGOs portrayed wildlife as a distinctive component of biodiversity, underscoring the significance of safeguarding it. However, communities predominantly associated wildlife with the challenge of crop loss.

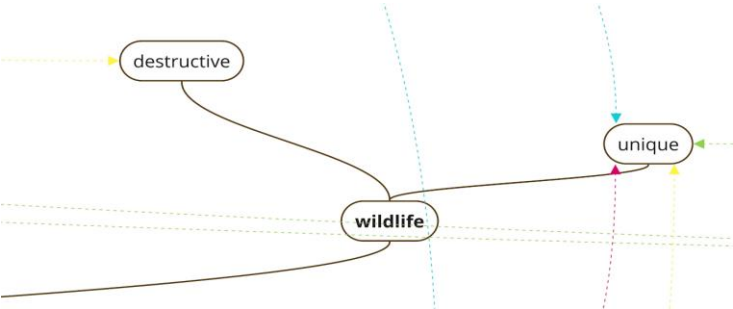


Figure 8: Wildlife Dynamics

### 5.3.7 Researchers

There were few discussions about conservation researchers within the network. Researchers view themselves as facilitators and educators aligned with the monitoring center situated near the Udzungwa Mountains National Park. Their reliance on conservation funding to conduct research was also noted. NGOs, government, and researchers themselves depicted researchers as conservation strategists, signifying their involvement in formulating strategies and endeavors for conservation.

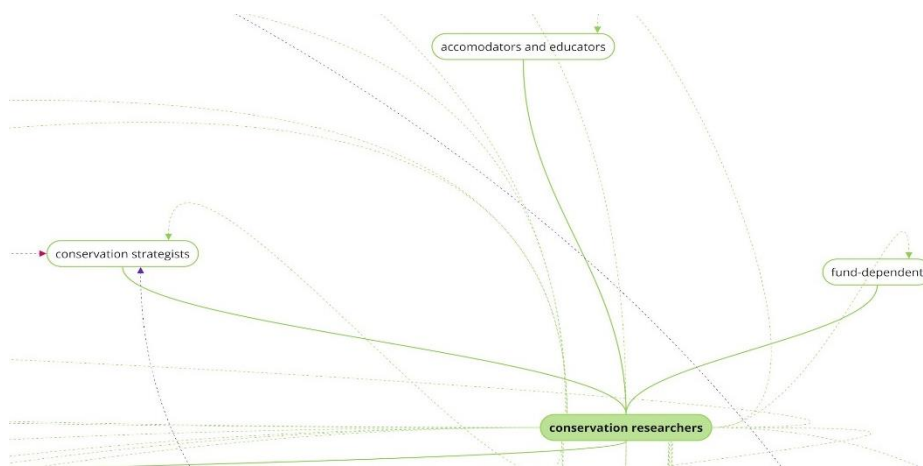


Figure 9: Conservation Researcher Dynamics

Examples of revealed controversies include communities being expected to adopt the role of conservationists and being perceived as beneficiaries by other actor groups. However, communities view themselves primarily as impoverished and lacking influence in the context of conservation.

Similarly, the government is perceived as unsupportive due to a complex system of policies, yet it portrays itself as an intermediary, powerful, and supportive conservation actor. These instances illustrate how uncovering contradictions can unveil crucial dynamics within Udzungwa Landscape's conservation practice. Following the subsequent discussion on methodological limitations, the next chapter will examine the findings to address the initial research question.

## 5.4 Limitations of Methodology and Data

To ensure a diverse range of perspectives in my research, I attempted to engage with a key business actor operating in the region for an. Despite multiple attempts, I had to rely on the company's website for data collection and consider the viewpoints of other actors regarding the business. Similar approaches were applied when involving the government as a research participant.

Challenges in establishing contact with crucial political authorities led me to rely on participant observation during a stakeholder workshop, as well as insights from other actors and existing literature about the government's role. Nonetheless, these limitations underscore the data collection process. Conducting interviews with communities, NGOs, researchers, and the donor yielded deeper insights. Nevertheless, insights gleaned during the research process suggest that, in comparison to other actor groups, the local business assumes a less proactive role in the conservation domain.

Despite this, it is imperative to acknowledge their presence as conservation stakeholders due to their significant land ownership in the region for sugarcane production, which has multifaceted impacts on both communities and conservation efforts. The limited data obtained from their website imply a potential reluctance to actively participate in conservation endeavors. The information found accentuates their commitment to economic and social sustainability, with a focus on renewable energy, while conspicuously sidelining any explicit emphasis on conservation initiatives.

Another important point to note is the limitations linked to the data gathered from focus group discussions. This stems from the fact that community members' responses are influenced by specific conservation practices that have directly impacted them. While I portray community members as a collective entity, I avoid thoroughly examining their responses regarding the significance of conservation, such as its association with employment opportunities in the eco-tourism sector. In contrast, interview responses were employed exclusively to elucidate dynamics, without extensively probing the validity of those dynamics.

# 6 Discussion

## 6.1 Dynamics Influencing Conservation Efforts

Within the context of the Udzungwa Mountains in Tanzania, this section delves into the complex dynamics among conservation actors and their effects on initiatives, centered around the research question: How do actor dynamics impact conservation efforts?

The business sector commands significant economic attention, ascribed both externally and self-identified. Curiously, while businesses proclaim a social focus, external observers emphasize non-cooperation, revealing a discord between internal perception and external expectations. This contradiction highlights a divergence between the business's self-concept as a conservation contributor and the expectations imposed from without. Of interest is the interplay between the government and business, underscored by the government's conservation-related roles. The findings hint at an interdependent relationship spurred by shared economic growth objectives. Conversely, NGOs and communities tend to associate business activity with a lack of communication and skepticism, particularly regarding sugar cane production.

Communities predominantly engage in socio-economic pursuits, a characterization echoed by both external sources and themselves. However, the sequence of dynamics identified varies, reflecting differing viewpoints on current issues. Despite external anticipation of communities as conservationists and beneficiaries, the community seldom identifies as conservationists and rarely emphasizes the benefits from conservation efforts. Instead, themes of powerlessness, unemployment, and exclusion persist, with substantial reliance on forest resources for sustenance. This reliance, highlighted by external stakeholders like donors, government, NGOs, and researchers, emerges most prominently within community narratives. This dichotomy between external attributions and self-identification underscores the need to bridge gaps for impactful initiatives. Notably, the community narrative stresses gender dynamics and poverty as key conservation concerns. Cooperation hinges on feasible alternatives due to the reliance on forest resources, rendering immediate collaboration challenging. Moreover, the portrayal of communities as decision-makers, despite professing powerlessness, underscores the necessity of acknowledging their skeptical stance when planning conservation interventions. Consequently, cultivating trust-based relationships between actors becomes pivotal for sustained success. Doggart and Meshack (2023) agree, stating that investing in dialogue and community outreach is needed to build trust and understanding between communities and protected areas (*ibid.*, 28).



The roles of researchers, traditionally confined to ecological realms according to external sources, substantially expand in self-perception. While external parties perceive researchers as conservation strategists, researchers primarily view themselves as educators. Their role entails facilitating international research visits and data collection for knowledge dissemination. Interestingly, this external perspective seldom identifies researchers as conservation actors, despite their expertise. Researchers' involvement in cross-actor dialogues is limited, save for NGOs and donors, provoking researcher frustration. Recognizing researchers as conservation strategists and leveraging their knowledge for implementation could yield positive outcomes and counter errors stemming from an insufficient grasp of local context.

The donor, identified by both self and external sources with an economic focus, also carries a social dimension. Framed as a funding source, capacity builder, and intermediary, the donor's roles align with its self-ascriptions. Additionally, the government assigns an advisory function to the donor, revealing governmental expectations. Remarkably, this aspect remains absent from the donor's viewpoint, indicating the donor's emphasis on collaborative roles for capacity enhancement rather than unilateral expertise. This dissonance bears potential for friction in cooperative endeavors, especially considering government's political inclinations. However, NGOs highlight the donor's capacity to harmonize policy due to its perceived influence over the government via financial interdependence. Nevertheless, the donor diminishes its political role, accentuating collaborative roles over policy influence. Acknowledging these discrepancies during conservation planning can foster more resilient strategies. Concurrently, the community's minimal reference to the donor underscores its peripheral standing, with the community anticipating the donor's influence in intervention selection and evaluation.

The government's roles, both political and economic, coincide with external characterizations and its own perspective. While other actors emphasize the government's uncooperative stance, encumbered by complex policies, the government portrays itself as an enabler, hampered by resource and technological constraints. The government perceives itself as a mediator among actors, wielding authority, and supportive functions. While NGOs, the donor, communities, and researchers highlight the government's regulatory and influential nature, researchers, the donor, and communities acknowledge occasional lack of support. Cooperative elements also emerge, evidenced by NGO 1 acknowledging government assistance amid challenges with communities. For NGOs, forging a cooperative relationship with the government necessitates transparent information sharing and government engagement in conservation initiatives. Conversely, communities adopt a skeptical attitude, mistrusting the government's intentions.

These contrasting portrayals unveil dynamics that could potentially lead to conflicts between conservation actors and the government, exacerbated by the government's financial reliance on businesses and donors, prioritizing national economic progress over social considerations. NGOs' roles remain consistent across external and self-perceptions, with a pronounced social focus on conservation. Their roles, acknowledged by the government, researchers, and themselves, encompass education and community management, along with fostering interconnections among actors and capacity building. Serving as both conservationists and fundraisers, NGOs wield substantial influence in conservation projects. Communities envision NGOs as potential employers, generating job opportunities in rural areas. However, this expectation does not meet NGO realities. Communities also anticipate NGOs' involvement in planning, implementation, and evaluation, while involving their youth to bolster capacity. Their central position is emphasized by multiple references across the community and other actor narratives, reflecting their pivotal role in conservation initiatives. Consequently, with effective conservation necessitating a profound comprehension of the local context and inclusive engagement with all actors, it is essential to work with a local NGO that can achieve this.

Wildlife, central to conservation, becomes a contentious issue among actors. Acknowledged by all for its intrinsic value and tourism potential, communities stress its detrimental impact on crops and livelihoods. As recounted by both women's focus groups, baboons, elephants, buffalos, and occasionally hippos enter the villages on a weekly basis. The extent of their impact can vary depending on the farming season. For instance, after the rice harvest, women are required to sun-dry the grains, a process frequently marred by crop loss due to baboons stealing the harvest. Regardless of the scenario, wildlife encroaching on village territories poses a dangerous situation for all residents, a sentiment echoed by all the focus groups. In contrast, the government, researchers, and donors emphasize the need for wildlife protection for diverse reasons. While the government links wildlife preservation to tourism and the national economy, researchers underscore its ecological significance for humanity and the environment. The donor balances these perspectives. NGOs, possessing a nuanced understanding of human-wildlife conflict intricacies, focus on problem-solving endeavors. However, the full extent of this conflict, as perceived by communities, is not universally grasped by other actors. Community dissatisfaction stemming from inadequate conflict resolution support jeopardizes trust in conservation actors and community engagement. Effective collaboration between the government, donor, and NGOs is essential for addressing these issues, requiring considerate allocation of donor resources.

Connecting these findings to the situation analysis by Doggart and Meshack (2023), which informs a long-term strategy for the Udzungwa Mountain Landscape that is currently being developed in cooperation with the Hempel Foundation, reveals compatibility with most recommendations.

However, translating these recommendations into effective action necessitates a more granular approach. For instance, the gender dimension requires contextual elaboration to facilitate meaningful execution. Moreover, intersectoral coordination aligning government priorities with different sectors is crucial, but aligning the needs and interests of all conservation actors in the Udzungwa Mountains is equally vital for successful goal attainment.

## 6.2 Changing Dynamics

My research captures a snapshot of the current dynamics between actors within the Udzungwa Landscape Network, and I am mindful of its inherent limitations. This recognition underscores the significance of delving into the evolution of these dynamics over time.

In the past, there was a noticeable disconnect between NGOs and the government. Interviews indicated that a lack of information sharing hindered collaboration, leading to strained relations. However, this landscape has changed over the years. NGOs now actively engage with government authorities, as evidenced by interviews, fostering improved collaboration through shared plans. This shift reflects the realization of cooperation's vital role in effective conservation. A collaborative approach acknowledges government support as crucial for bolstering conservation efforts. Concurrently, a dependency on the government has become apparent among NGOs. Interviews reveal that to secure essential support, NGOs must align with political priorities, introducing a new level of complexity (transcripts in appendix I&J). Presently, these priorities favor conservation related to global biodiversity concerns, which benefits NGOs.

Additionally, recent years have seen the emergence of more complex partnerships in conservation. Ponte et al. (2022) argue that despite claims of decentralization, government control over land and wildlife persists, granting them financial revenues from tourism. This shift in partnership dynamics underscores the intricate relationships between the government and stakeholders like NGOs and the international conservation lobby. Nevertheless, challenges persist. The conflict between policies promoting sugarcane cultivation and NGO-driven tree planting initiatives underscores the friction between development goals. This highlights the complexities of reconciling economic aspirations with environmental preservation.

The evolution of conservation strategies is another facet of these dynamics. CBC approaches have emerged from the 1980s as influential tools to reshape perceptions. As shared in interviews, these strategies prioritize tangible benefits, transforming the way communities view conservation efforts. This transformative shift underscores the long-term impact of altering perspectives through targeted strategies.

Looking back, the concerns raised by Brockington (2007) about miscommunication and potential corruption within local government structures remain relevant. The power disparities captured by the villager's stories persist, illustrating the enduring impact of uneven power dynamics on local communities.

The government's commitment to conservation, as illuminated by Brockington et al. (2008), has undergone a trajectory of change. Driven by an international conservation lobby, Tanzania's government has aligned its focus with the preservation of natural resources. This demonstrates how external influences can shape the evolution of government priorities.

Reflecting on the past, Harrison's (2006) study emphasizes the enduring nature of certain dynamics between the government and communities. Mistrust and challenges in resource management persist. Government-community relations continue to struggle to find a balance. The lack of community ownership, as highlighted in the study, casts a shadow over collaborative efforts. The importance of financial incentives for communities remains a consistent theme, emphasizing the need for sustainable economic benefits to incentivize conservation.

Turning to recent developments, Moyo et al. (2016) highlighted ongoing conflicts related to Wildlife Management Areas (WMA) in Tanzania. The struggle to address injustices within governance regimes speaks to the resilience of certain challenges over time. The promise of decentralization and shifts in land use highlighted by Mugisha (2022) underscore the challenges governments face in adapting to evolving contexts. The persistence of livelihood threats reflects the difficulties in harmonizing policies with changing community needs.

However, it is important to acknowledge the limitations of this study's scope and data. While it provides insight into the evolution of certain dynamics in Tanzania, it cannot comprehensively capture the complete spectrum of changes that may have occurred over time. The examples presented here offer a glimpse into the evolving dynamics, but the study's constrained data may not provide a comprehensive answer to all potential changes. The complex interplay of factors influencing conservation dynamics suggests that a broader and more extensive analysis would be necessary to gain a deeper understanding of the overall evolution in this context. Moreover, it is worth noting that this presentation of developments provides a generalized overview of Tanzania, and the intricate interplay of local contexts and actor-specific dynamics is crucial for a comprehensive understanding of the Udzungwa Landscape.

### 6.3 Winners and Losers of Conservation

Tracing the historical trajectory of conservation in Tanzania unveils a legacy of exclusion and authority-driven management. Until 1960, Protected Areas were exclusively established and governed by colonial state institutions, as documented by Kalumanga et al. (2018).

During the colonial era under successive German and British rule, the interplay of technology access and international markets significantly shaped land use patterns in Tanzania. A critical view, as presented by Bluwstein (2018), contends that local communities were coerced into dependence on productive land during this period, a predicament at odds with the expectation that they should now embrace conservationist roles. This abrupt transformation is criticized as exceedingly challenging to reconcile with the country's emphasis on economic expansion and tourism-oriented foreign exchange.

This juxtaposition highlights a pronounced contradiction between global expectations and local realities. A post-colonial perspective underscores the enduring impact of Fortress Conservation associated with colonialism on Tanzania. Persisting power dynamics continue, with government and businesses occupying authoritative positions, often sidelining community concerns. Following Martin's (2021) work, the developed Actor-Network Model for the Udzungwa Landscape in this thesis portrays power and financial influence as pivotal determinants of conservation success. Ironically, while initiatives aim to empower local communities and alleviate poverty, the prevailing reality often contradicts these aspirations. In this landscape, the government and business wield significant authority, and while government's reliance on foreign investments entails some degree of dependence, its capacity to enact laws and policies remains intact. Similarly, donors, due to their financial expertise, possess a degree of influence. The perception of "doing good" for nature solidifies their positive image. Wildlife, as a conservation actor, might be construed as a beneficiary, with a disproportionate emphasis on their protection potentially overshadowing community interests. Business, meanwhile, adopts a resilient stance, less directly affected by conservation dynamics. NGOs and researchers, assuming intermediary roles, play pivotal parts in resolving issues but remain relatively neutral. However, the data underscores the marginalized status of communities. Their access to crucial forest resources is restricted, and the establishment of the Udzungwa National Park adjacent to villages creates a dilemma, including threats from free-roaming wildlife. Grasping the social implications of conservation is vital for preserving and potentially enhancing the well-being of local communities.

A critical aspect for the success of conservation efforts lies in the government's role. Many communities harbor doubts about relying on government authorities, as promises are frequently unmet, leaving villagers largely on their own. The donor explains this with the Tanzanian government grappling with numerous pressing issues, limiting resources available for complex conservation projects (transcript in appendix F).

Nonetheless, research findings suggest that achieving the goals of Landscape Conservation, which involve collaboration among diverse stakeholders, can only occur if all actors within the Udzungwa Landscape Network work together and recognize their pivotal roles.

When business perceives itself as distanced from conservation, it impacts government decisions due to their reliant relationship. Similarly, villagers are influenced by the growth plans of the sugarcane industry, motivating them to become partners and cultivate sugarcane on their land. Unfortunately, this leads to unsustainable land use, increased wildlife presence, and a lack of support for alternative livelihoods. As communities depend on activities like sugarcane production for income, motivating them to shift for environmental reasons becomes challenging for NGOs.

This underscores the importance of comprehensive collaboration for conservation to prosper. What becomes evident is the potential influence of power dynamics. In the Udzungwa Landscape Network, power does not solely reside with the government; those with financial resources also yield considerable sway. Funding can impact interactions between different players and within specific groups positively or negatively. Therefore, enhancing the awareness of funding sources is essential. Donors need a nuanced understanding of the local context so they can support initiatives without inadvertently harming e.g., rural women connected to conservation efforts. To achieve this understanding, they must foster strong connections with reputable organizations that possess positive relationships with other stakeholders. Moreover, heightened donor awareness presents an opportunity to allocate funds for specific needs, such as women's microfinance groups, as highlighted by women in focus groups, building capabilities, and compensating for conflicts between humans and wildlife.

## 6.4 Addressing Specific Conflicts

While I have emphasized the significance of encompassing a diverse array of stakeholders within a conservation landscape on numerous occasions, the subsequent section of this discussion predominantly revolves around communities as key stakeholders. This focus is attributed to the considerable potential for conflicts to emerge due to intricate relationships between communities and the government, often linked to the convergence of global objectives and localized contexts. Additionally, given this thesis' alignment with the environmental justice paradigm, it becomes imperative to centralize the discourse around stakeholder dynamics that involve pronounced power asymmetries. Nonetheless, this emphasis should not detract from the earlier articulated claim advocating for the inclusion of multiple stakeholders.

The challenge of poverty within local communities poses a significant barrier to effective conservation initiatives. This challenge represents a convergence of external expectations and local realities. The findings underscore community recognition of the link between conservation and healthy ecosystems, highlighting the value they place on preserving nature. However, this sentiment coexists with distress stemming from the adverse consequences of conservation.

Prohibitions on collecting dead wood for cooking and recurring crop damage due to wildlife incursions rank among the most prominent issues, leading to far-reaching implications such as food scarcity, reduced household incomes, and disruptions to gender dynamics.

Gender disparities came up through separate focus group discussions with men and women. While men only marginally addressed challenges, emphasizing conservation's importance, women provided detailed accounts of their struggles, despite understanding the significance of conservation. These accounts unveiled local cultural aspects such as men having multiple wives, highlighting women's roles as primary caregivers and household managers. The absence of men due to work and multiple families and women's responsibility for household upkeep placed a significant burden on women. Women recounted the tough and often unrewarding job of collecting firewood, which became even harder after the National Park was established. This put a strain on women, causing households to have fewer warm meals due to a shortage of firewood. Additionally, wild animals raiding crops made it even harder to produce enough food for the family. Adding to these challenges was the widespread problem of young people not having jobs, which made things worse. Jobless young men resorted to stealing, as women shared in focus groups, and young women dealing with pregnancies added to the difficulties faced by women.

This resonates with Killian and Hyle's (2020) research, which showed that women experience marginalization in decision-making processes and natural resource distribution under participatory forest management. These dynamics underscore the inadequacy of many conservation initiatives in addressing women's needs.

Another illustrative instance emerged during the focus group discussions, where women expressed their desire for the formation of loan groups as a solution to address the challenges posed by farming costs and school fees. A significant hurdle arises due to the overlap between the farming season and the period for school fee payments. The participants highlighted the importance of accessing loans during the months of November or December to effectively manage both these financial responsibilities. Neglecting to address this issue could potentially lead to families being unable to afford sending their children to school (transcript in appendix D).

Neglecting these dynamics, whether by donors or NGOs, risks perpetuating and intensifying existing power disparities, further marginalizing rural Tanzanian women. Designing socially responsible conservation interventions necessitates an in-depth comprehension of local realities, incorporating the voices and needs of communities on the ground.

## 6.5 Global vs. Local Dynamics

In accordance with the findings, Mgonja & Uswege (2022) highlight the significance of tangible and direct benefits linked to conservation in order to secure community support and enhance livelihoods. Although backing essential social services like healthcare and education may cultivate positive community sentiments towards government-led conservation endeavors, some voices contend that these services should be provided by the government as a matter of course (Doggart and Meshack 2023, 28). Travers et al. (2019) discovered that the absence of sharing benefits from tourism revenues with individuals affected by human-wildlife conflict amplified their propensity to engage in wildlife-related offenses, including illegal hunting. While poverty is often assumed to be the central catalyst for wildlife crime, the authors demonstrate that even more affluent households can become implicated. They posit that interventions aimed at alleviating wildlife-induced harm by generating financial gains for households yield the most profound impact (*ibid.*, 1296).

Focus group discussions within this thesis underline the urgency of compensation mechanisms to address crop losses and microfinance initiatives targeting women. Doggart and Meshack (2023) describe Village Savings and Loans Associations (VSLA) as especially effective in supporting women and recommend introducing VSLAs to more villages to generate income and reduce poverty (*ibid.*, 27). Furthermore, the call to establish compensation schemes for prompt redress of crop damages gains prominence. As long as conservation initiatives fail to harmonize with community needs and challenges, community support remains elusive (*ibid.*). The intricate interplay between global conservation discourse, shifting from species-centered to biodiversity-focused, wields considerable influence over Tanzania's conservation landscape. Martin (2021) argues that 'biodiversity loss' not only impairs ecosystem functionality with broad implications for climate regulation and human well-being but also redefines conservation responsibilities. The responsibility to safeguard the environment now extends to international institutions, governments, businesses, and communities alike, all entrusted with preventing species extinction and preserving delicate ecosystems. This global shift has prompted the establishment of numerous protected areas globally, driven by the notion that biodiversity-rich yet imperiled areas are simultaneously sites of heightened human vulnerability due to resource dependency (Conservation International n.d.). This noble objective, however, often masks a stark conflict arising from the divergence of international agendas and local imperatives. The disparity between lofty global goals such as the SDGs and intricate local realities is evident in places like Tanzania. The government's adoption of international recommendations, often in exchange for financial aid, frequently outpaces the development of suitable alternatives for affected communities.



This approach inadvertently exposes vulnerable populations to more harm than benefit. Echoing Bluwstein's (2018) critique, these conservation interventions can inadvertently reinforce existing power dynamics and undermine local livelihoods.

Following the author's framework, this thesis agrees that conservation involves political, emotional, and purpose-driven aspects. In this complex situation, understanding the strong connection between global goals and local realities is crucial for sustainable and socially responsible conservation practices. This indicates that instead of applying generalized responses based on prevailing development concepts, it is essential to consider the specific challenges, stakeholder arrangements, and community needs within the local context.

This thesis advocates for the Landscape Conservation over CBC. However, it's imperative to emphasize that the success of this approach, especially for communities, relies on a nuanced understanding of how different actors, as delineated by Actor-Network Theory, interact within the ecosystem. While Landscape Conservation is promoted, it is essential to address the critique put forth by Bluwstein (2021) regarding its oversimplification and disregard for the complex interplay of social and environmental factors, often reproducing power asymmetries. Overlooking the political dimension by treating environmental issues solely as technical matters is a limitation that must be overcome. This thesis adopts the Actor-Network approach, which delves into the social, economic, ecological, and political dynamics among actors, precisely to bridge this knowledge gap.

By reframing and implementing Landscape Conservation through a rights-based lens, as informed by the Environmental Justice (Massarella et al. 2021), the complex web of interactions becomes more transparent. This, in turn, can catalyze more effective endeavors, engendering positive and enduring effects for all stakeholders. Milder et al. (2014) exemplify how greater engagement of local stakeholders, investment in capacity-building, and the facilitation of multi-stakeholder coordination correlate with increased positive outcomes. Initiatives concentrating on limited sectors and small-scale areas risk marginalizing important actors and their viewpoints. Embracing a diverse range of stakeholders holds the potential to unearth latent interdependencies that significantly impact outcomes.

The multi-stakeholder approach integral to Landscape Conservation offers a platform to bring critical conflicts to the surface and negotiate tensions (ibid., 77). By incorporating various perspectives and interests, this approach enriches the decision-making process and bolsters the potential for balanced and equitable outcomes. Ultimately, this approach not only acknowledges the complex fabric of interactions within conservation landscapes but also seeks to empower stakeholders by ensuring their active participation and representation.

In conclusion, my findings affirm the findings of most authors, revealing the ambiguous impacts of conservation on community livelihoods. However, my thesis stands apart due to its unique theoretical framework guiding the analysis and its examination of the complex network of actors and the dynamics interconnecting them. In doing so, I aimed to provide a more comprehensive understanding of the needs and interests of all conservation stakeholders in the region, collectively exerting significant influence on outcomes.

Comparatively, Brockington et al. (2006) focused their research on one or two actor groups, investigating how conservation interventions impact poverty reduction and human rights. They emphasized acknowledging inequalities and power dynamics in this context (Brockington 2004), particularly with a focus on communities and government authorities (ibid. 2007). Similarly, Brooks et al. (2012) examined the success of CBC projects by delving into community benefits, institutions, and culture. Harrison (2006) explored community socio-economic conditions to formulate appropriate forest management strategies. Research on wildlife management areas in Tanzania aimed to evaluate their impact on communities (Keane et al. 2019) and assessed community satisfaction and participation levels (Kiwango et al. 2018). A few other authors studied business and stakeholder engagement (Boiral and Heras-Saizarbitoria 2017), private foundations as conservation actors while scrutinizing the interests of donors, NGOs, and government bodies (Gruby et al. 2021). Couix and Hazard (2013) focused on researchers, exploring partners' values and thought processes within the context of transdisciplinarity in conservation. Highlighting conservation as a value-driven discipline, these authors emphasized the significance of these discussions in enhancing the efficacy of conservation initiatives.

What stands out in these examples is the limited consideration given to the full spectrum of actors involved in conservation efforts. While Gileard Sifuel et al. (2023) and Masao et al. (2022) centered their research on multiple stakeholders, their studies differ in other significant ways. With the aim of resolving decision-making challenges related to wildlife management regimes in Tanzania, Gileard Sifuel et al. (2023) focused on stakeholders' interests related to management regimes rather than illuminating interactions and tensions within stakeholder relationships, as my study did. A notable distinction emerging from Masao et al.'s (2022) work is the authors' concentration on individual perspectives of stakeholders as opposed to collective viewpoints. The relatively small participation of only 16 women compared to 57 men introduces a risk of the study not fully addressing challenges specific to certain stakeholder groups that significantly impact conservation outcomes.

By centering on a diverse array of actors within a specific local context, my thesis aimed to uncover tensions that are often disregarded when focusing solely on singular actor groups.

This approach provides an avenue to leverage such discoveries in the planning of conservation initiatives, enhancing the overall comprehension of actor relationships and contributing to more effective and inclusive conservation strategies.

Another distinguishing factor of my work, in contrast to most of the studies mentioned above, is its exclusive reliance on qualitative methodology. While numerous authors opted for quantitative methods (Brooks et al. 2012, Mgonja and Uswege 2022, Ngaga et al. 2013) or employed mixed-method approaches (Harrison 2006, Keane et al. 2019, Lund & Treue 2008, Lund et al. 2015, Milner-Gulland et al. 2014, Ponte et al. 2022), only Moyo et al. (2016) introduced qualitative techniques through ethnographic research, while Gileard Sifuel et al. (2023) and Masao et al. (2022) constructed their research around focus group discussions involving multiple stakeholders. However, given my thesis's focus on actor dynamics, the adoption of qualitative methods was deliberate. As conservation increasingly embraces complex partnerships and faces the urgency of the biodiversity crisis, more research is warranted on the interests and requirements of diverse collaborating actors. Understanding the dynamics that profoundly influence conservation implementation, including those affecting vulnerable groups, is essential for informed interventions grounded in this knowledge.

## 6.6 Limitations

While this study has contributed to uncovering the intricate dynamics of conservation landscapes and stakeholder interactions, it is essential to acknowledge its limitations. Firstly, the scope of this research is centered on the Udzungwa Mountains in Tanzania, which, while providing valuable insights, might not be fully representative of conservation contexts in other areas. Additionally, the qualitative methodology employed, though rich in uncovering nuanced perspectives, may not capture the entire spectrum of stakeholder interactions. Moreover, the ever-evolving nature of conservation dynamics means that this snapshot of interactions might not capture longer-term shifts and developments accurately. Furthermore, due to resource and time constraints, the study might not have exhaustively covered every potential stakeholder perspective or interaction, potentially omitting crucial nuances.

As an example, the notion of reduced household income as a consequence of conservation interventions as mentioned by communities in focus groups, could not be further examined. It is though important to note that the establishment of protected areas can, in certain cases, yield favorable outcomes for local residents' earnings, particularly within the realm of tourism. A link between ecotourism and poverty reduction was found by Casse et al. (2022) in Madagascar. The authors showed that communities close to the entrance of protected areas and tourist facilities benefited in terms of income or well-being.

Nevertheless, the rural villagers adjacent to the Udzungwa Mountains National Park expressed that tourism profits do not reach them. It is worth noting that the limited number of participants in this study does not lend itself to an exhaustive exploration of this matter.

While it might appear that I treat 'communities' as uniform in this study, it's crucial to clarify that significant resemblances in the gathered data from two communities situated next to the Udzungwa Mountains National Park enabled me to aggregate them into a shared set of needs and perceptions. However, it's important to note that this aggregation does not imply a belief in homogenizing communities within the context of conservation. Each community's unique characteristics and perspectives remain vital considerations in the development of future interventions.

## 7 Conclusion

This thesis has sought to contribute to the ongoing global discourse surrounding the complex field of biodiversity conservation. In recent decades, the contours of climate change debates have progressively molded political agendas within UN member states. The emergence of international agreements, including the Convention on Biological Diversity (CBD) and the Sustainable Development Goals, has triggered a marked upswing in the establishment of protected areas and environmental initiatives. These actions are largely motivated by the strong connection between the negative effects of climate change and the increasing poverty in countries of the Global South. Although these initiatives are widely recognized as important, due to the serious impact of biodiversity loss on ecosystems and people, it's crucial to carefully examine how they are put into action and what results they achieve. Research has unveiled instances wherein certain initiatives, despite their noble intentions, have inadvertently inflicted adverse consequences upon vulnerable local communities. Additionally, a considerable portion of these endeavors have encountered challenges in sustaining themselves over the long term, frequently yielding to obstacles such as entrenched conflicts among stakeholders. Furthermore, the landscape of stakeholder involvement has witnessed significant developments, expanding to encompass a myriad of actors, including businesses, private foundations, government bodies, NGOs, researchers, and local communities. This evolving composition has introduced intricate collaboration dynamics that demand a comprehensive understanding to navigate effectively. With this context in mind, the study focused on the Udzungwa Mountains in Tanzania. Its aim was to understand the complex relationships among the various stakeholders involved in conservation and to examine how these relationships impact conservation practices.

The theoretical framework that underpinned this research journey, rooted in Actor-Network Theory and the Environmental Justice paradigm, lent a multifaceted lens to explore the complex interplay of actors, interests, and power dynamics in conservation landscapes. Anchored in qualitative methodology, this investigation deliberately embraced a contextually sensitive approach, acknowledging the rich tapestry of perspectives that shape conservation dynamics. The analysis unveiled nuanced interactions, tensions, and collaborations, echoing the notion that conservation is a complex endeavor deeply embedded in social, economic, and political realms.

Findings illuminated the importance of a multi-stakeholder approach, emphasizing that the success of conservation efforts hinges on the inclusive engagement of diverse actors. The insights gathered highlight how stakeholder viewpoints often shape decision-making, validate actions, and help balance conservation choices.

With community inclusion as a key theme in this study, findings echo the recognition that local people are critical to lasting biodiversity conservation. However, this research also reveals the complexities of community participation, showing how its success depends on factors like capacity building, equitable benefits, and long-term engagement.

To summarize, this thesis has delved into unraveling the complex network of relationships within conservation landscapes, offering a thorough view of the diverse stakeholders steering the path forward. In a world facing environmental degradation and climate uncertainty, this research emphasizes the importance of embracing a holistic comprehension of conservation that transcends disciplinary barriers. By valuing varied perspectives and handling power dynamics with care, there is a chance of promoting fair, impactful, and lasting conservation methods.

The limitations mentioned throughout this thesis underscore the need for future research to build upon this foundation and provide a more comprehensive understanding of conservation stakeholder dynamics in diverse contexts. By expanding beyond the Udzungwa Mountain Landscape, researchers can capture a broader understanding of complexities in stakeholder dynamics within conservation efforts. This could further lead to a better link between global goal-setting and local implementation. To mitigate potential biases of qualitative research, adopting a mixed-methods approach could help validate findings and obtain a broader understanding of stakeholder perceptions influencing conservation interventions. A particularly intriguing avenue lies in the exploration of Tanzania's regulatory frameworks guiding governmental actions and project execution. By supplementing this examination with in-depth interviews involving local government authorities, crucial insights that could not be gained in this study could surface. Furthermore, the inclusion of additional stakeholders, particularly those from the tourism sector and international conservation organizations, could potentially offer an enriched perspective on the decision-making dynamics. This augmentation is of particular significance considering their impact on governmental deliberations and NGO undertakings. Moreover, the incorporation of a longitudinal perspective could shed light on the evolution of these dynamics over time, offering invaluable insights into the sustainability of collaborative efforts. Overall, future research should aim for a cross-disciplinary approach, combining at least social and natural science to explore the complexities of stakeholder interactions within conservation landscapes across various geographical, cultural, and socio-political contexts.

The research findings highlight an important consideration: powerful actors, like donors, need to fully grasp the context before providing funding. Understanding stakeholder relationships is crucial for deciding where to allocate funds and developing project plans that directly benefit local actors. International donors depend on a trusted intermediary organization that is respected by local stakeholders to effectively implement impactful initiatives.

The outcomes of this research, coupled with findings from other studies, underscore that when communities harbor mistrust towards NGOs or government entities, their willingness to actively engage and contribute to conservation endeavors diminishes.

Centering conservation interventions around the specific context of local realities, such as the gender dynamics observed in the neighboring villages of the Udzungwa Mountains National Park, holds the potential to make substantial contributions towards enhancing the livelihoods of local communities, without exacerbating the existing complexities. This nuanced understanding offers a pathway to formulate conservation strategies that align with the unique circumstances, rather than imposing generic solutions. This tailored approach not only aligns with international sustainable development objectives but also addresses the critical challenge of countering unfavorable dynamics that can compromise well-intentioned initiatives and perpetuate power imbalances.

Landscape Conservation possesses the capacity to navigate the aforementioned complexities, particularly when underpinned by the principles of Environmental Justice, as advocated in this thesis. By embracing this paradigm, we can transcend the limitations of oversimplification and the neglect of social and political dimensions often associated with treating conservation matters exclusively as technical concerns. Environmental Justice injects crucial perspectives into the discourse, facilitating a more comprehensive understanding that accounts for the intricate interplay of environmental, social, and political factors.

As we navigate the juncture of environmental uncertainties and shared responsibilities, this research calls for an approach to conservation characterized by pragmatism, cross-disciplinary collaboration, and nuanced understanding. The path of conservation is not limited to any single entity—whether governments, NGOs, or communities—but rather necessitates the harmonization of diverse perspectives, the recognition of power dynamics, and the cultivation of equitable partnerships. Guided by the insights gained, there is a possibility to move forward with an enhanced awareness of conservation dynamics, working to craft a sustainable coexistence between humanity and the natural environment.

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