

**EFFECTS OF BUSINESS PARTNERSHIP FACILITIES ON RESILIENCE OF  
CLIMATE VULNERABLE COMMUNITIES IN TURKANA COUNTY, KENYA –  
MODERATED BY CULTURE**

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Fulfilment for the Degree of Master of Science in Development Finance of Strathmore  
University Business School**

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## DECLARATION

I declare that this work has not been previously submitted and approved for the award of a degree by this or any other University. To the best of my knowledge and belief, the dissertation contains no material previously published or written by another person except where due reference is made in the dissertation itself.

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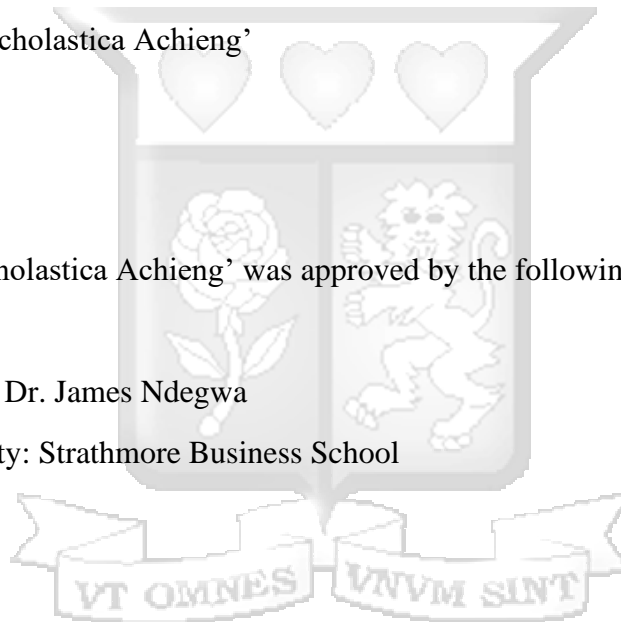
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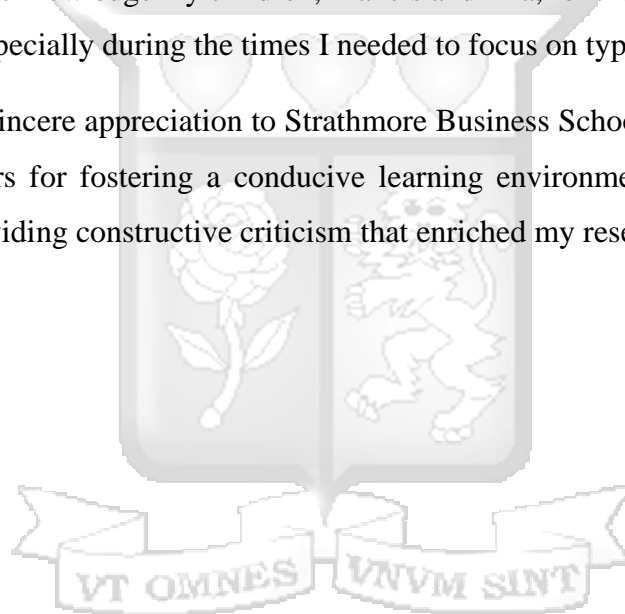
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## ABSTRACT

Climate vulnerability populations now sit at the very top of discussion points because their capacity to face all climate event impacts receives maximum attention. Targeted climate change relief actions deliver the most impacts to global poor communities and vulnerable groups unless locally led solutions for climate change are effectively promoted. This research determined how business partnership facilities affect climate vulnerable community resilience in Kenya while considering specific cultural factors of these communities. Consequently, the study was based on objectives below: to evaluate the impact of shared type of business partnership facilities, to assess the role of cross-sectoral type of business partnership; to determine the role of multifaceted approach type of business partnership facilities, strategic partnership type of business facilities and how culture affects the vulnerability of climate-sensitive populations in Turkana County. The sustainability development theory, resilience theory and stakeholder theory underpin the research. The research adopted descriptive design as its basis. The research focused on individual participants who were split into four groups: business partnership facilities beneficiaries (588), local development organizations directors (10), local development organizations monitoring and evaluation officials (10), Turkana department of climate change officials local administration officials (asst. chiefs) (60). A total of 200 participants representing 30% of the target public were chosen via stratified simple random sampling. The research utilized questionnaires and interview guides to gather data. An analysis of gathered data was performed using the widely preferred Statistical Package for Social Sciences (SPSS) computer Programme for data analysis. For quantitative data analysis, descriptive and inferential analysis was used while thematic analysis was the method for analyzing qualitative information. Analyses performed on interview responses identified recurring patterns alongside main concepts. The data analysis findings were presented using tables and figures, accompanied by explanations. The regression analysis conducted without including culture as a moderating factor showed that the model strongly predicted community resilience based on the types of Business Partnership Facilities (BPFs). Among the most influential predictors were Multi-Stakeholder BPFs, Shared Resources, Strategic Partnerships, and Cross-Sectoral BPFs, all of which positively contributed to strengthening community resilience. When culture was introduced as a moderating factor, the model's predictive power improved, demonstrating the enhanced role of cultural context in the relationship between BPFs and community resilience. In this moderated model, Shared Resources, Cross-Sectoral BPFs, Multi-Stakeholder BPFs, and Culture itself all emerged as significant contributors. The research concluded that business partnership facilities in Turkana County moderately integrated cultural elements such as traditions, values, indigenous knowledge, livelihood choices and settlement patterns, but inconsistent application across organizations hampers their effectiveness in building climate resilience. The study recommended that business partnership facilities in Turkana County should strengthen strategic partnerships by prioritizing inclusive, cross-sectoral collaboration to address shared climate challenges effectively. The research further recommended for expansion of the geographic scope to broaden the geographical area of the study and incorporate different counties in Kenya such as Marsabit, Mandera and Garissa.

**Keywords:** Business Partnership Facilities, Climate Vulnerable Communities, Resilience, Turkana County, Culture.

## LIST OF ABBREVIATIONS AND ACRONYMS

ACUNE	Adaptation of Coastal Urban and Natural Ecosystems
Adm. No.	Admission Number
ASAL	Arid and Semi-Arid Land
AU	African Union
BPFs	Business Partnership Facilities
CBA	Community-Based Adaptation
CBCR	Cross-Border Community Resilience Activity
COPs	Conference of Parties
Dr.	Doctor
IPCC	International Partnerships for Climate Change
KBF	King Baudoin Foundation
MAUT	Multi-Attribute Utility Theory
MCDA	Multiple-Criteria Decision Analysis
MCDM	Multi-Criteria Decision Making
MIVES	Modelo Integrado de Valor para una Evaluacion Sostenible
MSP	Multiple Stakeholder Partnerships
NAPAs	National Adaptation Programmes of Actions
NEMA	National Environment Management Authority
PhD	Doctor of Philosophy
SDGs	Sustainable Development Goals
SMEs	Small Micro Enterprises
SSA	Sub Saharan Africa
UN	United Nations
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
US\$	United States Dollar
USAID	United States Agency for International Development
WBG	World Bank Group
WEF	World Economic Forum
WMO	World Meteorological Organization

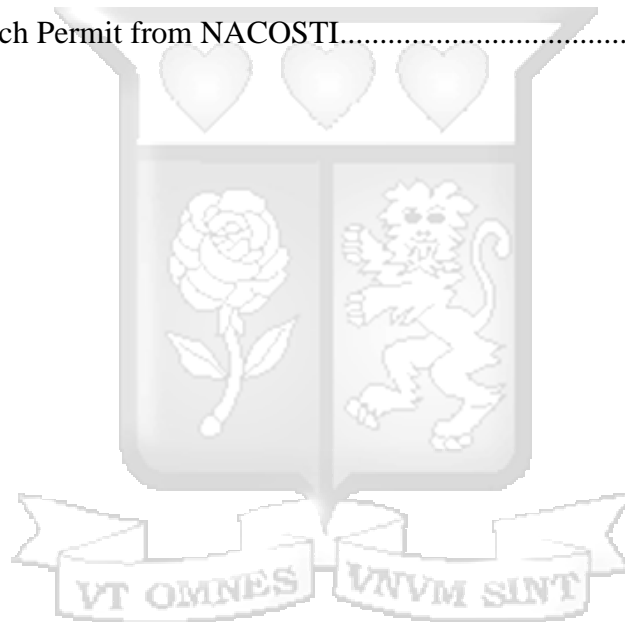
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## DEFINITION OF TERMS

**Adaptation:** Climate Change adaptation in human systems therefore can be defined as the action of modifying how humans and the things they do and the places they live interact with climate and its impacts in an effort to reduce negative consequences and enhance beneficial ones (COP 15).

**Business Partnership Facilities:** Financial assistance in form of grants provided to organizations that play an active role in advancing the SDGs within developing nations (KBF, 2018).

**Climate-vulnerable:** Extent to which natural, built and human systems are vulnerable to the effects of climate change is determined by their level of exposure to its impacts. This exposure encompasses the potential harm that these systems might endure due to shifts in climate patterns (Marigi, 2017; Raj *et al.*, 2022)

**Climate vulnerability:** Marigi (2017) defines “Climate change vulnerability” as the level to which a system becomes exposed to climate change-related adverse conditions including climate variability along with climate extremes. The factors which drive vulnerability consist of both exposure elements and sensitivity aspects as well as adaptive capacity assessments.

**Climate Change Resilience:** Strengthened capability to anticipate, manage and rebound from the effects of dangerous climate events with minimal harm to society, the economy and the environment constitutes enhanced resilience. (Yang and Yang, 2018).

**Culture:** The study by Roger *et al.* (2020) describes culture as a collection of shared social patterns expressed through worldviews and values and knowledge, norms, taboos and customs and behaviours.

**Resilience:** Systems achieve resilience by showing their ability to resist disturbances and resulting strains (Cutter *et al.*, 2008).

# CHAPTER ONE

## INTRODUCTION

### 1.1 Background of the Study

The concept of climate change is not a recent phenomenon or an occurrence. It spans millions of years and is intricately interwoven into the fabric of nature itself. Over this vast time scale, nature has historically regulated and mitigated its effect as observers (Short & Farmer, 2021). However, the cause of this phenomenon shifted notably with the advent of the industrial revolution, marking a pivotal point where human activities began to exert significant influence on the climate (Ward, 2022). According to Ward (2022), the dawn of industrial revolution ushered in significant shift in human actions that played a pivoted role in shaping the climate change narrative.

According to Carey's 2012 study climate history shows swift development as an academic field which has already delivered significant insights into historical understanding yet is positioned to bring much greater value to contemporary discussions about worldwide climate change awareness and effects alongside societal adaptations. According to Carey (2012), increased knowledge of climate change evolution does not diminish environmental vulnerabilities however we can address them through understanding social divisions and economic disparities and power structures and religious beliefs that affect weather control by humankind.

Climate change reaches magnificence that demands society to comprehend "Societal Resilience" concepts. Societal resilience exists because scientists confirmed that climate change really occurs but its negative effects mainly affect poor communities within developing nations (UNDP, 2007). According to UNDP (2007) developing countries face heightened climate change risk due to their influential climate-sensitive economic structures and dense concentrations of urban poverty. IPCC (2001) supported this observation when Desanker et al., (2001) reported that developing nations together with their poor communities face restricted adaptation capabilities to deal with climate change. Modern analyses rest on established models of subsistence economies that fundamentally depend on natural resources whose availability changes with climate fluctuations (Denton et. al., 2000).

A study by Akimowicz et al, (2023) indicated that a number of interconnected drivers of vulnerability are also common among the poor and climate-vulnerable communities. Some of the factors mentioned in the study include poor societies reliance on the informal economy;

few and not well-developed formal risk mitigation measures; and inadequate or no climate resilient assets and healthcare facilities and services, frequent catastrophic disasters, environmental degradation and poverty, all factors that only complicate capacities to adapt effectively to climate variabilities.

IPCC (2022) observes that the people cannot sustain themselves to adapt the rising levels, intensity, frequency or rates especially where they are vulnerable to some forms of natural disasters such as weather-related natural disasters including droughts, storms, floods and aridification, wild fires, pollution and rise in incidences of diseases (UNEP, 2023). UNECA (2023) Adaptation Gap Report described sensitivity as the capacity or susceptibility to be affected by climate change impacts. The elements of vulnerability include: The sensitivity or ability to be affected by climate change impacts and the inability to cope and adapt. This definition corresponds with the IPCC (2022) on the topic of vulnerability thus making the concept a concern for the current study.

Steg (2023) underscored the fact that climate change has ceased to be a future threat awaiting mitigation as previously predicted by climate change historiographers (Cook et al., 2022). According to Steg (2023), climate change's repercussions ranging from the melting of glaciers to the surge of large surface water bodies (seas, oceans and lakes), to shifts in rainfall patterns and intensity, change in drought periods and instances and gravity of flood situations have now transcended sub-national, national and international boundaries, causing unprecedented levels of destruction, losses and deaths, impacting all corners of the global, with the global south taking the brunt of the catastrophes and other impacts of climate change.

Steg (2023) further notes that these consequences, in turn, have engendered a fresh set of challenges that extend to the realms of international relations, economic advancement, human rights and the broader scope of human existence. Notably, climate change is not an equal opportunity destroyer because it affects some nations and demographics to scale rather than others. For instance, the current flooding in Kenya it has revealed a national disaster where no part of Kenya has been left according to the World Meteorological Organization's (WMO, 2024), a rising death toll, loss of income, basic assets, crops and cattle, livestock and wildlife due to devastating floods in East Africa WMO (2024) has further predicted an impending cyclones along the coast that will also likely affect Lower Eastern Countries in Kenya and the United Republic of Tanzania. Other effects of ongoing floods in Kenya includes displacement of populations, closure of schools and increased sickness and disease outbreaks.

According to the Presidential Address to the Nation on 3<sup>rd</sup> May 2024, no corner of Kenya has been spared from the havoc, with Kenya Meteorological Department painting a dire picture that the rains will persist into the month of June 2024, increasing both in intensity and duration with all major dams and reservoirs overflowing their optimal capacities. According to the WMO (2024), the ongoing flood disasters underline yet again our vulnerability as a society to adverse weather, water and climate-related hazards, with the worst affected being the poor and the rural household communities as well as informal settlements in our urban centres.

The World Bank Group (2021) predicted that Kenya has diverse climate due to geography with Coast being hot and humid and the interiors relatively warmer. The Northern and the North Eastern regions are mainly hot and with little rainfall while the central highlands are temperate with mainland of tropical highlands zone, which is progressively arid as one moves further inland. As a result of the varies terrains in Kenya the climate also differs with high plateau having relatively cooler climate than the coastal and unequal grounds (Deresse, 2023).

According to the WBG (2020), Kenya is very vulnerable to many natural disasters and the most frequent ones are floods and drought. According to the Bank, more than 70% natural disasters thus in Kenyan is therefore blamed on extreme climate conditions. According to the Bank, major droughts in Kenya are expected to happen every ten calendar years while moderate drought or flood occurrences were expected to happen every three to four calendar years. NEMA (2015) wrote that the cyclical nature of floods and droughts has been great to the social and economic fabric of Kenya and they mostly come with high economic price. NEMA also revealed that drought claimed an estimated US \$ 2.8 Billion in the years 1998 to 2000 due majorly to the crop and livestock, forest fires, damage to fisheries, reduced industrial output and diminished water availability.

The Bomas delegation identified that 18 of the 20 most impoverished counties in Kenya are in the semi-arid and arid zones that are vulnerable to escalating levels of aridity and protracted time frames of drought – World Bank. Data collected in a desk study by Marshak & Aishwarya (2021) incorporate climate aspects like precipitation, temperature, vegetation and conflict frequency, nutrition position and final reported disasters using patterns and variability. It targeted specially two counties: confirming earlier results from two districts of Isiolo and Marsabit and supplementing them with more detailed results of three focal sites: Garbatulla and Ngare Mara Wards in Isiolo and Laisamis Ward in Marsabit. The study also re-confirmed the seasonality of alternative data on rainfall, temperature, vegetation, conflict and disasters in

other frontier counties of Garissa, Baringo, Mandera, Tana River, Samburu, Turkana, Isiolo and Wajir. The study established that climate variability both in the spatial and temporal dimension is characteristic of dry land environment and that spatial climatic variability is worst in Eastern Africa region than the rest of Africa.

According to Marshak and Venket (2021) study on seven climatic seasons, there are areas that are defined by arid zones, humid zones, one wet season, multimodal wet season, bimodal wet season, two wet seasons, two and one unimodal wet season and other areas with more than two climatic seasons. It also pointed out that the county of Marsabit has the lowest vegetation and some of the highest temperatures for the second time while Samburu is amongst the coolest climate areas and Baringo is described to be much wetter and cooler and greener than other ASAL counties and the ending of the dual hump like precipitation pattern.

The nature of climate change is that it is transdisciplinary and its effects cut across all sectors, thus it is phenomena that require cross-level and cross-sectoral approach especially on the negative effects on climate vulnerable groups. The climate-vulnerable communities are of particular to this interest due to their unique characteristics and pre-disposing factors to climate variability. As observed by Ageyo and Muchuku (2021), the climate vulnerable communities are largely determined by their geographical location, socio-economic conditions and exposure levels to natural hazards. This study complements the Resilient Development Strategy and Action Plan and Africa Union Climate Change for the year 2022-2023 toward addressing the goal of AU in creating a sustainable, prosperous, equitable and resilient Africa. This research is mainly focused on the first implication of AU Climate Strategy Objective, which is to increase the functionality of the climate-vulnerable people to adapt to climate variability and to also expand on the risks emanating from climate change. The paper is also buttressed by another Satterthwaite et al., (2007) as cited in Filho (2015) again acknowledged that targeting poor and highly climate risky communities is likely to enhance their coping capacity, earn better and therefore minimize impacts of climate related risks on human health. Consistent with this school of thought, the authors convey CBA as a process that placed people at the heart of the strategy.

### **1.1.1 Business Partnership Facilities**

As a build up to the AU Strategy on Adaptation of Climate Change especially among the poor and the vulnerable communities, strategies to promote cross-border and inter-communal resilience have since been developed and piloted in various parts of Africa. The strategies

intend to build up the level of resilience; thus, in so doing minimizes the need for humanitarian assistance amongst the cross-border clusters which is assumed to have similar or almost similar natural calamity risk exposures and or risk predisposing factors.

A study by Amir (2022) observed that effective BPFs are modelled to address critical challenges such as loss of autonomy, shared liabilities and risks, dealing with attendant emotional issues and decision-making. In dealing with the far-reaching socio-economic and environmental repercussions linked to climate change, emerging strategies highlight the significance of building resilience within human and environmental systems. This approach entails countering the dynamic environmental conditions and uncertainties through proactive, bottom-up measures. BPFs play a crucial role by supporting financially viable entrepreneurial ventures that exhibit substantial social impact.

Chepkoech et al (2020) stated that the projects financed by BPFs have to show how they improve societies and environments as per Sustainable Development Goals and Nationally. The facilities are thus designed to help in the mainstreaming of the conversion to sustainable and renewable energy for businesses; promote equitable access, availability and utilization of affordable, clean energy to the people; champion sustainable use of resources and sustainable agriculture; and enable bio- and environmental – certifications and recycling of products and waste.

Business Partnership Facility is a special financing facility that originated in Belgium but is mainly executed by the King Baudoin Foundation and humanitarian affairs and the Luxembourg Development Cooperation (Ferrando et al., 2022). The modalities of the latter are to enhance sustainable development and integration in the development of the developing nations to foster the development of these nations through innovative benchmarks between Belgium, Luxembourg and European Businesses and the actors in the Global south. BPF arose from September 2015, when 193 Member States of the United Nations adopted the new Sustainable Development Programme for 2030, including 17 Sustainable Development Goals. From the newly passed UN Resolution that endorsed the SDGs, it is expected that the attainment of those goals stands the chance to round off the IC's fight against poverty, enhance equity, justice and sustainability and lastly, protect our earth (Marshak & Venket, 2021).

According to the proponents of the BPFs, in order for states and governments to deliver on the promise and strong commitments they have made, within the context of the Private Sector, then the Sustainable Development Programme and SMEs must be tasked and supported through

what is now known as Locally-Led Solution to Climate Change Adaptation and Mitigation Programming (KBF, 2019). The White paper of World Economic Forum; it accelerates business action on climate Adaptation observed that business activity has remained marginal for several reasons which include but not limited; Lack of understanding of the physical climate risks and opportunities. As WEF (2023) also pointed out, however, businesses remain an actor involved in the climate adaptation process (Adam, 2020). The forum utilized three parts of the business case which suggests a series of steps that businesses can take to adopt/climate change and to manage the impacts of these steps include: and to consolidate, to capture and, or to direct.

Cameron's government and other stakeholders have also wanted at least 30 adaptation targets for a resilient planet by the year 2030 during the launching of Climate Change Adaptation Agenda at the United Nations Climate Change Conference (COP27) at the Sharm-el-Sheikh. Climate change adaptation was given the place of business at the COP27 for several reasons as discussed below. In the current report, UNDP (2021) aptly points out that the poses of climate change a threat to business operations and their product and service flows among regions and acknowledges quite a significant impact on financial performance. On the other side climate change adaptation for some time now offers fairly big business opportunities specially for the Green and Blue Economy Sectors which has very huge scope for innovative business development, growth and efficiency not to mention sustainability. UNDP (2021) also stressed that since climate change is systematically integrated with multiple impacts on sectors, multi-stakeholder approach with strong efforts is needed for global adaptation. To this end, the UNDP (2021) observed that it is appropriate that particular efforts towards combating climate change through adaptation and readiness including protection for the poor and vulnerable countries in the global south, businesses and enterprises to protect their operations and value chains in situations where there are climate shocks that would otherwise lead to economic losses.

Efforts made to employs and enact a BPF model for climatic change adaptation has been done by the USAID in Kenya through the Cross-Border Community Resilience Activity (CBCR) that is locally implemented by Chemonics. CBCR is a BPF developed to enable local actors to assume responsibility for development investments with the view of minimizing the reliance on episodic compassionate donation and support (UNDP, 2021). The project is implemented with the following objectives: to increase diverse, local capacity for climate adaptation and resilience initiatives, to strengthen social connectedness as the framework for resilience initiatives, to develop conflict-sensitive and inclusive livelihoods employment services, to

improve the conflict-sensitive management and the fair utilization of natural resources, to foster collaboration and learning with cluster members on all activities and investments. According to Chemonics (2024), the following are the implementing partners of this Pilot BPF Program: SIKOM Peace Network for Development (SPND) that has a total of 605 registered and active participants comprising of 318 female and 287 males. Its coverage include West Pokot in Kenya with 361 participants and Amudat District in Karamoja Region of Northern Uganda with 244 participants; Sustainable Approaches for Community Empowerment (SAPCONE) with a total of 453 registered and active participants in the Cross-Border Community Resilience Project, out of which 119 are female and 334 are male mainly drawn from South Omo in Southern Ethiopia Regional State with 135 participants and Turkana North Sub-county (Kibish, Lokichogio, Lowarengak and Todonyang Towns) in Turkana County in Kenya with 300 registered and active participants; Organization for Peace, Relief and Development (OPRD) that has a total of 662 participants comprising of 358 females and 304 males. This project is implemented in Kapoeta East in the Eastern Equatorial State in Southern Sudan with a total of 431 participants while Kapoeta North has a total of 44 participants and Kapoeta South has 180 participants. In Kenya, ORPD implements its cross-border resilience project in Turkana West's Songot, Lokichogio and Nanaam Towns in Turkana County with 4 participants registered and active in the Program; Karamoja Agro-Pastoral Development Programme (KADP) with a total of 2,270 participants comprising of 1,127 females and 1,143 males.

It is implemented in Kalapata in Kaabong District in the Northern Region of Uganda with 1 (one) registered participant. Moroto District in the Northern Uganda has the highest number of participants at 1,268 followed by Loima with 1,000 participants and Turkana West with 1 participant in Turkana County with a total of 1,001 participants; and Agency for Cross-Border Pastoralists Development (APAD) that is based in Lodwar Municipality in Turkana Central with its programmes implemented both in Turkana and West Pokot Counties in Kenya has a total of 468 registered and active participants in the Cross-Border BPF Program funded by USAID and implemented by Chemonics. Out of its total project participants, 104 are females and 363 are males. The project is implemented in Turkana County's Turkana West a total of 24 males and 77 female participants. In Kaabong in the Northern Uganda, the project supports a total of 105 participants while in Kapoeta East in Eastern Equatorial State in South Sudan, it supports 44 participants to build their resilience.

To summarize, the BPF Projects as described by USAID (2023) and piloted in Kenya, Uganda, South Sudan and Ethiopia, seeks to: enhance Local Development Organizations (LDOs)

capacity in organization and resilience program development; enhance their Media Engagement and hence community dialogue and social cohesion; improve density and diversify social and economic networks and enhance Civic Participation and Leadership of Youth and Women in social, political and economic development and resilience building: Increase PPCAs that unlock investment opportunities for an inclusive group of players including women, youths and other groups with limited economic stake such as; Water infrastructure and development, fodder and feeds production and rangeland management, an Eco-tourism and wildlife conservation sectors, improve border policies that enhance the flow of goods and people across borders such as Seed trade, animal health, taxation and trading incentives for livestock. Despite the ingenuity of the concept of BPFs for SDGs among the climate-vulnerable communities, little studies have been conducted either locally or at international level to determine their contributions to climate change adaptation, mitigation and resilience building among the current study's target population, especially in Kenya's ASAL Region of Turkana and West Pokot Counties.

According to CBCR Monthly Report (2024), the CBCR Activity continued to build the durability of people living in the Karamoja, Mandera and Moyale clusters that transcend the borderlands of Kenya, Uganda, South Sudan, Somalia and Ethiopia to reduce the humanitarian needs and capitalize on available opportunities to advance socio-economic progress (Bulmer et al., 2023). The regions covered by the activity have historically been affected by unfavourable effects of climate change, prolonged underinvestment in basic public goods and recurrent droughts with the resulting land degradation becoming a recipe for creating natural resource-based conflicts. These clusters rank amongst the poorest regions in Africa with average income poverty of 80% and 70% food insecurity. As a pilot BPF, the CBCR efforts across the three border envisions to build the resilience of 688,000 out of 3.2 million people living in the three clusters targeting to create 12,800 (approximately 19% of the targeted population) Full Time Employment (FTE) jobs which will benefit 76,800 vulnerable community members, particularly youth and women. The Activity also focuses on promoting the use of modern technologies to foster adaptation to alternative sources of livelihoods for more than 150,000 participants, fostering social cohesion along 14 transhumance corridors potentially unlocking over 6.5 million US\$ investments in the target regions. The contemporary study intends to investigate the effect of business partnership facilities on resilience of climate-vulnerable communities in Kenya, with a reference to Turkana County in Kenya.

### **1.1.2 Culture and Resilience of Climate Vulnerable Communities**

Culture is the collective expression of a community's shared beliefs, values, traditions, knowledge, and practices, shaping identities and behaviours. In Turkana County, it includes pastoralist customs, indigenous resource management, and gender roles, influencing resilience and partnership dynamics (Yang & Yang 2018). A culture of a people is described here in a general way as the manner in which people live their lives and how this is passed down from one generation to another through the arts, literature and the other works of tradition. In an attempt to capture the steps that cities and regional or local governments across all continents are undertaking in the area of sustainable cities, cultural policies and climate resilient development, Potts (2021) aimed at identifying the role of culture in climate resilient development. In Potts' (2021) view, culture shapes people's perception throughout their world and their interactions with the world and nature. The study posited that human beings possess agency to transform ecosystems in terms of culture, values, norms, traditions and visions (or world view). Perhaps more importantly, the study noted that cultural contingents have a possibility of pursuing or hindering social participation, discourse and advancement of climate resilient development, hence making analysis of the cultural aspects of change in climate governance as well as participation utterly crucial.

According to Climatology and Development (Ed.) (2021) cultural factors determine the perceptions of decision makers as well as community members regarding climate experiences by influencing the following elements: their assessment of the geographical environment's worth; their connected risk levels to climatic changes; and their understanding of controlling climate change versus adapting to it. The analysis revealed insufficient recognition of local cultural values alongside the local knowledge systems that exist for both adaptation and resiliency programs by the people who live there. According to this research the natural reduction of cultural importance throughout resilience construction makes little logistical sense since current knowledge demonstrates how places connect with individuals and affect their susceptibility to climate threats alongside their adeptness in managing these threats.

Due to the role of culture in shaping and influencing the world view, human interaction with nature and environment, culture makes it, therefore, possible for a people to explore their history (how we used to take care of the environment), their present (what is happening currently in the environment), define their sense of identity, create divergent futures from present scenarios while promoting intergenerational dialogue about emerging needs, aspirations and rights.

The current study view culture as a moderating variable for the role culture plays in defining how people interact with nature, environment and respond to climate change variability. Indigenous people in Kenya's ASALs are to a large extent intricately bound by their culture and traditions and to a large extent, it is their culture that defines and dictates their interactions with the environment and nature as expressed through their settlement patterns, trade and commerce, agriculture and livelihood development and general adaptability practices in the event of adverse climate change episodes.

### **1.1.3 Climate Change Resilience**

Increased frequency and volatility of climatic events present threats to different aspects of life affecting the physical, economic, social and environmental sectors such as food and nutrition security, water, agriculture, wildlife and tourism and poverty reduction (Yanda, et.al 2023). Such complex issues require appropriate and planned efforts to increase the preparedness of high-risk populations. Bottom-up strategies, centred on community engagement, prove essential in this endeavour. The implementation of social impact assessments can aid in comprehending the potential consequences of policy actions and decision-making. The study by Yanda et al, (2023) however fell short to elaborate on the specific policy actions and decision-making that could address the social-economic impacts of climate change. The study also did not capture the place of business partnerships nor business partnership facilities in militating against vulnerabilities occasioned by climate variability towards building community resilience.

Yang & Yang (2018) explored the potential of electrifying the 630 million people in Sub-Saharan Africa through the implementation of novel government policies, renewable energy sources and innovative business strategies. Their study was limited in scope as it focused on rural electrification to deal with the adverse effects of climate change in vulnerable communities. In their recent study, Abraham & Fonta (2018) have looked into the way farmers in rural Northern Nigeria thought of their experience of climate change. Consequently, there was statistical significance between farmers perceived climate change exposure level and their need for financial support. The study did not extend to mention any specific proposals or conclusions as to which type of financial assistance the rural farmers in Nigeria needed and which funding architecture could best meet their climate change instigated needs. The study methodology also was devoid of specific project or program(s) from which such derivative conclusions could have been reached. This created a gap in both study design and findings, creating a desire to pursue a similar study further, albeit in a different setting.

Sorgho et al. (2020) systematically reviewed the climate change policy framework on the 16 West African countries. Results revealed that a majority of West African countries have indeed developed and implemented climate change policies. This signifies a proactive response to the pressing environmental and agricultural challenges brought about by climate change. Their study, however, presents a contextual gap as it was conducted in West Africa and a conceptual gap since it focused a broad-spectrum policy landscape without necessarily delving deeper into the subject of business partnership or enterprise development as an avenue to community resilience building in the advent of climate change.

Thompson et al. (2023) explored challenges associated with funding and financing mechanisms for nature-based solutions in urban environments. They engaged in an examination of the reliance on private funds, which often becomes necessary in situations where public resources prove inadequate. They pointed out the vice of commodification of ecosystem services which are market-based solutions in as much as they can lock in inequitable provision and access to the same. In this regard, the authors have presented a clear set of principles for delivering ES that rightly links market-based funding and financing alongside. The study is methodologically deficient because the study used secondary data in analysis, conclusions and recommendations.

#### **1.1.4 Climate Vulnerable Communities**

The ramifications of climate change have left an indelible mark on modern life. In economic terms, subsistence farmers in developing regions have borne the brunt of these adversities, with Africa serving as a prime example (Keen, 2021). Politically, climate change has fostered a divide, notably between Europe's pro-climate policies and America's continued reliance on fossil fuels. Goldsmith et al, (2019) investigated the impacts of climate change on the borrowing costs incurred by state and local governments in the United States and found increased vulnerability to rising sea levels was linked to increased bond yields, even after accounting for the fluctuating economic conditions at the local level over time. The capacity to respond effectively to climate change correlates closely with a nation's level of development. Higher levels of development empower countries to better navigate and mitigate the punishing consequences of climate change, while less developed nations face greater challenges.

Sub-Saharan African Rural Areas face socio-political, Cultural & Economic barriers on top of Climate change issues (Nkoana et al., 2018). While there has been increased research and implementation of decision support tools to help these communities mitigate impacts of climate change and improve their coping and adaptation capacity, poorly formulated participatory

procedures and lack of context appropriate approaches hamper attempts to enhance these communities' resilience. Governments, international donors, bilateral and multilateral agencies should therefore identify exemplar methodologies to engage rural communities in climate change adaptation endeavours, employing approaches that resonate within the local context and culture. These best practices encompass employing a livelihoods approach for community engagement, recognizing and respecting local cultural norms, designating local champions from within the community, prioritizing and involving vulnerable stakeholders and fostering two-way communication for climate change risk awareness instead of unidirectional information dissemination (Eichsteller et.al, 2022).

According to Ouma (2023) climate change stands as a major modern-day societal challenge which disrupts both life and living most profoundly across the Global South nations. The vulnerable segment of Kenya's population faces devastating impacts from unpredictable climatic events and unpredictable occurrences which mainly affect the marginalized population group. Developmental agendas for Kenya face growing influence from climatic change effects while their effects could reduce national economic output by 1 percentage point of GDP according to Marigi (2017). The total effects of climate change have the ability to undo nearly all progress achieved toward both sustainable development goals (SDGs) and Kenya's development master plan Vision 2030.

This legislation grants authorities the ability to verify and measure climate change vulnerability throughout local regions while directing a climate change response system development process and providing climate change adaptation recommendations to boost community resilience. Community and household adaptation and resilience outcomes from interventions require multiple approach marginalization and participation at both actor-levels and across multiple engagement levels. The Act establishes legal frameworks yet the construction of climate adaptation discourse exists within specific storytelling elements that both international and national approaches utilize. The above framing systems evolved throughout time with actors and institutions showing regular movement between these structures (Ouma, 2023). The research utilizes Marigi's (2017) approach to climate vulnerability which describes "Climate change vulnerability" as the extent to which systems suffer from climate change risks that incorporate climate volatility and variability. This vulnerability model includes exposure as one of its fundamental components alongside sensitivity and adaptive capacity.

### **1.1.5 Climate Change in Turkana County**

Turkana County's economy primarily sustains itself through natural resources creating an acute sensitivity to climate-based fluctuations in environmental conditions. The county development faces long-term sustainability risks because of rising temperatures and changing rainfall patterns which cause more frequent intense climate events such as droughts and flooding. ASALs or drylands stand as the most vulnerable regions across Kenya. The environment becomes insufficient for coping because poverty levels are high and socioeconomic factors and political dynamics shift while population expands. Extreme events now happen more frequently than ever before which does not provide land-based communities enough time for recovery after these emergency incidents. Turkana county stands at high risk from climate-related problems. A combination of droughts alongside floods together with gully erosion and irregular rainfall and arid and semi-arid lands (ASALs) produces adverse impacts on the life activities of nearby residents. Turkana County gains 74% of its household income and reaches 45% employment through its agricultural sector (MoALFC, 2021).

### **1.2 Statement of the Problem**

A report by the National Drought Management Authority (NDMA, 2022) indicates that the country has faced the full weight of detrimental impacts stemming from climate change, with the harshest repercussions felt within its arid and semi-arid regions. Consequently, communities in arid and semi-arid areas in Kenya have borne the adverse effects of climate change. Of the negative effects to climate-vulnerable communities is exacerbated by underdeveloped social and economic frameworks, alongside a substantial portion of the population grappling with poverty (NDMA, 2019). The convergence of these factors collectively amplifies the vulnerability of these communities to the sweeping repercussions of climate change. In as much as the international development partners have strived, multi and bilateral donors have failed to deliver business partnership facilities needed to support the climate-vulnerable groups. Lack of accomplishment and climate change impacts negatively on these communities.

Turkana County depends completely on its natural resources for economic activity, so it remains acutely exposed to changing climatic conditions. The county faces sustainability risks because temperature rises alongside changes in rainfall patterns produce more frequent and extreme wet and dry climate events. The arid and semi-arid lands (ASALs) which are commonly known as drylands rank as the most vulnerable regions throughout Kenya. Heritage coping techniques prove inadequate as the region experiences rising poverty statistics

combined with population growth along with socioeconomic and political shifts. The record number of extreme events cuts short the recovery timeframe necessary to bounce back following shock events.

There has been growing attention in the current area of study for instance, Kitonga (2021) while studying commercial banks' responses to climate change. A case of commercial banks in Kitui county Kenya and found out that established that Kitui commercial banks are mostly faced with litigation and regulatory risks. Although several studies have examined the impact of climate change on livelihoods and institutional responses, few have focused specifically on how business partnership facilities contribute to community-level climate resilience. This creates a conceptual gap since existing research tends to isolate environmental impacts from business-sector collaboration. The current study addresses this void by interrogating how collaborative structures like shared resources and multi-stakeholder engagement contribute to resilience outcomes in climate-vulnerable regions. Most prior studies have focused on regions outside Turkana County, such as Kitui, Kakamega, and Wajir, whose socio-economic and climatic profiles differ considerably from those of Turkana. This results in a contextual gap where findings cannot be reliably applied to Turkana's unique setting, which faces compounded challenges due to remoteness, pastoralist livelihoods, and cross-border dynamics. The present study aims to contextualize resilience mechanisms within Turkana's ASAL (Arid and Semi-Arid Lands) reality.

Many existing studies have relied predominantly on secondary data or narrow participant pools, such as women only or smallholder farmers. This creates a methodological gap that limits the generalizability of their findings. The current study adopts a more inclusive, empirical approach that integrates multiple stakeholder views and primary data collection, thus broadening both the methodological scope and the relevance of the findings for comprehensive policy action. It is by dint of the above gaps that the current study seeks to examine the effects of business partnership facilities in increasing the climate resilience of vulnerable communities in Turkana County, Kenya. Specifically, the study will be establishing the effects of shared resources, cross-sectoral, multi-stakeholder approach, strategic partnership on the Resilience of Climate-vulnerable Communities and establishing the moderating effect of culture on the relationship between Business Partnership Facilities and the Resilience of Climate-vulnerable Communities in Turkana County, Kenya.

### **1.3 Research Objectives**

#### **1.3.1 General Objective**

The general objective of this study is to examine the effects of business partnership facilities on the resilience of climate-vulnerable communities in Turkana County.

#### **1.3.2 Specific Objectives**

The objectives of the study were;

- i. To evaluate the influence of shared resources- type of business partnership facilities on resilience of Climate change affected communities in Turkana County- Kenya
- ii. To establish the effectiveness of cross-sectoral type of BPFs on the coping level of climate vulnerable people in Turkana County – Kenya
- iii. To examine effect of multi-stakeholder approach type of BPFs on climate-vulnerable communities in Turkana County, Kenya.
- iv. To evaluate the influence of strategic partnership on climate-vulnerable communities in Turkana County, Kenya.
- v. To assess the moderating effect of culture on the relationship between Business Partnership Facilities and the Resilience of Climate-vulnerable Communities in Turkana County, Kenya.

#### **1.4 Research Questions**

- i. To what extent does shared resources type of business partnership facilities influence the resilience of climate-vulnerable communities in Turkana County, Kenya?
- ii. What is the influence of cross-sectoral type of business partnership facilities on the resilience of climate-vulnerable communities in Turkana County, Kenya?
- iii. What is the influence of multi-stakeholder approach type of business partnership facilities on the resilience of climate-vulnerable communities in Turkana County, Kenya?
- iv. To what extent does strategic partnership type of business facilities influence the resilience of climate-vulnerable communities in Turkana County, Kenya?
- v. To what extent does moderating effect of Culture affect the relationship between Business Partnership Facilities and Resilience of Climate-vulnerable Communities in Turkana County, Kenya?

## **1.5 Scope of Study**

The study focuses on assessing the effect of business partnership facilities on the resilience of climate-vulnerable communities in Turkana County, Kenya, with culture as a moderating variable. Specifically, the research examined the influence of different types of business partnership facilities, including shared, cross-sectoral, multifaceted and strategic partnerships, on the resilience of climate-vulnerable populations. The unit of analysis was the individual, specifically the 668 participants comprise; Business Partnership Facilities Beneficiaries (588), Local development organisations (LDOs) Directors (10), Local development organisations (LDOs) monitoring and evaluation officials (10), Turkana Department of Climate Change Officials Local administration officials (Assistant chiefs) (60). A sample size of 200 individuals, constituting 30% of the target population, was selected using stratified sampling and simple random sampling techniques. Geographically, the study was confined to Turkana County (Turkana West and Loima constituencies) Kenya, a region particularly susceptible to climate vulnerability. The period of investigation spanned from January to May 2025. The study was grounded on by the Sustainability Development Theory, resilience theory and stakeholder theory, employing a descriptive research design to provide an in-depth understanding of the interplay between business partnerships, resilience and culture in the context of climate-vulnerable communities. The theories which were used in this study were sustainable development theory, resilience theory as well as stakeholder theory.

## **1.6 Significance of Study**

### **Policy Makers and Regulators**

This study was important to policymakers and regulators in the country. Policymakers of business partnership facilities understood how these facilities improved resilience of climate-vulnerable communities. Challenges of business partnership facilities were outlined and well understood. Findings of the study offered insights into how solutions for challenges of business partnership facilities were implemented for improvement of resilience of climate-vulnerable communities. This was the foundation for sound policies to strengthen the adaptive capacity of poor and climate affected societies. Recommendations of the study informed the development of right policies that helped boost resilience of climate vulnerable community.

### **Multilateral and Bilateral Donors, National and County Governments**

The study was crucial to the ability of the government of Kenya to develop strategies and policies that aided underprivileged and climate-vulnerable groups in adapting to climate change. The findings of this study were of benefit to government policy makers in developing

regulations that encouraged local uptake of climate change proclamations. The study's conclusions and suggestions were also compelled the government to implement policies and adopt top climate change adaptation techniques. County governments also created strategies to help underprivileged and climate-vulnerable populations become more resilient. Importantly, top management of multilateral and bilateral donors engaged in business made use of the study's conclusions.

### **International Development Practitioners**

This study was important to international development practitioners operating in the country. These practitioners understood how these facilities improved the resilience of climate-vulnerable communities. Challenges of business partnership facilities were outlined and well understood. Findings of the study offered insights into how solutions for challenges of business partnership facilities were implemented for improvement of resilience of climate-vulnerable communities. International development practitioners were better equipped to advise international development organizations on best policies to improve resilience of climate-vulnerable communities.

### **Academicians and Researchers**

Students and scholars in various academia also benefited from this study. By adding an insight to the existing information pool, particularly in areas of poly-substance use patterns, community-based interventions and the prevalence of drug abuse, the study enriched the theoretical landscape. Students specializing in fields such as counselling psychology, public health and related disciplines gained deeper insights into these phenomena, enhancing their academic understanding. Furthermore, the study's recommendations for further research served as a foundational framework for future scholars, facilitating the development of their investigations in this critical area of study.

### **Use of Current Literature**

This research drew heavily on contemporary literature to identify theoretical, empirical, and contextual gaps in climate resilience, business partnership models, and development interventions. The study ensured relevance to current debates and evidence-based practices by building upon and extending recent findings. Integrating up-to-date literature also allowed for a more nuanced understanding of the interconnectedness between business partnerships, cultural dynamics, and climate vulnerability. This foundation enabled the formulation of well-grounded recommendations and highlighted emerging trends, enhancing the study's

contribution to academic knowledge, policy formulation, and implementation of sustainable climate resilience strategies in marginalized and arid regions like Turkana County.

### **1.7 Organization of the Study**

The first chapter provided anyone interested with an overview of the topic of the research and the context of the study. Following the problem statement and formulation of objectives the proposal began. From here then, specifies the objectives and the relevance of the study before defining the scope. The second chapter of the manuscript carried a title of literature review. The theoretical review of the chapter was also presented and the empirical review presented other studies that had measured variables of interest. The chapter also described the authors' concept and proposed the relationship map between the variables from the reviewed literature. The third chapter is devoted to the questions of the study's methodological basis. This chapter also provides justification of the selected research design that was discussed in detail in this chapter. The population is defined and the procedure of choosing a sample is discussed. Further, the used tools in data collections are described and data analysis is covered. There are also ethical concerns considered.

### **1.8 Chapter Summary**

Chapter 1 introduced the study, outlining the background, problem statement and research objectives. The focus of the research is on evaluating the effects of BPFs on the resilience of climate-vulnerable communities in Turkana County, Kenya, with an emphasis on the moderating effect of culture. The study specifically explored on the role of different BPF types shared resources, cross-sectoral, multi-stakeholder and strategic partnerships on climate adaptation efforts. The research questions were aligned with the objectives, aiming to assess how these partnership models contribute to enhancing resilience in climate-affected regions. The scope of the study covered Turkana County, with a sample drawn from BPF beneficiaries, local development organizations (LDOs), climate change officials and local administration. A descriptive research design was employed, utilizing stratified and simple random sampling methods. The chapter concluded by highlighting the study's significance for policymakers, international development practitioners and academics, offering insights into improving resilience through effective business partnerships in climate-vulnerable areas.

## CHAPTER TWO

### LITERATURE REVIEW

#### 2.1 Introduction

This chapter introduces the literature, through an extended discussion of the previous studies that discusses performance of business partnership facilities for resilience of climate vulnerable communities in Turkana County, Kenya. It also discusses theoretical framework guiding the study with a focus on Sustainable Development (SDT) and resilience and stakeholder theories. The literature review is done empirically and the subheading of this section are drawn from the specific objectives of the study while a conceptual study framework is given at the end of this chapter to show the relationship of the study variables. This chapter is therefore as important as it positions the study within extant literature, thus making it more credible.

#### 2.2 Theoretical Review

A theoretical framework consists of interconnected ideas which create orderly structures using verified theories as a foundation. The framework consists of clearly reasoned statements derived both from logical processes and empirical research. A theoretical framework functions to explain occurrences by presenting logical facts supporting observed phenomena during investigations. According to Kivunja (2018) research theories empower scientists to derive ground-breaking findings while raising present operational efficiencies and facilitating progress towards more developed theories. The current research utilizes sustainable development theory, Resilience and Stakeholder theory as its theoretical foundation.

##### 2.2.1 Sustainable Development Theory

The term "sustainable development" was popularized and defined by the Brundtland Commission in their 1987 report, "Our Common Future," also known as the Brundtland Report. They defined sustainable development as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs," says the UN. The Commission was established by the United Nations General Assembly in 1983. Sustainable Development Theory (SD Theory) creates a framework to study the relationship between economic expansion and social equality together with environmental conservation. The Brundtland Report's Our Common Future (1987) emphasized sustainable development when it established the definition as "development that meets present needs while retaining future generations' capacity to satisfy their own requirements." According to this definition sustainable development requires upholding environmental conservation while achieving

social equity alongside present goals. SD Theory emerged from the worldwide understanding of industrial growth and resource misuse to establish decision frameworks which unite sustainability between environment, society and economy.

Henceforth numerous fundamental developments have reshaped the theory as nations embraced this conceptualization worldwide. The Stockholm Conference on the Human Environment from 1972 established development must consider environmental factors as a primary concern and this fundamental concept gained official policy status through the Brundtland Report from 1987. SD Theory received expanded application through subsequent progress starting with the 1992 Earth Summit and ending with the adoption of the United Nations Sustainable Development Goals (SDGs) in 2015. These markers demonstrate both worldwide collective effort with local execution since the model functions well across multiple development settings. SD Theory remains significant for worldwide development approaches because it shapes both global and regional responses to environmental issues and social disparities.

Given its universal application SD Theory encounters challenges which undermine its theoretical framework alongside its practical execution. The extensive nature of sustainable development as a definition count as an advantage yet produces hurdles in implementing practical solutions according to critics. Three central pillars of sustainable development—social equity and environmental preservation alongside economic growth—generate conflicts that prevent people from reaching their targets while sustaining substantial compromises. The theory faces criticism due to its allocation of excessive environmental damage responsibilities to developing countries which must sustain industrialization disadvantages. Research into sustainable development shows how national approaches need to use local context and specific conditions to address systemic disparities between groups.

SD Theory serves as an essential framework which permits researchers to understand simultaneously occurring connections between business partnerships along with resilience and culture dynamics in climate-vulnerable communities for this investigation. The strategy prioritizes simultaneous fulfillment of present necessities while securing enduring sustainability which directly matches the study's Turkana County, Kenya-based research on community resilience development goals. This analytical approach evaluates business partnership facilities to enable sustainable economic growth and refugee host community resilience while solving their environmental and social weaknesses. As a moderating variable

the theory positions culture because it recognizes that local settings strongly influence sustainable development outcomes.

### **2.2.2 Resilience Theory**

Resilience theory was developed by Norman Garmezy in 1991. He established a theoretical framework that explored why some individuals adapt well to adversity while others struggle. Scientists use resilience theory to analyse social systems and economic and organizational structures. This principle emerged initially from the field of ecology. The fundamental principle of resilience theory examines systems through the lens of their ability to absorb disturbances then reorganize while modifying thus maintaining practical functionality and structural framework along with system identity (Holling, 1973). Climate change research emphasizes resilience as how individuals and communities and ecosystems survive climate-related disasters while finding ways to recover before achieving better performance post-shock (Adger 2000; Folke 2006).

Resilience theory establishes adaptive capacity as its defining characteristic for understanding how systems or communities adjust to climate-related transformations or disturbances. Adaptive capacity consists of technological innovation alongside social learning and governance flexibility which allow communities to successfully address emerging climate threats. According to Walker et al. (2004) resilience exceeds simple restoration to previous conditions by enabling systems to evolve through challenges.

Various criticisms target resilience theory even though practitioners use it across different fields. A significant concern about current resilience implementation focuses on how its standard conceptualization prefers stability maintenance and former system state recovery instead of actual systemic change (Davoudi, 2012). The limited perspective on resilience could result in unnecessary comfort or an inability to resolve fundamental causes of vulnerability in systems with unbalanced socioeconomic systems and social justice concerns (Pelling 2010). Studies have demonstrated that resilience theory fails to properly handle complex nonlinear effects in social-ecological systems thus producing basic reactions to climate change (Avelino et al., 2017). To build resilience effectively stakeholders need to understand power dynamics because certain groups naturally possess stronger capacity to recover from environmental disturbances.

Resilience theory finds important use when studying climate change adaptation strategies together with collaboration among various stakeholder groups. The adaptive capacity model

sets frameworks which show communities alongside organizations and institutions how they must construct resilience capabilities for climate risk management. This research studies alliances between governmental, nongovernmental organizations (NGOs), local communities and private institutions to understand their adaptive strategies by implementing resilience theory.

### **2.2.3 Stakeholder Theory**

Freeman (1984) established stakeholder theory which defines an organizational framework for understanding those groups who influence and those who experience effects of organizational activities. Under stakeholder theory organizational focus extends beyond shareholder profit to incorporate the needs of their entire community which includes employees, customers, suppliers and community members. According to stakeholder theory which focuses on environmental sustainability and climate change the entire scope of community members affected by related issues requires full recognition and active involvement.

The theory is grounded in three main approaches: normative, descriptive and instrumental. Under the normative approach organizations have a moral responsibility to support all stakeholder interests throughout scenarios when particular groups face marginalization. Through normative theory organizations clarify their ethical responsibilities to all stakeholders in real situations while through instrumental theory organizations reveal the practical benefits of stakeholder engagement such as improved reputation with others and risk reduction (Freeman et al., 2007).

Despite widespread organizational usage of stakeholder theory multiple critics have challenged its core principles. According to Metzger, (2020) stakeholder theory fails to provide sufficient definition about which stakeholders should remain the priority and methods for balancing their interests. Complex stakeholder relationships create problems during decision-making because stakeholder interests often compete against each other and power issues between stakeholders develop. Distributions of stakeholder theory experience criticism because executives focus on shorter-term relationships and immediate outcomes rather than monitoring long-term stakeholder impact from organizational decisions. The problem becomes acute when examining climate change decisions since their effects can span from multiple decades to centuries (Schrempf-Stirling et al., 2016).

The research adopts stakeholder theory to address multi-stakeholder partnerships for climate resilience. Multiple stakeholders with individual assets are essential for effective climate

change mitigation and adaptation efforts because they must unite actively in collaborative processes. Using stakeholder theory researchers can examine the connection dynamics between different groups since stakeholders navigate their divergent aims to develop shared objectives. Stakeholder theory helps researchers identify partner organizations working in climate action through this investigation while defining their designated roles and responsibilities within this collaborative framework.

The normative framework of stakeholder theory supports the research objective of promoting climate justice and equity. Decision-making participation and representation patterns for vulnerable societal groups who consist of low-income communities along with those who are marginalized form the analytical focus. Using stakeholder theory allows investigation into which groups contribute their interests to climate resilience planning and how disparities in power between stakeholders should be managed.

## **2.3 Empirical Review**

### **2.3.1 Business Partnership Facilities**

According to Graham (2020) climate change has increased the frequency of floods and droughts and other disasters throughout sub-Saharan Africa. Multiple actors work together to enhance climate resilience throughout rural and urban areas and continental regions while addressing emerging climate change challenges. Observations from analyzed climate resilience building initiatives across the region through multi-stakeholder projects have led to this observation by the author. A vulnerability assessment was part of the analysis conducted to understand how different projects provide climate shock mitigation while managing long-term climatic variations. Multiple barriers stand in the way of climate resilience development across sub-Saharan Africa yet business partnership facilities enable these countries to strengthen their financing skills and program coordination ability to support efficient climate solutions.

Yang and Yang (2018) used previous government policies, the new efforts in SSA to increase the electric access to 630 million people, renewables and other strategies. These activities were viewed as opportunities to meet the challenging goals outlined in the SDG7 concerning access to energy, as well as to the United Nations Framework Convention on Climate Change (UNFCCC) COP21 Paris Agreement. Up to that time, the primary function of the Paris Agreement has been to build the overall international climate change action increasing the global temperature limit below which it is being maintained during the current century, at the level not above 2°C higher than the pre-industrial benchmarks. It also sought to identify paths

to even more sustainable temperature rise to just 1.5 degrees Celsius. The authors took an evaluation of the feasibility and costs of the massive population of 630 million to be electrified to address the Paris Agreement's provisions. The authors discussed the economic realities and the ability of affected communities to pay for electric services based on four new business models in very brief means. Also, they performed cost analysis on the effectiveness of different technologies possible in the course of technology development. From their research, they identified a private investment-only which is based on a financial model as the least cost and most environmentally friendly in delivering rural electrification to the least served households within SSA.

Utilities such as clean and modern energy remain virtually a fantasy to vast groups of rural people globally or the aforesaid SWAGA or the largest chunk of the sub-Saharan Africa has never experience electric light. Population increase and emergence of climate change escalates this problem. However, the fact remains that large population and economy comprising sub-Saharan countries has no option other than seeking for ways to finance renewable energy such as in the rural areas where climate impacts are normally assumed. According to Butu, Nsafon, Park and Huh (2021), bank, small-scale renewable energy financing from MFIs and government has been extended for a long time; the complementary relationship between the inherent strength of CBOs with technology will definitely improve the efficiency of small-scale RE finance within the rural sub-Saharan Africa.

Abraham and Fonta (2018) analyzed research examining the extent rural northern Nigerian farmers experience climate change impacts. The study evaluated how much performing farmers were exposed to climate change while exploring how their need for financial access to climate change adaptation strategies affected their adjustments. A total of 320 groups from rural areas in Northern Nigeria completed self-administered questionnaires as part of this study. The gathered data confirmed that rural farmers detected rising temperatures and longer dry seasons and frequent occurrences of drought and flooding. Climate-induced harvest failure established poor yields that left farmers with minimal income. A non-parametric examination evaluated the strength of association between farmers' perceived climate risk and their reported credit requirements. Climate change exposure and funding needs showed a 63% correlation according to Spearman's measurement but 96% of those needing credit to address climate change impacts could not access loans because of credit freezing. The research paper advised the Central Bank of Nigeria to intervene and direct Microfinance Institutions products and services toward appropriate target markets. By developing better financial instruments the

farmers can gain more protective capital and boost their maximum yield during their annual harvest period. Since climate change is a public bad that affects everyone differently, the paper suggested that the international community could support smallholder farmers for financing climatic change mitigation measures through central banks by providing exotic insurance to the farmers' loans earmarked for the funding for climate change adaption practices.

According to Ibrahim (2019), the international community must assist nations directly in facing adverse effects on climate change according to the sufficient and necessary aid. This, in fact, is one of the strategies that the international organization is using today-use of monetary assistance towards climate change programs. As a result, they are involved in different investments encompassing both, funding of climate change mitigation and adaptation. As for adaptation activities, the focus is made on improving the capability of certain populations in the globe through implementing projects that reflect their current requirements and settings. At the same time, it must be stated that many of these communities are located in the countries that can experience difficulties in the form of, for instance, underdevelopment or armed conflicts. For example, there are current projects in such countries as Djibouti and Yemen where the population of the communities is very sensitive to the climate change effects. In such vulnerable settings, climate change adaptation interventions are thus paramount in enhancing resilience of such populations to climate related shocks.

Sub-Saharan African is in a position to harness the socio-economic and environmental benefits on renewable resources and the efficiency on energy as more demand for energy is observed in the continent. Renewable energy plus energy efficiency sectors financing potential and challenges for energy efficiency and financing renewable energy sectors mapping will be the next step in efforts to enhance the mobilization of the financial flows into sectors. In the same context, with continuously growing people in Sub-Saharan Africa and the expanding rates of economic growth and urbanization besides enhanced support to the sustainable energy for all, there has never perhaps been, a greater need for clean accessible energy as is being seen today.

Mungai, Ndiritu and Da Silva (2022) evaluated the potential for Unlocking Climate Finance Potential for Climate Adaptation: Adoption of Climate Smart Agricultural Financing in SSA using an indicator based situational analysis desktop research approach. Five factors related to climate change were used to filter out the countries in this study as presented below. These included: (a) unlocking private sector financing and or capital where Foreign Direct Investment, FDI were also factored in; Climate Risk Force Factor Analysis aimed at

identifying the most climate vulnerable countries for inclusion into in-depth research; desktop study to identify the climate financing requirements for each country; the ease of doing business analysis conducted to give insight into existing government initiatives and incentives toward unlocking private sector capital and investment funds in climate-related investments and or projects; and in order to establish the climate financing gaps for each listed countries, the study included the GDP and its growth curve for each country as part of the study to determine Climate Financing Gap in the SSA.

Business partnership facilities in Turkana County, Kenya, operate within a context characterized by arid and semi-arid conditions, pastoralist livelihoods, and significant climate vulnerabilities, including recurrent droughts and floods. These facilities aim to enhance climate resilience by fostering collaboration among diverse stakeholders government, private sector, NGOs, and local communities to address resource scarcity and environmental challenges. Initiatives such as the Lake Turkana Wind Power Project (LTWP) exemplify public-private partnerships that integrate renewable energy to support sustainable development, aligning with Kenya's Vision 2030 and climate goals under the UNFCCC Paris Agreement. However, Turkana's BPFs face barriers like limited financial access, inadequate infrastructure, and cultural dynamics, including gender disparities and traditional governance structures, which influence partnership dynamics. Studies highlight that while projects like LTWP provide economic opportunities, they often struggle with equitable benefit-sharing and community inclusion, necessitating tailored strategies to align with local needs and enhance resilience. The focus on shared resources, cross-sectoral collaboration, and cultural integration underscores the potential of BPFs to transform Turkana's socio-economic landscape amidst climate challenges.

The relationships between BPFs and climate resilience in Turkana are supported by the Institutional Theory, which posits that organizational behaviours and partnerships are shaped by institutional structures, norms, and cultural contexts. This theory explains how stakeholder interactions, governance frameworks, and cultural factors influence the effectiveness of BPFs in Turkana. Prior studies, such as Mungai et al. (2022), found that climate finance partnerships in SSA, including Kenya, enhance resilience when private sector investments are aligned with local priorities, though gaps in coordination persist. Similarly, Abraham and Fonta (2018) demonstrated a strong correlation (63%) between climate exposure and financial needs in rural Nigeria, highlighting the role of accessible finance in adaptation, a finding relevant to Turkana's resource constraints. Graham (2020) noted that multi-stakeholder projects in SSA

improve program coordination, yet face barriers like underfunding, mirroring Turkana's challenges. These studies suggest that BPFs in Turkana are likely to yield positive resilience outcomes if they prioritize inclusive governance, equitable resource distribution, and cultural alignment, though persistent structural gaps may temper impacts without targeted interventions.

### **2.3.2 Business Partnership Facilities and Resilience of Climate Vulnerable Communities**

This section looks into the different types of BPFs and their contribution to building resilience of climate vulnerable communities. Facilities discussed include:

#### **2.3.2.1 Shared Resources Type of Business Partnership Facilities and Resilience of Climate Vulnerable Communities**

Business Partnership Facilities get their design and development concepts from the 2030 agenda and the SDGs that are revolutionary in transforming the worldview of International Development by embracing the connections between prosperous business, society and environment. BPFs are therefore designed to effectively respond to the three key sectors of the SDGs including: There are three categories: (a) Economic; and (b) Social development; and (c) Environmental Sustainability [SDGs # 8, 9, 10, 12 and 17; 1, 2, 3, 4, 5, 7, 11 and 16; and 6, 13, 14, 15 respectively]. They also acknowledge that societies, in the aggregate, are formed and develop over hundreds if not thousands of years, built on foundation of supply determinants supplied by natural resources, knowledge, technologies, people, trade, finances and effective and open leadership of the 2030 Agenda and the SDGs. 'Progress' actually occurs more through the stroke of a lucky cup: could have the right set of resources has to be available at the right time with a problem or opportunity to be solved or capitalized on, progressive feedback cycles with leaped development implications insofar as improvements to the skills of workers equals productivity equals taxation which means the availability of more education, health, water and sanitation, energy, roads and transport and the other shared resources which go to make.

Such a relationship is also seen when both the political and natural settings are stable; positive improvement is made in a loop and advancement occurs more rapidly. This is so because politics: natural progression is often slowed by things like political instability, war, (inter or intra) injustice, bribery and embezzlement, imperialism and others like famine and earthquakes. The meaning of business partnership facilities in design thinking is that top down, short term, single sector solutions cannot always address a system which is too complex and in

a way, unstable to wait around for natural factors such as change of climate conditions such as drought and floods. The 2030 Agenda is a method of doing all this in a purposeful miraculous way that ensures the Top-Down global participation of all sectors, with the organically emergent, bottom-up ‘normal developmental’ process of the civil society being as directed as possible towards sustainability (UNDESA and the Partnering Initiative (2020)).

Based on the information from the UNDESA and the Partnering Initiative (2020), there are three key aspects in the new paradigm of international development in connection with the perspective Business Partnership Facilities for SDGs. These include: Business society and the environment are closely linked and can only progress in tandem for sustainable development of the two. Elites gaining at the expense of common humanity is evil; business or society gaining at the expense of the biosphere is wicked. Sustainable development means advancing all three strands simultaneously, which is why we talk about BPFs and SDG Financing Mechanisms and or Facilities; (b) our world is finite and the resources within it have to be used judiciously in a manner most likely to give us renewed natural capital with which to meet future needs. These resources are financial, natural, technological and human – and, as a society, we must optimally utilize such resources to achieve sustainable development for the benefit of all while building on the congruence of interest among the various stakeholders involved in managing these resources such as businesses, government, civil society, nature conservationists, development planners and facilitators etc. BPFs insist that all actors have their roles and use their resources cooperatively with partnership as for instance, water is widely used in health, sanitation and in the production of food crops. It is a moot point whether malnutrition can be addressed without addressing questions of agriculture, food processing and manufacturing, health and education (Yue Zou, 2023).

The last literature review on climate change and extreme weather events as well as urbanization and its business and social implications was conducted by Yue Zou in the year 2023. The study used an inter-disciplinary approach to analyse the complex relation between urbanization, industrialization economic growth and its impact on environment. Focusing on an historical journal literature mapping method, the study examined how government, business and civil society created strategic partnerships that improve climate resilience. One fundamental outcome from the study was the emphasis on the critical role of business in building climate-resilient business practices including but not limited to climate-resilient supply chain systems, energy transition towards NET ZERO, Environment Sustainability and Governance reporting and supporting communities to promote environmental sustainability

practices. Collective efforts and responsibilities become an imperative requirement in modelling cross-sectoral partnerships by rooting for collective efforts to cultivate adaptive strategies to tackle climate change.

The centrality of cross-sectoral type of business partnership is aptly explained by Yue (2023) in his argument that businesses influence and rely on communities and the locals in the areas in which they operate, leading to a vital role that business can play and contributions that they can make in adapting to climate change and developing resilience. In conclusion, therefore, the study by Yue (2023) forms a major source of empirical reference for the current study which in principle concurs with its main finding to the effect that there is a need to rally the government, business, communities, academia and research institutions to develop suitable solutions to address complex and intricate climate change-related challenges. This shift in system-transformational development mandates an understanding of the relationships between the SDGs and the need for systems approaches that connect with and traverse, sectors; thus, the shared resource type of business partnership facilities formed an essential part of this study.

According to Anne Gardiner et al., (2016) shared resource business partnership as mentioned above is based on the following understanding of the fact that the traditional methods of managing, financing and delivering public services and infrastructures more specifically through fiscal budgets and or financial appropriations, are gradually becoming more and more unviable and expensive in the developing economies where the impact of climate change are equally very disastrous. The study also notes that the achievement of the shift to a low carbon economy and the Paris Agreement entails sufficient finance where additional and/or more appropriate financing instruments /structures for upscaling financing options for climate adaptation/ mitigation towards achieving Net Zero is needed. This paper sampled countries and surveyed them to identify suitable types and forms of PPPs for leveraging support through the sharing of resources. This study is quite relevant to the recent study in as much as its emphasis of financing mitigation and climate change adaptation, among the low-density, high-risk areas is concerned. In more vulnerable regions, the work established that for PPPs to facilitate pull in private area cash for climate activities, it should be based on reciprocal interplay and connivance among and between public and private actors.

Among the initial papers that have explored the notion of partnership models for Climate Compatible Development includes paper by Dyer et al., (2013) alongside examination of experiences of Zambia. The study embraced the use of a case study research design in

conjunction with a national workshop aimed at identifying national policy contexts for partnerships for climate change development. The purposive sampling involved screening for partnership within the case study projects when key partnership stakeholders were purposively identified by interviewing the two companies of the study. Data collection and analysis were conducted around the following themes: Partnership creation; Execution of partnership; Impact of partnership in relation to project objectives and deliverables, roles of partnership in the overall project objectives and main opportunities and challenge of fulfilling the objectives of the project. By the analysis of the Study, development in the climate change age required successful implementation of numerous diverse and complex projects as the component of multi-sectoral and multi-stakeholder partnerships that ensured successful delivery of climate change development.

In conclusion, the concept of shared resources and multi-stakeholder type of business partnerships emerged strongly from these empirical literature reviews with an argument to the effect that a wider range of partners are able to fill a wider and sometimes complex set of gaps in climate change adaptation and mitigation financing, especially among low-resourced and climate change vulnerable communities. Through shared resources and multiple-stakeholder type of partnerships, more financial and technical resources can be mobilized, gaps addressed and synergy created to help alleviate effort duplications while leveraging on existing resources and opportunities.

### **2.3.2.2 Cross-Sectoral Type of Business Partnership Facilities and Resilience of Climate Vulnerable Communities**

Cross-sector Partnership according to Delloite (2016) means Partnerships where partner Organizations are based in more sectors, business, civil society, public/government and created to tackle the economic, social and environment challenges. This kind of partnership is driven by two kinds of social identification concerns claiming a sense of common interest or overlap of the participants' objectives based on commonalities in values and relationships that are enhanced to the visioning of a common reason for the formation of the partnership. Cross-sectoral partnership enablers are predisposing factors that can be either derived from the structural elements that defining the organizations involved or the manner of collaboration, or factors associated with context factors, cultural and or societal.

Specifically, Vogel et al., (2020) work was limited to cross-sector collaborations with a lean towards field mapping as well as ideals of an institutional strategy. The study posited that CSPs

for dealing with economic, social and environmentally integrated issues remained a significant and active field in managerial and other studies. However, the micro process issues in the multi-form that applies to business, government and third sector non-profit organizations while operating in different institutional logics of business are still under explored while the notion of collaborative advantage needs structures and governance have been instigated by external stimulus or factors that arose as opposed to internal puzzles of the collaborating organizations. In the literature there is limited publication on the application of CSP concept and its significance in fields that cut across business, government and non-governmental institutions and individuals such as climate change. The study realized that the leading inter-sectoral actors are primarily obsessed with success factors hence they overlook the many challenges that hinder CSPs' interdisciplinary cooperation that would facilitate tackling the mankind's basic interrelated concerns of the present society. The current study was able to fill this gap and come up with an institutional approach to CSPs; this was from an analysis of the literature reviewed through Bibliometric Analysis techniques in addition to other traditional ways of reviewing literature available on the topic. The study established and illustrated a Bibliometric map that outlined how literature is sectored into various categories where each category focuses on a certain kind of CSP but does not extensively interact with the other categories. The scholars then looked at the various clusters to offer a finer grain understanding on how institutional theory has up to this point been deployed in CSPs.

According to Vogel *et al.*, (2020), cross-sectoral partnerships (CSPs) has a capacity to leverage on differential institutional logics and shared resources of business stakeholders to address economic, environmental and social issues, especially impacts of climate change among vulnerable communities. The researchers noted that despite CSPs being a vibrant topic in business management science, its in-depth empirical study still receives a scanty attention with very little empirical literature on the subject. Thus, the study by Rick Vogel *et al.*, (2020) aimed to identify the existing literature on cross-sector type of business partnerships and employed Bibliometric Network Analysis (BNA) Methodology for the quantitative comparison and analysis of formal communication between scholars based on their published articles. The study established three different clusters of cross-sectoral partnerships: Business-Non Profit Partnerships (BPPs) that is aimed at addressing social issues and creating social values; Public-Private Partnerships (PPPs) designed to allocate risks, measure performance and identify success factors; and Collaborative Governance that is based on the premise that the assigned

tasks share common interest in networked forms of public governance with high involvement of stakeholders and community members beyond government.

The relationship between the Vogel *et al.*, (2020) Bibliographic Network Analysis Study with the current research variable (cross-sectoral partnerships) is to be observed from the perspective that whenever any form of partnerships or collaborations within the three partnership clusters are formed, institutional or organizational complexities are bound to emerge from the fact that different organizations and or institutions operate in different institutional logics, calling for a careful review and evaluation of differential sectoral strengths, weaknesses, opportunities and threats while carefully determining compatibilities between and among institutional logics in order to identify value propositions and create synergies needed to deal with adverse impacts of climate change among climate vulnerable communities (Watson *et al.*, 2020).

The present study emphasize that inconsistencies and conflicts among institutional logics is likely to render cross-sectoral partnership a mirage as observed by Ashraf *et al.*,(2017) in Vogel *et al.*, (2020). The applicability of Vogel *et al.*, (2020) study to the current study is vividly elucidated by Meyer *et al.*, (2014) as cited in *ibid* to the effect that institutional logics of businesses, civil society and government indeed differ profoundly and that until a suitable nexus is established, working partnership establishment may not work out.

In another empirical research, CSPs and Sustainable Development, Rafael Borim-de-Souza et al, (2023) established that two management characteristics enhance CSP's power to shape cross-sectoral partnerships for social transformation. Therefore, a partnership model which locates and mobilizes the skills, resources and talent of all the partners and which, secondly, realizes a greater optimization of outcomes and, thirdly, addresses sustainable and transformative change in people's lives through the creation of innovations from the disturbance of competitiveness and the tensions and inequities of the existing economic paradigm. Strategic partnerships are therefore meant to reassign system tasks that were processed and outsourced outside the market, the civil society and businesses throughout the world in order to address new borderless, intergenerational challenges like climate change, its prevention now requires. Highly skilled social agents intend to lead other similar projects and offer the necessary coordination; eradicating barriers resulting from group communication without proper management; and hints the market is in dire need for a better unification of the

formal and the informal social-political groups Chen et al., also highlights, the establishment of the desire of enhancing strategic collaborations and networking is important.

Studies by Chen et al., (2022); Kandel et al., (2022); revealed that the BPFs heavily rely on these characteristics particularly when defining the contractual commitments and work definition for intended collaborating partners. A relevant example in Kenya today is the consortium of USAID Kenya, MEDA International, Bill & Melinda Gates Foundation and KALRO currently used for the implementation of the Virus-Resistant Cassava Varieties Project in Kenya.

### **2.3.2.3 Multi-Stakeholder Partnership Type of Business Partnership Facilities and Resilience of Climate Vulnerable Communities**

As described by the UNDESA and the Partnering Initiative (2020) Multi-stakeholder Partnerships (MSPs) are to some extent partnership networks that can comprise of an immense number of organizations up to dozens of organizations or can also be considerably limited to being joint ventures between two or three organizations. This relatively all-embracing definition covers a large number of kinds of partnership arrangements which may, therefore, vary significantly in nature in terms of the amount of commitment and resources offered by the partners. It may therefore be valuable to define some elementary kinds of interaction and also to distinguish them in terms of goals as well as achievements. This will open better opportunities of laying down the framework for partnership and on how value can be created in the framework of partnership terms needed. It also argued that MSPs allows stakeholders to integrate resources and competencies to produce more, including more innovation: this due with the ability of the different actors, sectors and stakeholders to contribute to MSPs while at the same time sharing and diversifying risks among the diverse entities. Risk sharing makes everyone come on board since stakes are involved and people trust each other in business partnerships. MSPs are also said to have helped achieve optimization and enhancement of value creation and addition towards the SDGs – to bring benefit and impact which are even more than the whole is to the individual parts. Therefore, according to UNDESA and the Partnering Initiative (2020), Business Partnership Facilities of MSPs type can indeed provide organizational advantage both for each partner and stay committed to the SDGs.

Kate et al., (2021) identified the role for MSPs for climate change adaptation. Specific experiences of the adaptation in the Kenyan private sector were used in the study and based on such experiences the study found four reasons that stipulated that MSPs are suitable in

supporting adaptation discourses as retrieved from the existing empirical literature. To establish the extent to which MSPs have assisted SMEs in Kenya to adapt, this research adopted both desktop literature review and key informant interviews guides administered to policy makers, business leaders, partners and donors for the implementation and formulation of the MSPs. The quantitative research approach employed in this study was comprise of two sections, which are, (a) identification of MSPs in Kenya that aims at providing adaptation for SMEs; and (b) analysis of the identified MSPs on how they were configured, constructed and orchestrated. Detailed literature review was conducted around four thematic areas including: Some of these are: (i) Review of the existing literature on KNOWLEDGE regarding MSPs ; (ii) Identification of MSPs available that can enable SMEs to undertake adaptation for Climate change in Kenya ; (iii) Institutions involved in planning and implementing these MSPs from the private or public sector, Civil society and development partners; and (iv) expectation and experience with MSPs for adaptation with reference to the level at which mentioned stakeholders matched their.

To perform the study, Kate et al., (2021) employed two study approaches. These were key informant interview schedule and desktop literature review used in the study. According to the research, the following statement has pointed out that great expectation is associated with MSPs and their functionality for development and adaptation in SSA. The study also developed and proved that through combined efforts and commitments by multiple stakeholders in research, data availability, partnership nurturing, training and capacity development, finance interface and business development services MSPs in Kenya can open up numerous possibilities for engaging the private sector in delivering adaptation resources to the SMEs. The study, however, pointed out that due to existing of a number of limitations to current application of MSP model for supporting SMEs adaptation in Kenya still, it constrains the full impact of MSPs as a Business Partnership Financing model. For example, most of the MSPs for this study pointed out that they were mainly serving small scale producers who engaged in agricultural production indicating that such categories of SMEs were bearing the brunt of extreme climate shocks failing to realize that climate change is an issue that cuts across different sectors and industry and is shared by different levels of enterprises with significant level of challenges. We therefore suggest a reorientation of the public sector related to the provision of MSPs for SME adaptation and that this reorientation should be directed at the eradication of parallelism and duplication. The study therefore challenged MSP actors (public,

private and civil society) to urge efforts at ensuring compliance of their partnerships with the NDCs and NAPAs.

Analyzing their study conducted in 2022, Anabaraonye et al mentioned that while it may be almost impossible to address Climate Change in Africa, it requires a major deviance from the existing model of economic development and transforming the architecture of multi-stakeholder partnerships for the effective mitigation of impacts of Climate Change in Africa. Among the projects under analysis in the study, some featured multi-stakeholder partnerships that undertook building climate resilience in SSA through VAA for discovering the strategic importance of those projects in addressing climate volatility and change. The study examined the general area of analysis of multi-stakeholder partnership encompassing thematic areas of agriculture, cropping and livestock production, mining and quarrying as well as manufacturing industries. The work conducted pointed to the fact that in both the developed and the developing world, efficiently organized multi-stakeholder partnerships for climate improvement were active and quickly evolving across the sectors. Nevertheless, the research pointed out that future research should be conducted to discover specific aspects that distinguish certain partnerships from the others with regard to the attainment of stated goals and objectives.

Bulmer and Benito (2023) assessed the possibilities of dealing with SDGs#17 on partnership for achieving sustainable cooperation in the fight on climate change. Of this concept, the study made a specific reference to multi-stakeholder partnerships between all sectors of society. What was noticed is that SDG#17 is supposed to ensure the engagement and enablement of all the other 16 SDGs by pulling together the right actors in the right partnerships for transformational change. Indeed, key to all the arguments advanced in this study were based on SDG 17, target 17.16 and 17.17 that call for global partnership for sustainable development that mobilize and share knowledge, expertise, technology and financial resources for sustainable development. The call made under target 17.17 to ‘enhance international cooperation, capacity and referral for sustainable development by effectively engaging stakeholders in national and global public, public-private and civil society partnerships through the mutual accountability for the delivery of shared objectives and outcomes arising for the respective competence, experience and strategy of alliance partners’ the major gap identified in the study emerged from the question of realistic scope attainable in multi-stakeholder partnerships with Recommendations.

Momen (2021) focused on multi-stakeholder partnerships in circumstances of public policies. Thus, defining multi-stakeholder partnership as a new mode of partnership governance structure which involved several actors from various fields such as civil society, government, development and aid agencies, media, academia or research institution for sharing of expertise, resources, Lessons, experience, information, technologies and financial resources for common cause, especially towards the implementation of a public goal, especially with reference to implementation of a public policy.

#### **2.3.2.4 Strategic Partnerships Type of Business Partnership Facilities and Resilience of Climate Vulnerable Communities**

This study finding of Setyawan, Mudhofar, Arum, Susila, & Nasir (2022) revealed that a consolidation of companies is a way of intensifying competitiveness, raising the value of products and increasing companies' performance by building and providing for strategic benefits to the concerned parties to survive in their own specific and or mutual business industries as a consequence of such Synergy of the Strategic Partnership. They also posited that a large enterprise partnership is financially lucrative since none of the enterprises has size, technology and resource gaps.

Mukhongo, Atandi and Okonda (2023) whose work is, Organizational Performance of Broadcasters and Strategic Partnerships and in Kenya, also make some degree of sense towards emphasizing on the feature of strategic partnership as a model for Business Partnership Facility whereby they noted that, when right strategies are chosen in a business set-up like the strategic partnership, performance in the respective partnering organizations can be boosted and sustained and further highlighted they bear The outcomes which an organization is able to achieve relative to the targeted goals and objectives that were set within the framework, of strategic partnerships is what leads to organizational performance.

Mukhongo et al., (2023) note that the primary and central focus in strategic partnership is to assist individuals to make proper decisions and identify their development in pursuing their objectives. Performance measurement requires that indicators be put in place. In Mukhongo et al., (2023), indicators are defined as means, quantitative and/or qualitative, which point out the intended, current or past organizational performance. There are various approaches to compiling the organizational performance, including KPIs and the overall balanced organizational scorecard along with the balanced organizational scorecard management. The study proposes that they are the variables that prompt the other which set of values should be

planned against (that is, contrasted with). There are two types of KPIs: qualitative and quantitative. These include; input, output, activity, mechanism, control and time all of which are measured (Mukhongo et al., p. 45). Mukhongo et al., (2023) define the study mainly as being fundamentally geared towards providing an extensive and detailed appreciation of the impact of strategic partnership on the organizational performance of the broadcasters in Kenya. The analysis revealed a very high degree of relationship between strategic partnerships and achievement of broadcasters in Kenya with 'Pearson's Product Moment Correlation Coefficient' of  $r = 0.667; = 0.000$ . It can be as such be concluded that strategic partnerships has a highly positive effect on broadcasters performance and thus the recommendation whereby various broadcasters should engage strategic partnerships with similar players within the sector in order for them to better respond to the dynamism that.

Mvere and Pauw (2013) and Pauw & Pegels (2013) show that increased focus is drawn towards the mobilization of private sector (both domestic and international) funding and participation in matters relating to climate finance and climate actions with specific rally being paid to private actors in developing countries particularly on climate change adaptation. The study also sought to establish other approaches that governments could use to encourage additional investment in climate change adaptation by independents, sole trader and other trader. Particular focus was made on the role of public sector in 'mobilising' the private sector for the implementation of National Adaptation Programs of Actions (NAPA) of relevant countries. Therefore, the study realized that although private sector involvement is both inevitable and highly potent in delivering the financing of the private sector for climate change adaptation the roles of the private sector are still unrecognized and un mainstreamed in the NAPAs. Perhaps this has led to low participation of the private sector in financing climate adaptation via linkage with both private and public players.

#### **2.3.2.5 Culture and the Resilience of Climate Vulnerable Communities**

Roger et al., (2020) conducted a systematic literature review in Botswana, Kenya and India to examine the moderating effects of culture in climate change adaptation from a viewpoint of whether adaptation policy and practice is fixed, singular or limited in its imagination. Regarding the purpose of the study, conservative cultural norms were the main theme of interest, in as much as how they impact on the prevention of positive change processes particularly towards climate change adaptive and resilience measures. The study is considered relevant to the present study as it was conducted in ASAL areas in Botswana, Kenya and India where multiple body of knowledge were explored around thematic areas namely, (a) a multiple

knowledge system in farming in Botswana; (b) the values and Livelihoods of pastoralists in Kenya; and (c) Caste and Livelihoods in India.

In examining the moderating function of cultural structures on the way we apprehend and respond to climate change, Roger et al., (2020) drew from Roncoli, Crane and Orlove (2016) work which discussed the influence of cultural structures on perceptions, knowledge, values and behavior. Following this line of reasoning, the study of Roncoli et al., (2016 cited in Roger et al., 2020) emphasized that to improve the adaptation programming across the world it is crucial to know how concepts of the nature and the number of risks, confidence in sources of information, priority of actions, acceptability of responses and expectations as to who is capable or incapable of acting affect the cultural processes at least to some extent. For example, in Botswana the study observed that one of the regular discursive topics was how the understanding and practiced application of culture intertwined with knowledge creation, knowledge improvement as well as how knowledge dissemination across generational divides influenced agriculture practically including chances for coping with climate change. Research carried out in Bobirwa Sub-District of Botswana has revealed that complication of national and traditional meteorological forecasting by livestock's farmers and Tswana crop exploits farming techniques to manage large variability in climatic conditions. The climate has also been predicted using traditional means based on biological, astronomical and atmospheric factors. Traditional knowledge containing pieces of information reported in the study by Roger et al (2020) included a case where farmers might monitor plants and see when they were flowering, monitor animal behavior and perceive certain shapes of clouds in order to determine which crop to plant, at what time and when to weed. But yet the study revealed that from the farmer's interviews, the use of these traditional sources is diminishing.

Other previous studies have stated that culture is central to a people's attitude towards and responsibility towards nature, environment and therefore climate change. Quandt (2019) realized that there are cultural factors that both affect how users of climate change information understand risks, impacts and adaptation measures and sometimes lead to resistance to change as observed by Antwi-Agyei, Dougall, & Stringer in their work done by Roger et al., (2020). Some of the aspects are as follows the cross values and preferences which leads. This consists of the possibility of religious beliefs to lead to unfavourable reactions to seasonal predictions, as established in Botswana and for fundamental beliefs and preferences to play the roles of barriers to change from one type of livestock to another as found in Kenya in a study by Volpato & King (2019) and cited in Roger et al., (2020). Roger et al., (2020) also notes that most of

culture is constructed and recreated in the codes of institutions formal and informal which profoundly shape the openings for action as is evident from culture of caste and migration in India.

Cacciotti et al., (2024) embarked on a study on the methodology of vulnerability in cultural heritage in extreme climate change. Conducting the study with an aim of helping and enhance the climate change adaptation ecosystem, the study aimed at adopting and applying an agreed vulnerability assessment methodology with the protection of vulnerability assess risks heritages at heart. To do this, the study illustrated how the Interreg Central Europe methodology on the vulnerability of cultural heritages to extreme weather conditions. The study was confined to three major basic requirements in determining cultural resilience to climate change: vulnerability, contact and immunity. The study employed and used a Multi-Criteria Decision Making (MCDM) also known as Multiple-Criteria Decision Analysis (MCDA) as a technique powerful enough to model and integrate diverse factors to assess and rank various threats to build heritages and cultural landscapes that prone to hydro meteorological risks including heavy rains, floods or intense droughts.

Especially, the study advocated for MIVES (Spanish acronyms that mean “Modelo Integrado de Valor Para Una Evaluation Sostenible,” which Interpret as, Integrated Value Model for Sustainability Assessment) as developed by Boix-Cots et. al., (2022). This model is a development from Multi-Attribute Utility Theory (MAUT) and analytical hierarchy process. Cultural heritages have much more considerations and requirements depending on the societal and cultural values attributed to a given heritage. This translates the use of welfare of a MCDM approaches in the sense that the vulnerability problems associated with a given cultural heritage under threat of climate extremities are structured then evaluated considering certain prior defined criteria and against the backdrop of a pre-specified objective of vulnerability risk reduction. MIVES Strengthens and simplifies the use of MCDM Approach by considering three different levels of vulnerability assessment and evaluation: It covers quite a bit of information in several categories: Requirements Indicators and criteria (Sub Criteria). In the first two levels of MIVES Vulnerability Assessment the overall and qualitative approach to determine cultural vulnerability to climatic extremities is described while in the last level indicators level concrete and quantitative assessment forms the measure in Vulnerability Assessment.

Cacciotti *et al.*, (2024) study summarized susceptibility criteria and sub criteria by identifying susceptible items to include: Buildings, Built/Human made features, vegetation, Topography, Geosphere, Hydrosphere. The study identified the following sub-criteria under each criteria to include buildings-Constructions and materials use of the building, state of conservation and previous farming interventions, Built/Human made features. Built elements of decorations, water features, circulation features and state of conservation and vegetation-Trees, Grass/Shrubland, use of vegetation (botanical, conservation, ornamental, cultural heritage or commercial). Trees were assessed by their species, age and slenderness ration. Also considered were land use and current status of the objects conservation Geosphere assessment covered the bed rock, soil types and geomorphology. The hydrosphere dealt with ground water, surface water and sea.

Topography of the site was assessed in accordance with the following criteria: Geosphere (first, the physical properties of the bedrock, second, the properties of the soil, third, certain aspects of the shaping of the site referred to as geomorphology. Also evaluated by the tool included other movable cultural heritage assets such as curving, paintings, books and artwork. Consequently, the study offered an evaluation scale in relation to each sub-criterion of susceptibility in order to facilitate the evaluation of the susceptibility index under each criterion. The study then proceeded to total the description of the testing sites pointing out the geographical location, their heritage types and the related category. It also provided a more detailed operationalization of what was at risk as outlined in the table and proceeded to capture major risks affecting the cultural heritage sites in the study. The study employed case study to identify and evaluate vulnerability situations in fifteen study areas clustered in Seven European Countries of Italy, Hungary, Germany, Czechia, Austria, Croatia and Slovenia, which put the research on a broad class of Sites of cultural and natural significance including cultural landscape, historic/Medical gardens and parks, architectural, archaeological, wired small village and historic structures.

In another study by Rachael, Sara, Michael, Vladimir and Peter (2024), the researchers intended to evaluate vulnerabilities and priorities for climate change in protecting cultural heritage, planning at Collier County Southwest Florida in USA. The study was motivated by the realization that cultural resources within communities are oftentimes overlooked when climate change mitigation and adaptations are designed and developed especially when the topic of resiliency is discussed and measures to improve resiliency are mooted. Despite culture being an integral component of community integration, identity and the restoration of a sense

of normalcy after significant episodes of extreme weather events remain a challenge, threatening the very existence of heritage in communities affected by adverse impacts of climate change.

While Cacciotti et al., (2024) study utilized a complex Geo tool referred to as ACUNE in climate adaptation, to assess how cultural resources in Collier County in Southwest Florida might be affected in two climate settings. Out of ten cultural sites, measuring cultural site vulnerability to extreme weather events using the ACUNE were as follows; The use of exposure adaptive capacity, sensitivity, hazard and the environmental, economic and social losses Cultural resource vulnerability tool assessment was again applied by Cacciotti et al, (2024), Rachael et al, (2024) too used a case study to assess the vulnerability of cultural resources in Collier County into the next decade (2020-2030). The implications deduced from this case studies were to awaken the managers that prompt actions were required for the most valuable sites of the identified research, according to this study the cultural resources were described as the remains of the human activity as the structures that can tangible and intangible including but not limited to; historic structures, archaeological sites, cemetery and cultural attachable landscapes, to in order to qualify to be a cultural resource. A resource of this type must offer an essential account of the accomplishments, expectations, behaviours, beliefs and demographic character of a people and aid in connecting contemporary societies temporarily and in space.

The study highlighted that global climate change phenomena is to a large extent eradicating the temporal and spatial connections of the modern communities and that quality of life of the modern communities is being negated, thus a loss of Cultural Heritage to the affected as well as to international societies. The study used all of the methods to gather data from Collier County; ACUNE Geo Tool, Technical working group for vulnerability assessment and full county site count along with the same to identify the large scale changes in site impacts. The study revealed that the above-mentioned methodology is helpful for those efforts where attempting to incorporate cultural resilience in to adaptation planning to those which are once incorporated into planning, they are continually used for policies and decisions for the protection and conservation of cultural heritage sites for future generations despite increasing daily extreme climate and weather events.

From the above brief synoptically reviewed literature of the role of culture on resilience building among climate vulnerable communities, it is observed that little literature has ever linked culture with business partnership facilities and little studies conducted on the moderating

influence of culture on the relationship between business partnership facilities and the resilience of climate-vulnerable communities in Turkana County, Kenya. This study gap calls for a further empirical inquiry into the body of knowledge on resilience of climate-vulnerable communities as influenced by business partnership facilities and moderated by culture.



## 2.4 Summary of Literature and Research Gaps

The following section presents the summary of the literature reviewed, highlighting the author and title of the study, study objectives, study methodology, key findings and gaps.

**Table 2.1 Summary of Literature and Research Gaps**

Author	Title	Objectives of the Study	Study Methodology	Study Findings	Gaps in the Study
Kate et al. (2021)	Where do MSPs stand in regards to adaptation to Climate Change? Discussed below are some of the case experiences from private sector adaptation in Kenya. Climate Risk Management, volume 32, article number: 100319-year: 2021	This research aimed at analysing the degree to which the MSP potential in SME adaptation is being realised in actuality by interviewing partners that are involved in designing and implementing MSPs.	Desktop Literature Review and Key Informant Interview	The study elucidated that many expectations are often deposited in both MSPs and their functions especially the development and the adaptation ones in SSA. Through stakeholder collaboration and investment in activities ranging from research and data, relationship building, training and capacity building and access to finance as well as Business incubation, the current study elucidated that MSPs in Kenya can engage a range of various players in the private sectors to mobilize adaptation resources for SMEs.	The study also however asserted that this existence of number of limitations to current applications of MSP model for supporting SMEs adaptation in Kenya still constrains the optimum realization of MSPs as a Business Partnership Financing model exist. The study has therefore suggested strategies of alternative reflection on the function of the public sector in delivering the MSPs for SME adaptation and that such reflection should be aimed at eliminating the parallelism.
Pauw & Pegels (2013).	Private sector engagement in climate change	The study aimed at identifying theoretical frameworks for	The study adopted a desktop review of lessons learnt	The study also noted that developing countries were in the process of designing and	The gap that emerged in the course of performing the study was that there is

	<p>adaptation in least developed countries: an exploration. Climate and Development: Vol 5 Issue 3, Page Range: 257 - 267.</p>	<p>engaging the private sector in adaptation by answering two research questions: The two research questions are as follows: (1) how has the engagement roles of the private sector in adaptation has being described in developing countries? and (2) how have governments fostered the private sector for climate change adaption? Programmes of Action (NAPAs). Second, the study examined how 47 poorest nations referred to as least development countries (LDCs) anticipate involvement of private sector in National Adaptation</p>	<p>over the years from developing countries on the roles of the private in climate adaptation and mitigation. It also attempted to distinguish between “domestic private sector ‘adaptation’ and ‘international private sector for adaptation’”.</p>	<p>implementing policies that can foster economic transformations given by investment, productivity and firms’ expansion and employment generation. The study also discovered that for adaptation financing, smallholder farmers and small businesses in climate vulnerable developing countries rely chiefly on the domestic sources of other forms of finance. The study pointed out that as important as domestic financing, poorest and marginal sector of society still lacked private finance.</p>	<p>scarce focus on the NAPAs concerning the private sector involvement in adaptation and financing which is contrary to the case with mitigation that exists in other discourses and practices of climate change, particularly with the business partnership financing models that are now the main theme of the current research.</p>
<p>Munga et al. (2022)</p>	<p>Unlocking Climate Finance Potential for Climate Adaptation: Case: Climate Smart Agricultural</p>	<p>The study was undertaken with the aims of providing an understanding of climate smart</p>	<p>The study methodology involved a detailed desktop study on situational analysis</p>	<p>The study found out that in the shortlisted countries, the following challenges were noted: (i) Duplex policy making weak signal on</p>	<p>The study established that national government in Sub-Saharan Africa are evidently engaging their local budget efforts to</p>

Financing in Sub Saharan Africa	<p>agriculture in SSA and assessing the possibilities of Climate finance in SSA. The study also aimed at establishing the exact involvement of the critical stakeholders in sourcing and providing financing the CSA related targets and the private sector. It also aimed at to examine where and how the significant climate finance opportunity is in SSA can through Public-Private, Private-Private and Public-Private-Civil Society Partnerships selected countries in an effort to address some of the challenges and barriers that have often resulted to poor provision for climate funding in the national budget such as financial, policy, awareness and inadequate.</p>	<p>of potential countries; estimation of climate investment potential base of the respective countries' GDP and NDCs; and an analysis of Climate Smart Agriculture (CSA) Financial Potential and Barriers associated with CSA Financing.</p>	<p>climate change. (ii) Poor and uncoordinated preparation for climate funding in the national budgets of the respective country. This comprises insufficiency in regard to the capability of the government to meet the desired standards and procedures that are required in arriving at backing feasible projects and bureaucratic funding mechanisms. Poor understanding and or awareness on the sources of climate finances as well as; limited and/or constrained involvement of the private sector stakeholders. (v) Absence of understanding climate change as a developmental and environmental issue that results in the segregation of finance and issues prevention.</p>	<p>finance low carbon and climate resilient development through domestic budgetary support and enrolled to international programs and strategies that cannot alone propel the financing for sustainable development hence the call to enhanced business partnership financing.</p>
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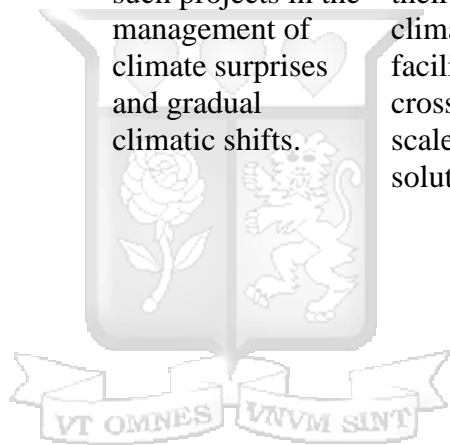
UNDESA and the Partnering Initiative (2020).	Maximizing the Impacts of Partnerships for the SDGs: A practical guide to partnership value creation. 1 <sup>st</sup> edition.	The guidebook serves purposes of enabling organisations and partnerships into achieving a right position for enhancing value co-created for sustainable development.	The guide book is organized into three parts – contextual information on different types of cross-sector partnerships; various sorts of partnerships and value creation through collaboration; and Guide for practical actions based on typical “partnering cycle”.	The guide book has demystified the concept of “value” and “value creation” in cross-sector partnerships and explained the types of value that partnerships can uniquely create while exploring the range of partnerships that can be established through such partnerships. The guidebooks has also looked into contributions that cross-sector partnerships can make towards the realization of SDGs.	This is not an extensive review of cross-sector partnership but a pragmatic guide to getting the most of a partnership. Their aim is to add to and expand other more comprehensive discussions of the theory and application of cross-sector partnership.
Yue (2023)	Climate change: formation of common synthesis in resistance of business organization and society. Some of the papers presented at the 2nd International Conference on Financial Technology and Business Analysis.	The research focus in the study was to establish the correlation between climate change, coupled with extreme weather events and the increased urbanization of societies and their impacts on businesses and society.	The research adopted an inter-disciplinary perspective to analyse the integration between urban development, industrialization, economic development and environmental impact. The study used Historical journal literature	The study emphasized on the critical role of business in building climate-resilient business practices including but not limited to climate-resilient supply chain systems, energy transition towards NET ZERO, Environment Sustainability and Governance reporting and supporting communities to promote environmental sustainability practices.	The study noted that there is a need to rally the government, business, communities, academia and research institutions to develop suitable solutions to address complex and intricate climate change-related challenges

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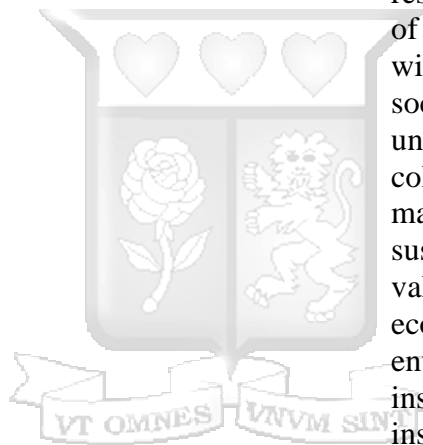
Vogel et al., (2020)	Cross Sector Partnerships: Overviews of the Field and Proposals of an Institutional Conceptualization	To map the field of Cross-Sector Partnership approach and to advance an institutional approach to this type of business financing partnership.	mapping approach in order to review cooperative action of the government, business and civil society in the development of acclimatization strategies that improve climate flexibility.	The study set out to map the field of research on cross-sector type of business partnerships using a Bibliometric Network Analysis (BNA) Methodology to quantitatively analyze formal communication among authors of scholarly publications	The study established three different clusters of cross-sectional partnerships: Business-Non Profit Partnerships (BPPs) that is aimed at addressing social issues and creating social values; Public-Private Partnerships (PPPs) designed to allocate risks, measure performance and identify success factors; and Collaborative Governance that is based on the premise that the assigned tasks share common interest in networked forms of public governance with high involvement of stakeholders and community members beyond government.	Main gap identified in this study included the inconsistencies and conflicts among institutional logics is likely to render cross-sectoral partnership a mirage
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Cacciotti (2024)	The method for the assessment of vulnerability of culture heritage for extreme climate changes	The study intended to assist and support climate change adaptation ecosystem to address the protection of cultural heritages at risk	<p>The study also took and used an agreed vulnerability assessment methodology. The study utilised a case study method in order to survey and analyse vulnerability situations in fifteen case study areas located in seven European countries of Italy, Austria, Hungary, Slovenia, The Czech Republic, Croatia and Germany encompassing a cross section of the cultural and natural historic of the seven areas classified as cultural landscape, historical garden and park, archaeological site, wired small village</p>	The study summarized susceptibility criteria and sub criteria by identifying susceptible items to include: Buildings, Built/Human made feature, vegetation, Topography, Geosphere and Hydrosphere.	More in-depth studies is required on the use of the study findings in local contexts of climate adaptation among at risk and vulnerable communities
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Graham (2020).	Managing Climate Change: Climate partnership for resilience: multi-stakeholders and sub-Saharan Africa.	This paper looked at selected climate resilience-handling endeavours that have been undertaken in sub-Saharan Africa through various stakeholders.	and historical buildings. The study adopted the vulnerabilities assessment approach in determining the strategic significance of such projects in the management of climate surprises and gradual climatic shifts.	This paper identifies many barriers in constructing climate change resilience in sub-Saharan Africa but notes a growing trend of the countries forming partnership with stakeholders to enhance their ability to collaborate on climate finance efforts and facilitate the development of cross-cutting partnerships to scale up new climate solutions..	It failed to explain how the methodological approach used in the study was operationalised to arrive at the study conclusion that despite the recognised improvements in climate resilience, Sub-Saharan region still faces several challenges that need to be overcome in order to achieve the desired goal and that through multi-stakeholder partnerships, nations in Sub-Saharan African are developing more capability that allows them to develop collective action of pooling resources and financing and scaling up innovate climate solutions.
Rafael et al. (2023).	Cross-Sector Partnerships & Sustainable Development: Counter-Arguing Optimism	Objectives of the study was not clearly spelt out but its focus was on evaluate influence of Cross-Sector Partnership on	The study conducted an in-depth counter-arguing optimism using a double-blind literature	In the study, there were two primary conceptualizations of cross-sector partnerships. One of them is in agreement with the optimism of the main literature on cross-	Even though the study is relevant to the present study, it failed to illustrate its methodology in building its counter-arguing optimism.



Sustainable Development	review methodology.	<p>sector partnerships for sustainable development. The other is in correlation to the view questioning optimism. From a more positive angle, cross sector partnerships are systemic responses as partnership formations are strategically integrated from resources and competencies of organizations associated with the public, private and social sectors. They undertake work that is collectively useful to fix a market failure, thus attaining sustainability in generating value for the SSE, socio-economic and socio-environmental commons, instilling reforms in institutions and participating in political and economic globalization. From a more critical perspective, cross-sector partnerships are about democratically deficient and essentially paradoxical endeavours. Since partners have different stakes and goals, they transgress the professional and institutional</p>	<p>However, its findings vividly support the vital position of Cross-Sector Partnerships in achieving sustainable development. The current study will delve into the recommended research gaps in this study to further respond to the listed study outcome indicators as outlined in the Conceptual Study Framework</p>
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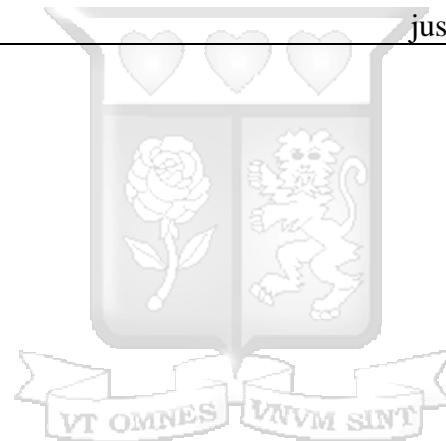
				boundaries, potentially producing high global potentiality that warp NSPs and interrupt consistent commitments to communities.	
Mukhongo et al. (2023)	Strategic Partnerships and Organizational Performance of Broadcasters in Kenya	The overall research aim of the study was to identify the extent of strategic partnership to organisations. Corporate performance of Broadcasters in Kenya.	Descriptive survey and correlation were the research designs which were used in the study since they are most suitable in systematic description of a situation, population and phenomenon The research design also enabled the researcher make an accurate description of the dependent and independent variables and responding to what, where questions, when and how questions of the variables.	A relationship was formulated by the study to attest that there is a significant correlation between strategic partnership and organizational performance..	The study objectives failed to capture critical indicators used to determine the influence of strategic partnerships on business or organizational performance. The present study has demonstrated some of the indicators in its conceptual study framework that will be used to bridge this gap.
Potts (2021)	The Role of Culture and ‘Strategies for Climate Resilient Development’, UCLG Committee	The study was expected to help improve awareness of the cultural enabling	The study used desktop research approach, to analyze and document the Role of Culture in Climate Resilient Development, more	The study found out that the role of culture in climate resilient development is enormous and include among others: anticipating, perceiving,	The study did not focus on cross-border resilience among communities with shared cultural values and indigenous practices that the present study now seeks to fill.

on Culture, Report n°10. Working Group 5, Climate Heritage Network, Barcelona, 5th November, 2021.

conditions if not entirely succeed. to advance Climate Resilient Development

specifically, Strategies for Strengthening Climate Policies and the Promotion of Transformational Climate Action while Advancing Sustainable Development.

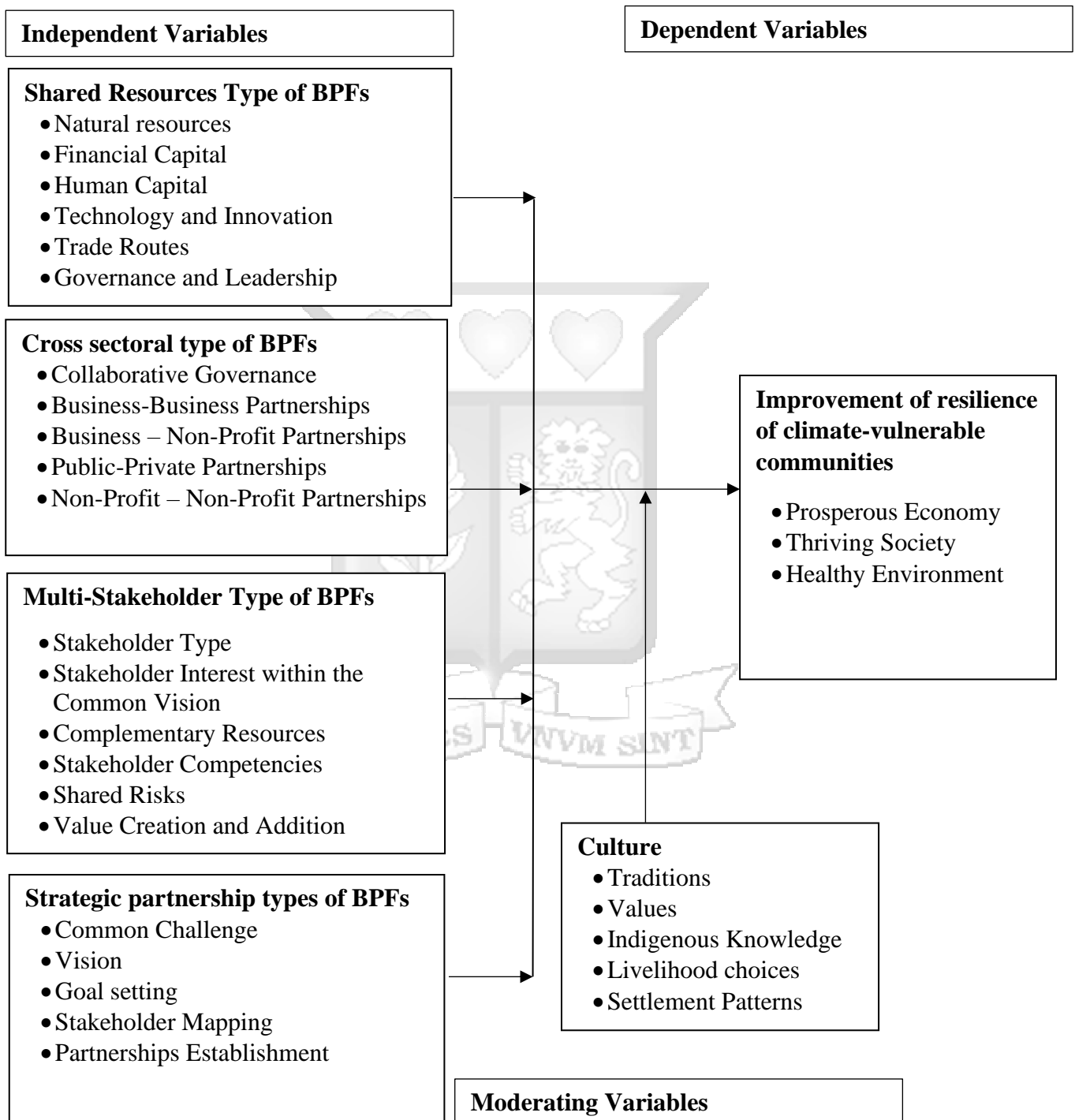
mobilizing, working with, deciding on, planning for and owning the intersections between and with carbon and climate, working beyond waters' edges, partnering, sensing trade-offs (and opportunities) and attending to equity and justice.



## 2.5 Conceptual Framework

The conceptual framework provides a graphical illustration explaining the nexus between the predictor and outcome variables as shown in figure 1 below.

**Figure 2.1 Conceptual Framework of the Study**



Source: Researcher (2025)

## 2.6 Operationalization of Study Variables

This is presented in table 2.1

**Table 2.1: Operationalization of study variables**

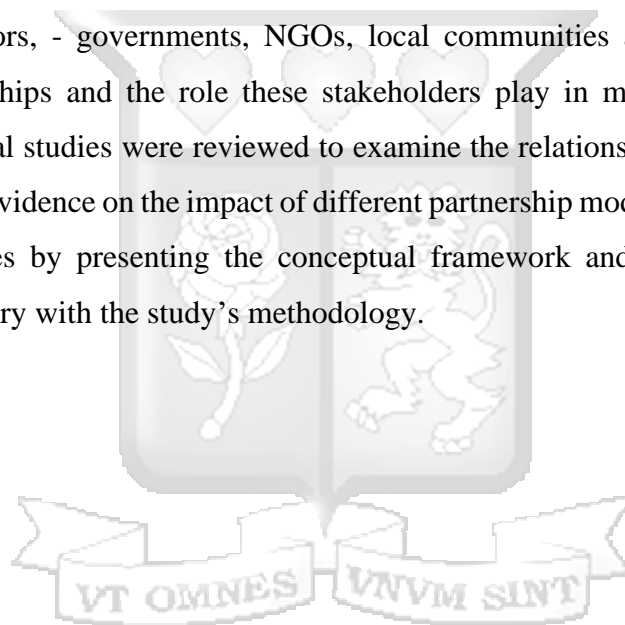
Concept	Variable	Indicator	Scale	Supporting Literature
Independent Variable	Shared Resources	<ul style="list-style-type: none"> <li>• Natural resources</li> <li>• Financial Capital</li> <li>• Human Capital</li> <li>• Technology and Innovation</li> <li>• Trade Routes</li> <li>• Governance and Leadership</li> </ul>	ordinal	<ul style="list-style-type: none"> <li>• UNDESA and the Partnering Initiative (2020).</li> <li>• Yue Zou (2023)</li> <li>• Gardiner et al., (2016)</li> <li>• Jen C Dyer et al., (2013)</li> <li>• De Souza (2023)</li> <li>• Delloite (2016)</li> </ul>
	Cross Sector Partnerships	<ul style="list-style-type: none"> <li>• Collaborative Governance</li> <li>• Business-Business Partnerships</li> <li>• Business – Non-Profit Partnerships</li> <li>• Public-Private Partnerships</li> <li>• Non-Profit – Non-Profit Partnerships</li> </ul>	ordinal	<ul style="list-style-type: none"> <li>• Vogel et al. (2020)</li> <li>• Meyer et al., (2014)</li> <li>• De Souza (2023)</li> <li>• Chen et al., (2022)</li> </ul>
	Multifaceted Approach	<ul style="list-style-type: none"> <li>• Stakeholder Type</li> <li>• Stakeholder Interest within the Common Vision</li> <li>• Complementary Resources</li> <li>• Stakeholder Competencies</li> <li>• Shared Risks</li> <li>• Value Creation and Addition</li> </ul>	ordinal	<ul style="list-style-type: none"> <li>• UNDESA and the Partnering Initiative (2020).</li> <li>• Kate et al., (2021)</li> <li>• Anabaraonye et al., (2023)</li> <li>• Bulmen and Benito (2023)</li> <li>• Momen (2021)</li> </ul>

	Strategic Partnerships	<ul style="list-style-type: none"> <li>• Common Challenge</li> <li>• Vision</li> <li>• Goal setting</li> <li>• Stakeholder Mapping</li> <li>• Partnerships Establishment</li> </ul>	ordinal	<ul style="list-style-type: none"> <li>• Setyawan et al., (2022)</li> <li>• Mukhongo et al., (2023)</li> <li>• Pauw and Pegels (2013)</li> <li>• Kate et al (2021)</li> <li>• UNDESA and the Partnering Initiative (2021)</li> </ul>
Moderating Variable	Culture	<ul style="list-style-type: none"> <li>• Traditions</li> <li>• Values</li> <li>• Indigenous Knowledge</li> <li>• Livelihood choices</li> <li>• Settlement Patterns</li> </ul>	Ordinal	<ul style="list-style-type: none"> <li>• Roger et al. (2020)</li> <li>• Roncoli et al., (2016)</li> <li>• Quandt (2019)</li> <li>• Cacciotti et al., (2024)</li> <li>• Rachael et al., (2024)</li> </ul>
Dependent Variable	Improvement of resilience of climate-vulnerable communities	<ul style="list-style-type: none"> <li>• Prosperous Economy</li> <li>• Thriving Society</li> <li>• Healthy Environment</li> </ul>	ordinal	

The categorization of business partnerships in the conceptual framework, including shared resources, cross-sectoral, multi-stakeholder, and strategic partnerships, was derived from literature such as UNDESA and the Partnering Initiative (2020), Deloitte (2016), and Vogel et al. (2020). These sources emphasize diverse partnership models for sustainable development and climate resilience, highlighting collaborative governance, resource pooling, and stakeholder engagement, tailored to address Turkana County's climate vulnerabilities and community needs.

## 2.6 Chapter Summary

Chapter 2 has provided an in-depth literature review, examining the theoretical frameworks and empirical studies relevant to the research. The chapter introduced Sustainable Development Theory (SDT), Resilience Theory and Stakeholder Theory as the core frameworks for understanding the role of business partnerships in enhancing resilience. SDT explores the intersection of economic growth, environmental sustainability and social equity, offering a comprehensive perspective on how BPFs can foster sustainable development in climate-vulnerable communities. Resilience Theory focused on adaptive capacity, emphasizing how communities can withstand, recover from and thrive in the face of climate shocks. It underscored the importance of transformative resilience, which moves beyond recovery to include long-term systemic change. Stakeholder Theory highlighted the importance of engaging diverse actors, - governments, NGOs, local communities and private entities in collaborative partnerships and the role these stakeholders play in managing climate risks. Additionally, empirical studies were reviewed to examine the relationship between BPFs and resilience, providing evidence on the impact of different partnership models in similar contexts. The chapter concludes by presenting the conceptual framework and operationalization of variables, linking theory with the study's methodology.



## CHAPTER THREE

### METHODOLOGY

#### 3.1 Introduction

This chapter analyses the research design of the study. The sampling frame, sample size and techniques are discussed. Data collection tools and data collection procedures are explained. Ethical considerations and data processing for the study are then discussed.

#### 3.2 Research Philosophy

All studies need research philosophies to establish guides for both methodology structure and data collection methods while defining interpretation strategies. The main research paradigms consist of positivism and post-positivism and interpretivism with pragmatism which present unique views regarding epistemology and ontology and methodology. The research philosophy selection process centred on study objectives together with research question qualities and selected methodology definition. This study selected pragmatism as its research philosophy because it enabled the mixed-methodological approach alongside the practical needs of the stated research objectives.

The model allowed researchers to measure observable factual reality by focusing on objective outcomes and using quantitative approaches, according to Lerigo-Sampson, (2022). The approach provided clear findings and broad application yet struggles to handle subjectivity which typifies social research investigation. The development of post-positivism past positivism recognized complete objectivity boundaries thus it brings qualitative exploration tools to study situations affecting observed events (Phillips & Burbules, 2000). Under interpretivism researchers examined individual subjective realities through qualitative assessment of lived experiences of participants. This study required assessment of causal relationships and generalizable findings and interpretivism falls short in achieving both outcomes.

The dual nature of pragmatism transformed research while occupying the space between positivism and interpretivism through its practical methodological strategy which involves multiple data collection methods (Creswell & Plano Clark, 2017). Research practitioners prioritized practical hands-on solutions which benefited real-world problems over strict adherence to a single ontology or epistemology. Operationally speaking this research approach fitted mixed-method designs because it enabled researchers to combine quantitative and

qualitative methods which generated detailed research outcomes. The exploratory study benefited from pragmatic principles since it analyzed how business partnership facilities influenced organizational resilience along with cultural dynamics by providing broad methodological flexibility in research approach.

The researcher adopted pragmatism because it delivered practical results and allows quantitative and qualitative methods blending to address study questions. This research examined causal links between business partnership facilities and resilience by using quantitative data analysis and insights into cultural moderation through qualitative approaches. Research conducted via pragmatism enabled investigators to find middle ground between different approaches without philosophical shackles so it became ideal for multi-research questions. Supporting the study's goal for actionable recommendations concerning Turkana County communities' climate resilience through practical business partnerships, pragmatism proves compatible.

The research employed pragmatic philosophy to retain methodological flexibility along with real-world applicable findings for Turkana County. The chosen philosophy placed importance on creating useful knowledge which served to guide policymakers in formulating programs to enhance community resilience. Morgan (2022) demonstrated that pragmatic research flourished through examining research problems by joining various analytical techniques when investigating complex challenges. This study selected pragmatism as its guiding philosophy because it supported research objectives and brought together theoretical insights and practical applications to enhance understanding of resilience and sustainable development efforts in climate-vulnerable communities.

### **3.3 Research Design**

Research design can be defined as a topic and problem-orientation plan that a researcher follows in the conduct of scientific research (Yanchar & Williams, 2013). In the study, the researcher worked with descriptive and correlational research design. (Siedlecki, 2020). The first purpose was to achieve understanding from the subject with no interference with the variables. The study sought to gather information that can help in the accumulation of knowledge in the area of research. Descriptive research entailed data collection, classification, measurement and analysis and data interpretation. In addition to descriptive design, the study also employed correlational research design to examine the strength and direction of relationships between business partnership facility types and the resilience levels of climate-

vulnerable communities without manipulating any study variables. The design feature was crucial to the study as it helped to analyse the impact of business-partnership facilities on climate-vulnerable communities in Turkana County, Kenya. Specifically, the design; Assessed the influence of shared resources type of BPFs on resilience of climate-vulnerable communities in Turkana County, Kenya; determined the influence of cross-sectoral partnerships on the resilience of climate-vulnerable communities in Turkana County, Kenya; examined the influence of multifaceted approach type of BPFs; assess the influence of strategic partnership type of business facilities; to assess the moderating influence of culture on the relationship between Business Partnership Facilities and the Resilience of Climate-vulnerable Communities in Turkana County, Kenya.

### 3.4 Study Population

According to Adam, (2020) population is defined as the sum total of people who have one or more similar feature within a specific geographical region. The study’s target population was the 401 climate-vulnerable persons. According to Chemonics Report 2024, This comprised of; Business Partnership Facilities Beneficiaries (311), Local development organisations (LDOs) Directors (10), Local development organisations (LDOs) monitoring and evaluation officials (10), Turkana Department of Climate Change Officials Local administration officials (Assistant chiefs) (60) (Cheong, 2024). Table 3.1 showed the study’s target population: -

**Table 3.1 Target Population**

Sample frame	Target Population	Percentage
Business Partnership Facilities Beneficiaries	311	78%
Local development organisations (LDOs) Directors	10	2%
Local development organisations (LDOs) monitoring and evaluation officials	10	2%
Turkana county department of climate change officials	10	2%
Local administration officials (Assistant chiefs)	60	16%
Total	401	100%

**Data Source; Researcher (2025)**

### 3.5 Sampling

A research method known as sampling extracts a portion of the total study population to create the sample for investigation. Sampling enables researchers to collect data about particular

topics from broad populations while omitting complete population assessment (Maduga, 2020). Business Partnership Facilities beneficiaries and Local Development Organization directors, LDOs monitoring and evaluation team members, Turkana Department of Climate Change officials and the local administration each through assistant chiefs functioned as elements of the sampling frame. These subject groups were selected because their characteristics along with their expertise helped them resolve research questions effectively. A stratified sampling approach sorted the target population into various categories according to their position in research fields. Simple random sampling used within subdivisions of groups to pick participants provided fair opportunity to select each person from strata.

Yamane formula was used for sampling determination. Using Yamane (1967) formula, the study was able to attain the minimum sample size of 401 respondents. The formula states that, for any given population, the required sample size is given by;

$$n = \frac{N}{1 + N(e^2)}$$

- Where; n = the required sample size.
- N = the known population size.
- e = the significance level, which is = 0.05.

$$n = 401 / (1 + 401(0.0025))$$

$$n = 200.2$$

which is rounded off to 200

$$n = 200$$

Using proportional sampling for every category, the sample size for every stratum was as follows;

**Table 3.2 Sample Size**

<b>Sample frame</b>	<b>Target Population</b>	<b>Sample size</b>	<b>Percentage</b>
Business Partnership Facilities Beneficiaries	311	156	78%
Local development organisations (LDOs) Directors	10	4	2%
Local development organisations (LDOs) monitoring and evaluation officials	10	4	2%
Turkana Department of Climate Change Officials	10	4	2%
Local administration officials (Assistant chiefs)	60	32	16%
Total	401	200	100%

**Data Source; Research (2025)****3.6 Study Instruments**

The data collection combined qualitative and quantitative methods. Local officials under the title of Assistant Chief received questionnaires from the Business Partnership Facilities Beneficiaries group. The questionnaires consisted of five parts: Local administration officials completed questionnaires that included demographic sections and parts addressing study objectives. All participants followed step-by-step instructions to finalize the questionnaire documents illustrated below. The survey anonymity meant participants were not needed to put their names on the questionnaires.

Primary data collection through extensive interviews was undertaken with Local development organisations (LDOs) Directors and Local development organisations (LDOs) monitoring and evaluation officials and Turkana Department of Climate Change Officials. Researchers obtained critical insights about the study through these resources while their primary importance rested in their content. Acquiring information about subject occurrences depends heavily on interview methods (Jain, 2021). This data collection methodology gathered information about how Business partnership facilities strengthen climate-vulnerable communities' resilience.

The questionnaire was carefully constructed to align with the study objectives, ensuring it captured both demographic details and variables relevant to the influence of Business Partnership Facilities (BPFs) on the resilience of climate-vulnerable communities. It was

divided into five sections, each addressing a specific area: demographic information, stakeholder involvement, resource complementarity, partnership strategies, and resilience outcomes. Items were primarily close-ended and structured using a five-point Likert scale ranging from "Strongly Disagree" to "Strongly Agree" to facilitate quantitative analysis. The language used was simple and culturally appropriate, allowing respondents—particularly local officials and beneficiaries to understand and respond accurately.

### **3.7 Pilot Study**

A pilot test was performed to assess the feasibility adequacy and relevance of the data collection methods. Their main function was increased in order to strengthen the design of the instruments and the identification of their shortcomings. The study recruited 20 participants from Turkana County. From the research of Lathifah et al., (2021), the researcher postulated that pilot sample should account for about 10% of the anticipated sample size for the major study. In the course of the pilot test, the researcher had to point out the procedural and activity flaws. Time taken to finalize the questionnaires was used to ascertain the feasibility of the questionnaire. The pilot study involved 20 climate-vulnerable persons who were not included in the final study findings.

### **3.8 Instrument Reliability**

Reliability means the extremes of an instrument accurately measures the variables that it is supposed to measure (Mohajan, 2017). Greater emphasis was on accuracy in the sense that the results obtained using the instrument were similar or nearly same whenever the same test was repeated. In order to regulate the reliability of instruments used to collect data, two procedures were used. The first approach of measurement was the test-retest approach that enabled the assessment of the amount of consistency in the responses. This involved giving the same instrument to the same persons at different time and compared their responses to check on their reliability. Reliability included internal consistency and this tested the extent to which individual questions in the instrument really match the construct being measured. An overall Cronbach's Alpha value estimate of 0.901 was obtained in this study, which was considered reliable to warrant data collection (Segal & Coolidge, 2018).

**Table 3.3 Cronbach's Alpha per Variable**

<b>Variable</b>	<b>Cronbach's Alpha</b>
Shared Resources type of BPFs	0.872
Cross sectoral type of BPFs	0.889
Multi-Stakeholder type of BPFs	0.879
Strategic partnership types of BPFs	0.923
Culture	0.912
Resilience of climate-vulnerable communities	0.899
Overall	0.901

Multiple researchers participated in conducting interviews with the help of the schedule to validate inter-rater reliability by coding response data. The research team analyzed interview data separately then compared their individual code results to confirm similar interpretation of participant answers. Through this systematic process ratings obtained using the interview guide show consistent results no matter who administered the understanding sessions. To improve data reliability researchers conducted thorough discussions about coding conflicts followed by changes to the coding mechanism. Research results succeeded in presenting robust trustworthy findings by preventing individual biases or interpretations through this method (Cohen, 1960).

### **3.9 Instrument Validity**

Validity in turn, decide whether the instruments serve the intended purpose or not (Taherdoost, 2016). No unnecessary questions were on the questionnaire since only important questions were addressed. Content validity aimed at checking whether the instruments are a good sample of the research objectives end goals. All questions that turn out to be unrelated during the pilot study were replaced. Design validity was utilised in assessing the reliability of the instrument tests. The researcher documented the extent of relationship between the results got from the instruments used on the participants in the pilot study. This enabled one determine whether the outcome of using the instruments was consistent and if it was reliable.

A review process of the interview guide was conducted by the research supervisor together with an expert in climate change. Two experts evaluated if all essential content related to the research lied within the questions which targeted climate resilience and business partnership aspects. The expert review from their team directed critical adjustments to improve both the depth of collected data and alignment of interview questions with the defined research goals.

The expert review verified that research questions maintained both relevance and appropriateness for answering the research questions (Rosen, 2021).

### **3.10 Data collection**

According to the study, the researcher hired and oriented four research assistants. The objectives of the study were explained to the respondents and a package of questionnaires together with sufficient time for their completion was provided only by those willing to participate. After that, the completeness questionnaires were performed to check for its compliance to the requirements for completing the questionnaire. The researcher monitored all the elements for enhancement of resilience of climate-susceptible communities in Turkana County, Kenya. Each event listed in the observation checklist was ticked off against the observable. After the pilot administration of the questionnaires, the researcher set interview dates. This involved fixing of interviews with the official at least two weeks before the day of the interviews. The interviewees were introduced to the objectives of the study; each Interview session took thirty minutes on average to obtain as much information as possible (Oben, 2021). The interviewed were recorded so that they can be referenced for analysis (Barrett, 2021).

### **3.11 Data Processing and Analysis**

The reliability of the questionnaires was checked. Editing, coding and tabulation was used in cleaning and analysing the data in order to determine any odd patterns in the responses. Each of the responses given was given a particular numeric value for the next analyses. The packaging and analyzing of the data required use of the Statistical Package for Social Sciences (SPSS). Again, for the quantitative data, frequencies, means and percentages were used. In qualitative data, measures of central tendency helped firstly in understanding the general distribution of the collected data and the identified patterns and trends in the responses taken into account.

Primary data that was collected through the interviews was analyzed constructively thematically. Interview responses were analysed in order to gain insight into the pre-existing and emerging patterns within the data collected. Conclusions and recommendations for analysis was in the form of graph, narratives and tables.

Pearsonian correlation coefficients were used to establish the nature of the relationship between the study variables and the strength of the relationship. A Pearson Product-Moment Correlation Coefficient was run alongside Spearman rho. SPSS was used to calculate two types of

correlation as presented in the Ordinary Least Squares (OLS) regression models presented below:

$$\text{Res} = B_0 + B_1\text{SR} + B_2\text{CS} + B_3\text{MS} + B_4\text{ST} + e \dots\dots\dots (1)$$

$$\text{Res} = B_0 + B_1\text{SR} + B_2\text{CS} + B_3\text{MS} + B_4\text{ST} + B_5\text{CL} + B_6\text{SR} * \text{CL} + B_7\text{CS} * \text{CL} + B_8\text{MS} * \text{CL} + B_9\text{ST} * \text{CL} + e \dots (2)$$

Where:

- Res** = Resilience of Climate Vulnerable Communities
- CL** = Culture
- SR** = Shared resources Type of Business Partnership Facilities
- CS** = Cross-sectoral Type of Business Partnership Facilities
- MS** = Multi-stakeholder Type of Business Partnership Facilities
- ST** = Strategic Partnership Type of Business Partnership Facilities

The following steps were followed in conducting the correlation analysis: Assessing the information about the sample, that is identifying the value N which refers to the number of cases, identifying a direction of the relationship between the two variables to be able to see if there was negative sign before the correlation coefficient value: this suggested that there was negative correlation between two variables meaning that as distances scored highly that media use scored low), identifying the kind of correlation to be used which had a negative sign before the value of the strength of the relationship was concluded in step three since the value of the correlation coefficient was determined. It was normally between -1.00 and +1.00. Cohen (1988, pp, 79 – 81) describes perfect negative correlativity as -1.00, zero correlativity meaning that there was no correlativity at all and a perfect positive correlativity of 1.00. Step four is where the researcher calculated the coefficient of determination to get the idea of how much variance any two variables share. This calculation was done by squaring the r value and then converting it to percentage of variance by multiplying the r<sup>2</sup> by 100. In this analysis, the smaller the percentages value of r, the lesser the overlap between two variables. The last step was to assess the level of statistical significance to determine how much confident the researcher was with the results obtained from the study.

### **3.12 Diagnostic Tests**

The study ran a diagnostic test to determine whether or not the multiple regression models as drawn for this study was not violated. This prevented skewness of parameter estimations. Consequently, the collected data was tested for multicollinearity, normality and heteroscedasticity.

#### **3.12.1 Multicollinearity Test**

Validity of questionnaires was ensured. Cleaning and analysis objectives applied editing, coding and tabulation methods to reveal any strange answers in the data. All of the responses given were assigned a specific numerical value for the subsequent analyses on each of the given responses. The research data obtained was classified and analyzed using the Statistical Package for Social Science.

As for the quantitative data, infrequencies, means and percentages were used for qualitative data. First of all, these measures of central tendency enabled the further analysis of the general distribution of the collected data and the patterns and trends established in the considered responses taken into account.

Data that was obtained from the interviews was analyzed constructively thematically. All of interview responses were then gradually analysed to achieving understanding of the existing and potentially developing in the structure of the data accumulated. The conclusions and recommendation for analysis was presented in form of graphic display, narrative and tabular form. The study considered a matrix of 0.8, as advised by Cooper and Schindler (2013). The study also considered tolerance levels and variance inflation factor (VIF). Multi-collinear variables were expunged from data and replaced with new metrics. Where multicollinearity was not considered, then infinite standard errors as well as indeterminate regression coefficients occurred and this resulted in enormous standard errors. Where such errors occur, accuracy of rejection or null hypothesis rejection failure is affected.

#### **3.12.2 Normality Test**

Normality test essentially comes under the assumption that the samples which are selected are derived from the normally distributed populations. The data was tested for normal distribution using normality test in order to check whether designed data was normally designed or to calculate the probability of the random variable underlying the given normal data set. Normality was tested in the study using non-parametric measures such as the Spearman rho

and the Kruskal-Wallis Test in aid of SPSS. This occurred by making a mathematical change to the scores with different formula until the distribution seemed normal.

### **3.12.3 Heteroscedasticity Test**

Heteroscedasticity enables the error terms to have no impact on the model's individual components. Ordinary least squares (OLS) were most affected by heteroscedasticity. While the estimator remained as being unbiased, the estimated standard error was wrong in this case.

### **3.13 Ethical Considerations**

This study conformed to four broad ethical standards as postulated by Gaižauskaitė and Valavičienė, (2023) as follows: Before setting out to collect data the researcher sought necessary permits from Strathmore University, National Commission for Science, Technology and Innovation (NACOSTI) and Turkana County department of climate change. Consequently, all randomly selected study participants voluntarily participated in the study. This was implemented by ensuring participants were fully informed of their rights, including the freedom to withdraw at any point without penalty. Participation was based on informed consent, clearly communicated in the questionnaire.

The researcher emphasized voluntariness during data collection and refrained from coercion, allowing respondents to skip any question or opt out entirely without facing any consequences. This implied that no single participant was coerced and or duped into participating in the study. It also implied that a participant can withdraw from the study at any point in time. The voluntary nature of participation was expressly stated in the study questionnaire by indicating that “the study is voluntary and a participant can withdraw from the study at any time and that he or she can choose not to answer some or other question(s); Informed consent by letting the participants to know that the purpose of the study was purely for academic work and that its data was not to be used for any other purpose whatsoever. The researcher also clearly identified herself and stated her affiliation.

The researcher took steps to inform her study participants of reasonable unforeseeable risks, embarrassment or discomfort (if any), likely benefits of the study, a short description of how they were selected to take part in the study, an offer to objectively and correctly answer questions and a statement that participation is voluntary; No harm to participants applied where there was a potential risk of harm while taking part in the study. While noting that the study took place in high security risk situations, the researcher ensured that all practical measures were observed to guarantee the safety and security of the respondents including reliance on

security intelligence apparatus and use of local people with knowledge of the study area to collect data; and anonymity and confidentiality were fundamental requirements in this study. Information was collected in such a way that respondents' confidentiality was guaranteed.

### **3.14 Chapter Summary**

Chapter three presents a comprehensive examination of the research methodology along with the chosen design structure and data collection techniques and analytical approach. A descriptive research method served as the basis for this analysis to explicate the impact of BPFs on resilience within Turkana County. Participation selection utilized stratified sampling techniques to select participants who fit into four different groups: BPF beneficiaries together with local development organization directors as well as monitoring and evaluation officials and local administration officers. A representative sample resulted from using simple random sampling techniques. This chapter described how researchers used interview methods and survey procedures to obtain both qualitative and quantitative responses from study subjects. The report discussed steps ensuring instrument validity and reliability through expert examination together with inter-rater reliability assessment methods. The research protected participants' rights through its examination of both informed consent processes and confidentiality procedures. The research plan used mentioned data analysis methods to interpret gathered data while explaining both research question solutions and study objectives completion.



## CHAPTER FOUR

### PRESENTATION OF RESULTS

#### 4.1 Introduction

This chapter presents the results of the study, which employed descriptive, correlation and regression analyses to examine the influence of BPFs on the resilience of climate-vulnerable communities in Turkana County, Kenya. Descriptive statistics summarized key trends in the data, while correlation analysis assessed the relationships between BPFs and resilience indicators. Regression analysis further explored the predictive power of shared resources, cross-sectoral collaboration, multi-stakeholder approaches and strategic partnerships on community resilience, along with the moderating role of culture. The findings provide empirical evidence on how different BPFs contribute to enhancing adaptive capacity and coping mechanisms among climate-affected populations.

#### 4.2 Response Rate

This section presents the response rate of the study participants, categorized by stakeholder groups. Out of a total sample size of 200 respondents, 172 (86%) successfully participated in the study. The highest response rate was recorded among LDOs Directors, LDOs monitoring and evaluation officials and Turkana department of climate change officials. Business partnership facilities beneficiaries had a high participation rate of 85.8%, while local administration officials (assistant chiefs) responded at 83.3%. The strong overall response rate enhances the reliability and representativeness of the study findings (Table 4.1).

**Table 4.1 Response Rate**

<b>Sample frame</b>	<b>Sample size</b>	<b>Response Rate n(%)</b>
Business Partnership Facilities Beneficiaries	176	151 (85.8%)
Local development organisations (LDOs) Directors	2	2 (100%)
Local development organisations (LDOs) monitoring and evaluation officials	2	2 (100%)
Turkana Department of Climate Change Officials	2	2 (100%)
Local administration officials (Assistant chiefs)	18	15 (83.3%)
Total	200	172(86%)

### **4.3 Demographic Information of Respondents**

The study sought to collect demographic information on gender, highest level of education and length of experience working with climate-vulnerable communities to better understand the background of the respondents. These factors were crucial for examining any potential differences in perceptions and experiences related to climate resilience efforts. Gender was considered to assess the involvement of both male and female participants in resilience activities. The highest level of education was gathered to determine its influence on participants' understanding of climate change issues and their capacity to contribute to climate adaptation strategies. Additionally, the length of time participants had worked with climate-vulnerable communities provided insights into their familiarity with the challenges faced by these populations, contributing to the overall understanding of resilience-building practices in Turkana County.

The demographic and professional profile of respondents in Turkana County revealed key insights into gender distribution, education levels, professional experience, and familiarity with business partnership facilities in climate resilience. Males comprised 70% of respondents, while females accounted for only 30%, highlighting a gender disparity that may reflect underrepresentation of women in resilience programs. Educationally, 27.9% held university degrees and 27.3% diplomas, 7% (n=12) attained post-graduate studies but 17.4% had never attended school, suggesting varied capacity for engaging in formal climate initiatives. Nearly half of the respondents (46.5%) had less than five years of experience working with climate-vulnerable communities, while only 16.3% had over 10 years of experience, pointing to a relatively young field of practice. Regarding business partnership facilities, 66.3% of respondents were familiar with the concept, and 51.7% had been involved in or observed related activities. However, nearly as many (45.9%) had no such experience, indicating inconsistent implementation across regions or sectors.

**Table 4.2 Demographic Information of Respondents**

Variable	Category	Frequency (n)	Percentage (%)
Gender	Male	120	70.0
	Female	52	30.0
Education Level	University Degree	48	27.9
	Diploma	47	27.3
	Never Attended School	30	17.4
	Primary Education	20	11.7
	Secondary Education	15	8.7
	Post-Graduate	12	7.0
	Length Worked with Climate- Vulnerable Communities	< 5 Years	80
5–10 Years		64	37.2
10–15 Years		22	12.8
> 15 Years		6	3.5
Familiarity with Business Partnerships	Yes	114	66.3
	No	47	27.3
	Partially	11	6.4
Involvement in Business Partnerships	Yes	89	51.7
	No	79	45.9
	Partially	4	2.3

#### 4.4 Descriptive Analysis of the Variables

The study sought to determine the extent to which shared resource facilities exist and are accessible within localities, particularly in relation to natural resource exploitation. Respondents were asked to rate their agreement on several statements concerning natural, financial, human, technological, infrastructural and governance-related resources.

##### 4.4.1 Descriptive Findings on Shared Resources Type of BPFs

The descriptive statistics reveal varied perceptions across shared resources type of BPFs. Awareness of natural resources was high ( $M = 4.52$ ,  $SD = 0.798$ ), but this did not align with the availability of other critical enablers. Financial capital ( $M = 2.09$ ,  $SD = 1.008$ ), human capital ( $M = 2.29$ ,  $SD = 1.213$ ), and technology and innovation ( $M = 2.17$ ,  $SD = 1.211$ ) all recorded low mean scores, indicating significant deficiencies. Trade routes had a moderate rating ( $M = 2.64$ ,  $SD = 1.409$ ), while community involvement in governance was slightly higher ( $M = 2.90$ ,  $SD = 1.454$ ), though still below the midpoint. The overall composite score

was low to moderate ( $M = 2.78$ ,  $SD = 0.692$ ), pointing to structural and developmental gaps in shared resource availability. The findings are shown in Table 4.3.

**Table 4.3 Descriptive Statistics on Shared Resources Type of BPFs**

	N	Mean	Std.Dev.
I am aware of available natural resources within my locality	172	4.52	.798
There are Financial Capital within my locality to help exploit our locally available natural resources	172	2.09	1.008
There is adequate Human Capital to exploit our locally available natural resources	172	2.29	1.213
There is Technology and Innovation to help in exploiting our locally available natural resources	172	2.17	1.211
Trade Routes are well defined to support value chain development and trade in various natural resources	172	2.64	1.409
Local community is actively involved in Governance and Leadership including decision making on natural resource exploitation	172	2.90	1.454
Composite Mean and Std. Dev.	172	2.78	.692

From the interviews, shared resources type of BPFs in Turkana County play a crucial role in enhancing community resilience by facilitating collective access to essential resources such as water, grazing land and storage infrastructure. These partnerships help reduce costs, improve resource efficiency and foster collaboration among communities facing climate challenges. However, their effectiveness is sometimes hindered by conflicts over resource usage and weak governance structures, highlighting the need for stronger management frameworks and equitable access policies to ensure long-term sustainability as shown in the responses below;

Shared resource partnerships improve resilience by enabling collective access to water, grazing land, and storage. However, conflicts over usage and weak governance can limit their sustainability, highlighting the need for structured management frameworks and equitable access policies (*LDOs Director*)

Shared resources business partnerships in Turkana County involve pooling resources like water infrastructure, energy solutions, or agricultural tools to address climate challenges collectively (*LDO M&E Official*)

Umoja ni nguvu, utengano ni udhaifu (Unity is strength, division is weakness) (sums it up nicely (*Turkana Department of Climate Change Official*))

Shared resources in business partnership facilities can help to play a critical role in enhancing the resilience of climate-vulnerable communities in Turkana County to improve local livelihoods (*LDOs Director*)

#### 4.4.2 Descriptive Findings on Cross Sectoral Type of BPFs

The descriptive statistics on cross-sectoral type of BPFs show generally moderate perceptions across the board. Collaborative governance and business–business partnerships both recorded identical mean scores ( $M = 3.35$ ,  $SD = 1.344$  and  $SD = 1.277$ , respectively), indicating moderate promotion levels. Business–non-profit partnerships ( $M = 3.47$ ,  $SD = 1.268$ ), public–private partnerships ( $M = 3.53$ ,  $SD = 1.226$ ), and non-profit–non-profit partnerships ( $M = 3.59$ ,  $SD = 1.213$ ) showed slightly higher ratings. The composite mean for all items was moderate ( $M = 3.46$ ,  $SD = 1.105$ ), suggesting that while cross-sectoral collaborations are being promoted to some extent, there is room for stronger and more consistent engagement to address climate vulnerabilities. Table 4.4 shows the results.

**Table 4.4 Descriptive Statistics on Cross Sectoral Type of BPFs**

	N	Mean	Std.Dev.
Collaborative Governance are promoted to convey the impact of climate vulnerabilities in our community	172	3.35	1.344
Business-Business Partnerships are promoted convey the impact of climate vulnerabilities in our community	172	3.35	1.277
Business – Non-Profit Partnerships are promoted convey the impact of climate vulnerabilities in our community	172	3.47	1.268
Public-Private Partnerships are promoted convey the impact of climate vulnerabilities in our community	172	3.53	1.226
Non-Profit – Non-Profit Partnerships are promoted convey the impact of climate vulnerabilities in our community	172	3.59	1.213
Composite Mean and Std. Dev	172	3.46	1.105

From the interview schedule, cross-sectoral BPFs in Turkana County play a vital role in enhancing climate resilience by integrating the strengths of government, private sector, NGOs and local communities. These partnerships facilitate initiatives such as drought-resistant agriculture, renewable energy projects and market access improvements, leveraging diverse expertise and resources for holistic solutions. However, challenges such as misaligned goals,

power imbalances and coordination gaps can hinder effectiveness, necessitating stronger governance frameworks to ensure equitable and sustainable outcomes. The following were the supporting quotes from key stakeholders;

Cross-sectoral business partnerships have led to the implementation of initiatives such as drought-resistant agriculture, solar energy projects and climate-smart business models. These partnerships have facilitated technology transfer, improved market access and provided funding for local enterprises (*LDOs Director*)

Cross-sectoral partnerships bring together public, private and non-profit sectors to address climate resilience holistically. In Turkana County, these partnerships leverage diverse expertise, such as NGOs providing community outreach, private companies offering technical solutions and the government ensuring policy support (*LDOs M&E Official*)

Cross-sectoral business partnership facilities in Turkana County include Public-Private Partnerships (PPPs) for infrastructure and renewable energy, NGO-private sector collaborations for livelihoods and financial access, microfinance and cooperatives providing loans and insurance, market linkages improving agricultural and livestock trade and technology hubs offering digital solutions for climate adaptation (*Turkana Department of Climate Change Official*)

These collaborations drive infrastructure development, renewable energy projects and resource management initiatives, such as water and sanitation systems, while promoting job creation and local entrepreneurship (*LDOs Director*)

Cross sectoral business partnerships such as collaborations between government, private sector, NGOs and local communities are important in Turkana County to improve infrastructure development and promote sustainable livelihoods (*LDOs M&E Official*)

#### **4.4.3 Descriptive Findings on Multi-Stakeholder Type of BPFs**

The descriptive statistics on multi-stakeholder types of BPFs indicate generally favourable perceptions regarding their influence on climate resilience initiatives. Stakeholder type (M = 3.65, SD = 1.133) and shared vision (M = 3.78, SD = 1.080) were moderately rated, while complementary resources (M = 3.92, SD = 0.943), stakeholder competencies (M = 3.88, SD = 0.972), and shared risks (M = 3.88, SD = 0.998) received higher mean scores, suggesting a strong belief in their relevance. Value creation and addition also had a relatively high rating (M = 3.74, SD = 1.063). The composite mean was moderate to high (M = 3.81, SD = 0.748), indicating a positive overall perception of multi-stakeholder factors in shaping partnership facilities for climate resilience.. The results are illustrated in Table 4.5.

**Table 4.5 Descriptive Statistics on Multi-Stakeholder Type of BPFs**

	N	Mean	Std.Dev.
Stakeholder Type determines business partnership facility development for climate resilience among climate vulnerable communities in my locality.	172	3.65	1.133
Stakeholder Interest within the Common Vision determines business partnership facility development for climate resilience among climate vulnerable communities in my locality.	172	3.78	1.080
Complementary Resources determines business partnership facility development for climate resilience among climate vulnerable communities in my locality.	172	3.92	.943
Stakeholder Competencies determines business partnership facility development for climate resilience among climate vulnerable communities in my locality.	172	3.88	.972
Shared Risks determines business partnership facility development for climate resilience among climate vulnerable communities in my locality.	172	3.88	.998
Value Creation and Addition determines business partnership facility development for climate resilience among climate vulnerable communities in my locality.	172	3.74	1.063
Composite Mean and Std. Dev	172	3.81	.748

Interviews with key stakeholders reveal critical insights into the factors shaping effective BPFs for climate resilience in Turkana County. Local development experts emphasize the importance of stakeholder dynamics, resource integration and shared value creation in building sustainable solutions for vulnerable communities. The following responses highlight these perspectives from those directly involved in implementing and evaluating resilience initiatives. The following responses were obtained from the key informants:

The effectiveness of partnerships depends entirely on who sits at the table. When we include county government, NGOs with grassroots experience and private investors who understand Turkana’s challenges, we see real progress  
(LDO Director)

Too often, partnerships fail because they exclude local leadership. The most successful initiatives involve community elders from the planning stage—they

ensure interventions align with cultural realities (*LDO Monitoring & Evaluation Official*)

Government must play a coordinating role, but not dominate. Our best projects balance public oversight with private-sector innovation and NGO flexibility (*Turkana Department of Climate Change Official*)

A partnership without resource alignment is just a meeting. For example, when an agribusiness provides drought-resistant seeds and an NGO trains farmers on irrigation, yields improve dramatically (*Turkana Department of Climate Change Official*)

#### 4.4.4 Descriptive Statistics on Strategic Partnerships Types of BPFs

The descriptive statistics on strategic partnership types of BPFs reflect generally positive perceptions among respondents. Common challenges (M = 3.92, SD = 0.982) and shared vision (M = 3.85, SD = 1.018) were rated highest, indicating strong agreement on their influence in fostering partnerships. Participatory goal setting (M = 3.68, SD = 1.241), stakeholder mapping (M = 3.55, SD = 1.239), and the combined influence of all strategic elements (M = 3.67, SD = 1.194) were moderately rated. The composite mean (M = 3.73, SD = 0.905) suggests a generally favourable view of strategic partnership components as key drivers in business partnership formation within the locality. The findings are shown in Table 4.6.

**Table 4.6 Descriptive Statistics on Strategic Partnerships Types of BPFs**

	N	Mean	Std.Dev.
Common challenge (s) influences business partnership in my locality	172	3.92	.982
Shared vision influences business partnership in my locality	172	3.85	1.018
Participatory goal setting influences business partnership in my locality	172	3.68	1.241
Stakeholder mapping influences business partnership in my locality	172	3.55	1.239
Partnerships establishment is influenced by our common challenges, shared vision, participatory goal setting and stakeholder mapping	172	3.67	1.194
Composite Mean and Std. Dev	172	3.73	.905

Strategic partnerships type of BPFs have significantly enhanced the resilience of climate-vulnerable communities in Turkana County by fostering long-term collaborations between local businesses, international donors, development agencies and government entities. These partnerships have driven innovations in water management, food security and climate

insurance, while also improving access to financing for sustainable investments. Key initiatives include the construction of critical infrastructure (e.g., boreholes, water pans and climate-resilient housing), capacity-building programs (e.g., sustainable farming and disaster preparedness training) and improved market linkages for alternative livelihoods. However, the success of these partnerships depends on sustained commitment, equitable benefit-sharing and alignment with community needs to ensure lasting impact, as shown from the following responses;

Strategic partnerships, particularly between local businesses, international donors and development agencies, have led to innovations in water management, food security programs and climate insurance schemes. For example, partnerships with microfinance institutions have enabled small-scale farmers and pastoralists to access capital for sustainable investments (*LDOs Director*)

Strategic partnerships have improved resilience in Turkana County by focusing on long-term, sustainable solutions. For example, they have facilitated the construction of boreholes, water pans and climate-resilient housing. Additionally, these partnerships provide training in sustainable farming and disaster preparedness, while connecting communities to markets for alternative livelihoods (*LDOs Monitoring and Evaluation Official*)

Strategic partnerships in business partnership facilities have significantly enhanced the resilience of climate-vulnerable communities by leveraging the strengths of diverse stakeholders, including governments, private sector actors, NGOs and local communities (*Turkana Department of Climate Change Official*)

These partnerships have played a crucial role in enhancing resilience through improved livelihoods, climate adaptation strategies and sustainable economic development (*LDOs Director*)

#### **4.4.5 Descriptive Statistics on Culture**

The descriptive statistics on cultural considerations in business partnership facilities show moderately positive perceptions across various cultural dimensions. Traditions ( $M = 3.37$ ,  $SD = 1.415$ ), values ( $M = 3.36$ ,  $SD = 1.426$ ), and indigenous knowledge ( $M = 3.37$ ,  $SD = 1.426$ ) were similarly rated, reflecting a moderate level of cultural integration. Livelihood choices ( $M = 3.43$ ,  $SD = 1.435$ ) and settlement patterns ( $M = 3.42$ ,  $SD = 1.455$ ) had slightly higher ratings, indicating a stronger acknowledgment of socio-cultural realities in partnership development. The overall composite score ( $M = 3.39$ ,  $SD = 1.365$ ) suggests that while cultural factors are somewhat considered, there remains room for more consistent incorporation into business partnership planning and implementation. Table 4.7 shows the results.

**Table 4.7 Descriptive Statistics on Culture**

	N	Mean	Std.Dev.
Traditions are observed and taken into account during the developing and designing business partnership facilities	172	3.37	1.415
Values are observed and taken into account during the developing and designing business partnership facilities	172	3.36	1.426
Indigenous Knowledge are observed and taken into account during the developing and designing business partnership facilities	172	3.37	1.426
Livelihood choices are observed and taken into account during the developing and designing business partnership facilities	172	3.43	1.435
Settlement Patterns are observed and taken into account during the developing and designing business partnership facilities	172	3.42	1.455
Composite Mean and Std. Dev	172	3.39	1.365

Culture profoundly shapes the effectiveness of BPFs and climate resilience efforts in Turkana County. Traditional governance structures, such as elders' councils, play a crucial role in mediating resource-sharing agreements and partnership dynamics. Indigenous knowledge, particularly in water conservation and pastoralist adaptation, enhances modern resilience strategies when integrated thoughtfully. However, cultural norms like gender roles and scepticism toward external actors can create barriers, requiring culturally sensitive approaches to ensure inclusive participation. Community-based decision-making fosters local ownership of projects, but overcoming resistance to change remains a challenge. Balancing tradition with innovation is key to sustainable resilience-building. The following responses support these assertions;

Culture plays a significant role in shaping business partnerships in Turkana. Traditional governance structures, such as elders' councils, often mediate resource-sharing agreements, influencing how partnerships operate. Also, deeply ingrained nomadic practices affect how communities engage with long-term resilience projects. Some cultural practices, such as gender roles, may also limit women's participation in business partnerships, requiring culturally sensitive interventions (*LDOs Director*)

Culture significantly influences the success of business partnership facilities in Turkana County. Traditional knowledge, such as indigenous water conservation methods, can enhance modern resilience strategies. However, cultural norms like gender roles may limit women's participation, while mistrust of external actors can hinder collaboration (*LDOs Monitoring and Evaluation Official*)

Local cultural values, traditions and social structures influence how partnerships are formed, implemented and sustained. For instance, community-based decision-making processes, rooted in cultural norms, ensure that development projects are inclusive, culturally appropriate and widely accepted. Traditional knowledge systems, such as indigenous practices in water conservation, agriculture and natural resource management, often complement modern technologies, making resilience-building efforts more effective (*Turkana Department of Climate Change Official*)

It influences decision-making, resource sharing, conflict resolution and the adoption of new economic or climate adaptation strategies (*LDOs Director*)

#### **4.4.6 Descriptive Statistics on Resilience of Climate-vulnerable Communities**

Table 4.8 illustrates the findings regarding key indicators of resilience among climate-vulnerable communities. A majority of respondents (69.2%, n=119) reported that economic resilience had been strengthened, while 30.8% (n=53) indicated otherwise. Similarly, 54.1% (n=93) affirmed that there was improved access to resources, whereas 45.9% (n=79) did not perceive any improvement.

On the other hand, the results for enhanced community cohesion showed a different trend, with 59.9% (103) of respondents indicating that cohesion had not been enhanced and only 40.1% (69) agreeing that it had improved. In contrast, 59.9% (103) reported an increase in adaptive capacity to climate-related challenges, while 40.1% (n= 69) did not observe any significant changes. These findings suggest a generally positive perception of economic resilience and adaptive capacity within climate-vulnerable communities. However, the mixed results in access to resources and the notably low level of agreement on enhanced community cohesion highlight areas needing further attention. The data implies that while tangible aspects of resilience such as economic support and climate adaptation may be progressing, the more relational or social components of resilience like community cohesion may lag behind, potentially weakening the overall resilience framework.

**Table 4.8 Resilience of Climate-vulnerable Communities**

		No	Yes
Strengthened economic resilience	f	53	119
	%	30.8%	69.2%
Improved access to resources	f	79	93
	%	45.9%	54.1%
Enhanced community cohesion	f	103	69
	%	59.9%	40.1%
Increased adaptive capacity to climate-related challenges	f	69	103
	%	40.1%	59.9%

Table 4.9 presents data on whether a formal monitoring and evaluation (M&E) system is in place to assess the impact of business partnership facilities on community resilience. The majority of the respondents (n=127), representing 73.8% of the sample, confirmed the existence of a formal M&E system. Conversely, 45 respondents (26.2%) indicated that no such system was in place. This finding suggests that most organizations or entities involved in business partnership facilities have put mechanisms in place to track and assess their impact on community resilience. The presence of a formal M&E system reflects a structured approach to accountability, learning and improvement, which is critical for the sustainability and effectiveness of such initiatives. It also implies a commitment to evidence-based decision-making and the ability to measure tangible outcomes.

**Table 4.9 Formal M&E System and Impact of Business Partnership Facilities**

	Frequency	Percent
Yes	127	73.8
No	45	26.2
Total	172	100.0

This section presents descriptive findings on resilience of climate-vulnerable communities. The findings on the resilience of climate-vulnerable communities reveal strong perceptions in several key areas. Diversification of livelihoods recorded the highest mean (M = 4.43, SD = .803), followed by entrepreneurial opportunities (M = 4.02, SD = .802), access to markets (M = 3.99, SD = .933), skill development (M = 3.92, SD = .881), and access to basic services (M = 3.92, SD = .895), all indicating high levels of community readiness. Sustainable agriculture

practices also rated well ( $M = 3.91$ ,  $SD = .874$ ). However, investment in community infrastructure ( $M = 3.40$ ,  $SD = 1.227$ ) and conservation initiatives ( $M = 3.30$ ,  $SD = 1.315$ ) received lower ratings, suggesting areas that require further attention. The overall composite score ( $M = 3.86$ ,  $SD = .629$ ) reflects a generally favourable but uneven resilience landscape among climate-vulnerable communities. The findings are presented in Table 4.10.

**Table 4.10 Descriptive Statistics on Resilience of Climate-vulnerable Communities**

	N	Mean	Std.Dev.
Diversification of Livelihoods	172	4.43	.803
Access to Markets	172	3.99	.933
Skill Development	172	3.92	.881
Entrepreneurial Opportunities	172	4.02	.802
Investment in Community Infrastructure	172	3.40	1.227
Access to Basic Services	172	3.92	.895
Sustainable Agriculture Practices	172	3.91	.874
Conservation Initiatives	172	3.30	1.315
Composite Mean and Std. Dev	172	3.86	.629

Table 4.11 outlines the distribution of responses regarding key financial challenges faced by the respondents. A significant majority ( $n=146$ , 84.9%) reported experiencing limited funding opportunities, while only 15.1% ( $n=26$ ) indicated otherwise. This highlights limited funding as a primary concern among respondents and suggests that most organizations or individuals involved in the study operate under financial constraints that could significantly impact planning and operations. On the issue of resource allocation, responses were equally split, with 50% ( $n=86$ ) of the respondents indicating that they faced challenges in resource allocation, while the remaining 50% ( $n=86$ ) did not. This equal distribution indicates variability in how different entities manage internal resources, possibly influenced by factors such as governance, budget control, or project size. Regarding the ability to sustain initiatives, slightly more than half of the respondents ( $n=88$ , 51.2%) acknowledged difficulties in sustaining initiatives, while 48.8% ( $n=84$ ) did not report such challenges. This finding suggests that while many organizations or individuals manage to maintain their projects, sustainability remains a pressing concern for a considerable proportion.

The data shows that a greater number of respondents ( $n=109$ , 63.4%) reported lacking access to financial instruments, compared to 36.6% ( $n=63$ ) who did not face such a challenge. This

points to a broader issue in financial inclusion and highlights a need for more supportive financial mechanisms and tools that are accessible and tailored to the operational contexts of the respondents. These results underscore the multifaceted nature of financial constraints facing the study population and point to the importance of targeted policy and structural interventions to improve funding access, resource management and financial sustainability. The results are shown in Table 4.11.

**Table 4.11 Distribution of Responses Regarding Key Financial Challenges**

		No	Yes
Limited Funding Opportunities	f	26	146
	%	15.1%	84.9%
Challenges in Resource Allocation	f	86	86
	%	50.0%	50.0%
Difficulty in Sustaining Initiatives	f	84	88
	%	48.8%	51.2%
Lack of Access to Financial Instruments	f	109	63
	%	63.4%	36.6%

Table 4.12 presents the respondents' views on whether there were any legal or regulatory challenges in the establishment and operation of business partnership facilities in the communities. Out of the total respondents, 89 (51.7%) indicated that there were no legal or regulatory challenges, while 83 respondents (48.3%) stated that such challenges do exist. This nearly even split suggests a divided perception among community members regarding the regulatory environment for business partnerships. The relatively high number of respondents acknowledging the presence of legal or regulatory challenges (n=83) points to potential systemic or policy-related barriers that may be affecting the smooth establishment and operation of such ventures. These include issues such as licensing delays, lack of clear guidelines, bureaucratic inefficiencies, or restrictive laws. The implications of these findings are significant for policymakers and stakeholders seeking to promote local business partnerships. The close margin between "Yes" and "No" responses highlight the need for further investigation into specific regulatory bottlenecks that may exist in certain areas.

**Table 4.12 Presence of Legal/Regulatory Challenges**

	Frequency	Percent
Yes	83	48.3
No	89	51.7
Total	172	100.0

Table 4.13 illustrates the respondents' perceptions of various impacts related to the issue under study. A majority of respondents (n=130, 75.6%) agreed that there was an increased vulnerability as a result of the issue, while a smaller portion (n=42, 24.4%) did not perceive this as a significant effect. This suggests that increased vulnerability is widely recognized as a key consequence. In terms of disruption of infrastructure, more respondents disagreed (n=97, 56.4%) than agreed (n=75, 43.6%), indicating a split perception and possibly reflecting variations in regional or contextual experiences with infrastructure-related challenges. Regarding loss of livelihoods, a substantial majority of respondents (n=104, 60.5%) reported that this was indeed a significant effect, compared to 68 respondents (39.5%) who did not share the same view. This points to livelihoods being among the more commonly affected aspects.

When asked about hindered agriculture and food security, 74 respondents (43%) affirmed this as a concern, whereas a slightly larger portion (n=98, 57%) did not identify it as a major impact. This again underscores mixed perceptions that may be influenced by respondents' engagement in or proximity to agricultural activities. The implications of these findings suggest that while increased vulnerability and loss of livelihoods are widely acknowledged impacts, there was less consensus on the effects related to infrastructure and agriculture.

**Table 4.13 Perceived Effects Legal/Regulatory Challenges**

		No	Yes
Increased Vulnerability	f	42	130
	%	24.4%	75.6%
Disruption of Infrastructure	f	97	75
	%	56.4%	43.6%
Loss of Livelihoods	f	68	104
	%	39.5%	60.5%
Hindered Agriculture and Food Security	f	98	74
	%	57.0%	43.0%

Implementing BPFs and enhancing resilience among climate-vulnerable communities in Turkana County faces several persistent challenges. Key obstacles include poor infrastructure, such as inadequate roads and unreliable electricity, which hampers investment and access to markets. Limited funding and financial exclusion restrict both community members and potential partners from scaling up projects. Bureaucratic delays, policy inconsistencies and political interference often stall implementation. Socio-cultural barriers, including gender inequalities and resistance to external ideas, also hinder community participation. Additionally, climate variability and insecurity further complicate the delivery and sustainability of these initiatives. These interlinked challenges highlight the need for comprehensive, locally informed and well-coordinated strategies to enhance impact. The following responses support these findings;

Limited Infrastructure – Poor road networks and unreliable electricity make business operations difficult. Resource Conflicts – Competition over scarce resources sometimes escalates into inter-community clashes. Bureaucratic Barriers – Delays in approvals and policy inconsistencies slow down implementation. Low Financial Inclusion – Many locals lack access to banking and financial services, limiting entrepreneurship (*LDOs Directors*)

Implementing business partnership facilities in Turkana County faces challenges such as limited funding, poor infrastructure and unpredictable climate variability (*LDOs Monitoring and Evaluation Official*)

Challenges include inadequate funding, weak infrastructure, policy barriers, limited private sector investment, socio-cultural resistance, climate unpredictability, insecurity and difficulties in coordinating multiple stakeholders (*Turkana Department of Climate Change Official*)

Insecurity issues, poor infrastructure like roads and inadequate communication masts, extreme weather conditions, resource scarcity and poor politics (*LDOs Directors*)

Socio-cultural barriers such as gender inequalities where women often have limited access to financial resources, education and decision-making roles in business partnerships (*LDOs Monitoring and Evaluation Official*)

To ensure better implementation of BPFs, Turkana County should strengthen public-private partnerships to attract climate-smart investments and technological innovation. Enhancing policy frameworks and ensuring transparency will reduce bureaucratic delays. Improving infrastructure—roads, electricity and digital connectivity—will reduce operational costs and increase accessibility. Increasing community involvement through inclusive planning,

awareness creation and capacity building will foster ownership and trust. The County should also expand financial inclusion and secure sustainable funding channels to support long-term resilience. Engaging politicians and stakeholders will enhance goodwill and coordinated implementation across sectors, as shown from the following responses:

Strengthening public-private partnerships to attract investment in climate-smart businesses. Enhancing policy frameworks to ensure efficient governance. Establishing financial inclusion programs. Improving infrastructure to reduce logistical costs (*LDOs Director*)

Turkana County can improve implementation by strengthening stakeholder coordination, increasing funding and enhancing community involvement (*LDOs Monitoring and Evaluation Official*)

Ensure politicians are involved for goodwill, invest in grassroots training, promote inclusive planning and secure sustainable funding (*Turkana Department of Climate Change Official*)

While all suggested measures are valuable, enhancing community involvement emerges as the most appropriate in the Turkana context. Local engagement ensures initiatives are culturally grounded, widely accepted and more likely to be sustained. Inclusive planning promotes ownership and aligns programs with actual community needs. In regions where trust in external actors can be low and traditions remain strong, actively involving community members at all stages boosts transparency, adoption of innovations and resilience outcomes.

Strengthening PPPs ensures sustainability by leveraging government support and private sector efficiency, mobilizing more resources and innovations (*LDOs Director*)

Enhancing community involvement ensures cultural relevance, trust and long-term sustainability (*LDOs Monitoring and Evaluation Official*)

Improving infrastructure is crucial—it attracts investment and supports service delivery (*Turkana Department of Climate Change Official*)

To build resilience among climate-vulnerable communities, Turkana County should prioritize climate-smart agriculture using drought-resistant crops and sustainable practices. Investing in renewable energy sources like solar and wind will reduce environmental stress and increase energy access. Enhancing water conservation through rainwater harvesting and irrigation systems will secure water supply. Climate risk insurance and diversified livelihoods—such as eco-tourism or beekeeping—can reduce reliance on pastoralism. Strengthening early warning

systems, expanding financial services and educating communities on adaptation strategies are also vital for long-term resilience.:

Promoting climate-smart agriculture, renewable energy, water harvesting, climate insurance and alternative livelihoods (*LDOs Director*)

Diversifying livelihoods, investing in climate-smart farming and strengthening early warning systems (*LDOs Monitoring and Evaluation Official*)

Education and social safety nets are key (*Turkana Department of Climate Change Official*)

Promoting climate-smart agriculture stands out as the most appropriate measure due to its direct impact on food security and income stability. Turkana's harsh climate necessitates resilient farming techniques like drought-tolerant seeds, soil conservation and efficient irrigation. This approach supports self-sufficiency, reduces dependence on aid and aligns with the County's transition towards sustainable livelihoods. Given the centrality of agriculture to the local economy, such interventions can scale quickly and provide broad, long-term benefits.

Climate-smart agriculture ensures food security and long-term resilience by promoting self-sufficiency (*LDOs Director*)

Diversifying livelihoods reduces dependence on climate-sensitive pastoralism (*LDOs Monitoring and Evaluation Official*)

Education is critical—many residents lack awareness of adaptation strategies (*Turkana Department of Climate Change Official*)

#### 4.5 Correlation Analysis

The study sought to determine the correlation between different types of BPFs and the resilience of climate-vulnerable communities. The findings revealed several statistically significant positive correlations, all significant at the 0.01 level (2-tailed), indicating that the various forms of BPFs have a positive and meaningful relationship with community resilience. The findings indicate that multi-stakeholder types of Business Partnership Facilities (BPFs) had the strongest positive correlation with the resilience of climate-vulnerable communities ( $r = 0.711, p < 0.01$ ). This demonstrates that communities engaged in such partnerships are generally more resilient, likely due to the combined strengths of diverse actors contributing resources, expertise, and networks toward common goals. These partnerships appear to foster integrated solutions and mutual support, enhancing community adaptability and long-term sustainability. Additionally, cross-sectoral BPFs those involving collaborations between

government, private sector, and civil society also showed a strong positive correlation with resilience ( $r = 0.586$ ,  $p < 0.01$ ). This finding highlights the vital role of cooperation across sectors in supporting local capacities to manage climate challenges. Such partnerships likely enhance knowledge sharing, joint planning, and co-financing of resilience initiatives.

Culture was positively correlated with community resilience as well ( $r = 0.616$ ,  $p < 0.01$ ), highlighting the importance of culturally grounded practices and values in enhancing climate adaptability. This could reflect the role of indigenous knowledge, traditional coping mechanisms and social cohesion in supporting resilience. Shared resources type of BPFs ( $r = 0.545$ ,  $p < 0.01$ ) and strategic partnerships ( $r = 0.525$ ,  $p < 0.01$ ) also demonstrated statistically significant moderate positive correlations with resilience. These results underscore the role of collaboration in leveraging resources and creating long-term strategies that support climate-vulnerable communities. The p-values of 0.000 across all variables confirm that the observed correlations are statistically significant and unlikely to have occurred by chance. These findings imply that enhancing collaboration through various forms of partnerships is a key driver in improving community resilience to climate-related shocks and stresses. The results are summarized in Table 4.14.

**Table 4.14 Correlation Between Different Types of BPFs and the Resilience of Climate-Vulnerable Communities**

		Resilience of Climate-vulnerable Communities
Shared Resources Type of BPFs	Pearson Correlation	.545**
	Sig. (2-tailed)	.000
Cross Sectoral Type of BPFs	Pearson Correlation	.586**
	Sig. (2-tailed)	.000
Multi-Stakeholder Type of BPFs	Pearson Correlation	.711**
	Sig. (2-tailed)	.000
Strategic Partnerships Types of BPFs	Pearson Correlation	.525**
	Sig. (2-tailed)	.000
Culture	Pearson Correlation	.616**
	Sig. (2-tailed)	.000

The asterisks (\*\*) in the table indicate that the correlation is statistically significant at the 0.01 level (2-tailed), meaning high confidence.

## 4.6 Diagnostic Testing / Assumptions of Regression

### 4.6.1 Homoscedasticity

To assess whether the variance of residuals remained constant across levels of the independent variables, the assumption of homoscedasticity was tested using Levene's Test for homogeneity of variances. A significance (p) value greater than 0.05 indicates that the assumption of homoscedasticity is met, thus validating the use of regression analysis. The findings revealed that all five variables had significance values (p-values) greater than 0.05. For instance, shared resources type of business partnership facilities had a Levene statistic of 1.597 with a significance value of 0.083 ( $p > 0.05$ ), confirming homoscedasticity. Similarly, cross sectoral type of BPFs returned a significance value of 0.105 and multi-stakeholder type of BPFs had a significance of 0.078. The strategic partnerships types of BPFs and culture variables also recorded significance values of 0.098 and 0.055 respectively all above the 0.05 threshold.

These results imply that the variance in errors across the independent variables is consistent and no violation of the homoscedasticity assumption occurred. Consequently, the regression model is considered statistically valid for analyzing the relationship between different types of BPFs and the resilience of climate-vulnerable communities. This diagnostic result strengthens the credibility of any inferential conclusions drawn from the regression analysis and supports the overall reliability of the statistical modelling approach used in the study. The findings are shown in Table 4.15.

**Table 4.15 Homoscedasticity Test Results**

	Levene Statistic	df1	df2	Sig.
Shared Resources Type of BPFs	1.597	17	84.717	.083
Cross Sectoral Type of BPFs	1.511	17	103.456	.105
Multi-Stakeholder Type of BPFs	1.670	17	55.246	.078
Strategic Partnerships Types of BPFs	1.511	17	147	.098
Culture	1.670	17	147	.055

### 4.6.2 Normality Tests

To determine whether the variables used in the regression analysis followed a normal distribution, skewness and kurtosis statistics were assessed. The results showed that all variables under investigation exhibited skewness and kurtosis values within acceptable thresholds. For instance, the shared resources type of business partnership facilities variable

had a skewness of -0.495 and kurtosis of -0.915, indicating mild negative skewness and a relatively flat distribution but within the acceptable range. Similarly, cross sectoral type of BPFs had a skewness of -0.954 and a kurtosis of -0.154, both comfortably within  $\pm 2$ .

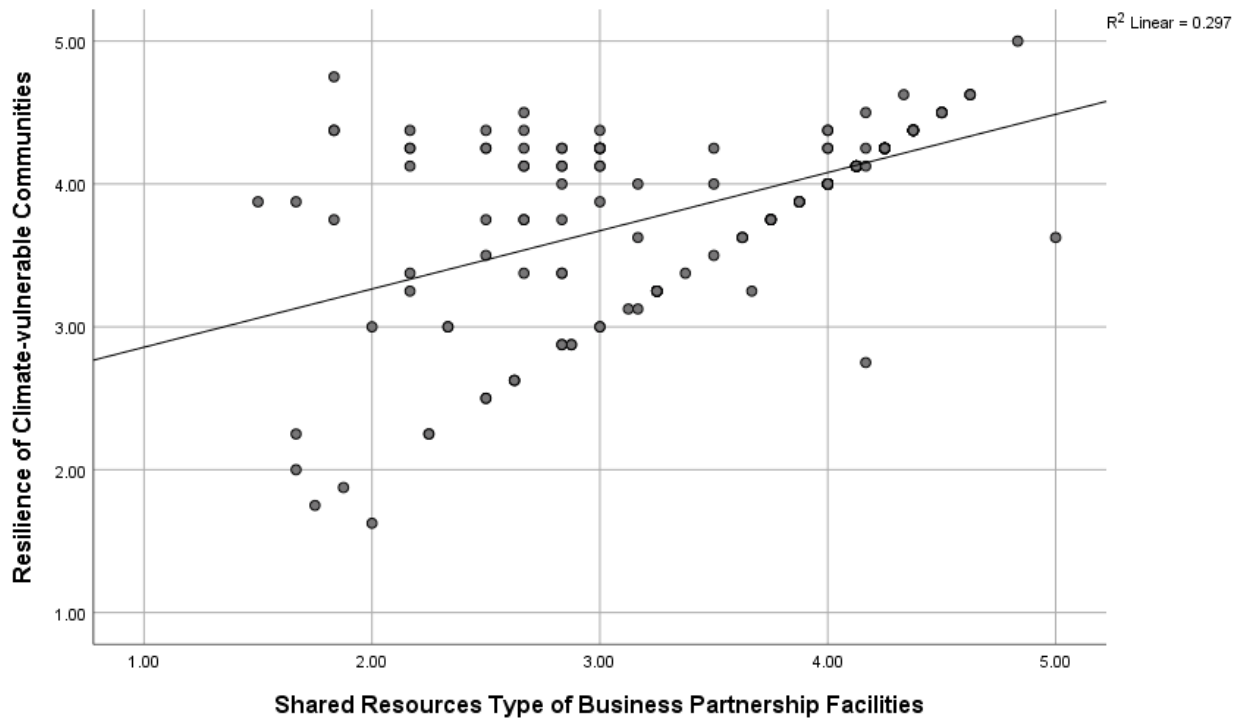
The multi-stakeholder type of BPFs and strategic partnerships types of BPFs variables showed normal distribution based on skewness (-1.309 and -1.255, respectively) and kurtosis (1.617 and 1.134). The culture variable also recorded acceptable values (skewness = -0.906; kurtosis = -0.774). Finally, the dependent variable resilience of climate-vulnerable communities had a skewness of -1.410 and kurtosis of 1.745, supporting the assumption of normality. These results collectively imply that the variables were normally distributed, thereby justifying the use of parametric statistical methods such as regression analysis. The normal distribution of variables strengthens the reliability of the results and ensures that statistical conclusions drawn from the model can be deemed valid and generalizable. The results are presented in Table 4.16.

**Table 4.16 Normality Tests**

	N	Skewness		Kurtosis	
		Statistic	Std. Error	Statistic	Std. Error
Shared Resources Type of BPFs	172	-.495	.185	-.915	.368
Cross Sectoral Type of BPFs	172	-.954	.185	-.154	.368
Multi-Stakeholder Type of BPFs	172	-1.309	.185	1.617	.368
Strategic Partnerships Types of BPFs	172	-1.255	.185	1.134	.368
Culture	172	-.906	.185	-.774	.368
Resilience of Climate-vulnerable Communities	172	-1.410	.185	1.745	.368

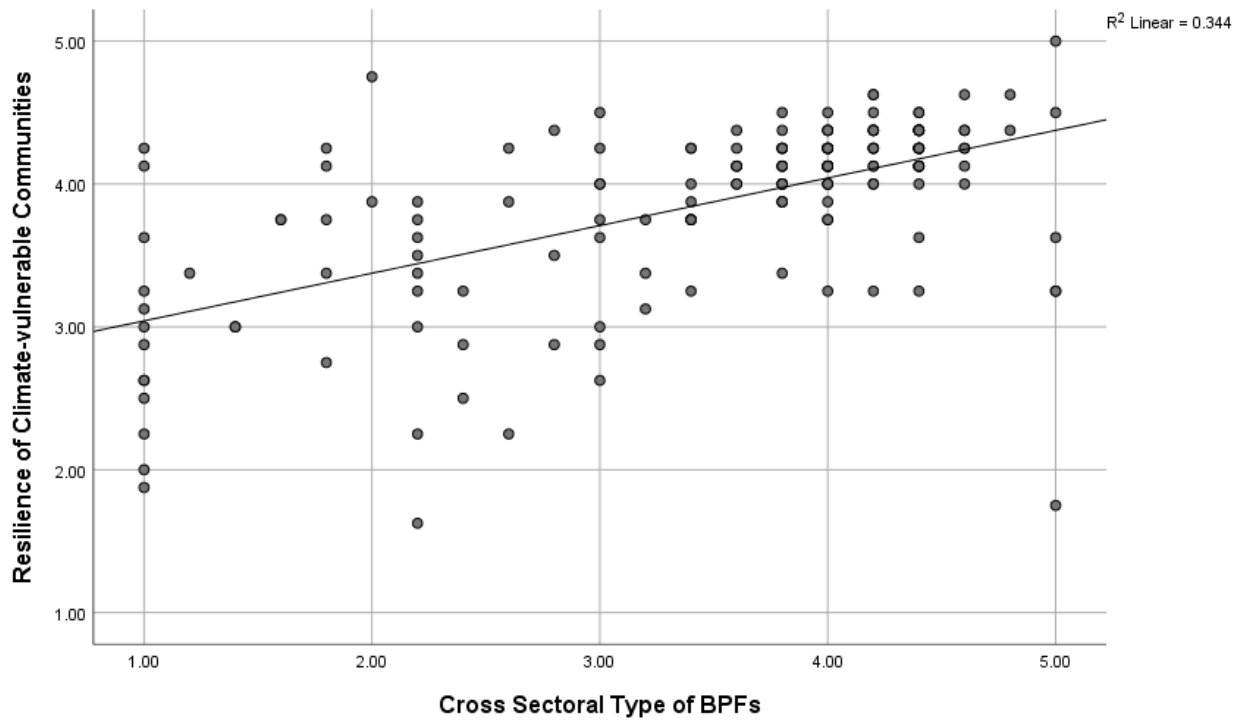
### 4.6.3 Linearity

The study established an  $R^2$  value of 0.297, as shown in Figure 4.1, which indicates a positive linear relationship between the shared resources type of BPFs and the resilience of climate-vulnerable communities. The clear upward trend in the data points reinforces the conclusion that higher levels of shared resource collaboration are associated with greater resilience among climate-vulnerable populations.



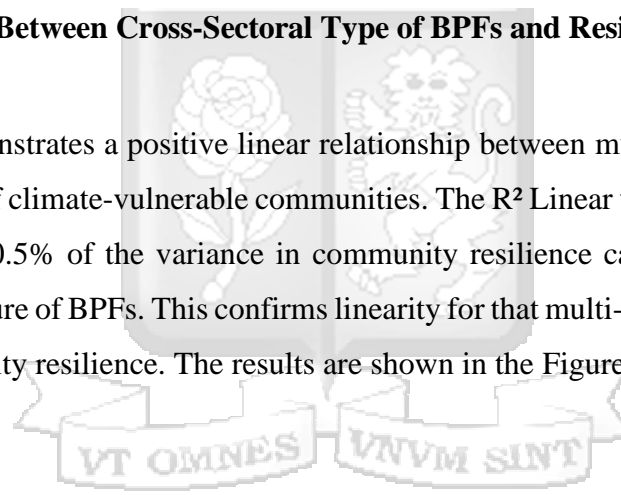
**Figure 4.1 Linearity between Shared Resources Type of BPFs and Resilience**

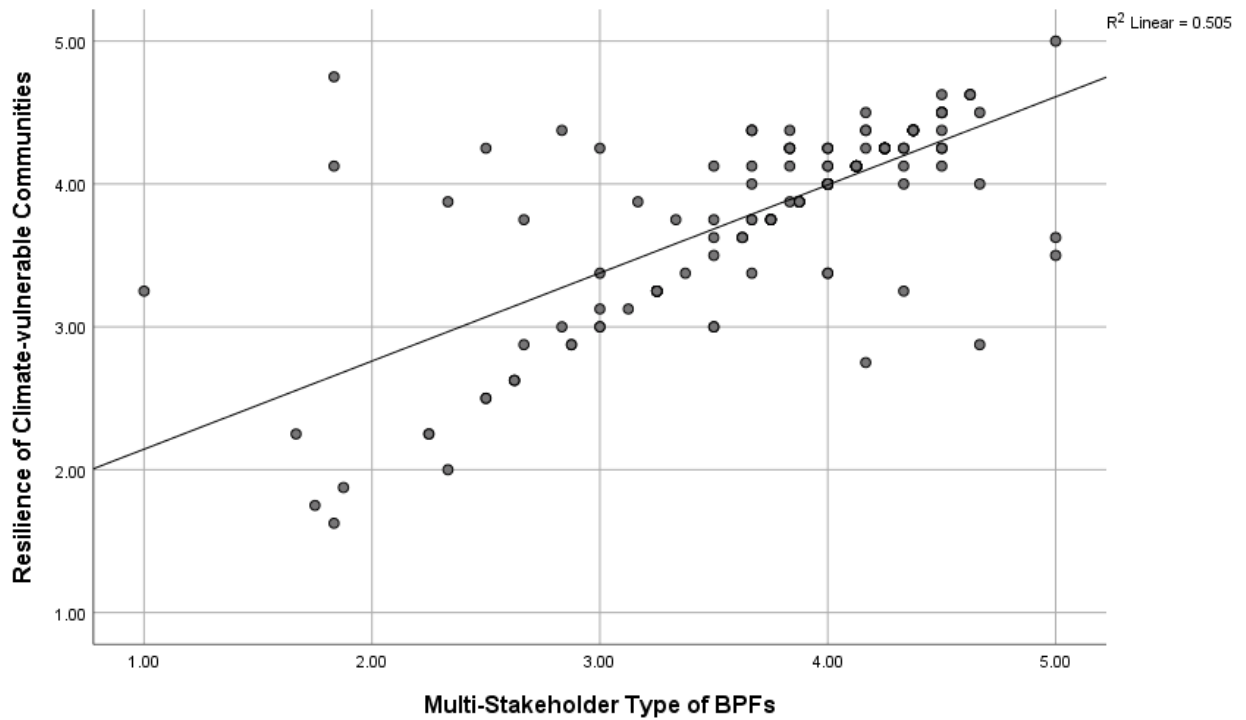
The study yielded an  $R^2$  value of 0.344, indicating a positive linear relationship between the cross-sectoral type of BPFs and the resilience of climate-vulnerable communities. The scatter plot with the fitted linear trend line suggests that the cross-sectoral nature of BPFs accounts for approximately 34.4% of the variation in community resilience. The findings from this linearity test thus validate the appropriateness of applying regression analysis in further examining how cross-sectoral integration in BPFs contributes to community resilience. The results are shown in the Figure 4.2.



**Figure 4.2 Linearity Between Cross-Sectoral Type of BPFs and Resilience**

The scatter plot demonstrates a positive linear relationship between multi-stakeholder type of BPFs and resilience of climate-vulnerable communities. The R<sup>2</sup> Linear value of 0.505 indicates that approximately 50.5% of the variance in community resilience can be explained by the multi-stakeholder nature of BPFs. This confirms linearity for that multi-stakeholder approaches in BPFs and community resilience. The results are shown in the Figure 4.3.

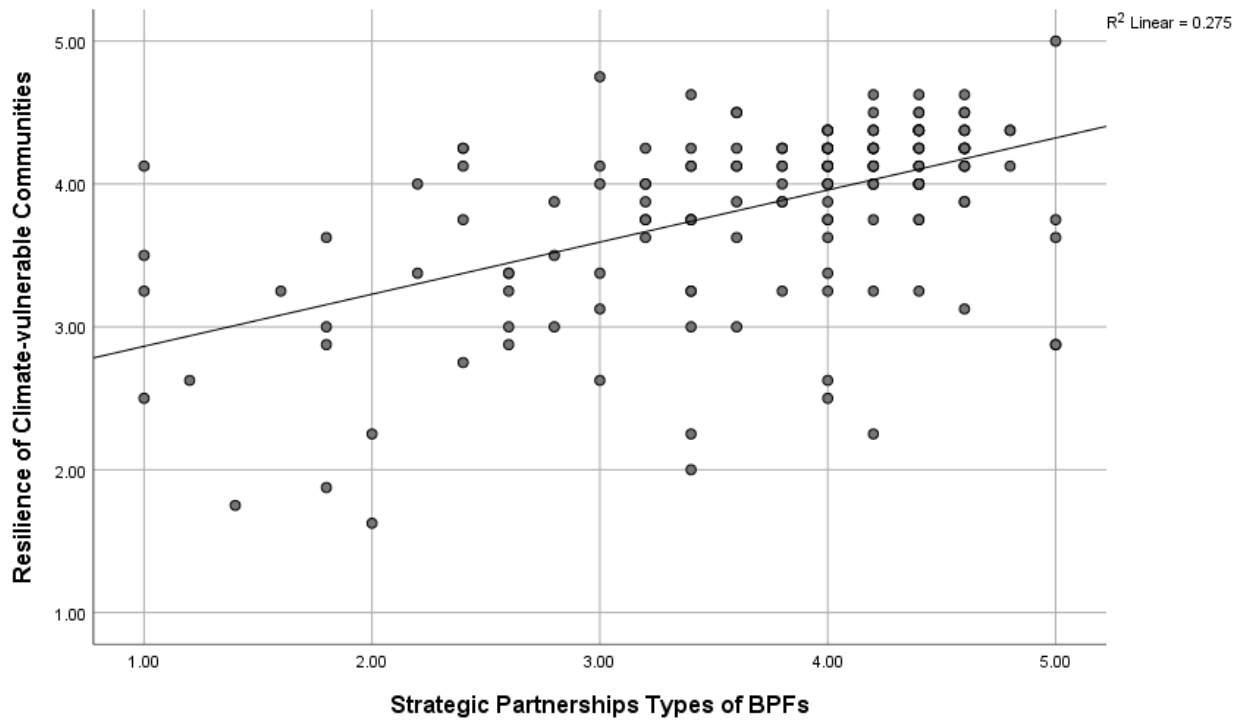




**Figure 4.3 Linearity Between Multi-Stakeholder Types of BPFs and Resilience**

The study found an  $R^2$  value of 0.275. This scatter plot demonstrates a positive linear relationship between strategic partnerships types of BPFs and the resilience of climate-vulnerable communities. The study's findings met this threshold, validating the use of regression analysis in examining the relationship between these variables. The results are shown in the Figure 4.4.

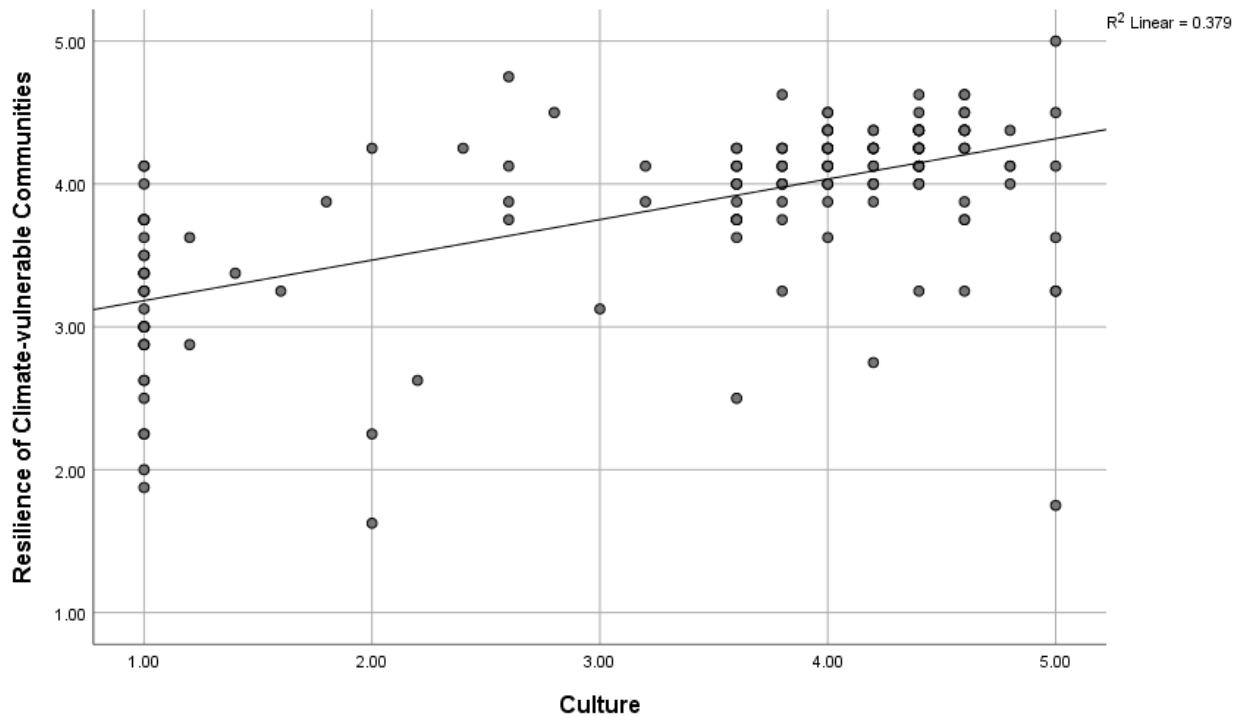




**Figure 4.4 Linearity Between Strategic Partnerships Types of BPFs and Resilience**

The study found an  $R^2$  value of 0.379. This scatter plot demonstrates a positive linear relationship between culture and the resilience of climate-vulnerable communities. The study's findings met this threshold, validating the use of regression analysis in examining the relationship between these variables. The findings are shown in the Figure 4.5.





**Figure 4.5 Linearity Between Culture and Resilience**

#### 4.6.4 Multicollinearity

To assess the presence of high intercorrelations among the independent variables, a multicollinearity test was performed using the VIF and its inverse, tolerance. A VIF value exceeding 10 or a tolerance value below 0.1 signals problematic multicollinearity. In the current analysis, none of the independent variables displayed VIF values above 10 or tolerance values below 0.1. The shared resources type of business partnership facilities had a tolerance value of 0.566 and a VIF of 1.765. These results indicate low collinearity, suggesting that this variable can independently contribute to the prediction of community resilience. The cross sectoral type of BPFs had the lowest tolerance (0.312) and the highest VIF (3.208) among all predictors, but within acceptable thresholds. The multi-stakeholder type of BPFs and strategic partnerships types of BPFs had tolerance values of 0.482 and 0.654, respectively, with corresponding VIF values of 2.075 and 1.530. Both sets of values are within acceptable limits, indicating minimal multicollinearity. The culture variable had a tolerance of 0.344 and a VIF of 2.909. The results are presented in Table 4.17.

**Table 4.17 Multicollinearity Test Results**

	Tolerance	VIF
Shared Resources Type of BPFs	.566	1.765
Cross Sectoral Type of BPFs	.312	3.208
Multi-Stakeholder Type of BPFs	.482	2.075
Strategic Partnerships Types of BPFs	.654	1.530
Culture	.344	2.909

#### 4.7 Regression Analysis

This section presents the regression model summary results for the linear relationship between various types of BPFs and the resilience of climate-vulnerable communities. The analysis employed standard multiple regression to evaluate how well the independent variables shared resources type of BPFs, strategic partnerships types of BPFs, Multi-stakeholder type of BPFs and cross sectoral type of BPFs predict the dependent variable, community resilience.

##### 4.7.1 Regression Analysis Model without Moderator

The R value of 0.774 indicates a strong positive correlation between the independent variables and community resilience. The R Square ( $R^2$ ) value is 0.599, which implies that approximately 59.9% of the variance in the resilience of climate-vulnerable communities can be explained by the types of BPFs included in the model. This suggests that BPFs play a significant role in enhancing resilience, supporting the view that partnerships are a critical mechanism for building adaptive capacity in vulnerable regions. The findings are presented in Table 4.18.

**Table 4.18 Regression Model Summary for Types of BPFs and Resilience**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.774 <sup>a</sup>	.599	.587	.40409

a. Predictors: (Constant), Shared Resources Type of BPFs, Strategic Partnerships Types of BPFs, Multi-Stakeholder Type of BPFs, Cross Sectoral Type of BPFs

As shown in Table 4.19, the p-value (0.000) was less than the conventional significance threshold of 0.05. This indicates the presence of a statistically significant linear relationship between the types of BPFs and the resilience of climate-vulnerable communities ( $F_{(5,166)} = 49.607$ ,  $p < .05$ ). The high F-value of 49.607 suggests that the regression model provided a

much better fit than a model with no predictors, reinforcing the claim that BPFs play a critical role in influencing resilience outcomes.

**Table 4.19 Regression ANOVA between Types of BPFs and Resilience**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	40.502	5	8.100	49.607	.000 <sup>b</sup>
	Residual	27.106	166	.163		
	Total	67.608	171			

a. Dependent Variable: Resilience of Climate-vulnerable Communities

b. Predictors: (Constant), Shared Resources Type of BPFs, Strategic Partnerships Types of BPFs, Multi-Stakeholder Type of BPFs, Cross Sectoral Type of BPFs

The regression coefficient findings presented in Table 4.20 indicate that various types of BPFs had statistically significant and positive effects on the resilience of climate-vulnerable communities. Specifically, the unstandardized coefficients show how much the resilience score changes with a unit change in each independent variable, holding all other variables constant. The coefficient for shared resources type of BPFs was significant ( $\beta = .272, t(166) = 3.245, p < .05$ ), implying that shared resources models have a moderately strong and positive influence on resilience outcomes. This underscores the value of resource pooling and joint investments in climate-resilient infrastructure or services.

Cross sectoral type of BPFs had a weaker but still statistically significant positive effect ( $\beta = .030, t(166) = 1.991, p < .05$ ), suggesting that collaboration across sectors, though slightly less impactful than other partnership models, still contributes meaningfully to resilience-building strategies. The strongest predictor was multi-stakeholder type of BPFs, which recorded a high standardized beta coefficient ( $\beta = .455, t(166) = 6.428, p < .05$ ). This indicates that inclusive partnerships involving government, private sector, NGOs and communities offer the greatest potential in enhancing resilience among climate-vulnerable populations. This finding highlights the importance of participatory planning and governance. Lastly, strategic partnerships types of BPFs also had a significant positive effect ( $\beta = .151, t(166) = 2.489, p < .05$ ), reinforcing the idea that intentional, long-term alliances between stakeholders are beneficial in supporting community adaptation efforts.

**Table 4.20 Regression Coefficients for Types of BPFs and Resilience**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.388	.181		7.649	.000
	Shared Resources Type of BPFs	.125	.039	.272	3.245	.001
	Cross Sectoral Type of BPFs	.017	.050	.030	1.991	.033
	Multi-Stakeholder Type of BPFs	.395	.061	.455	6.428	.000
	Strategic Partnerships Types of BPFs	.105	.042	.151	2.489	.014

a. Dependent Variable: Resilience of Climate-vulnerable Communities

A linear regression model can be derived as follows:

$$\begin{aligned}
 & \textit{Resilience of climate – Vulnerable Communities.} \\
 & = 1.388 + 0.125 (\textit{Shared Resources}) + 0.017 (\textit{Cross Sectoral}) \\
 & + 0.395 (\textit{Multi – Stakeholder}) + 0.105 (\textit{Strategic Partnerships})
 \end{aligned}$$

This implies that increasing focus on multi-stakeholder collaboration, along with the other partnership models, can meaningfully strengthen community resilience in the face of climate challenges.

#### 4.7.2 Regression Analysis with Moderation Effect

Table 4.21 presents the model summary for the regression analysis assessing the moderation effect of culture on the relationship between different types of BPFs and the resilience of climate-vulnerable communities. The model indicates that the predictor variables including shared resources, cross-sectoral, multi-stakeholder and strategic partnerships types of BPFs, culture and their interaction terms explain 63% of the variation in community resilience ( $R^2 = .630$ ,  $p < .05$ ). This relatively high  $R^2$  value suggests that nearly two-thirds of the variance in resilience among climate-vulnerable communities can be attributed to the combined effects of the different BPF types and the moderating role of culture.

**Table 4.21 Regression Model Summary for the Moderated Model**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.794 <sup>a</sup>	.630	.610	.39280

a. Predictors: (Constant), Strategic Partnerships Types of BPFs\*Culture, Shared Resources Type of BPFs, Multi-Stakeholder Type of BPFs, Strategic Partnerships Types of BPFs, Cross Sectoral Type of BPFs, Culture, Cross Sectoral Type of BPFs\*Culture, Shared Resources Type of BPFs\*Culture, Multi-Stakeholder Type of BPFs\*Culture

The p-value (0.000) was less than the significance level (0.05), which indicates that there was a statistically significant linear relationship between the types of BPFs, Culture, their interaction terms and the resilience of climate-vulnerable communities ( $F_{(9,162)} = 30.686$ ,  $p < .05$ ). The significant F-value confirms that the combination of different partnership structures and cultural contexts significantly affects the resilience outcomes of communities facing climate vulnerabilities. The findings are shown in Table 4.22.

**Table 4.22 Regression ANOVA for the Moderated Model**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	42.612	9	4.735	30.686	.000 <sup>b</sup>
	Residual	24.996	162	.154		
	Total	67.608	171			

a. Dependent Variable: Resilience of Climate-vulnerable Communities

b. Predictors: (Constant), Strategic Partnerships Types of BPFs\*Culture, Shared Resources Type of BPFs, Multi-Stakeholder Type of BPFs, Strategic Partnerships Types of BPFs, Cross Sectoral Type of BPFs, Culture, Cross Sectoral Type of BPFs\*Culture, Shared Resources Type of BPFs\*Culture, Multi-Stakeholder Type of BPFs\*Culture

The regression coefficient findings presented in Table 4.23 reveal the individual contribution of each predictor variable to the resilience of climate-vulnerable communities. Specifically, shared resources type of BPFs exhibited a statistically significant and positive effect ( $\beta = .592$ ,  $t(166) = 2.899$ ,  $p < .05$ ), indicating that enhancing shared resource frameworks within partnerships positively influences community resilience. Likewise, Cross sectoral type of BPFs was also a significant predictor ( $\beta = .213$ ,  $t(166) = 3.035$ ,  $p < .05$ ), suggesting that collaboration across sectors plays a notable role in strengthening resilience mechanisms. Multi-

stakeholder type of BPFs ( $\beta = .400, t(166) = 2.173, p < .05$ ) and Culture ( $\beta = .886, t(166) = 2.847, p < .05$ ) both significantly contributed to the model, implying that diverse stakeholder participation and cultural aspects are key to adaptive capacity and resilience building. Strategic partnerships types of BPFs was also statistically significant ( $\beta = .126, t(166) = 2.226, p < .05$ ), implying that while strategic alliances may be important, they alone do not significantly predict resilience in this context without cultural alignment or integration.

Further, the interaction terms between culture and each BPF type revealed stronger and more significant effects. For instance, the interaction between strategic partnerships and culture had a highly significant effect on resilience ( $\beta = .526, t(166) = 8.010, p < .05$ ), highlighting that cultural alignment amplifies the positive impact of strategic partnerships. Similarly, shared resources \* culture ( $\beta = .520, t(166) = 2.504, p < .05$ ), cross sectoral \* culture ( $\beta = .152, t(166) = 6.829, p < .05$ ) and multi-stakeholder \* culture ( $\beta = .415, t(166) = 5.896, p < .05$ ) were all significant predictors, demonstrating that culture acts as a strong moderator in the relationship between partnership types and resilience outcomes. The findings are shown in Table 4.23.

**Table 4.23 Regression Coefficients Values for the Moderated Model**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.547	.451		1.212	.227
	Shared Resources Type of BPFs	.442	.153	.592	2.899	.004
	Cross Sectoral Type of BPFs	.121	.091	.213	3.035	.002
	Multi-Stakeholder Type of BPFs	.405	.136	.400	2.173	.031
	Strategic Partnerships Types of BPFs	.118	.079	.126	2.226	.021
	Culture	.408	.143	.886	2.847	.005
	Shared Resources Type of BPFs*Culture	.501	.041	.520	2.504	.013
	Cross Sectoral Type of BPFs*Culture	.149	.026	.152	6.829	.000
	Multi-Stakeholder Type of BPFs*Culture	.411	.044	.415	5.896	.000
	Strategic Partnerships Types of BPFs*Culture	.540	.027	.526	8.010	.000

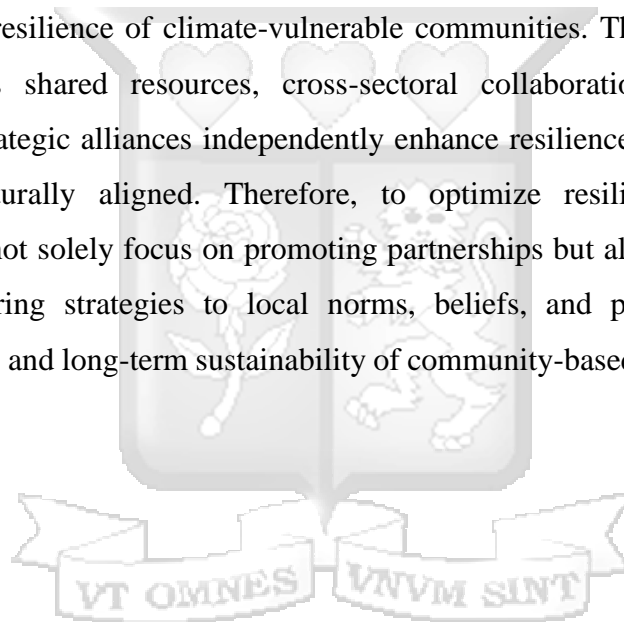
a. Dependent Variable: Resilience of Climate-vulnerable Communities

The regression model below summarizes the key predictive equation:

*Resilience of Climate – Vulnerable Communities*

$$\begin{aligned} &= 0.547 + 0.442(\text{Shared Resources BPFs}) \\ &+ 0.121(\text{Cross Sectoral BPFs}) + 0.405(\text{Multi – Stakeholder BPFs}) \\ &+ 0.118(\text{Strategic Partnerships BPFs}) + 0.408(\text{Culture}) \\ &+ 0.501(\text{Shared Resources} * \text{Culture}) + 0.149(\text{Cross Sectoral} \\ &* \text{Culture}) + 0.411(\text{Multi – Stakeholder} * \text{Culture}) \\ &+ 0.540(\text{Strategic Partnerships} * \text{Culture}) \end{aligned}$$

The findings indicate a partial moderation effect, where culture significantly influences—but does not fully determine the strength of the relationship between various types of business partnerships and the resilience of climate-vulnerable communities. This suggests that while partnerships such as shared resources, cross-sectoral collaborations, multi-stakeholder arrangements, and strategic alliances independently enhance resilience, their effectiveness is amplified when culturally aligned. Therefore, to optimize resilience-building efforts, interventions should not solely focus on promoting partnerships but also incorporate cultural considerations. Tailoring strategies to local norms, beliefs, and practices enhances the relevance, acceptance, and long-term sustainability of community-based adaptation initiatives.



## CHAPTER FIVE

### DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS

#### 5.1 Introduction

This chapter discusses the discussions of the research, conclusions and recommendations in regard to the aim of the study on examining the effects of BPFs on the resilience of climate-vulnerable communities in Turkana County. Specifically, the chapter discusses the specific objectives on the influence of shared resources- type of BPFs on resilience of Climate change affected communities, effectiveness of cross-sectoral type of BPFs on the coping level of climate vulnerable people, examine the effect of multi-stakeholder approach type of BPFs on climate-vulnerable communities, evaluation of the influence of strategic partnership on climate-vulnerable communities as well as assessing the moderating effect of culture on the relationship between BPFs and the Resilience of Climate-vulnerable Communities in Turkana County, Kenya.

#### 5.2 Summary of Findings

The study revealed that Business Partnership Facilities (BPFs) aimed at enhancing climate resilience face varied challenges and successes. High awareness of natural resources was noted, but limited financial, human, and technological capital hindered their utilization, with inadequate governance and trade route disparities further impeding progress. Cross-sectoral BPFs showed mixed effectiveness, with non-profit-to-non-profit partnerships gaining strong support due to trust and shared missions, while collaborative governance and business-to-business partnerships faced scepticism due to poor coordination. Multi-stakeholder partnerships were valued for complementary resources and competencies, with shared risk-taking fostering accountability, though inclusivity varied. Strategic partnerships driven by common challenges and shared vision positively impacted water management and food security, yet participatory goal-setting was inconsistent. Cultural integration, including traditions and indigenous knowledge, was moderately applied but inconsistent, with gender norms limiting participation. While economic resilience improved, social cohesion lagged, suggesting a need for inclusive, culturally aligned strategies to strengthen overall resilience.

#### 5.3 Discussions

##### 5.3.1 Shared Resources Type of BPFs and Resilience of Climate Vulnerable Communities

The study found strong awareness of local natural resources. This aligns with the literature from UNDESA and the Partnering Initiative (2020), which emphasizes that sustainable

development through BPFs relies on recognizing natural resources as foundational to progress. The literature suggests that societies develop by leveraging available resources, supporting the study's finding of high awareness. However, Yue Zou (2023) notes that awareness alone does not ensure effective resource use without adaptive strategies, which partially contradicts the findings, as the study implies awareness does not automatically translate to exploitation due to enabling factors. This suggests a gap in translating knowledge into action, consistent with the literature's call for cross-sectoral partnerships to enhance resource utilization for climate resilience, indicating a need for structured interventions to bridge this gap.

The findings revealed a significant lack of financial capital. This aligns with Anne Gardiner et al. (2016), who argue that traditional financing models are inadequate for climate adaptation in vulnerable regions, necessitating innovative financing through BPFs. The literature supports the study's implication that limited funding restricts local entrepreneurship. However, Dyer et al. (2013) partially contradict this, suggesting that multi-stakeholder partnerships can mobilize financial resources effectively, which the study's respondents did not perceive as readily available. The literature's emphasis on leveraging private-sector funds through PPPs contrasts with the study's findings of perceived financial scarcity, highlighting a potential disconnect in implementing such models in Turkana County. This suggests that while the literature proposes solutions, local realities may lag in accessing these financial mechanisms.

The study indicated poor human capital availability, with 37.8% disagreeing and 30.2% strongly disagreeing. These findings align with Yue Zou (2023), who stresses the need for capacity-building to address climate challenges, supporting the study's suggestion for technical training and youth programs. The literature's focus on human resources as critical for resilience complements the study's identification of a skills gap. However, UNDESA and the Partnering Initiative (2020) partially contradict this by suggesting that BPFs can optimize existing human resources through collaboration, implying potential underutilization rather than absence. The study's low perception of human capital availability contrasts with the literature's optimism about mobilizing stakeholders, indicating that Turkana County may face unique barriers, such as limited access to training institutions, which the literature assumes can be addressed through partnerships, highlighting a need for localized capacity-building strategies.

The findings showed a technological gap, with 69.7% disagreeing or strongly disagreeing about adequate support. This aligns with Yue Zou (2023), who emphasizes the role of businesses in adopting innovative practices like climate-resilient supply chains, supporting the study's call

for innovation hubs. The literature's focus on technology as a driver of sustainability reinforces the study's identification of deficiencies. However, Anne Gardiner et al. (2016) partially contradicts this by suggesting that PPPs can facilitate technological advancements in vulnerable regions, which the study's respondents did not perceive. The literature's optimism about technology transfer through partnerships contrasts with the study's findings of limited support, suggesting that Turkana County may lack access to such collaborative frameworks. This discrepancy indicates a need for targeted interventions to bridge the technological divide, aligning with the literature's broader vision but revealing local implementation challenges.

The study found mixed perceptions of trade routes, with 33.1% agreeing and 29.7% strongly disagreeing. This aligns with UNDESA and the Partnering Initiative (2020), which highlight infrastructure as a shared resource critical for economic progress, supporting the study's call for targeted development. The literature's emphasis on integrating communities into economic systems complements the study's findings of varied experiences. However, Yue Zou (2023) partially contradicts this by suggesting that cross-sectoral partnerships can streamline value chains, implying more consistent access than the study's balanced responses indicate. The high standard deviation in the findings suggests geographical disparities, which the literature does not fully address, focusing instead on universal solutions. This indicates that while the literature advocates for systemic integration, local infrastructural gaps in Turkana County may require more tailored approaches to enhance trade connectivity.

The study reported moderate community participation in governance, with 33.7% agreeing but 43.6% disagreeing. This aligns with Jen et al. (2013), who emphasize multi-stakeholder partnerships for inclusive climate development, supporting the study's suggestion to strengthen community structures. The literature's focus on participatory decision-making complements the study's findings. However, UNDESA and the Partnering Initiative (2020) partially contradict this by suggesting that BPFs inherently foster inclusive governance, implying stronger engagement than the study indicates. The study's mixed responses suggest inconsistent participation, contrasting with the literature's optimism about stakeholder collaboration. This discrepancy highlights potential barriers in Turkana County, such as cultural or structural limitations, which the literature assumes can be overcome through partnership models, indicating a need for context-specific strategies to enhance community involvement in resource management.

The composite mean for shared resources was low to moderate ( $M = 2.78$ ,  $SD = .692$ ), indicating overall deficiencies. This aligns with Anne Gardiner et al. (2016), who note that resource scarcity in vulnerable regions necessitates innovative partnerships, supporting the study's call for integrated strategies. The literature's emphasis on mobilizing diverse resources complements the study's findings. However, Yue Zou (2023) partially contradicts this by suggesting that cross-sectoral partnerships can effectively address resource gaps, implying greater potential than the study's moderate perception indicates. The literature's optimism about synergy contrasts with the study's findings of structural gaps, suggesting that Turkana County may face challenges in accessing collaborative frameworks. This highlights a need for localized interventions to align with the literature's vision, addressing specific barriers to resource mobilization to enhance resilience through BPFs.

The study's findings suggest that high natural resource awareness does not ensure effective exploitation due to financial, human and technological constraints. This aligns with UNDESA and the Partnering Initiative (2020), which stress that sustainable development requires simultaneous advancement of economic, social and environmental resources, supporting the study's identified gaps. The literature's focus on judicious resource use complements the study's implications. However, Dyer et al. (2013) partially contradict this by suggesting that multi-stakeholder partnerships can overcome such barriers, implying more success than the study's respondents perceived. The literature's emphasis on collaborative solutions contrasts with the study's findings of persistent deficiencies, indicating that Turkana County may lack the necessary frameworks to translate awareness into action, highlighting a need for tailored partnership models to address these challenges effectively.

The study's low perceptions of financial, human and technological resources suggest uneven implementation of BPFs. This aligns with Yue Zou (2023), who notes that effective partnerships require collective efforts across sectors, supporting the study's call for collaboration with training and tech institutions. The literature's emphasis on cross-sectoral strategies complements the study's findings. However, Anne Gardiner et al. (2016) partially contradicts this by suggesting that PPPs can mobilize resources efficiently, implying greater availability than the study indicates. The literature's optimism about financing mechanisms contrasts with the study's findings of perceived inadequacies, suggesting that Turkana County may face barriers in accessing such partnerships. This discrepancy highlights a need for context-specific interventions to bridge implementation gaps, aligning with the literature's broader goals but addressing local challenges to enhance the effectiveness of BPFs.

The study's findings highlight a strong awareness of local natural resources but significant gaps in financial, human, and technological capital, limiting their effective utilization for climate resilience. This aligns with Sustainable Development Theory (SD Theory), which emphasizes balancing economic, social, and environmental pillars for sustainable progress (Brundtland Report, 1987). The high resource awareness supports SD Theory's focus on leveraging environmental assets, but the identified deficiencies in capital and governance reflect the theory's challenge of implementing practical solutions amidst resource scarcity in developing regions. Similarly, Resilience Theory (Holling, 1973) underscores adaptive capacity through resource mobilization, aligning with the study's call for capacity-building and innovation hubs. However, the persistent gaps contradict Resilience Theory's optimism about system reorganization post-disturbance, as Turkana's structural barriers hinder adaptation. Stakeholder Theory (Freeman, 1984) also supports the need for inclusive governance to engage diverse actors, yet the study's findings of inconsistent community participation partially contradict the theory's assumption of effective stakeholder collaboration, indicating a need for context-specific interventions.

The discrepancies between the study's findings and the literature underscore local challenges in Turkana County that deviate from theoretical expectations. SD Theory's universal framework struggles with Turkana's unique barriers, such as limited access to training and technology, which hinder the simultaneous advancement of its pillars, aligning with criticisms of its practical implementation (Brundtland Report, 1987). Resilience Theory's focus on adaptive capacity is partially contradicted by the study's evidence of stalled progress due to financial and technological constraints, supporting critiques that it overlooks systemic vulnerabilities (Davoudi, 2012). Stakeholder Theory's normative approach, advocating equitable engagement, is challenged by the study's findings of governance inconsistencies and cultural barriers, reflecting critiques about prioritizing competing stakeholder interests (Metzger, 2020). These contradictions suggest that while the theories provide a robust framework, Turkana's socio-economic and cultural context requires tailored strategies to bridge resource gaps and enhance resilience through BPFs.

### **5.3.2 Cross-Sectoral Type of BPFs and Resilience of Climate Vulnerable Communities**

The study's findings on cross-sectoral BPFs in Turkana County reveal varied perceptions of their promotion in addressing climate vulnerabilities, with Non-Profit–Non-Profit Partnerships receiving the highest endorsement and Collaborative Governance and Business–Business Partnerships showing lower support. These align with Deloitte's (2016) view that cross-sector

partnerships thrive on shared objectives and values, as non-profit collaborations likely benefit from aligned missions and trust-based networks. The strong support for Non-Profit–Non-Profit Partnerships reflects their grassroots orientation, resonating with Deloitte’s emphasis on societal enablers fostering collaboration. However, the moderate recognition of Collaborative Governance suggests coordination challenges, supporting Deloitte’s note on structural barriers in cross-sector partnerships. The findings indicate that while partnerships are valued, their implementation varies, echoing Deloitte’s observation that cultural and contextual factors influence success. This suggests that non-profit-driven BPFs are more readily embraced in Turkana, likely due to their community-centric approach.

Vogel et al. (2020) emphasize cross-sectoral partnerships (CSPs) leveraging diverse institutional logics to address climate change, aligning with the study’s findings on PPPs (M=3.53, 47.1% agreeing) and Business–Non-Profit Partnerships (M=3.47, 48.3% agreeing), which show strong community acceptance. The study’s high approval for these partnerships supports Vogel et al.’s assertion that CSPs harness shared resources effectively. However, the lower ratings for Business–Business Partnerships (M=3.35, 15.1% disagreeing) partially contradict Vogel et al.’s optimism about private sector collaboration, indicating limited cooperation in Turkana, possibly due to unclear value propositions. Vogel et al.’s note on under-explored micro-processes in CSPs resonates with the study’s varied standard deviations, suggesting inconsistent experiences among respondents. This highlights the need for tailored strategies to align institutional logics, as the study shows stronger community trust in non-profit and public partnerships over purely business-driven ones.

The study’s findings on Collaborative Governance (M=3.35, 19.2% disagreeing) reveal scepticism, aligning with Vogel et al.’s (2020) observation that institutional complexities hinder CSPs. The moderate agreement suggests coordination barriers, supporting Vogel et al.’s point that collaborative advantage requires external stimuli rather than internal alignment alone. This is evident in Turkana, where governance frameworks may lack sufficient institutional support, as seen in the neutral responses (19.8%). However, the study’s stronger support for Non-Profit–Non-Profit Partnerships contradicts Vogel et al.’s concern about limited interdisciplinary cooperation, indicating that non-profits in Turkana effectively collaborate due to shared goals. The composite mean (M=3.46) reflects a generally favourable but uneven perception, aligning with Vogel et al.’s bibliometric analysis showing fragmented CSP literature. This suggests that while some partnerships thrive, governance-focused CSPs need enhanced structures to overcome local scepticism.

Business–non-profit partnerships in the study align closely with Vogel et al.’s (2020) business–non-profit partnership cluster, which emphasizes social value creation. The strong community support in Turkana reflects Vogel et al.’s view that these partnerships leverage complementary strengths, such as non-profits’ outreach and businesses’ resources. The study’s lower disagreement compared to business–business partnerships supports this, suggesting fewer trust gaps in business–non-profit collaborations. However, the neutral responses partly align with Vogel et al.’s note on under-explored micro-processes, indicating some respondents may lack direct exposure to these partnerships. Unlike Vogel et al.’s broader focus on institutional logics, the study highlights practical acceptance in Turkana, suggesting that community trust enhances these partnerships’ effectiveness. This supports the idea that localized knowledge and shared missions drive successful cross-sector collaboration in climate resilience efforts.

PPPs in the study resonate with Vogel et al.’s (2020) PPP cluster, which focuses on risk allocation and performance measurement. The strong agreement in Turkana reflects Vogel et al.’s view that PPPs effectively combine public influence and private resources to tackle climate challenges. The study’s low disagreement aligns with this, suggesting community recognition of PPPs’ potential. However, the neutral responses partially contradict Vogel et al.’s optimism, indicating uneven implementation or awareness in Turkana, possibly due to resource asymmetries noted by Vogel et al. The study’s findings highlight PPPs’ practical acceptance, supporting Vogel et al.’s emphasis on their strategic value. Yet, the high standard deviation suggests varied experiences, aligning with Vogel et al.’s call for deeper empirical studies to address institutional complexities in CSPs.

Ashraf et al. (2017), cited in Vogel et al. (2020), warn that institutional logic conflicts can undermine CSPs, a concern reflected in the study’s lower ratings for Collaborative Governance and Business–Business Partnerships. These findings support Ashraf et al.’s view that misaligned logics hinder collaboration, as Turkana’s business sector may lack incentives for climate-focused partnerships. However, the study’s strong support for Non-Profit–Non-Profit Partnerships contradicts this, suggesting that shared institutional logics among non-profits foster effective collaboration. The study’s composite mean indicates varied perceptions, aligning with Ashraf et al.’s emphasis on evaluating compatibilities to create synergies. This suggests that while some BPFs face logic-related challenges, non-profit partnerships thrive in Turkana due to aligned values and community trust.

Borim-de-Souza et al. (2023) highlight management characteristics like resource mobilization and innovation as key to CSPs' transformative potential, aligning with the study's findings on Non-Profit–Non-Profit and Business–Non-Profit Partnerships, which show strong community support. These partnerships likely benefit from coordinated resource-sharing, supporting Borim-de-Souza et al.'s view on optimizing outcomes. However, the lower ratings for Business–Business Partnerships partially contradict their optimism, suggesting that Turkana's private sector struggles with innovation in climate partnerships, possibly due to competitive tensions. The study's high approval for PPPs (M=3.53) supports Borim-de-Souza et al.'s emphasis on strategic collaborations addressing borderless challenges like climate change. The varied standard deviations reflect differing exposures, aligning with Borim-de-Souza et al.'s call for skilled coordination to unify partners effectively.

Chen et al. (2022) and Kandel et al. (2022) emphasize contractual clarity in BPFs, which aligns with the study's strong support for Non-Profit–Non-Profit Partnerships and PPPs, suggesting clear commitments enhance collaboration in Turkana. The Kenya consortium example (USAID, MEDA, Gates Foundation, KALRO) supports this, illustrating successful cross-sector coordination. However, the study's lower ratings for Collaborative Governance (M=3.35, 22.1% disagreeing or strongly disagreeing) partially contradict Chen et al.'s optimism, indicating that governance frameworks in Turkana may lack clear definitions, leading to scepticism. The composite mean reflects a generally positive but uneven perception, supporting Chen et al.'s view that effective BPFs require structured agreements. The study suggests that while some partnerships benefit from contractual clarity, governance and business-driven BPFs need stronger frameworks to align stakeholders and boost community confidence.

The study's findings reveal strong community support for non-profit-to-non-profit partnerships, moderate acceptance of public-private and business-non-profit partnerships, and scepticism toward collaborative governance and business-to-business partnerships. These align with SD Theory, which advocates for integrated efforts across sectors to achieve sustainable development (Brundtland Report, 1987). The success of non-profit partnerships reflects SD Theory's emphasis on social equity and community-centric approaches, while coordination challenges in governance align with the theory's noted implementation hurdles. Resilience Theory (Holling, 1973) supports the study's findings by highlighting adaptive capacity through diverse collaborations, as seen in successful renewable energy and agricultural projects. However, the scepticism toward governance contradicts Resilience Theory's expectation of

system reorganization through partnerships, suggesting institutional barriers limit adaptability. Stakeholder Theory (Freeman, 1984) aligns with the study's emphasis on trust and shared missions in non-profit partnerships, but the uneven support across sectors partially contradicts its assumption of balanced stakeholder engagement, indicating a need for clearer roles.

The study's varied perceptions highlight tensions between theoretical ideals and local realities in Turkana. SD Theory's call for sectoral synergy is supported by the effectiveness of non-profit collaborations but challenged by governance and business sector misalignments, reflecting criticisms about conflicting pillars (Brundtland Report, 1987). Resilience Theory's focus on adaptive capacity is partially contradicted by coordination failures in governance, supporting critiques that it may overlook power dynamics in unequal systems (Pelling, 2010). Stakeholder Theory's instrumental approach, emphasizing mutual benefits, is evident in public-private partnerships but undermined by distrust in business-to-business collaborations, aligning with critiques about competing stakeholder interests (Metzger, 2020). These contradictions suggest that while cross-sectoral BPFs hold potential for resilience, Turkana's institutional and cultural context requires tailored governance frameworks and incentives to align stakeholders effectively, ensuring sustainable and equitable outcomes.

### **5.3.3 Multi-Stakeholder Partnership Type of BPFs and Resilience of Climate Vulnerable Communities**

The study's findings on stakeholder type revealed moderate agreement, aligning with UNDESA and the Partnering Initiative's (2020) observation that MSPs vary significantly in commitment and structure. The considerable neutral (18%) and disagreement (14%) responses suggest variability in stakeholder experiences, supporting the argument that defining interaction types is crucial for effective partnerships. In climate-vulnerable communities, this indicates that unclear stakeholder roles may hinder BPF development, as seen in the neutral responses. However, the positive perception aligns with the idea that diverse stakeholders can integrate resources, emphasizing the need for clear frameworks to enhance collaboration and resilience in BPFs.

The strong support for complementary resources resonates with UNDESA and the Partnering Initiative's (2020) emphasis on MSPs integrating diverse capacities for innovation. The high agreement and low disagreement (7%) underscore resource complementarity as a key driver of BPFs, supporting the notion that leveraging varied assets enhances partnership outcomes. In climate-vulnerable contexts, this suggests that pooling resources can address adaptation

challenges effectively. However, the neutral responses (15.1%) indicate some uncertainty, possibly due to uneven resource distribution, a nuance not fully explored in the literature. This highlights the need for equitable resource-sharing mechanisms to maximize BPF impact.

The findings on stakeholder competencies ( $M=3.92$ ,  $SD=.943$ , 57% agreeing) align closely with Kate et al.'s (2021) findings that MSPs in Kenya rely on combined expertise for adaptation. The strong consensus and low disagreement (8.7%) reflect the critical role of technical and operational skills in BPFs, supporting Kate et al.'s emphasis on capacity development. The low standard deviation suggests consistent views, indicating that stakeholders recognize competency as a determinant of success. In climate-vulnerable communities, this underscores the importance of vetting partners for relevant skills. However, neutral responses (11.6%) suggest gaps in capacity, aligning with Kate et al.'s call for training to enhance MSP effectiveness.

The high agreement on shared supports UNDESA and the Partnering Initiative's (2020) view that risk-sharing fosters accountability in MSPs. The low disagreement (7.5%) and neutral responses (18%) indicate a broad consensus that shared risks enhance commitment, crucial for long-term climate adaptation in BPFs. This aligns with the literature's emphasis on risk diversification strengthening partnerships. In climate-vulnerable settings, this suggests that equitable risk arrangements can sustain collaboration. However, the slightly higher standard deviation points to contextual variations, implying that risk-sharing models must be tailored to specific community needs to ensure effective BPF implementation.

The composite findings reflect a positive perception of multi-stakeholder factors, reinforcing Anabaraonye et al.'s (2022) argument that well-organized MSPs enhance climate resilience across sectors. The moderate disagreement (11%) and neutral responses (15.1%) suggest practical barriers, supporting Anabaraonye et al.'s call for further research into partnership distinctions. In BPFs, this indicates that while stakeholder involvement is valued, challenges like coordination or resource disparities persist. The relatively consistent views align with the literature's view of MSPs as impactful when strategically designed, emphasizing the need for inclusive frameworks to optimize stakeholder contributions in climate-vulnerable communities.

The study's emphasis on stakeholder competencies and shared risks aligns with Bulmer and Benito's (2023) focus on SDG 17's call for partnerships that mobilize expertise and shared accountability. The high mean scores support the literature's argument that effective MSPs

require strategic partner selection and mutual commitment. However, the neutral and dissenting responses across items suggest gaps in implementation, echoing Bulmer and Benito's concern about the realistic scope of MSPs. For BPFs, this implies that policymakers must prioritize capacity building and risk-sharing arrangements to enhance resilience. The findings advocate for structured partnerships that align with SDG 17's goals to address climate challenges collaboratively.

The findings' implications, particularly the role of complementary resources and competencies, resonate with Momen's (2021) definition of MSPs as governance structures that pool expertise and resources for public goals. The strong agreement on these factors supports Momen's view that MSPs are effective when diverse actors share knowledge and assets. However, the variability in responses, especially for stakeholder type, aligns with Momen's observation that multi-stakeholder governance requires clear coordination. In climate-vulnerable communities, this suggests that BPFs should focus on inclusive partner selection and capacity enhancement to overcome barriers, ensuring that multi-stakeholder collaborations effectively contribute to climate resilience and sustainable development.

The study's findings emphasize the importance of complementary resources, stakeholder competencies, and shared risk-taking, with moderate agreement on stakeholder type due to variable inclusivity. These align with SD Theory, which promotes integrating diverse resources for sustainable development (Brundtland Report, 1987). The strong support for resource complementarity and competencies supports SD Theory's focus on balancing economic and social pillars, though uneven inclusivity reflects implementation challenges in marginalized regions. Resilience Theory (Holling, 1973) aligns with the study's emphasis on shared risks and competencies as drivers of adaptive capacity, enabling communities to address climate challenges. However, the neutral responses on stakeholder type partially contradict Resilience Theory's expectation of cohesive system adaptation, suggesting coordination barriers. Stakeholder Theory (Freeman, 1984) strongly supports the study's findings, as MSPs thrive on diverse stakeholder engagement, but the variability in inclusivity aligns with critiques about prioritizing competing interests (Metzger, 2020), highlighting the need for clear roles.

The study's findings reveal a complex interplay between theoretical frameworks and Turkana's realities. SD Theory's holistic approach is supported by the emphasis on resource pooling but challenged by inconsistent stakeholder engagement, reflecting criticisms of practical execution in resource-scarce settings (Brundtland Report, 1987). Resilience Theory's focus on adaptive

capacity is evident in the value placed on competencies and risk-sharing but contradicted by coordination gaps, supporting critiques about overlooking systemic inequalities (Davoudi, 2012). Stakeholder Theory's normative call for equitable collaboration is partially contradicted by the study's findings of uneven inclusivity, aligning with concerns about managing complex stakeholder dynamics (Metzger, 2020). These contradictions suggest that while MSPs offer a pathway to resilience, Turkana's socio-cultural and institutional barriers necessitate structured frameworks to ensure equitable resource distribution and stakeholder alignment, enhancing the effectiveness of BPFs in climate-vulnerable contexts.

#### **5.3.4 Strategic Partnerships Type of BPFs and Resilience of Climate Vulnerable Communities**

The study found strong agreement that common challenges drive BPFs, with 57% agreeing and 24.4% strongly agreeing. This aligns with UNDESA and the Partnering Initiative (2020), which emphasize that multi-stakeholder partnerships thrive by integrating resources to address shared issues, enhancing innovation and risk-sharing. The study's high mean reflects consensus on mutual pain points fostering collaboration, consistent with their view that MSPs create value by tackling collective problems. However, Kate et al. (2021) partially contradicts this, noting that MSPs in Kenya often focus narrowly on agricultural SMEs, potentially overlooking broader sectoral challenges. This suggests that while common challenges are a strong driver, their application may be limited by sector-specific biases, reducing the inclusivity of partnerships. The study's findings thus support the literature's emphasis on shared issues but highlight a need for broader application to maximize impact across diverse sectors.

Shared vision was widely acknowledged as a BPF driver, with 55.2% agreeing and 23.3% strongly agreeing. This corroborates Bulmer and Benito (2023), who argue that SDG 17's focus on partnerships thrives on aligned goals to mobilize knowledge and resources for sustainable development. The study's results suggest that vision alignment fosters trust and collaboration, mirroring their assertion that effective MSPs require a unified strategic direction. However, Anabaraonye et al. (2022) offer a nuanced perspective, noting that while shared vision is critical, partnerships in Sub-Saharan Africa often struggle with evolving goals across sectors like agriculture and manufacturing. This partially contradicts the study's strong consensus, as it implies that maintaining vision alignment can be challenging in dynamic contexts. The findings thus align with the literature's emphasis on shared vision but underscore potential difficulties in sustaining it across diverse stakeholder groups.

Participatory goal setting showed varied responses, with 42.4% agreeing and 26.7% strongly agreeing, but a notable 16.8% disagreeing or strongly disagreeing. This aligns with Momen (2021), who describes MSPs as governance structures that benefit from inclusive goal-setting to share expertise for public goals. The study's mixed results reflect Momen's view that participatory processes enhance collaboration but may face inconsistent application. However, Kate et al. (2021) contradicts this, highlighting that MSPs in Kenya often lack robust participatory mechanisms, limiting SME adaptation. Their findings suggest that ineffective goal-setting processes hinder partnership impact, contrasting with the study's moderate agreement. The higher standard deviation in the study indicates diverse perceptions, supporting the literature's caution about implementation gaps. Thus, while the study and literature agree on the value of participatory goal setting, practical challenges in execution create discrepancies.

Stakeholder mapping was positively perceived, with 50% agreeing and 18.6% strongly agreeing, though 19.8% disagreed or strongly disagreed. This supports UNDESA and the Partnering Initiative (2020), who argue that MSPs benefit from identifying stakeholders to optimize resource integration. The study's findings suggest that mapping is valued but less consistently applied, aligning with their view that effective partnerships require clear stakeholder roles. However, Anabaraonye et al. (2022) partially contradict this, noting that stakeholder mapping in African MSPs often lacks depth, limiting climate resilience outcomes across sectors. Their critique suggests that gaps in mapping techniques reduce partnership efficacy, contrasting with the study's moderate agreement. The study's higher standard deviation reflects varied opinions, supporting the literature's call for improved mapping practices. Thus, the findings align with the literature but highlight practical limitations in stakeholder engagement.

The composite results, with 50.6% agreeing and 22.1% strongly agreeing that all four drivers influence BPFs, align closely with Bulmer and Benito (2023). They emphasize SDG 17's role in fostering partnerships that integrate diverse drivers for sustainable outcomes. The study's moderate agreement reflects their view that MSPs succeed by combining shared challenges, vision, goal-setting and mapping. However, Kate et al. (2021) challenges this harmony, arguing that Kenyan MSPs often fail to balance these drivers, particularly for non-agricultural SMEs, limiting adaptation impact. This contradiction suggests that while the study's respondents see collective influence, real-world application may be uneven. The low standard deviation supports a general consensus, consistent with the literature's optimism about MSP potential.

Yet, the findings highlight a need to address sector-specific gaps to fully realize the integrated impact described in the literature.

Common challenges' strong influence (81.4% agreeing or strongly agreeing) resonates with Anabaraonye et al. (2022), who highlight MSPs' role in addressing climate volatility through shared issues in sectors like agriculture and mining. The study's low variability supports their view that mutual problems unify stakeholders, fostering resilience. However, Momen (2021) offers a slight divergence, suggesting that while shared challenges drive public policy MSPs, their impact depends on governance structures, which the study does not explore. This implies that the study's focus on challenges may overlook structural factors affecting partnership success. The findings thus align with the literature's emphasis on collective issues but suggest a need for deeper analysis of enabling frameworks. The strong agreement in the study reinforces the literature's optimism but calls for attention to governance to sustain partnership momentum.

Shared vision's high agreement (78.5%) complements Momen (2021), who views MSPs as platforms for aligning expertise and resources around common goals. The study's mean supports his argument that vision-driven partnerships enhance collaboration for public objectives. However, Bulmer and Benito (2023) caution that achieving vision alignment under SDG 17 requires overcoming resource disparities, which the study does not address. This partial contradiction suggests that while respondents value shared vision, practical challenges like unequal stakeholder capacities may limit its impact, unlike the study's strong consensus. The findings thus go hand in hand with the literature's emphasis on vision but highlight a gap in addressing implementation barriers. The study's results encourage leveraging vision alignment but call for strategies to mitigate resource-related constraints noted in the literature.

The study's findings highlight strong agreement on common challenges and shared vision as drivers of BPFs, with more varied perceptions of participatory goal-setting and stakeholder mapping. These align with SD Theory, which emphasizes collaborative efforts to address shared issues for sustainable development (Brundtland Report, 1987). The focus on common challenges and vision supports SD Theory's integration of social and environmental goals, though inconsistent goal-setting reflects implementation challenges. Resilience Theory (Holling, 1973) aligns with the study's findings by framing shared challenges as catalysts for adaptive capacity, evident in innovations like water management. However, the uneven application of goal-setting partially contradicts Resilience Theory's expectation of systemic

evolution, suggesting governance limitations. Stakeholder Theory (Freeman, 1984) supports the study's emphasis on stakeholder mapping and shared vision for collaboration, but the variability in responses aligns with critiques about balancing competing interests (Metzger, 2020), indicating a need for inclusive processes.

The study's findings reveal tensions between theoretical expectations and Turkana's practical realities. SD Theory's call for unified action is supported by the strong influence of shared challenges but challenged by inconsistent participatory processes, reflecting criticisms of conflicting pillars in developing contexts (Brundtland Report, 1987). Resilience Theory's adaptive capacity model is evident in the study's outcomes but contradicted by gaps in goal-setting, supporting critiques about overlooking structural barriers (Pelling, 2010). Stakeholder Theory's instrumental approach is supported by the value of stakeholder mapping but undermined by uneven application, aligning with concerns about prioritizing stakeholders (Metzger, 2020). These contradictions suggest that while strategic partnerships drive resilience, Turkana's cultural and institutional context requires formalized, inclusive frameworks to ensure equitable participation and sustained alignment, maximizing the impact of BPFs in addressing climate vulnerabilities.

### **5.3.5 Culture and the Resilience of Climate Vulnerable Communities**

The study's findings on cultural integration in BPFs in Turkana County reveal a moderate acknowledgment of traditions, with 42.4% agreeing and 20.3% strongly agreeing that they are considered, though 21.5% disagreed. Roger et al. (2020) aligns with these findings, emphasizing that cultural norms, including traditions, significantly influence climate adaptation in ASAL regions like Kenya, shaping knowledge creation and practical responses. Their study in Botswana highlights how traditional meteorological forecasting supports farming resilience, suggesting that Turkana's moderate integration reflects similar cultural relevance. However, the high variability in responses ( $SD = 1.415$ ) aligns with Quandt (2019), who notes resistance to change when cultural traditions are inconsistently applied, potentially undermining inclusivity. In contrast, Roncoli et al. (2016, cited in Roger et al., 2020) suggest stronger cultural integration enhances adaptation programming, partially contradicting the study's findings of inconsistent application, which could limit the effectiveness of business partnerships in fostering community trust and resilience.

Regarding values, 47.7% of respondents agreed and 18.6% strongly agreed that they are considered in partnership development, yet 22.1% disagreed. Roger et al. (2020) supports these

findings, noting that cultural values in Kenyan pastoralist communities shape attitudes toward climate adaptation, aligning with the study's moderate recognition of values. Their work suggests that prioritizing communal principles fosters resilience, consistent with the majority view in Turkana. However, the notable disagreement resonates with Antwi-Agyei et al. (cited in Roger et al., 2020), who highlight how conflicting values can lead to resistance, indicating potential gaps in Turkana's partnerships. In contrast, Cacciotti et al. (2024) emphasize that cultural values are critical for heritage resilience, suggesting that Turkana's inconsistent integration might weaken partnership outcomes, contradicting the study's moderate optimism and highlighting the need for more uniform value-based approaches to enhance community alignment.

Indigenous knowledge integration showed 41.9% agreement and 20.9% strong agreement, but 21.5% disagreed. Roger et al. (2020) strongly supports these findings, documenting how indigenous knowledge, like traditional forecasting in Botswana, enhances climate resilience in ASAL contexts, mirroring Turkana's moderate acknowledgment. Their Kenyan case study on pastoralist knowledge aligns with the study's findings, suggesting local expertise is valued but not universally applied. However, the study's variability and disagreement align with Quandt (2019), who notes diminishing use of traditional knowledge due to modernization, potentially explaining Turkana's inconsistent integration. Roncoli et al. (2016)'s study contradicts the study's moderate findings, arguing that robust incorporation of indigenous knowledge is essential for effective adaptation, suggesting Turkana's partial neglect risks undermining sustainable partnerships, as local knowledge is critical for context-specific resilience strategies.

Livelihood choices were relatively well-integrated, with 44.2% agreeing and 22.7% strongly agreeing they are considered and only 20.9% disagreeing. Roger et al. (2020) corroborates this, highlighting how Kenyan pastoralist livelihoods shape climate adaptation, aligning with Turkana's recognition of economic realities in partnerships. Their findings on livelihood-driven resilience in ASAL regions support the study's stronger incorporation of these factors. However, the high variability echoes Antwi-Agyei et al. (cited in Roger et al., 2020), who note that misaligned livelihood priorities can hinder adaptation, suggesting uneven application in Turkana. In contrast, Rachael et al. (2024) emphasizes that overlooking livelihood needs in cultural resource planning weakens community resilience, partially contradicting Turkana's relatively positive findings. Their focus on integrating tangible community needs suggests that Turkana's moderate success could be enhanced by more consistent alignment with local livelihoods to ensure sustainable partnership outcomes.

Settlement patterns showed 40.1% agreement and 24.4% strong agreement for their consideration, but 21.5% disagreed. Roger et al. (2020) aligns with these findings, noting that spatial arrangements in ASAL communities influence adaptation strategies, supporting Turkana's moderate integration. Their Kenyan pastoralist study underscores how settlement patterns affect resource access, mirroring the study's recognition of spatial factors. However, the significant disagreement (21.5%) and variability resonate with Quandt (2019), who highlights how modernization disrupts traditional settlement patterns, potentially explaining Turkana's inconsistencies. Cacciotti et al. (2024) partially contradict the findings, emphasizing that topography and settlement layouts are critical for cultural resilience, suggesting that Turkana's uneven application risks misalignment with community needs. Their structured vulnerability assessments imply that Turkana's partnerships could benefit from more systematic consideration of settlement patterns to enhance trust and long-term resilience.

The composite cultural integration score indicates moderate but inconsistent incorporation across dimensions. Roger et al. (2020) support this, noting that cultural structures in ASAL regions moderately shape resilience but face challenges from inconsistent application, aligning with Turkana's findings. Their multi-country analysis suggests that cultural integration enhances adaptation, consistent with the study's overall trend. However, the high variability aligns with Roger et al., (2020), who highlight resistance when cultural elements are unevenly prioritized, reflecting Turkana's challenges. Roncoli et al. (2016), partially contradict the moderate score, advocating for stronger cultural integration to ensure adaptation success, suggesting that Turkana's inconsistencies could hinder partnership effectiveness. This calls for standardized approaches to align cultural considerations with community expectations for sustainable resilience.

Gender disparities in the study (70% male, 30% female) intersect with cultural findings, as Roger et al. (2020) note that conservative cultural norms in Kenya often limit women's roles in adaptation, aligning with Turkana's underrepresentation of women. This suggests that cultural barriers may exacerbate the study's moderate integration of traditions and values, particularly for female stakeholders. Quandt (2019) supports this, highlighting how cultural norms can resist inclusive change, consistent with the study's gender imbalance and variable cultural responses. However, Cacciotti et al. (2024) indirectly contradict this by emphasizing equitable cultural heritage protection, implying that Turkana's partnerships could improve resilience by addressing gender-specific cultural roles more inclusively. The literature suggests that Turkana's moderate cultural integration is hindered by gender dynamics, requiring targeted

efforts to ensure women's cultural knowledge and values are better incorporated into partnership frameworks.

The study's findings show moderate but inconsistent incorporation of traditions, values, indigenous knowledge, livelihood choices, and settlement patterns, with gender disparities limiting inclusivity. These align with SD Theory, which recognizes culture as a moderating factor in sustainable development (Brundtland Report, 1987). The moderate integration of cultural elements supports SD Theory's emphasis on context-specific solutions, but inconsistencies reflect challenges in balancing social equity with environmental goals. Resilience Theory (Holling, 1973) aligns with the study's findings by highlighting cultural knowledge as part of adaptive capacity, enhancing resilience through local practices. However, the inconsistent application and gender barriers partially contradict Resilience Theory's expectation of cohesive adaptation, suggesting cultural resistance limits systemic change. Stakeholder Theory (Freeman, 1984) supports the study's call for inclusive cultural integration, but the gender disparities and variable responses align with critiques about managing marginalized stakeholders (Metzger, 2020), highlighting the need for equitable engagement.

The study's findings underscore discrepancies between theoretical ideals and Turkana's cultural dynamics. SD Theory's focus on local context is supported by the acknowledgment of cultural elements but challenged by their uneven application, reflecting criticisms about practical implementation in diverse settings (Brundtland Report, 1987). Resilience Theory's adaptive capacity is evident in the use of indigenous knowledge but contradicted by cultural barriers like gender norms, supporting critiques about overlooking social justice (Pelling, 2010). Stakeholder Theory's normative call for equitable inclusion is partially contradicted by the underrepresentation of women and inconsistent cultural integration, aligning with concerns about power imbalances (Metzger, 2020). These contradictions suggest that while culture is critical for resilience, Turkana's patriarchal norms and modernization pressures require targeted, inclusive strategies to standardize cultural integration, ensuring BPFs align with community needs and enhance sustainable outcomes.

## **5.4 Conclusions**

### **5.4.1 Shared Resources Type of BPFs and Resilience of Climate Vulnerable Communities**

The study concluded that BPFs in Turkana County face significant challenges in leveraging shared resources to enhance climate resilience, despite strong awareness of local natural resources. While communities recognize the potential of their environment, the ability to

translate this knowledge into actionable outcomes is hindered by substantial gaps in financial, human and technological capital. The lack of funding limits entrepreneurial initiatives, restricting the development of sustainable practices. Similarly, deficiencies in skilled personnel and access to innovative technologies impede the adoption of resilient strategies. These constraints highlight a disconnect between resource awareness and practical application, suggesting that partnerships have not fully bridged the structural barriers faced by climate-vulnerable communities. Addressing these gaps requires targeted efforts to enhance resource accessibility and ensure partnerships align with local needs to foster meaningful resilience.

The study also concluded that community participation in governance within BPFs remains inconsistent, with mixed perceptions reflecting uneven engagement. While some community members feel involved in decision-making processes, a significant portion perceives limited influence, pointing to structural or cultural barriers that hinder inclusive participation. Trade routes, critical for economic integration, also elicited varied responses, indicating disparities in infrastructure access across regions. These findings suggest that partnerships have not uniformly succeeded in fostering equitable governance or connectivity, which are essential for empowering communities to adapt to climate challenges. The moderate overall perception of shared resources underscores the need for more inclusive and localized approaches to ensure that partnerships effectively engage communities and address infrastructural gaps, thereby strengthening the collective capacity to build resilience in the face of environmental uncertainties.

Overall, the study concluded that BPFs in Turkana County exhibit a fragmented approach to resource mobilization and community engagement, limiting their impact on climate resilience. The high awareness of natural resources is overshadowed by persistent deficiencies in financial, human and technological support, coupled with uneven governance and trade connectivity. These challenges reflect a broader issue of misaligned partnership models that fail to fully integrate local realities, leaving communities ill-equipped to exploit their potential for sustainable development. To overcome these barriers, partnerships must prioritize accessible funding, capacity-building, technological innovation and inclusive decision-making tailored to the region's unique context. By addressing these shortcomings, BPFs can better empower climate-vulnerable communities, fostering a more resilient and adaptive framework for sustainable progress in Turkana County.

#### **5.4.2 Cross-Sectoral Type of BPFs and Resilience of Climate Vulnerable Communities**

The study concluded that cross-sectoral BPFs in Turkana County are perceived with varying levels of effectiveness in enhancing climate resilience, with non-profit-to-non-profit partnerships receiving the strongest community support due to their alignment with local values and grassroots focus. These partnerships thrive on shared missions, fostering trust and collaboration that resonate deeply with community needs. In contrast, public-private partnerships and business-non-profit collaborations show moderate acceptance, reflecting their potential to combine resources and influence but facing challenges in consistent implementation. The lower endorsement for collaborative governance and business-to-business partnerships highlights scepticism, likely due to coordination barriers and unclear incentives. This suggests that while cross-sectoral partnerships hold promise, their success depends on aligning with community priorities and overcoming structural limitations to ensure meaningful engagement in resilience-building efforts.

The study also concluded that the uneven perceptions of cross-sectoral BPFs stem from differences in how partnerships are experienced across Turkana's communities, with non-profit-driven collaborations standing out for their ability to address climate vulnerabilities effectively. These partnerships benefit from community trust and a focus on social value, making them more relatable to local stakeholders. However, the moderate support for public-private and business-non-profit partnerships indicates gaps in awareness or access, potentially limiting their impact. Collaborative governance faces particular challenges, as scepticism reflects difficulties in coordinating diverse stakeholders, suggesting a need for stronger institutional frameworks. Business-to-business partnerships struggle with low community confidence, possibly due to perceived misalignment with local needs. This variability underscores the importance of tailoring partnership models to Turkana's context to enhance their relevance and effectiveness in supporting climate-vulnerable communities.

Overall, the study concluded that while cross-sectoral BPFs offer valuable opportunities for building climate resilience in Turkana County, their impact is hindered by inconsistent implementation and varying levels of community trust. Non-profit-to-non-profit partnerships emerge as the most effective, leveraging shared goals to drive meaningful outcomes. Other partnership types, including public-private and business-non-profit collaborations, show potential but require better coordination and clearer value propositions to gain broader acceptance. The scepticism toward collaborative governance and business-to-business partnerships highlights the need for improved structures and incentives to align stakeholders.

To maximize resilience, BPFs must prioritize community-centric approaches, strengthen governance frameworks and address local barriers, ensuring that partnerships are not only collaborative but also responsive to the unique challenges faced by Turkana's climate-vulnerable populations.

#### **5.4.3 Multi-Stakeholder Partnership Type of BPFs and Resilience of Climate Vulnerable Communities**

The research concluded that stakeholder type significantly influences the development of MSPs within BPFs, though moderate agreement and notable neutral responses indicate variability in stakeholder experiences. The positive perception suggests that diverse stakeholders can integrate resources to enhance climate resilience, yet unclear roles may hinder effective collaboration in climate-vulnerable communities. The findings highlight the importance of defining interaction types to ensure all partners understand their contributions, fostering stronger partnerships. To address the uncertainty reflected in neutral and dissenting responses, clear frameworks are needed to align stakeholder roles and expectations. This approach can optimize collaboration, enabling BPFs to effectively support climate adaptation by leveraging the collective strengths of diverse actors in vulnerable settings.

The research also concluded that complementary resources and stakeholder competencies are critical drivers of successful MSPs in BPFs, with strong consensus underscoring their role in addressing climate challenges. The high agreement on resource complementarity and competencies emphasizes the value of pooling diverse assets and expertise to enhance partnership outcomes. However, neutral responses suggest potential issues like uneven resource distribution or capacity gaps, which could undermine collaboration. In climate-vulnerable communities, these findings advocate for equitable resource-sharing mechanisms and targeted capacity-building initiatives to ensure all partners contribute effectively. By prioritizing strategic partner selection and skill development, BPFs can strengthen their resilience and impact, enabling communities to adapt to environmental challenges through well-coordinated, resource-efficient partnerships.

Finally, the research concluded that shared risks and the collective influence of multi-stakeholder factors foster accountability and commitment in MSPs, with a positive overall perception supporting their role in BPFs. The broad agreement on shared risks highlights their importance in sustaining long-term climate adaptation efforts, though contextual variations suggest the need for tailored risk-sharing models. Despite some disagreement and neutral

responses indicating practical barriers like coordination challenges, the consistent views affirm the potential of strategically designed MSPs to enhance resilience. To maximize impact, stakeholders should focus on inclusive frameworks that integrate complementary resources, competencies, and risk-sharing arrangements.

#### **5.4.4 Strategic Partnerships Type of BPFs and Resilience of Climate Vulnerable Communities**

The study concluded that strategic partnerships in Turkana County's BPFs are driven by a strong recognition of common challenges, fostering collaboration to address shared climate-related issues. Respondents widely acknowledged that mutual pain points, such as environmental vulnerabilities, unify stakeholders, promoting innovation and collective action. This consensus highlights the potential for partnerships to enhance resilience by aligning efforts around pressing community needs. However, the findings suggest that while awareness of these challenges is high, translating this into inclusive, cross-sectoral strategies remains a work in progress. The emphasis on shared issues indicates a foundation for effective partnerships, but their impact may be limited without broader engagement across diverse sectors, pointing to the need for more comprehensive approaches to ensure all community segments benefit from collaborative resilience efforts.

The study also concluded that a shared vision and participatory goal-setting are valued but inconsistently applied within BPFs, reflecting both potential and challenges in fostering unified strategies. Respondents recognized that aligning goals builds trust and enhances coordination, suggesting a pathway to sustainable outcomes. However, varied perceptions of participatory processes indicate uneven involvement, particularly among marginalized groups, which may weaken partnership efficacy. The moderate agreement on these drivers underscores their importance but reveals gaps in ensuring all stakeholders contribute to and benefit from shared objectives. Settlement patterns and livelihood choices were better integrated, aligning with community realities, yet inconsistencies persist, suggesting that while strategic partnerships hold promise, their success hinges on more inclusive and standardized goal-setting practices to fully support climate-vulnerable communities in Turkana County.

Finally, the study concluded that strategic partnerships in Turkana County show moderate success in leveraging stakeholder mapping and cultural integration to build resilience, but disparities remain. The positive perception of identifying stakeholders reflects an understanding of the need for clear roles to optimize resources, yet disagreements highlight

gaps in execution, possibly due to cultural or structural barriers. The integration of traditions, values and indigenous knowledge into partnerships is acknowledged but lacks uniformity, risking misalignment with community expectations. These findings suggest that while BPFs are a vital tool for resilience, their effectiveness is constrained by uneven stakeholder engagement and cultural application. Strengthening these partnerships requires targeted efforts to ensure equitable participation, consistent cultural alignment and robust frameworks that translate shared challenges and visions into tangible, inclusive outcomes for climate-vulnerable populations.

#### **5.4.5 Culture and the Resilience of Climate Vulnerable Communities**

The study concluded that BPFs in Turkana County moderately integrate cultural elements such as traditions, values, indigenous knowledge, livelihood choices and settlement patterns, but inconsistent application across organizations hampers their effectiveness in building climate resilience. Traditions and values are acknowledged by many respondents, yet a notable portion disagrees, suggesting gaps in how these cultural aspects are prioritized, which may weaken community trust and engagement. Indigenous knowledge is similarly valued but not universally applied, limiting its potential to inform context-specific adaptation strategies. Livelihood choices show stronger incorporation, reflecting an understanding of local economic realities, though variability persists. Settlement patterns are considered by many, but disagreements highlight uneven attention to spatial dynamics, potentially misaligning partnerships with community needs. This moderate integration underscores the need for more consistent cultural alignment to foster sustainable resilience among climate-vulnerable populations.

The study further concluded that gender disparities, with significantly fewer women participating, intersect with cultural integration challenges, likely exacerbating inconsistencies in how traditions, values and knowledge are embedded in partnerships. The underrepresentation of women suggests cultural barriers that may limit inclusive resilience-building, particularly as women's roles in resource management and adaptation are critical yet underrepresented. The moderate acknowledgment of livelihood choices indicates some sensitivity to community needs, but the uneven application across cultural dimensions points to missed opportunities for deeper engagement. Settlement patterns, while recognized by many, lack uniform consideration, which could hinder partnerships from addressing spatial and resource access challenges effectively. These findings highlight a critical gap: without

standardized approaches to cultural integration, partnerships risk failing to resonate with the diverse needs of Turkana's communities, undermining long-term climate adaptation efforts.

The research finally concluded that while cultural elements are moderately integrated into BPFs, the lack of consistency and inclusivity, particularly regarding gender, poses significant barriers to enhancing resilience in Turkana County. The variable acknowledgment of traditions, values and indigenous knowledge reflects a fragmented approach that may not fully align with community expectations or realities. Stronger integration of livelihood choices offers a foundation to build upon, but the uneven consideration of settlement patterns and women's perspectives limits the partnerships' impact. To achieve sustainable climate resilience, these facilities must prioritize uniform cultural integration, ensuring that all community voices, especially those of women, are equitably represented. Addressing these gaps through targeted, inclusive strategies is essential to align partnerships with the cultural and practical needs of climate-vulnerable communities.

## **5.5 Recommendations**

### **5.5.1 Shared Resources Type of BPFs and Resilience of Climate Vulnerable Communities**

The study recommended that BPFs in Turkana County should prioritize targeted interventions to bridge gaps in financial, human and technological resources, ensuring these are accessible to climate-vulnerable communities to translate natural resource awareness into actionable resilience strategies. This should be done by establishing localized funding mechanisms, such as microfinance programs tailored to small-scale entrepreneurs, to address financial constraints. Capacity-building initiatives, including technical training and youth-focused skill development programs, should be implemented to enhance human capital. Partnerships should also introduce innovation hubs to provide access to climate-resilient technologies, fostering sustainable practices. To strengthen governance, inclusive decision-making frameworks must engage all community members, particularly women, through regular forums and representation in leadership roles. Additionally, investments in trade route infrastructure should prioritize underserved areas to ensure equitable connectivity, aligning partnerships with local needs to empower communities and build a robust foundation for long-term climate resilience.

### **5.5.2 Cross-Sectoral Type of BPFs and Resilience of Climate Vulnerable Communities**

The study recommended that cross-sectoral BPFs in Turkana County should prioritize strengthening non-profit-to-non-profit partnerships, given their strong community support and alignment with local values, to enhance climate resilience effectively. This should be done by

fostering more inclusive collaboration platforms that amplify community voices and integrate grassroots insights into partnership design. To address the moderate acceptance of public-private and business-non-profit partnerships, stakeholders should develop targeted awareness campaigns and streamline resource-sharing mechanisms to build trust and demonstrate tangible benefits. For collaborative governance and business-to-business partnerships, establishing clear coordination frameworks and incentives aligned with community priorities is essential to overcome scepticism and ensure meaningful engagement.

### **5.5.3 Multi-Stakeholder Partnership Type of BPFs and Resilience of Climate Vulnerable Communities**

The research recommended that stakeholders in MSPs within BPFs should establish clear frameworks to define stakeholder roles and interaction types, addressing the variability and uncertainty in stakeholder experiences to enhance collaboration in climate-vulnerable communities. To leverage the strong consensus on complementary resources and competencies, equitable resource-sharing mechanisms and targeted capacity-building programs should be prioritized to ensure all partners contribute effectively, overcoming issues like uneven resource distribution and capacity gaps. Additionally, tailored risk-sharing models should be developed to foster accountability and sustain long-term climate adaptation efforts, addressing contextual variations.

### **5.5.4 Strategic Partnerships Type of BPFs and Resilience of Climate Vulnerable Communities**

The study recommended that BPFs in Turkana County should strengthen strategic partnerships by prioritizing inclusive, cross-sectoral collaboration to address shared climate challenges effectively. This should be done by establishing standardized frameworks that ensure consistent stakeholder mapping and engagement, particularly for marginalized groups, to bridge gaps in participation and resource allocation. Partnerships must integrate cultural elements like traditions, values and indigenous knowledge uniformly, aligning with community expectations to build trust and relevance. Additionally, participatory goal-setting should be formalized through regular, inclusive forums that amplify diverse voices, ensuring shared visions translate into actionable strategies. To enhance resilience, BPFs should leverage settlement patterns and livelihood realities through targeted interventions, such as community-driven innovation hubs, fostering equitable outcomes.

### **5.5.5 Culture and the Resilience of Climate Vulnerable Communities**

The study recommended that BPFs in Turkana County adopt standardized frameworks to consistently integrate cultural elements like traditions, values, indigenous knowledge, livelihood choices and settlement patterns, ensuring alignment with community needs to enhance climate resilience. This should be done by establishing participatory platforms that prioritize equitable representation, particularly for women, to address gender disparities and leverage their critical roles in resource management. Organizations should implement training programs to promote uniform application of indigenous knowledge and cultural values, fostering context-specific adaptation strategies. Additionally, partnerships must systematically consider settlement patterns to align with spatial dynamics, using community-led assessments to guide design. Regular evaluations should monitor cultural integration, closing gaps in trust and engagement.

### **5.6 Limitations**

The study encountered several limitations that impacted its scope and findings. Firstly, the reliance on a sample predominantly composed of male respondents (70% male versus 30% female) introduced a gender imbalance that likely skewed the perspectives captured, particularly regarding cultural integration and community resilience. This imbalance limited the study's ability to fully represent the views of women, who play critical roles in resource management and climate adaptation in Turkana County. A more balanced gender representation could have provided deeper insights into how cultural norms, such as gender roles, influence the effectiveness of Business Partnership Facilities (BPFs).

Secondly, the study faced constraints due to logistical challenges in accessing remote areas of Turkana County. Geographical disparities in infrastructure and connectivity restricted data collection in some underserved regions, potentially underrepresenting the experiences of the most isolated climate-vulnerable communities. This limitation may have contributed to the mixed responses regarding trade route development and governance participation, as certain areas were less accessible for comprehensive surveying or interviews.

Thirdly, the study's reliance on self-reported data through surveys and interviews introduced the risk of response bias. Respondents may have provided socially desirable answers or been influenced by their immediate circumstances, which could have affected the accuracy of perceptions about resource availability, partnership effectiveness, and cultural integration. The

lack of triangulation with more objective data sources, such as economic or environmental metrics, limited the ability to validate these subjective responses.

Additionally, the study's focus on Turkana County alone restricted its generalizability to other climate-vulnerable regions in Kenya or beyond. Contextual factors unique to Turkana, such as its arid and semi-arid environment, pastoralist culture, and specific governance structures, may not fully align with other regions, limiting the broader applicability of the findings. Comparative studies across multiple counties could have strengthened the understanding of BPFs' effectiveness in diverse settings.

Lastly, time and resource constraints prevented a longitudinal assessment of the impact of BPFs on community resilience. The cross-sectional design captured perceptions at a single point in time, which restricted the ability to evaluate the long-term sustainability and outcomes of the partnerships. A longitudinal approach could have provided more robust evidence of how shared resources, cross-sectoral collaborations, and cultural integration evolve and contribute to resilience over time.

These limitations suggest that while the study provided valuable insights into the role of BPFs in enhancing climate resilience in Turkana County, caution should be exercised in interpreting the findings. Future research should address these constraints by ensuring gender-balanced samples, improving access to remote areas, incorporating objective data sources, expanding the geographical scope, and adopting longitudinal methods to enhance the depth and applicability of the results.

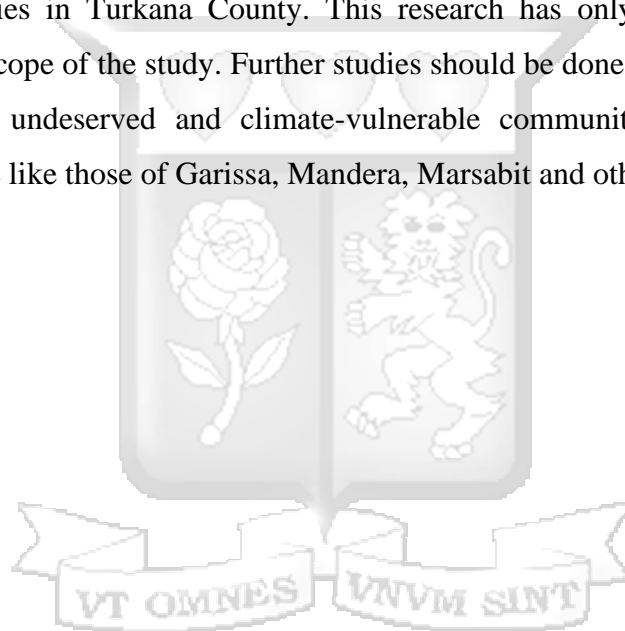
## **5.7 Contributions**

This research improves understanding of how communities become climate resilient by applying BPFs in challenging ecological and economic situations. Concepts from collaborative governance, stakeholder theory and resource dependency theory are considered to show how different approaches to partnership affect climate adaptation results. Focus is given to using cultural and gender-sensitive techniques which calls for modifying existing resilience plans to match local circumstances. These findings reveal the way BPFs operate and how well they perform in Turkana County. The findings share fresh opinions from members of the local community, information about cross-sector cooperation and the issues addressed during partnership operations. Describing in detail community, cultural and resource issues increases the understanding of resiliency in these landscapes.

Practitioners such as development agencies, NGOs and government staff, can follow the recommendations given to solve actual implementation problems. To increase their impact, BPFs must focus on inclusive decision-making, making designs useful for both genders, strengthening staff and leaders and using strategies that include various cultures. The research underlines that community needs should guide partnership approaches for both sustainability and credibility. The outcomes from this study can help guide policy-makers at both national and local levels in forming useful partnerships to help communities stand strong against climate change.

### **5.8 Recommendations for Future Research**

This study has examined the effects of BPFs on the resilience of undeserved and climate-vulnerable communities in Turkana County. This research has only focused on Turkana narrowing down the scope of the study. Further studies should be done on the effects of BPFs on the resilience of undeserved and climate-vulnerable communities in other counties experiencing the same like those of Garissa, Mandera, Marsabit and other parts in Kenya.



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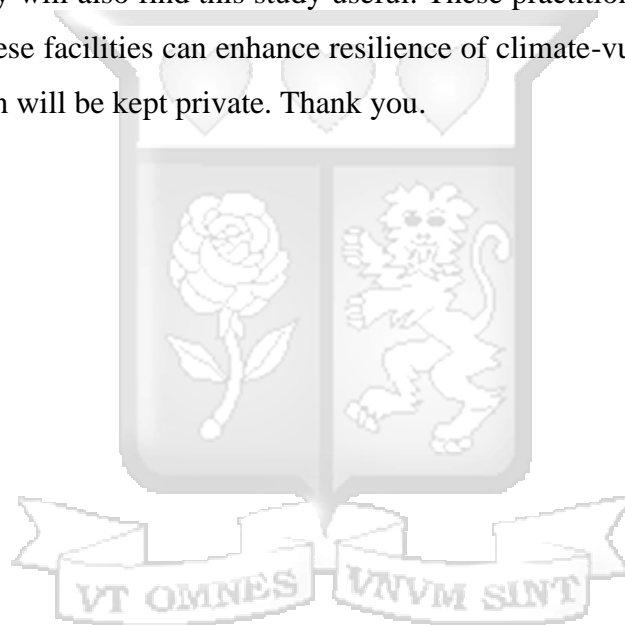
## APPENDICES

### Appendix 1: Introduction Letter

I am Scholastica Achieng' currently studying for a Master's degree at Strathmore Business School. One of my coursework involves conducting research on 'the effect of BPFs to resilience of climate affected communities in Turkana County, Kenya. The findings from this study will be useful to policy makers and regulator in the country. The results will help policymakers of BPFs to comprehend how these facilities can increase the resilience of climate-vulnerable communities. The research will thus be a critical asset to the Kenyan government in executing future plans and policies that support underprivileged and climate extinguished individuals to cope with climate change impacts. International development practitioners working in the country will also find this study useful. These practitioners will have a clearer perspective of how these facilities can enhance resilience of climate-vulnerable communities. Any information given will be kept private. Thank you.

Yours Faithfully,

**Scholastica Achieng'**



## Appendix 2: Questionnaire

The below instrument is a semi-structured questionnaire which has been developed in line with the conceptual framework and systematically designed to address the study's specific objectives. The first section is on respondent biodata to capture their demographic information, followed by thematic questions organized according to the study's objectives. A 5-point Likert scale has been used for most of the questions, allowing respondents to register the degree of their agreement or standpoint on a scale ranging from "Strongly Disagree" to "Strongly Agree." This format ensures both quantitative and qualitative data collection is gathered, enabling detailed analysis of patterns and trends related to the specific research objectives. The questionnaire was carefully designed to ensure balanced clarity, research relevance and ease of response, ensuring meaningful data gathering.

Please reply to the questions and mark as appropriate.

### Part A: Demographic Characteristics

1. Indicate gender. Female [  ] Male [  ]
2. What is your highest level of education?  
Primary [  ] Secondary [  ] Diploma [  ] University [  ]  
Post Graduate [  ] Never attended school [  ]
3. How long have worked with climate-vulnerable communities in the county? (to be answered by persons working with climate-vulnerable communities)  
Over 15 years [  ] 10-15 years [  ] 10 -5 years [  ] Less than 5 years [  ]

### PART B: Business partnership facilities for improvement of resilience of climate-vulnerable communities

4. Are you familiar with the notion of business partnership facilities in the circumstance of community development and resilience?
  - i. Yes [  ]
  - ii. No [  ]
  - iii. Partially [  ]

5. Please list or describe any business partnership facilities you are aware of that have been implemented to improve resilience in climate-vulnerable communities.

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6. Have you personally been involved in or observed any business partnership activities within the communities you have worked with?

- i. Yes [     ]
- ii. No [     ]
- iii. Partially [     ]

7. If yes, please provide examples of specific business partnership facilities that you have observed or been a part of.

8. Effectiveness and Impact Assessment. In your opinion, how effective are business partnership facilities in improving the resilience of climate-vulnerable communities in your locality?

- i. Very Ineffective [     ]
- ii. Ineffective [     ]
- iii. Neutral [     ]
- iv. Effective [     ]
- v. Very Effective [     ]

***In this section and in the subsequent sections, please tick (√) the appropriate scale in the Likert scale below: 1 = STRONGLY DISAGREE; 2 = DISAGREE; 3 = NOT SURE; 4 = AGREE; and 5 = STRONGLY AGREE***

**A1. Shared Resources Type of Business Partnership Facilities**

Statement	5	4	3	2	1
I am aware of available natural resources within my locality					
There are Financial Capital within my locality to help exploit our locally available natural resources					

There is adequate Human Capital to exploit our locally available natural resources					
There is Technology and Innovation to help in exploiting our locally available natural resources					
Trade Routes are well defined to support value chain development and trade in various natural resources					
Local community is actively involved in Governance and Leadership including decision making on natural resource exploitation					

**A2. Cross sectoral type of BPFs:** Please indicate the extent to which you agree with each of the following statements:

Statement	1	2	3	4	5
Collaborative Governance are promoted to convey the impact of climate vulnerabilities in our community					
Business-Business Partnerships are promoted convey the impact of climate vulnerabilities in our community					
Business – Non-Profit Partnerships are promoted convey the impact of climate vulnerabilities in our community					
Public-Private Partnerships are promoted convey the impact of climate vulnerabilities in our community					
Non-Profit – Non-Profit Partnerships are promoted convey the impact of climate vulnerabilities in our community					

**A3: Multi-Stakeholder Type of BPFs**

Statement	5	4	3	2	1
Stakeholder Type determines business partnership facility development for climate resilience among climate vulnerable communities in my locality.					
Stakeholder Interest within the Common Vision determines business partnership facility development for climate resilience among climate vulnerable communities in my locality.					

Complementary Resources determines business partnership facility development for climate resilience among climate vulnerable communities in my locality.					
Stakeholder Competencies determines business partnership facility development for climate resilience among climate vulnerable communities in my locality.					
Shared Risks determines business partnership facility development for climate resilience among climate vulnerable communities in my locality.					
Value Creation and Addition determines business partnership facility development for climate resilience among climate vulnerable communities in my locality.					

#### A4: Strategic partnerships types of BPFs

Statement	5	4	3	2	1
Common Challenge (s) influences business partnership in my locality					
Shared vision influences business partnership in my locality					
Participatory goal setting influences business partnership in my locality					
Stakeholder mapping influences business partnership in my locality					
Partnerships establishment is influenced by our common challenges, shared vision, participatory goal setting and stakeholder mapping					

#### A5: Culture

Statement	5	4	3	2	1
Traditions are observed and taken into account during the developing and designing business partnership facilities					
Values are observed and taken into account during the developing and designing business partnership facilities					
Indigenous Knowledge are observed and taken into account during the developing and designing business partnership facilities					
Livelihood choices are observed and taken into account during the developing and designing business partnership facilities					

Settlement Patterns are observed and taken into account during the developing and designing business partnership facilities					
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**PART C: Effect of business partnership facilities on the improvement of resilience of climate-vulnerable communities**

9. In your opinion, how have business partnership facilities positively impacted the resilience of the communities you have worked with? (tick all that applies)

- i. Strengthened economic resilience [    ]
- ii. Improved access to resources [    ]
- iii. Enhanced community cohesion [    ]
- iv. Increased adaptive capacity to climate-related challenges [    ]
- v. Other (please specify) [    ]
- vi. No idea [    ]

10. Can you provide specific examples or instances where you observed a notable improvement in community resilience resulting from business partnership facilities?

11. Is there a formal monitoring and evaluation system in place to assess the impact of business partnership facilities on community resilience?

- i. Yes [    ]
- ii. No [    ]

12. How do you measure or assess the effectiveness of business partnership facilities in promoting resilience within communities?

***In this section and in the subsequent sections, please tick (✓) the appropriate scale in the Likert scale below: 1 = STRONGLY DISAGREE; 2 = DISAGREE; 3 = NOT SURE; 4 = AGREE; and 5 = STRONGLY AGREE***

13. On a scale of 1 to 5, how would you rate the statements in the table on the impact of business partnership facilities on the improvement of resilience of climate-vulnerable communities? (Tick in appropriate box).

Statement	5	4	3	2	1
Diversification of Livelihoods					
Access to Markets					
Skill Development					
Entrepreneurial Opportunities					
Investment in Community Infrastructure					
Access to Basic Services					
Sustainable Agriculture Practices					
Conservation Initiatives					

14. What strategies or approaches have been successful or challenging in engaging the community in business partnership activities?

15. How has financial constraints impacted the successful implementation of business partnership facilities? (Tick all that applies).

- i. Limited Funding Opportunities [    ]
- ii. Challenges in Resource Allocation [    ]
- iii. Difficulty in Sustaining Initiatives [    ]
- iv. Lack of Access to Financial Instruments [    ]
- v. Other (please specify) [    ]

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16. Can you provide examples or instances where financial constraints hindered the effectiveness of business partnership initiatives?

17. Have you faced any legal or regulatory challenges in the establishment and operation of business partnership facilities in the communities?

- i. Yes [    ]
- ii. No [    ]

18. If yes, please describe the nature of these challenges and their impact on the success of the initiatives.
19. What impact does climate vulnerability, for instance, through disasters, or climatic change impact resilience intervention through business linkages?
- i. Increased Vulnerability [     ]
  - ii. Disruption of Infrastructure [     ]
  - iii. Loss of Livelihoods [     ]
  - iv. Hindered Agriculture and Food Security [     ]
  - v. Other (please specify) [     ]
20. Are there specific strategies or adaptations that have been effective in addressing climate-related challenges within business partnership initiatives?



**Appendix 3: Interview Schedule**

- 1. What is your general remark on Shared Resources Type of Business Partnership Facilities in Turkana County?

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- 2. Comment on the Cross sectoral type of Business Partnership Facilities in Turkana County?

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- 3. How has Strategic partnerships types of Business Partnership Facilities led to the improvement of resilience of climate-vulnerable communities?

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- 4. Comment on how culture has influenced Business Partnership Facilities and resilience of climate-vulnerable communities?

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- 5. What are some of the challenges faced in implementing Business Partnership Facilities and resilience of climate-vulnerable communities in Turkana County, Kenya?

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6. What are some of the measures that the Turkana County can institute in ensuring better implementation of Business Partnership Facilities?

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7. In the measures above which one would you regard as the most appropriate and why?

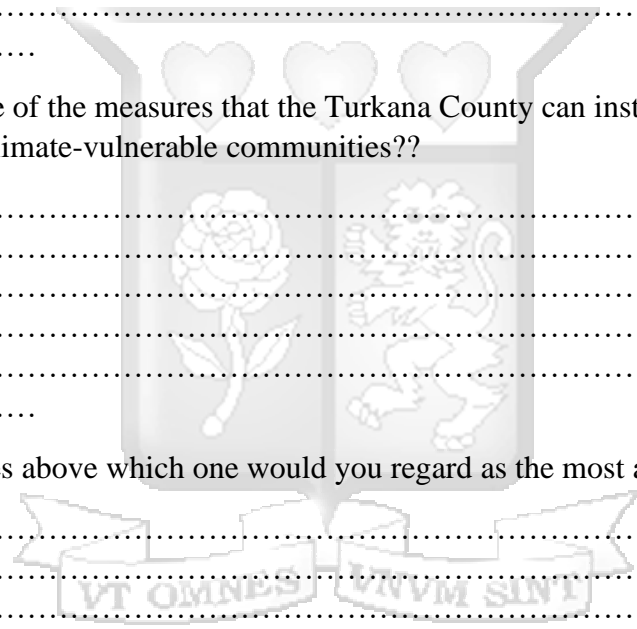
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8. What are some of the measures that the Turkana County can institute to improve resilience of climate-vulnerable communities??

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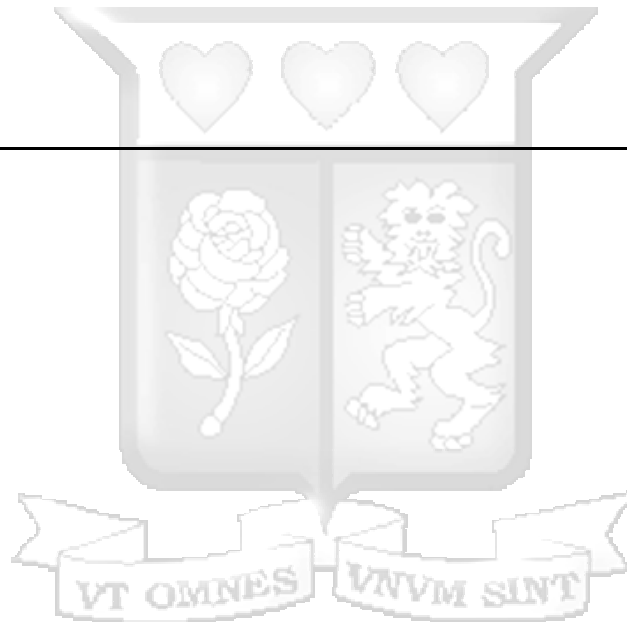
9. In the measures above which one would you regard as the most appropriate and why?

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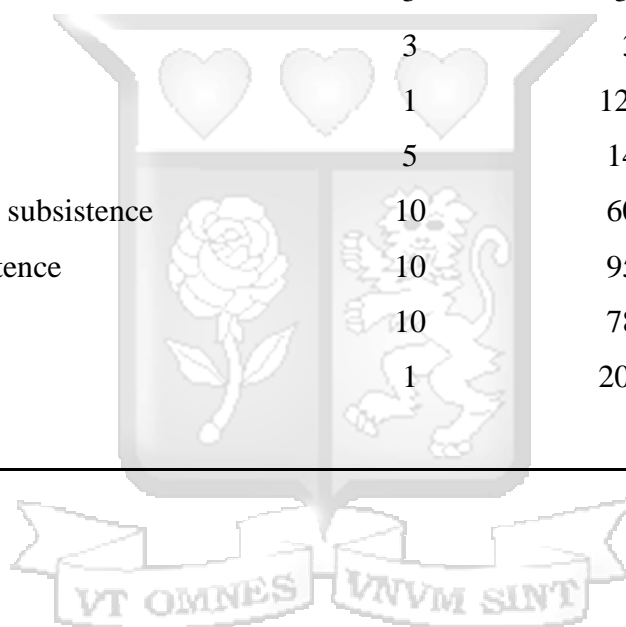
#### Appendix 4: Work plan

Activity	Oct- 23	Nov- 23	Dec- 23	Nov- 24	Jan- 25	Feb- 25	Mar- 25	April -25	May- 25
Research topic selection									
Research proposal writing									
Proposal defense									
Data collection									
Findings & conclusions writing									
Dissertation presentation									



## Appendix 5: Budget

Item(s)	Quantity	Rate	Cost (Ksh)
<b>Printing</b>			
Research proposal	5	420	2,100.00
Copies of research dissertation	5	420	2,100.00
Questionnaires	124	50	6,200.00
<b>Binding</b>			
Research proposal binding	5	230	1,150.00
Research dissertation binding	5	230	1,150.00
<b>Stationery</b>			
Note books	3	320	960.00
Ball pens	3	35	105.00
Interview recorder	1	12000	12,000.00
Reams	5	1400	7,000.00
Research assistants' subsistence	10	6000	60,000.00
Researcher's subsistence	10	9500	95,000.00
Mileage and fares	10	7800	78,000.00
Data analysis	1	20000	20,000.00
<b>Total</b>			<b>285,765.00</b>



## Appendix 6: Ethical Review Clearance



14<sup>th</sup> March 2025

Ms. Scholastica Achieng',  
achieng.scholastica@strathmore.edu

Dear Ms Achieng',

**RE: Effect of business partnership facilities on resilience of climate vulnerable communities in Turkana county, Kenya – moderated by culture**

This is to inform you that SU-ISERC has reviewed and **approved** your above **SU-masters** proposal. Your application reference number is **SU-ISERC2736/25**. The approval period is from **14<sup>th</sup> March 2025 to 13<sup>th</sup> March 2026**.

This approval is subject to compliance with the following requirements:

- i. Only approved documents including (informed consents, study instruments, MTA) will be used.
- ii. All changes including (amendments, deviations, and violations) are submitted for review and approval by SU-ISERC
- iii. Death and life-threatening problems and serious adverse events or unexpected adverse events whether related or unrelated to the study must be reported to SU-ISERC within 72 hours of notification.
- iv. Any changes anticipated or otherwise that may increase the risks or affected safety or welfare of study participants and others or affect the integrity of the research must be reported to SU-ISERC within 72 hours.
- v. Clearance for the export of biological specimens must be obtained from relevant institutions.
- vi. Submission of a request for renewal of approval at least 60 days prior to the expiry of the approval period. Attach a comprehensive progress report to support the renewal
- vii. Submission of an executive summary report within 90 days of completion of the study to SU-ISERC.


Before commencing your study, you will be expected to obtain a research license from National Commission for Science, Technology, and Innovation (NACOSTI) <https://research-portal.nacosti.go.ke/> and obtain other clearances needed.


Yours sincerely,

A handwritten signature in black ink, appearing to read "Ambrose Rachler".

**Mr Ambrose Rachler,**  
**Chairperson; SU-ISERC**


# Appendix 7: Research Permit from NACOSTI

  
**REPUBLIC OF KENYA**

  
**NATIONAL COMMISSION FOR  
SCIENCE, TECHNOLOGY & INNOVATION**

Ref No: **443073** Date of Issue: **27/March/2025**


**RESEARCH LICENSE**




**This is to Certify that Ms. Scholastica Achieng' of Strathmore University, has been licensed to conduct research as per the provision of the Science, Technology and Innovation Act, 2013 (Rev.2014) in Turkana on the topic: EFFECT OF BUSINESS PARTNERSHIP FACILITIES ON RESILIENCE OF CLIMATE VULNERABLE COMMUNITIES IN TURKANA COUNTY, KENYA – MODERATED BY CULTURE for the period ending : 27/March/2026.**

License No: **NACOSTI/P/25/417324**

**443073**  
Applicant Identification Number

  
Director General  
**NATIONAL COMMISSION FOR  
SCIENCE, TECHNOLOGY &  
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