

**INFLUENCE OF KENYA CLIMATE SMART AGRICULTURE  
PROJECT IMPLEMENTATION ON THE ECONOMIC  
EMPOWERMENT OF SMALL-SCALE FARMERS IN  
MUKURWEINI SUB-COUNTY, NYERI COUNTY, KENYA.**

**BY  
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**A Research Project Report Submitted in Partial Fulfilment of the Requirements for  
the Award of the Degree of Master of Arts in Project Planning and Management of  
the University of Nairobi.**

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## DECLARATION

This research project is my original work and has not been submitted for an academic award in any other University.

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## **ABBREVIATIONS AND ACRONYMS**

<b>ADB:</b>	African Development Bank
<b>CAPI:</b>	Computer-Assisted Personal Interviews
<b>EAC:</b>	East African Community
<b>EACOP:</b>	East African Crude Oil Pipeline
<b>KAPAP:</b>	Kenya Agricultural Productivity and Agribusiness Project
<b>KCIC:</b>	Kenya Climate Innovation Center
<b>KCSAP:</b>	Kenya Climate Smart Agricultural Smart Program
<b>KWS:</b>	Kenya Animals Service
<b>M&amp;E:</b>	Monitoring and Evaluation
<b>MTEF:</b>	Medium-Term Expenditure Framework
<b>NCPB:</b>	National Cereals and Produce Board
<b>NEMA:</b>	National Environmental Management Authority
<b>PCAS:</b>	Performance Contracting and Appraisal System
<b>SDGs:</b>	Several Sustainable Development Goals
<b>SGR:</b>	Standard Gauge Railway
<b>STATA:</b>	Statistical Package for the Social Sciences
<b>TCBP:</b>	Teacher Capacity Building Program
<b>WB:</b>	World Bank



## ABSTRACT

Initiatives aimed at Climate-Smart Agriculture (CSA) are essential for tackling the pressing issues of sustainable development and global food security. This study examines how the Kenya Climate-Smart Agriculture Project (KCSAP) influences farmers' economic empowerment in the Mukurweini Sub-County. This thorough study uses both quantitative and qualitative analysis to present a variety of findings. The sample size of this study was determined using Yamane's (1973) sample size calculation. A total of 51 respondents drawn from 241 target population were used in collecting the data in Mukurweini Sub-County. Data was collected through surveys, interviews, and existing reports. The study adopted a descriptive research design. After the reliability of the data was checked, Stata & SPSS was used to code and analyze it.

The findings established that stakeholder participation is crucial, yet there are still issues, which point to the need for improved approaches. This evidence demonstrates the positive influence of stakeholder participation and project's monitoring and evaluation on economic empowerment. Further, capacity building influence on economic empowerment necessitates customized strategies even in the face of positive effects mentioned by others. Also, the study found that to optimize project influence on the area of study, improved M&E protocols, such as frequent visits and follow-ups, is essential.

The study's conclusions reiterate why it is important to empower local farmers through training, enhanced technology, and knowledge-sharing programs participation to heighten their potential.

# CHAPTER ONE

## INTRODUCTION

### 1.1 Background to the Study

Kenya's economy is closely entwined with agriculture, which supports a sizable portion of jobs and ensures the country's food security. However, Kenya's agricultural sector faces significant obstacles, including the influence of climate change, a lack of resources, and subpar output (Wamari et al., 2007). The Kenya Climate Smart Program (KCSAP) was started by the Kenyan government in cooperation with development groups to address these problems and promote sustainable farming practices (KCSAP, 2022). This ambitious program aims to improve farmer lives across the country while boosting agricultural output and climate resilience.

Mukurweini Sub-County, which is located inside Nyeri, mostly engaged in agricultural, with a sizeable population wholly committed to farming activities (Maina et al., 2019). However, the county encounters a variety of agricultural difficulties, such as unpredictable rainfall patterns, degraded soil, restricted market access, and ineffective cultivation methods (Owuor, 2009). The KCSAP initiative responds by introducing a range of interventions that include capacity enhancement, education about climate-smart farming, access to cutting-edge agricultural technologies, financial services, and market connections (KCSAP, 2022). The main objectives are to raise income levels, increase agricultural output, and promote long-term economic growth in Mukurweini Sub-County.

A research gap exists regarding the specific economic empowerment of Mukurweini Sub-County's farmers through the KCSAP project. This is despite research highlighting the positive influence of climate-smart agricultural initiatives on diverse regions' agricultural productivity, income generation, and poverty reduction (Muriuki et al., 2022). This study aims to close this gap. It does this by carefully examining the KCSAP project's implementation and its influence on farmers' economic empowerment in the area. The study will evaluate the initiative's effectiveness in boosting farmers' income levels and market access.

For farmers, economic empowerment is crucial because it considerably contributes to their welfare and long-term advancement (Raina, 2020). By increasing income levels through improved agricultural productivity and profitability, empowered farmers can break the shackles of poverty that are widespread in rural regions (Basu, 2019). These increased resources result in better access to healthcare, nutrition, and education, which promote quality of life improvements (Qureshi, 2016). Additionally, empowered farmers have more money to spend on modern agricultural techniques and supplies, which boosts crop yields, food production, and regional food security (Mukherjee, 2017). This empowerment is perfectly in line with Kenya's larger development objectives, especially the Vision 2030 approach, which places a focus on sustainable growth, poverty alleviation, and enhanced citizen well-being (Michura, 2022). The KCSAP initiative, which directly addresses Mukurweini County's economic challenges, fits in perfectly with this objective.

### **1.1.1 Influence of Kenya Climate Smart Agriculture Project Implementation**

The amount to which the KCSAP project's implementation influences different agricultural practices, economic conditions, and the general well-being of small-scale farmers in the Mukurweini Sub-County is substantial. The influence refers to the changes, positive or negative, which the project brought to the people. The study will explore how the KCSAP project, with its interventions and efforts, changes the outcomes for farmers' economic empowerment. It will emphasize the complex interaction between project implementation and its influence on the local economy. It will capture the primary goal of the study. It seeks to understand how the KCSAP project's execution in particular promotes economic empowerment in a local agricultural environment.

The key to answering the research questions surrounding the project's implementation is to identify the mechanisms through which the Kenya Climate Smart Agriculture Project's efforts result in better economic conditions for farmers. Due to the urgent need to find a solution to the continuous problems small-scale farmers in Mukurweini Sub-

County are facing, this suggestion merits thorough attention. It is crucial to investigate how adopting climate-smart farming techniques can boost farmers' financial security. This is due to the agriculture sector's susceptibility to climate change and low productivity.

By combining qualitative and quantitative techniques, researchers have operationalized the influence of the Kenya Climate Smart Agriculture Project. To determine the degree of influence, surveys, structured interviews, and statistical analysis are often utilized methods. Comparatively, qualitative evaluations go into farmers' actual experiences, recording narratives and anecdotes that show the real changes that the project's implementation has resulted in. A combination of these methodologies is necessary to fully comprehend the project's influence.

### **1.1.2 The Concept of Economic Empowerment**

Economic empowerment, the study's main concept, has been defined and investigated by a variety of academics, allowing for a thorough comprehension of its complex nature. The process by which individuals or groups reclaim control over economic resources and decision-making, improving their financial well-being and enabling them to make their own economic decisions, is described as economic empowerment by Raina (2020). Yang et al. (2023) emphasize that economic empowerment covers more than just having money and includes factors like having access to credit, owning assets, and participating in the economy. These viewpoints define economic empowerment for the purposes of this study as the capacity of farmers to increase their income levels, have access to financial resources, own productive assets, and engage in economic activities.

Several study topics that relate to economic empowerment should be looked at. The primary objective of the study is to assess the influence of the Kenya Climate Smart Agricultural Smart Program (KCSAP) implementation on farmers' economic circumstances. This requires figuring out whether KCSAP programs like market access and capacity building lead to measurable increases in farmers' income. Also, if

climate change education has the same influence. The study investigates the role of economic empowerment in breaking the cycle of rural poverty. Also, it examines how raising farmers' wages and ensuring their financial stability might improve their quality of life. It aims to pinpoint the mechanisms through which economic empowerment affects other elements of farmers' lives. These include their access to healthcare and their overall quality of life.

Prior studies have frequently used a mix of quantitative and qualitative metrics to measure economic empowerment. Researchers like Basu (2019) have evaluated income growth, asset ownership, and credit access to operationalize economic empowerment. Surveys have been used by other researchers, such as Mukherjee (2017), to evaluate the financial decision-making freedom and capacity of farmers. These studies offer insightful information about the many facets of economic empowerment. In keeping with these strategies, this study will use a similar mixed-methods approach, combining qualitative information from farmer interviews with quantitative measures like income changes and asset ownership to fully assess the economic empowerment of farmers within the context of the KCSAP project.

### **1.1.3 Economic Empowerment connection to Stakeholder Engagement, Capacity Building, and Monitoring and Evaluation**

Stakeholders' engagement has the potential to enhance economic empowerment. It is envisaged that stakeholders' active involvement in KCSAP implementation will promote cooperation, ownership, and group accountability. With increased access to information, resources, and markets, farmers are expected to embrace climate-smart practices and experience greater economic prosperity as a result of this participation. This idea is supported by empirical research, which shows that involved stakeholders provide a variety of skills and resources, ultimately enhancing project performance and livelihoods. For instance, Chinsinga and Moyo (2016) highlight stakeholder involvement's favorable influence on project performance, Maestre and Ramos (2018) illustrate its influence on sustainable agricultural methods, and Hickey and Mohan

(2005) emphasize stakeholder involvement for effective development outcomes.

Capacity building is expected to significantly promote economic empowerment. It is believed that educating, training, and exposing small-scale farmers to modern farming techniques will boost their output, income, and decision-making abilities. Research demonstrates that capacity-building activities have a positive influence on farmers' adoption of new technology and income-generating methods, which supports this notion. Teklewold and Köhlin (2010) draw attention to the positive link between education and productivity; Wossen et al. (2017) stress the significance of capacity building for decision-making; and Deom et al. (2020) show how it affects the adoption of new technologies and wage growth.

By improving resource allocation and decision-making, monitoring and evaluation (M&E) is expected to have an influence on economic empowerment. It is believed that structured data collection and implementation of evaluation results are necessary to link project operations with the needs and goals of farmers. The importance of M&E in assessing project outcomes is emphasized by empirical data that supports this point of view. to promote data-driven decision-making as well. Studies like those by Picciotto (2012) and Rogers (2019) emphasize performance metrics and case studies, respectively, for assessing the efficacy of M&E. This thorough examination of M&E's contribution to sustainable rural development draws on both quantitative information and in-depth qualitative observations.

## **1.2 Statement of the Problem**

The agricultural sector is a major contributor to employment creation and food security in Kenya. But the industry deals with several problems, including the consequences of climate change, a lack of resources, and low production (Wamari et al., 2007). The Kenya Climate Smart Agriculture Program (KCSAP) was developed by the Kenyan government and development groups to address these problems and enhance sustainable agricultural practices (KCSAP, 2022). The KCSAP aims to boost climate resilience, increase agricultural productivity, and enhance farmers' quality of

life nationwide.

Mukurweini Sub-County in Nyeri, a region with a sizable farming community and a strong agricultural economy, is the center of this program (Maina et al., 2019). This area faces a variety of agricultural challenges, including irregular rainfall, degraded soil, restricted market access, and outmoded farming practices (Owuor, 2009). The KCSAP intervenes with a variety of programs, including ones to create capacity, teach climate-smart agricultural practices, provide cutting-edge agricultural technologies, provide financial access, and establish market ties (KCSAP, 2022). The main objectives are to increase agricultural productivity, boost farmer incomes, and promote sustainable economic growth in Mukurweini Sub-County.

Despite the commendable nature of these efforts, little study has been done to examine the precise influence of the KCSAP's implementation on economic empowerment in Mukurweini Sub-County. Existing research has shown that climate-smart agriculture interventions have positive influence on revenue generation, agricultural production, and poverty reduction in a variety of settings (Muriuki et al., 2022), there is no particular evidence of the influence of similar projects implementation on economic empowerment.

Additionally, in line with the observations made by (Jeffrey&Dennis, 2017), a pivotal element in project implementation is its effectiveness in achieving the originally established aims, which, in the case of KCSAP, revolves around economic empowerment of the targeted farmers. This justifies the need and gap to specifically conduct this study.

A study conducted by (Kamau, 2016), exploring the causes of outmigration in Mukurweini County, underscored economic status as a major driver of outmigration. Consequently, enhancing knowledge and comprehension of the economic empowerment of the people in Mukurweini County has become increasingly imperative. This study examines how the KCSAP project's execution influences farmers' economic empowerment in Mukurweini Sub-County to close this information gap. The focus of the study includes elements like raised household income levels, improved savings, and livestock/farming uptake.

This study aims to advance knowledge of how climate-smart agriculture projects are implemented and how they support rural sustainability. The research findings will offer valuable information for policymakers, agricultural experts, and development organizations looking to design and implement interventions that improve smallholder farmers' economic empowerment and resilience, as well as insights into the influence of the KCSAP project. The goal of the study is to demonstrate the relationship between the KCSAP's implementation and the farmers in Mukurweini County's economic empowerment.

### **1.3 Research Objectives**

The study specifically had the following objectives:

- I. To examine the extent to which stakeholder engagement in the KCSAP project influences the economic empowerment of small-scale farmers in Mukurweini Sub-County, Nyeri County, Kenya.
- II. To establish the extent to which capacity building of small-scale farmers in the KCSAP project influences their economic empowerment in Mukurweini Sub-County, Nyeri County, Kenya.
- III. To assess the influence of Monitoring and Evaluation of the KCSAP project on the economic empowerment of small-scale farmers in Mukurweini Sub-County, Nyeri County, Kenya.

### **1.4 Research Questions**

The study sought to answer the following research questions:

- I. To what extent does stakeholder engagement in the KCSAP project influence economic empowerment of small-scale farmers in the Mukurweini sub-county, Nyeri County, Kenya?
- II. To what extent does the capacity building of small-scale farmers in the KCSAP project influence their economic empowerment in Mukurweini sub-county,



Nyeri County, Kenya?

- III. To what extent does Monitoring and Evaluation of the KCSAP project influence the economic empowerment of small-scale farmers in Mukurweini County, Nyeri County, Kenya?

### **1.5 Value of the Study**

This study's significance on the influence of the Kenya Climate Smart Agricultural Smart Program (KCSAP) Project's implementation on farmers' economic empowerment in Mukurweini County, Nyeri, is extensive and has ramifications for many parties involved in agricultural development and project implementation.

The study's findings will be helpful for farmers and other agricultural professionals in Mukurweini County. Farmers can better know the advantages, difficulties, and possibilities involved with implementing agricultural projects by comprehending the efficacy and influence of the KCSAP Project implementation on economic empowerment of farmers in the area. With this information, they will be better equipped on what to demand when it comes to implementing future projects, to ensure meaningful influence and ultimately boosting income production, livelihood enhancement, and overall economic empowerment.

The results could prove advantageous for the project implementers, enabling them to evaluate the influence of the study, given that a primary objective was to enhance the economic empowerment of farmers in Mukurweini Subcounty, Nyeri County.

Several Sustainable Development Goals (SDGs), including SDG 1 (No Poverty) and SDG 2 (Zero Hunger), are also in line with the study. The KCSAP project immediately helps to eradicate poverty and increase food security by focusing on the economic empowerment of farmers. The results of this study will offer information that can be utilized to guide project implementation policies and initiatives that promote sustainable and equitable agriculture practices to achieve these SDGs.

The importance of this work rests in its ability to influence decision-making, empower farmers and stakeholders, advance scholarly understanding, and aid in accomplishing

important Sustainable Development Goals (Mukherjee, 2017).

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

Using the following criteria: Overview of Economic Empowerment, Influence of Stakeholder Engagement, Influence of Capacity Building, and Influence of Monitoring and Evaluation, this chapter will review the pertinent literature to examine the role of the KCSAP (Kenya Climate Smart Agricultural Smart Project) project in influencing the economic situation of farmers in Mukurweini Sub-County, Nyeri. Additionally, a theoretical framework for improved security is covered. The conceptual framework to demonstrate the association between the dependent and independent variables is also provided in this chapter.

#### **2.2 Theoretical Framework**

A set of interconnected theories-based concepts is referred to as a theoretical framework. According to Kombo and Tromp (2006), the theoretical framework accounts for and explains occurrences to shed light on why things are the way they are. This study is based in many theories. The most relevant theories are as below-:

##### **2.2.1 The Capability Approach Theory**

This is the main theory supporting this study. The Capability Approach theory, created by philosopher Martha Nussbaum and economist Amartya Sen, provides an insightful viewpoint on economic empowerment. In accordance with this notion, economic empowerment isn't just measured by money or income but also by a person's capacity to live a meaningful life. According to Sen (1999), enhancing people's capacities and freedoms to make decisions and live the lives they value is important, according to the capability approach. The Capability Approach focuses on enhancing people's capacities and agency to engage in economic activities, access resources, and attain their desired

well-being in the context of economic empowerment. It acknowledges that economic empowerment entails giving people the flexibility and chances to live the lives they value, rather than just raising income levels. The Capability Approach ensures that people and communities can express their preferences, voice their concerns, and actively create policies and programs that affect their lives by recognizing the importance of agency and participation in decision-making processes (Gangas, 2019).

Through the KCSAP project, the Capability Approach recognizes that economic empowerment is not solely about income generation but encompasses expanding individuals' capabilities and opportunities to pursue valued functioning. Through capacity building, the KCSAP project seeks to empower farmers by equipping them with the necessary capabilities to make informed decisions, adopt climate-smart agricultural techniques, and effectively manage their resources (Deakin, 2019; Stoecker, 2010).

Alkire and Deneulin's 2009 study looked into how the Capability Approach and human development are related. They place a strong emphasis on the value of skills in fostering economic empowerment and well-being. Also, Robeyns (2005) provides a comprehensive overview of the Capability Approach. Here, it addresses the intellectual underpinnings of the idea and how it might be applied in many situations, such as economic empowerment. The research's findings will give policymakers and development professionals a better understanding of the variables affecting economic empowerment among farmers in the Mukurweini Sub County, allowing them to create more specialized and successful interventions that build people's capacities and support long-term economic empowerment.

### **2.2.2 The Theory of Change**

The Theory of Change is a strategic planning and evaluation framework that guides organizations in understanding how change happens and the interventions needed to achieve desired outcomes. The Theory of Change is a framework that logically and methodically directs the process of gaining economic empowerment. It aids in establishing the sequence of events and connections between the various components of a

program or intervention. It can identify the essential elements and how they contribute to the overall objective by using the Theory of Change to analyze economic empowerment. A well-organized framework for program design, execution, and evaluation is provided by the theory of change. In the KCSAP (Kenya Climate Smart Agriculture Project) context, the Theory of Change provides a valuable framework for understanding the project's objectives and the pathway toward achieving its desired outcomes (Whiteley & Whiteley, 2006). KCSAP aims to promote climate-smart agriculture practices among smallholder farmers in Kenya, including those in Mukurweini Sub County. The Theory of Change helps map the project's logical progression by identifying key inputs, activities, outputs, outcomes, and influences. Inputs in the KCSAP Theory of Change may include financial resources from the World Bank, technical expertise, collaboration with government agencies and local organizations, and the participation of farmers in the project. Outputs of the KCSAP project may include the number of farmers trained, the adoption rate of climate-smart practices, the area of land under sustainable management, the availability of accurate weather information, and the development of market connections for farmers.

The importance of the Theory of Change in constructing empowerment within gender and development policies is examined by Sweetman (2017). It investigates how economic empowerment is conceived of, put into practice, and how it advances broader gender equality and development objectives. Additionally, in the context of the gender-training program run by CEDPA, Mayoux (2001) uses the Theory of Change to create a theoretical framework for empowerment actions. The Theory of Change is used in a different study by Nkowitz (2018) to examine youth employment initiatives in Zambia. Examining the underlying presumptions, causal chains, and anticipated results of the projects, it places particular emphasis on the contribution of economic empowerment to the expansion of young job prospects. The Theory of Change is used in the development of transformative social protection policies that support economic empowerment, according to Sabates-Wheeler and Devereux (2010). In order to effectively empower vulnerable groups, it highlights the necessity for a thorough knowledge of the causal relationships between social protection actions and their intended consequences.

## **2.3 Determinants of Economic Empowerment**

### **2.3.1 Stakeholder Engagement**

Stakeholder participation is a crucial component of project management and decision-making processes. Guaranteeing that their opinions, needs, and concerns are considered entails actively involving people, groups, and organizations with a stake in the project. Effective stakeholder involvement fosters collaboration, accountability, and transparency throughout the project lifecycle. The first important step is to identify and map out the stakeholders. In this step, people, groups, organizations, and institutions influenced by the project, either directly or indirectly, are identified and categorized (Lovrić, 2020). Beneficiaries of the project, local communities, governmental bodies, non-governmental organizations, companies, and civil society organizations are examples of stakeholders. Understanding stakeholders' relationships, interests, and levels of influence through stakeholder mapping enables more effective engagement tactics.

Stakeholder engagement's second component is effective and clear communication. It includes the timely and open exchange of pertinent project information, goals, status updates, and decision-making procedures (Ding, 2015). Communication channels like workshops, newsletters, websites, and social media platforms disseminate information and involve stakeholders. Stakeholders can express their thoughts, offer input, and keep up with project advancements by promoting open, two-way communication.

Stakeholder involvement also includes consultation and participation, which are both essential elements. Stakeholders must be actively involved in the planning, decision-making, and execution phases of the project. While participation entails giving stakeholders' active control over the project's conception and implementation, consultation entails asking stakeholders for feedback and counsel on essential issues (Kamumbu & Zhao, 2020). Targeted surveys, public hearings, and focus groups are all examples of stakeholder consultations. The project design is more inclusive and reflective of the varied requirements and preferences of individuals engaged by incorporating stakeholder opinions. The implementation of feedback channels and grievance redressal procedures is the final element. Throughout the project, feedback mechanisms give

stakeholders a forum to voice their opinions, comment, and offer insight (Arelli et al., 2006). These tools may include designated idea boxes, feedback channels, or contact people. Grievance redressal procedures guarantee that project stakeholders have a way to report grievances or disputes and that these issues are swiftly and equitably resolved.

Stakeholder engagement, a cornerstone of modern development initiatives, emerges as a powerful catalyst for fostering economic empowerment among small-scale farmers. In the context of the KCSAP project, stakeholder engagement encapsulates an ecosystem where farmers, governmental bodies, non-governmental organizations, and local communities collaboratively navigate the path toward enhanced economic outcomes.

This collaborative approach echoes the notion of shared ownership, where farmers are not just beneficiaries but active participants in project decision-making. Studies like Muriithi et al. (2019) emphasize that stakeholder engagement instills a sense of agency and ownership among farmers, equipping them with the tools to navigate market dynamics and resource allocation effectively. When farmers are part of the decision-making process, project interventions are better aligned with their needs and aspirations, leading to optimized resource utilization and economic gains.

Furthermore, robust stakeholder engagement generates a platform for knowledge exchange. As farmers interact with extension workers, researchers, and fellow farmers, a rich pool of insights emerges. This collective wisdom, coupled with climate-smart agricultural practices promoted by KCSAP, enhances productivity and resource efficiency. For instance, collaboration with extension services may lead to the adoption of improved crop varieties or sustainable irrigation techniques, directly influencing crop yields and, consequently, income.

The influence of stakeholder engagement extends beyond economic gains. Social networks are strengthened, fostering a sense of community cohesion. Shared learning experiences forge bonds among farmers, enhancing information dissemination and knowledge uptake (Anuniação, 2015). These social linkages often translate to collective action, enabling farmers to negotiate better prices in markets and access financial services more easily.

By positioning farmers as active stakeholders, not mere recipients, the KCSAP project

not only improves economic indicators but cultivates a culture of resilience, adaptability, and shared progress. The subsequent analysis will delve deeper into the nuances of this relationship, illuminating how stakeholder engagement directly shapes economic empowerment within Mukurweini sub-county.

### **2.3.2 Capacity-Building**

Building capacity is essential to improving people, groups, and communities' knowledge, talents, skills, and resources. It is a thorough and ongoing endeavor essential for promoting positive transformation and sustainable growth. According to Anastasi (2018), giving people and organizations the skills and resources, they need to successfully overcome obstacles, accomplish desired results, and adapt to changing conditions is the main goal of capacity building (Caron, 2018). It includes various initiatives and activities intended to advance learning, build competencies, and bolster organizational capabilities. Initiatives that enhance knowledge give people and businesses access to the most recent information, industry best practices, and technological know-how. They gain a greater comprehension of the subject through this knowledge transfer, helping them to make wise decisions and use creative methods of problem-solving. The development of skills is yet another essential component of capacity building. It entails equipping people with the hard and soft skills they need to carry out their roles successfully (Matoti, 2022). Project management, data analysis, and specialized technical knowledge relating to the industry or subject are examples of technical talents. Soft skills are those that are necessary for teamwork, effective communication, and relationship-building. These include communication, leadership, teamwork, and flexibility.

Improving training and expertise is one of the essential components of capacity building in the KCSAP project. According to Hansen (2011), participants in training programs for farmers learn about climate change, how it affects agriculture, and how to adopt climate-smart agricultural techniques. The KCSAP project's capacity-building initiatives place equal emphasis on improving financial literacy and access to finance as they do on training and the development of technical skills. In order to effectively manage their farms and make investment decisions, farmers receive training in financial management,



budgeting, and record-keeping. In order to increase access to finance and other financial services and allow farmers to invest in climate-smart technologies and practices, the initiative also enables connections between farmers and financial institutions (Mawois et al., 2019).

Capacity building, a cornerstone of sustainable development, emerges as a potent driver in catalyzing economic empowerment among small-scale farmers within the ambit of the KCSAP project. In a landscape where knowledge and skills underpin success, capacity building offers a transformative pathway towards enhanced economic outcomes.

KCSAP's emphasis on capacity building transcends the mere transfer of technical know-how. It encompasses a multifaceted approach, spanning from equipping farmers with climate-smart agricultural practices to fostering financial literacy and entrepreneurship skills. This holistic approach resonates with the findings of Kiiru et al. (2020), who underscore the pivotal role of financial resource management in augmenting farmers' economic well-being.

Through enhanced knowledge dissemination, farmers gain a deeper understanding of climate-responsive agricultural techniques. As they adopt practices aligned with their ecological context, yields surge, and post-harvest losses diminish. These tangible gains ripple through the economic spectrum, directly influencing income levels. Moreover, capacity building equips farmers with the skills to diversify their income streams. For instance, knowledge of value addition techniques might transform surplus produce into processed goods, thereby tapping into higher-value markets. Equally vital is the cultivation of financial literacy. Farmers armed with financial acumen are better poised to access credit and invest judiciously. Kiiru et al. (2020) posit that access to finance empowers farmers to make strategic choices, such as acquiring modern agricultural inputs or adopting innovative technologies. This financial empowerment not only bolsters immediate economic gains but also fosters resilience against unforeseen shocks.

Capacity building extends beyond individual farmers to entire communities. Farmer groups or cooperatives, often a product of capacity-building initiatives, amplify farmers' collective bargaining power. These cohesive units open avenues for bulk procurement, shared marketing, and collective resource mobilization. These practices, as demonstrated

by Kiiru et al. (2020), create a conducive environment for economic growth by leveraging economies of scale.

In essence, capacity building within the KCSAP project serves as a transformative force, nurturing the economic empowerment of small-scale farmers in Mukurweini sub-county. By equipping farmers with knowledge, skills, and financial literacy, KCSAP not only augments immediate economic outcomes but paves the way for sustainable prosperity. The forthcoming analysis will delve deeper into these dynamics, elucidating the nuances of how capacity building directly interlaces with economic empowerment.

### **2.3.3 Monitoring and Evaluation**

Monitoring and Evaluation (M&E) is essential in determining the success and outcomes of development programs, especially those that promote economic empowerment. M&E operations offer a systematic and evidence-based approach to monitoring progress, identifying obstacles, and making knowledgeable decisions for project improvement in the context of initiatives aimed at empowering farmers.

The accuracy and timeliness of data are two metrics for tracking and assessing M&E activity. This indicator evaluates the timeliness and dependability of the data gathered during the M&E process. According to Taylor (2013), this indicator helps determine the success of data collection operations by ensuring that the data accurately reflects the reality on the ground and is acquired within the allotted time frames. Routine checks and verification procedures can be used to assess the gathered data's completeness, quality, and consistency. Timeliness may be evaluated by contrasting the actual data collecting and reporting deadlines with the anticipated ones.

The use of M&E findings is another crucial indicator. This indicator examines the use of M&E findings in decision-making and project improvement procedures. It gauges how project plans and interventions are shaped due to M&E operations (Sharma, 2005). Stakeholders can assess the success of the M&E process by evaluating whether the findings are considered during project management and decision-making. Monitoring the incorporation of M&E recommendations into project plans, budgets, and activities will

allow you to assess this indicator.

Monitoring and Evaluation (M&E), a cornerstone of effective project management, emerges as a potent tool in driving economic empowerment among small-scale farmers within the framework of the KCSAP project. M&E not only facilitates accountability but also shapes strategic interventions that amplify economic outcomes.

The symbiotic relationship between M&E and economic empowerment is underscored by the work of Wanjiku et al. (2018), who highlight the transformative potential of robust evaluation mechanisms in amplifying agricultural productivity and economic upliftment.

M&E is fundamentally a system for monitoring the success of project interventions. Crop yields, income levels, and resource use are just a few examples of the indicators that M&E closely examines in order to show the causal relationships between project activities and economic outcomes. M&E is an essential tool in determining, for instance, if the adoption of particular climate-smart agricultural methods leads to increased yields and income. Such insights are essential for optimizing interventions, resource allocation, and financial advantages.

M&E also acts as a channel for adaptive management. Real-time modifications are required due to agriculture's dynamic nature in order to reduce risks and take advantage of possibilities. According to Wanjiku et al. (2018), this agility increases economic resilience by ensuring that farmers receive the necessary assistance at the precise time they require it.

When stakeholder participation is taken into consideration, the importance of M&E is enhanced. A valuable feedback loop is created by the insights obtained through M&E methods, which supports collaborative decision-making. Incorporating farmer insights into M&E helps project implementers match interventions with the needs and goals of small-scale farmers. By allocating resources to sectors that produce the greatest economic benefits, this alignment directly influences economic results.

Beyond project optimization, M&E contributes. It is crucial for gaining support from stakeholders, obtaining money, and influencing policy decisions that it plays a role in the generation of empirical evidence (Subuddhi, 2009). Realistic proof of economic empowerment that is backed up by M&E data raises the project's credibility and expands

its possibilities for expansion.

In the KCSAP project, M&E essentially serves as a strategic compass, directing interventions that advance the economic empowerment of small-scale farmers in the Mukurweini sub-county. M&E serves as a keystone in the process of achieving economic development by promoting data-driven decision-making, encouraging adaptive management, and boosting stakeholder participation. The analysis that will be released in the near future will go deeper into the complexities of this connection and clarify how intimately M&E and economic empowerment are linked.

## **2.4 Empirical Studies**

The studies carried out by different researchers on the financial impact of KCSAP on Mukurweini farmers are reviewed in this section. Stakeholder involvement is highly valued in Kenya's agriculture, infrastructural development, and environmental protection sectors. For instance, the National Cereals and Produce Board (NCPB) interact with farmers, cooperatives, and agricultural associations to comprehend their requirements and concerns. Kamau (2017) posits that through routine meetings and consultations, the NCPB gets input on grain procurement procedures, costs, and storage options, allowing them to make favorable decisions for all parties.

A study by Munyao (2020), reveals that the involvement of stakeholders in the extractive industry, such as mining and oil exploration, is another notable instance in Kenya. The Ministry of Mining and the National Environmental Management Authority (NEMA) work with these groups and other pertinent parties to guarantee that local community' concerns about environmental influences, land rights, and compensation are addressed. Environmental influence assessments, public hearings, and stakeholder consultations are held to promote discussion and include stakeholder input in decision-making processes. According to Yushaeva (2021), stakeholder involvement has been prioritized in East Africa's regional initiatives to support sustainable development. Stakeholders from the member nations of the East African Community (EAC), a regional intergovernmental organization, include Kenya, Tanzania, Uganda, Rwanda, Burundi, and South Sudan

(Jerono, 2020). The EAC collaborates with and solicits feedback on regional policies, trade agreements, and infrastructure projects from various stakeholders, including government agencies, businesses, civil society organizations, and individuals. For instance, the participation of stakeholders in the EAC's Common Market Protocol ensured that business organizations, consumer groups, and labor unions' concerns were taken into account, leading to a more inclusive and equitable regional trading framework. Stakeholder involvement is essential for efficient ecosystem management in conservation and wildlife management. The Kenya Wildlife Service (KWS) regularly collaborates with local communities, indigenous groups, and conservation organizations in Kenya to manage conflicts between people and animals, encourage environmentally friendly travel, and safeguard endangered species. A study by Agon (2018) reveals that for local stakeholders to participate in decision-making processes, the KWS incorporates community-led conservation projects, including community conservancies and wildlife management committees. Stakeholder involvement is also essential for East African infrastructure development initiatives. According to a study by Nthamburi (2019), stakeholder involvement has been given priority in projects like the East African Crude Oil Pipeline (EACOP), which covers several East African nations, and the Standard Gauge Railway (SGR) being built in Kenya. Concerns about land acquisition, compensation, and environmental implications have been addressed through consultations with influenced communities, environmental organizations, and the appropriate authorities. These interactions have made identifying mitigation strategies easier and including local stakeholders in project design and execution. Several crucial elements go into effective stakeholder engagement with farmers.

Franklin (2020) reveals that farmers-led committees, focus groups, and participatory workshops all help to encourage active participation in planning and decision-making.

Even though stakeholder engagement is important, there can still be holes and difficulties in the KCSAP project in Mukurweini. One such gap is the lack of knowledge and comprehension of the project's goals among some farmers. This should be addressed by disseminating information clearly and understandably. Communication and linguistic obstacles may make it challenging to engage stakeholders effectively. To effectively

communicate with all farmers, employing local languages and the proper communication channels is necessary (Ortiz, 2021). It could be challenging to ensure that all farming communities, including women, young people, and marginalized groups, are represented equally. It is crucial to actively include these groups in decision-making processes to ensure their perspectives are heard and their particular needs are met.

Capacity building is a crucial area of effort in addition to enhancing personal competence. This entails building up the capabilities of various groups, including governmental and non-governmental ones as well as neighborhood-based ones (Weber & Musshoff, 2013). Building institutional capacity strives to strengthen organizational processes and procedures, improve administrative systems, and enhance governance structures. Building capacity helps people and communities be more resilient, makes it easier for them to adjust to changing conditions, and fosters innovation and creativity (Oyedokun & Leocadia, 2017). The importance of capacity building in the context of development projects cannot be overstated. As a result, project ownership and sustainability are improved. It ensures that project beneficiaries are actively involved in developing, implementing, and managing initiatives (Moscardo, 2008). These could include a lack of funding, poor access to educational opportunities, and challenges in assessing the results of capacity-building activities. In the opinion of Daffé and Diallo (2019), overcoming these challenges requires a coordinated and holistic approach involving collaboration between governments, development agencies, civil society organizations, and other stakeholders. One prominent example can be found in the agricultural sector, where capacity-building programs have been implemented to enhance farming practices, promote agribusiness, and ensure food security. The Kenya Agricultural Productivity and Agribusiness Project (KAPAP) is a notable effort that aims to build the capacity of farmers. Farmers receive training on modern farming techniques, post-harvest handling, and value addition through this project. They also gain knowledge on market access, entrepreneurship, and financial management (Lohva et al., 2013). By equipping farmers with these skills, KAPAP empowers them to increase their productivity, improve the quality of their products, and access lucrative markets, thereby enhancing their incomes and livelihoods.

To improve the capabilities of healthcare personnel, capacity development programs have been launched in the industry. The Ministry of Health, in collaboration with various development partners, has conducted training programs for healthcare workers in areas such as maternal and child health, infectious diseases, and healthcare management. In the opinion of Hoffmann et al. (2010), these initiatives have increased healthcare professionals' abilities to provide high-quality care, react to public health emergencies, and put efficient disease prevention and control measures in place. There have been major capacity-building activities in the education sector as well. For instance, the Teacher Capacity Building Program (TCBP) seeks to improve the knowledge and abilities of educators throughout Kenya.

The Kenya Climate Innovation Center (KCIC), which fosters the expansion of cutting-edge climate technology ventures, is another noteworthy instance of capacity building in Kenya. For business owners creating climate-smart solutions, the KCIC offers training, mentoring, and access to funding. This capacity-building program supports adopting sustainable technology and practices to address the challenges posed by climate change while also enhancing the technical expertise and commercial savvy of entrepreneurs. The goals of capacity building have been to advance good governance and increase the efficiency of the public sector (Mishra & Krishna, 2021). Programs for strengthening civil servants' abilities are available from the Kenya School of Government, focusing on public administration, leadership, governance, and policy-making. These programs give public servants the abilities and information they need to carry out their responsibilities successfully, build institutional capacity, and advance accountable and transparent governance.

M&E (monitoring and evaluation) is a crucial component of development efforts globally and in specific Kenyan regions. M&E operations cover a variety of elements that are crucial for gauging the effectiveness and progress of a project. In M&E, data gathering and analysis are essential. M&E activities in Kenya entail systematically collecting data to monitor project outcomes, indicators, and targets. A key component of M&E is evaluating the results and influences of projects. This requires assessing the degree to which project interventions have had the desired influence and their overall influence on

the target population. Regular monitoring makes it possible to keep track of project activities, outputs, and interim outcomes about setting goals and benchmarks (Pereznieto & Taylor, 2017). Ensuring initiatives are on their way and moving toward their goals entails constant data collection and analysis. Monitoring operations give stakeholders rapid input on project execution, allowing them to spot problems, fill gaps, and make wise decisions to improve project performance.

Various regions of Kenya, including Mukurweini Sub-County, engage in monitoring and evaluation (M&E) efforts to evaluate the effectiveness of development programs like the Kenya Smallholder Climate Adaptation Project (KCSAP). M&E is essential to the success and efficacy of programs, especially regarding farmers' economic empowerment. M&E activities are conducted in Kenya at the national, county, and sub-county levels. Governmental organizations and implementing partners perform M&E at the national level to evaluate the overall influence of projects carried out throughout the nation. This entails keeping tabs on accomplishing project goals, gauging the success of interventions, and offering suggestions for policy development and decision-making (Jiang et al., 2008). In Kenya, national-level M&E frequently involves data gathering, analysis, and reporting to support government resource allocation and strategic planning.

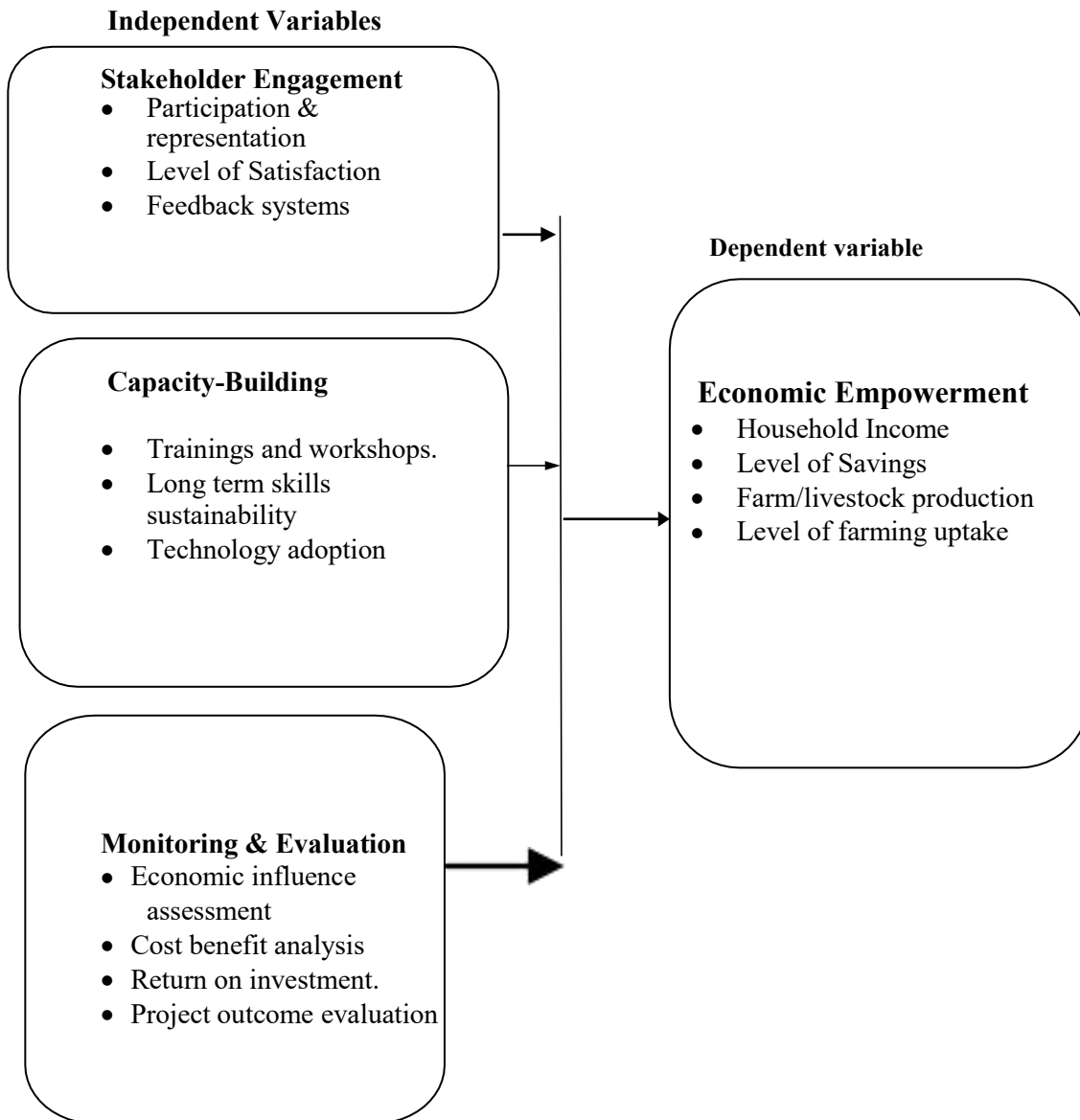
County governments and other stakeholders conduct M&E activities at the county level to evaluate project implementation within their respective spheres of influence. M&E activities are carried out in Mukurweini Sub-County to assess the development and influence of the KCSAP project precisely. This includes keeping track of the project's interventions, evaluating their success, and offering suggestions for project improvement. Local authorities in Mukurweini Sub-County can monitor the project's results, spot obstacles, and make wise decisions to ensure its success, thanks to county-level M&E. The KCSAP project's M&E efforts in Mukurweini Sub-County are directly related to its goals and actions. The project aims to improve smallholder farmers' resilience and solve issues brought on by climate change (Addicott, 2019). As a result, M&E initiatives track the adoption and influence of climate-smart agricultural practices, evaluate the efficacy of interventions like access to productive resources and market links, and measure the overall results of economic empowerment for farmers.



The KCSAP project in Mukurweini Sub-County involves several M&E operations. Data gathering on important variables, such as crop yields, income levels, the adoption of climate-smart practices, and market accessibility, maybe one of them. Thakkar (2022) states that to ensure accurate and dependable information for decision-making, data quality and timeliness are prioritized. Additionally, it is essential to use M&E findings to guide project management and improvement procedures. By tracking results, evaluating interventions, and offering insightful feedback for decision-making, M&E activities at the national, county, and sub-county levels help ensure project effectiveness and success (Sica, 2017). The KCSAP project in Mukurweini Sub-County focuses on climate-smart agriculture, resource access, market connections, and overall economic empowerment outcomes for farmers. M&E efforts are closely connected with these aims.

## 2.5 Conceptual Framework

Figure 1: Conceptual Framework



## **2.6 Summary of Literature Review**

Several significant areas of economic empowerment, monitoring and evaluation, stakeholder participation, and capacity building were clarified by the literature reviews that were undertaken. It has become clear that economic empowerment, particularly among farmers, is essential for reducing poverty, ensuring food security, and promoting sustainable development. It gives people the tools, assistance, and resources to advance their economic situation and boost their general well-being. This is especially important in agriculture, as farmers face many difficulties and risks.

It was acknowledged that monitoring and evaluation were crucial elements of development efforts. They offer insightful information about project status, results, and efficiency. Project stakeholders can evaluate the efficacy of interventions and make wise decisions for development by using key indicators like awareness of project progress, feedback systems, and utilization of assessment outcomes. Stakeholder involvement has become a key component of inclusive and participatory development, particularly in decision-making processes. Engaging all parties, especially farmers, promotes accountability, ownership, and teamwork. Participation in decision-making, cooperation with other stakeholders, and satisfaction with engagement procedures are all signs of effective stakeholder engagement.

For farmers to improve their knowledge, skills, and decision-making processes, capacity building is crucial. Farmers can diversify their sources of income, learn new skills, and enhance their decision-making processes through training programs and capacity-building efforts. The influence of capacity building on economic empowerment are shown in indicators like more excellent knowledge and skills, better decision-making, and income diversity.

## CHAPTER THREE

### RESEARCH METHODOLOGY

#### 3.1 Introduction

This chapter outlines the methodologies and approaches that were employed for data collection, processing, and analysis. It includes the following subsections: research design, target population and sampling, data collection instruments, data collection procedures, and data analysis.

#### 3.2 Research Design

To examine the influence of the implementation of the Kenya Climate Smart Agricultural Smart Program (KCSAP) project on the economic empowerment of farmers in Mukurweini Sub-county, Nyeri County, this study utilized a descriptive research design. Descriptive research is a well-suited approach for our investigation as it focuses on systematically describing and analyzing the existing phenomena, providing a comprehensive understanding of the subject under study. A descriptive research design is particularly pertinent to our study since it captured the current situation and emphasized patterns, trends, and interactions between variables, as explained by Robson (2016).

#### 3.3 Target Population

According to Bless, Higson, and Kagee (2006), the target population refers to the specific elements that the research aims to focus on, and the findings obtained from the sample should be generalized to this population. The primary target population for this survey is farmers initially involved in the KCSAP project. They also comprise the key target for implementation of the project and economic empowerment. In this study, nevertheless, the target population comprises two main groups: the farmers in Mukurweini Sub-County who have benefited from the interventions of the KCSAP project, and the stakeholders involved, including group leaders and local administrators. The farmers are members of the 15 farmers' common interest groups, each consisting of 15 or more members.

The study will specifically target a total of 226 farmers and 15 stakeholders who were actively involved in the implementation of the KCSAP project. The selected participants

will be distributed across two wards within Mukurweini Sub-County, namely Mukurweini Central and Rugi ward.

### 3.4 Sample Size and Sampling Methods

Kratochwill (2015) highlights that sampling involves the selection of a specific number of subjects from a defined population in order to represent the entire population. In this research study, a stratified random sampling design was employed, where each element within the common interest group had an equal chance of being selected.

The sample frame for this study consisted of a total of 225 farmers who are members of the common interest groups (CIGs). To achieve the desired sample size, Stata code was utilized to randomly select 50 farmers to participate in the study. Additionally, an online sample size power calculator suggested that a sample size of 52 farmers would provide sufficient power to generalize the findings. However, considering constraints such as time and financial resources, the sample size was slightly above 20% of the target population. This approach aligns with the recommendations of Mugenda and Mugenda (2003) and Orodho (2009), who advocate for a sample size ranging between 10% and 30% to adequately represent the target population. Table 1 below shows the sample to be used in the study.

*Table 1: Sample Population*

<b>CIG (Common Interest Group)</b>	<b>Sample Size</b>
CIG 1 - CIG 10	3 farmers per CIG
CIG 11 - CIG 15	4 farmers per CIG

### 3.5 Data Collection

The researcher obtained necessary permissions, such as an introduction letter from the university and a research permit from NACOSTI, to gain access to the respondents and

consent to collect the necessary data. The research instruments, including observation checklists, interview guides, and questionnaires, were carefully prepared, ensuring readability and adequacy for the respondents. A comprehensive work plan was developed to outline the timeline for each phase of the research study.

Data collection involved visiting randomly selected individual farmers and stakeholders to conduct the interviews. In addition, the researcher conducted observations to gather relevant information. The researcher collaborated with the respondents to determine a mutually convenient date for the interviews.

### **3.5.1 Research Instruments**

Primary data for this study was collected using enumerator-administered questionnaires targeting farmers, as well as interview schedules for group leaders and administrative leaders. The choice of using questionnaires is supported by Orodho (2009), who emphasizes their ability to provide contextual information and gather substantial data within a manageable timeframe. The questionnaire method was selected for its simplicity in administration and its capacity to gather data from respondents, thereby reducing the researcher's workload.

The questionnaires were carefully designed to include a combination of open-ended and closed-ended questions. Open-ended questions encouraged respondents to provide detailed and unrestricted responses, enabling a comprehensive exploration of their perspectives. Conversely, closed-ended questions provided predetermined response options for easier quantification and evaluation, as recommended by Lewis (2015).

To complement the quantitative data obtained from the questionnaires, in-depth information was collected through interview guides. These interviews provided a platform for gathering rich qualitative data that complements the quantitative insights derived from the questionnaires. Additionally, to ensure a more holistic approach to data collection, observation schedules were utilized.

By employing this diverse range of data collection methods, the researcher had the opportunity to effectively address the study's objectives within the allocated time frame, thereby enhancing the overall analysis and findings.

### **3.5.1.1 Validity of the Research Instrument**

According to Gorald (2013), validity refers to the accuracy and meaningfulness of inferences derived from research findings. To establish the content validity of the questionnaire used in this study, a pilot study was conducted. Content validation, a commonly used approach, involves seeking input from a panel of experts who possess the requisite knowledge and expertise in the field (Lynn, 1986). These experts thoroughly evaluated the questionnaire items, assessing their relevance, clarity, and alignment with the construct being measured.

To ensure content validity, several steps were taken. First, the researcher reviewed the questionnaire and compared it against the study's objectives to ensure congruence. Second, a detailed examination of the questionnaire's components was conducted to determine their significance in relation to the research objectives. By employing these measures, the study aimed to establish the content validity of the questionnaire, thereby ensuring that it effectively captured the intended constructs. This, in turn, enhanced the overall validity of the research findings.

### **3.5.1.2 Reliability of the Research Instrument**

Instrument reliability refers to the consistency and stability of measurement results obtained from a research instrument. To assess instrument reliability, a commonly used method is Cronbach's alpha coefficient ( $\alpha$ ). Cronbach's alpha coefficient to evaluate the internal consistency of the instrument. A Cronbach's alpha value of 0.7 or higher is generally considered acceptable for instrument reliability (Song, Coit, Feng & Peng, 2014). By assessing instrument reliability using Cronbach's alpha, we ensured the consistency and accuracy of the measurement instrument in capturing the intended construct.

A Cronbach's alpha coefficient cut-off of 0.5 and above was used in this investigation. Table 2 displays the total reliability test results.

Variable	Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	Number of Items	Interpretation
Economic Empowerment	0.843	0.850	12	Reliable
Stakeholder Engagement	0.830	0.832	6	Reliable
Capacity Building	0.832	0.837	6	Reliable
Monitoring and Evaluation	0.774	0.778	7	Reliable

*Source: Field data 2023*

The research variable of economic empowerment, comprising 12 items, achieved the highest reliability score of 0.843 Cronbach's alpha coefficient among the study variables in the Table above, based on the results of reliability tests. The Cronbach's alpha coefficients overall gave this investigation a solid foundation. With a Cronbach's alpha coefficient score of 0.774, M&E had the lowest.

### **3.6 Data Analysis**

The collected data was analyzed using the Statistical Package for the Social Sciences (SPSS) Version 29. The questionnaires were coded using Computer-Assisted Personal Interviews (CAPI) and administered electronically. After data cleaning to identify and correct enumerator errors during data entry, descriptive statistics such as frequencies, percentages, mean scores, and standard deviations were calculated for all quantitative variables. The results are presented in the form of tables and graphs.

For the qualitative data obtained from the open-ended questions, a conceptual content analysis approach was employed. This involved identifying common themes and patterns in the responses and organizing them into meaningful categories. The qualitative findings are presented in prose, providing a narrative description of the emerging themes.

### **3.7 Ethical Considerations**

The researcher adhered to ethical standards concerning the rights of the participants and those affected by the study. Participants were fully informed about the study's objectives



and the confidentiality of their information through a consent letter. Their right to withdraw or decline participation, including the right to not answer specific questions or provide certain data, were respected. Participants had the option to withdraw any previously provided data. The researcher ensured that no coercion is exerted on participants, and efforts were made to minimize the time and resources required from them. They were not forced to enter their identities on research instruments to maintain anonymity.

## CHAPTER FOUR

### DATA ANALYSIS, RESULTS, AND DISCUSSION

#### 4.1. Introduction

This chapter provides the data findings from the investigation into the influence of the Kenya Climate-Smart Agriculture Project (KCSAP) on economic empowerment in Mukurweini Sub-County. Specifically, it covers the descriptive statistics that provide an overview of the data collected, the study's estimated or empirical model, a discussion of the study's findings in relation to previous research, and a summary of the chapter.

#### 4.2. Demographics of Participants

The inclusion and diverse representation of project participants are intimately linked to the economic empowerment of farmers in Mukurweini Sub-County. A thorough analysis of the participant demographics shows that gender is represented fairly, across a variety of age groups, household income brackets, marital situations, and educational backgrounds. The diversity of participants' genders, ages, and socioeconomic origins demonstrates the project's inclusivity and reach within the farming community. The fact that almost 62.7% of participants said they had spoken with officials of the KCSAP project highlights how approachable the project is and how involved stakeholders are. This factor significantly affects how the project affects farmers' ability to make a living.

*Table 4.1: Descriptive Statistics*

<b>Variable</b>	<b>Mean</b>	<b>Std. Dev.</b>	<b>N</b>
Male (%)	0.549	0.503	51
Number of household member	4.275	2.426	51
Married	0.882	0.325	51
Farming is the main economic activity (%)	0.902	0.3	51
Income	87450.98	116504.818	51
No Education	0.039	0.196	51
Completed primary School	0.569	0.5	51
Completed Secondary School	0.333	0.476	51
Completed College	0.059	0.238	51

Based on the Table 4.1 above, the average number of household members per participant is 4.275, with a standard deviation of 2.426. This suggests that there are different sizes of

families, which is important to take into account when evaluating how the KCSAP project affects economic empowerment within these various family configurations. With a mean of 0.902 for the variable pertaining to farming as the primary economic activity, most participants strongly depend on farming as their source of income. This emphasizes how important the KCSAP initiative is in helping farmers who rely on agriculture to become more economically empowered.

Further, most of the respondents 25.5%, had a basic level of education i.e class 8 followed by those who had reached Form 4 had 17.6%. The gender distribution of farmers participating in the Kenya Climate-Smart Agriculture Project (KCSAP) in Mukurweini Sub-County is seen in the study, with female participants making up the majority at 52.9%. This is an impressive level of gender diversity. This demonstrates KCSAP's inclusive strategy for involving women in agriculture and recognizes their critical role in the industry. Even if the percentage of males participating is slightly lower at 43.1%, it still shows that men are heavily involved in the initiative. This is highlighted in table 4.2.

**Table 4.2: Participant's Gender**

	N	%
Didn't want to Say	2	3.9%
Female	27	52.9%
Male	22	43.1%

The project's capacity to reach a diverse range of the local farming community is highlighted by the balanced gender representation, which also increases the project's potential to support economic empowerment for both men and women.

#### **4.4. Influence of KCSAP Project on Economic Empowerment of Small-Scale Farmers in Mukurweini Sub\_county, Nyeri County. Kenya.**

##### ***Stakeholder Engagement and Economic Empowerment***

One of our study objectives was to gauge the relationship between stakeholder engagement in the KCSAP program and the resulting improvement in farmers' economic empowerment. The opinions of those directly connected with KCSAP were highlighted through the qualitative analysis, and they describe the significant improvements in their financial situation that they have attained via a combination of training and practical help. Farmers who took part in the initiative reported to getting assistance in the form of training sessions, chicks, and chicken feed. Increased sales of agricultural products as a result of these concrete inputs enhanced financial well-being. There is a direct correlation between information sharing, stakeholder participation, and farmers' economic empowerment. The accounts provided by these engaged parties highlight how crucial stakeholder involvement is to the project's potential to change the farming community's financial environment.

On the other hand, the viewpoint of an individual who was not closely linked to the project offers a less optimistic outlook. The participant highlights the restricted influence on their Common Interest Group (CIG), wherein KCSAP encounters were somewhat infrequent. The difference in engagement across the groups emphasizes how crucial it is to take part directly in the KCSAP initiative. It stresses that obtaining substantial financial gains and promoting economic empowerment within the community require the meaningful involvement of stakeholders.

Regarding satisfaction with stakeholder participation, it was found that 27.5% said it was "great extent," 15.7% said it was "very great extent," 11.8% said it was "low extent," and 5.9% said it was "moderate." 38.2% said it was "very low extent." A significant fraction of participants expressed low satisfaction with stakeholder participation, as evidenced by the range in replies. This is displayed in table 4.4.

**Table 4.4: Level of satisfaction in stakeholder engagement**

	N	%
Great extent	14	27.5%
Low extent	6	11.8%
Moderate	3	5.9%
Very great extent	8	15.7%
Very low extent	20	38.2%

Source: *Field Data, 2023*

Regarding stakeholders' feedback systems, 41.2% said it had influenced their economic empowerment at a "very low extent," 27.5% said it was at "great extent," 15.7% said they it was at a "very great extent," 9.8% said they had "moderate," and 5.9% said they had "low extent." These answers imply that although a significant percentage of participants recognize the existence of a feedback system, there is opportunity for development to cater to those who consider it to be at a "very low extent." 39.2% of the project's stakeholders indicated the influence to be at a "very low extent," 27.5% selected "great extent," 15.7% claimed "very great extent," 11.8% highlighted "low extent," and 5.9% indicated "moderate." The belief that stakeholders are involved to a "very low extent" could suggest that project involvement must be expanded and diversified to include a wider range of stakeholders. A complex picture emerges from the data on representation and involvement in project meetings with various stakeholders. Notably, 25.5% of respondents indicated "great extent" satisfaction, indicating a high degree of engagement; nevertheless, 47.1% of respondents reported "very low extent." This indicates that a sizeable percentage of participants feel their level of involvement is insufficient, highlighting possible gaps in stakeholder contact. In a similar vein, the project's stakeholder distribution supports these feelings, with 27.5% reporting "great extent" pleasure and 39.2% reporting "very low extent." Together, these figures highlight a crucial component of the Kenya Climate-Smart Agriculture Project's (KCSAP) execution: unequal representation and involvement.

### ***Capacity Building and Economic Empowerment***

The study's beneficial relationship between farmers' economic empowerment and capacity building in Mukurweini Sub-County is another recurring theme. The study highlights that participants' economic circumstances significantly improved as a result of capacity building, mostly through training and knowledge sharing. Participants acknowledged the vital role that training plays in providing farmers with the knowledge and skills they need to succeed in the agricultural industry. This connection between financial upliftment and capacity building aligns with the larger idea that improving knowledge and skills, particularly via training, is essential to economic empowerment in the agriculture industry.

A question on attending capacity-building forums, such as training sessions, agricultural success monitoring, and guidance on improved farming techniques, was also posed to the participants. About half of the participants responded "yes," meaning that 51.0% of them had taken part in capacity-building activities related to the KCSAP project.

**Table 4.5: The extent to which Capacity building has enhanced economic empowerment of farmers.**

	N	%
Great extent	14	27.5%
Low extent	5	9.8%
Moderate	3	5.9%
Very great extent	9	17.6%
Very low extent	20	39.2%

Source: *Field Data, 2023*

According to table 4.5, 39.2% of respondents said that capacity building influence on economic empowerment was at a "very low extent," 27.5% said that it was at a "great extent," 17.6% said that it was at a "very great extent," 9.8% said that it was at a "moderate extent," and 5.9% said that it was at a "low extent." This disparity in replies

indicates that some participants believe capacity building has a major impact on economic empowerment, while others don't think it has as much of an impact. Regarding trainings and workshops, a significant 27.5% of respondents expressed satisfaction with the "great extent" of influence, whereas 23.5% highlighted a "very great extent." A sizable 31.4%, however, indicated a perceived "very low extent," indicating differing opinions regarding the efficacy of these training sessions. Similarly, when it came to the long-term sustainability of skills acquired, a significant 45.1% reported a "very low extent," which contrasted with positive responses of "great extent" (25.5%) and "very great extent" (19.6%). On technology adoption, 25.5% of respondents said they saw a "great extent," 19.6% said they saw a "very great extent," and 37.3% said they saw a "very low extent." These complex results highlight the need for capacity-building interventions to be customized to address issues to ensure a more focused and successful strategy for advancing economic empowerment.

### ***Monitoring and Evaluation Impact on Economic Empowerment***

The study sheds light on the efficacy of the Monitoring and Evaluation (M&E) protocols implemented in the KCSAP project. Participants believe that the KCSAP team's regular visits and follow-up procedures are essential to the project's success. These structured exchanges serve as a type of quality assurance, guaranteeing that farmers stick to the best techniques they learned from training. As a result, it is clear that stringent M&E practices continuously promote farmers' continued skill development, which is essential for promoting economic empowerment.

**Table 4.6: The extent at which monitoring and evaluation of KCSAP projects contributed to economic empowerment.**

	N	%
Great extent	15	29.4%
Low extent	6	11.8%
Moderate	1	2.0%
Very great extent	8	15.7%
Very low extent	21	41.2%

Source: *Field Data, 2023*

As presented in table 4.6, responses differed when asked how much KCSAP monitoring and assessment had given farmers more financial clout. Most respondents (41.2%) said that monitoring and evaluation influence on economic empowerment was at a "very low extent"; nevertheless, 29.4% said it was at "great extent," 15.7% said it was at "very great extent," and 2.0% said it was at "moderate extent." The range of answers indicates that whereas some farmers see substantial economic empowerment, others see it as having greater limitations. In reference to participation and representation in project meetings with various stakeholders, the respondents gave the following answers: 25.5% selected "great extent," 17.6% indicated "very great extent," 9.8% reported "moderate extent," and 47.1% declared "very low extent." The majority of "very low extent" responses could mean that participants are not as involved in stakeholder meetings for the project.

However, the report also demonstrates how the Monitoring and Evaluation (M&E) processes of the KCSAP project have significantly contributed to the farmers' economic empowerment in Mukurweini Sub-County. The participants think that the project's success is a result of the KCSAP team's regular follow-ups and visits. These visits provided assurance that farmers were adhering to the best practices discussed during the training. Good M&E practices undoubtedly aid farmers' continuous skill development, which fosters economic empowerment.

Of those who responded to the question about "Project economic influence assessment," a significant 45.1% indicated a "very low extent," suggesting skepticism or no discernible influence, while 27.5% acknowledged a "great extent." Likewise, when it came to the "Cost benefit analysis of the project," 47.1% of respondents acknowledged a "very low extent," outnumbering the 27.5% who acknowledged a "great extent." Regarding "Return on investment analysis of the project" and "Project Outcome Evaluation," the response pattern was consistent, with 49.0% reporting "very low extent" in each instance. These findings point to a significant lack of knowledge or communication between project stakeholders and the M&E processes, calling for the development of a stronger feedback system and more convincing evidence of the project's economic benefit. Closing this gap



will boost confidence among stakeholders and guarantee that participants' feelings of economic empowerment are accurately reflected in the M&E framework.

#### **4.5 Summary**

A strong and favorable link can be shown from the examination of the KCSAP project's influence on the farmers' economic empowerment in Mukurweini Sub-County. This beneficial influence is attributed in large part to careful M&E protocols, good training, and active stakeholder involvement. Nonetheless, the study is forthright in acknowledging the difficulties and discrepancies encountered during the undertaking. These difficulties highlight how important it is for every group member to participate fully and inclusively as well as to make a commitment to guaranteeing justice for the project's success and the equitable distribution of its benefits.

The KCSAP initiative is shown to be a key factor in improving the farmers' economic empowerment in the Mukurweini Sub-County. This study makes it abundantly evident that strict M&E protocols, good training, and the active participation of stakeholders are essential to this endeavor. The study highlights the importance of carefully thought-out programs that prioritize inclusion, strong M&E systems, and training as essential elements of long-term financial success in the agriculture industry. It also emphasizes the need for additional investigation and assessment in order to continuously improve these programs and fully address the issues that have been found.

These findings also highlight the need for an inclusive and cooperative strategy that involves all project participants in order to ensure fair benefit distribution and long-term economic empowerment in agriculture. These findings can be used as a basis for future KCSAP project iterations, resource allocation, and problem-solving to further improve the project's efficacy in Mukurweini Sub-County and related agricultural development initiatives.

## **CHAPTER FIVE SUMMARY AND CONCLUSION**

### **5.1. Introduction**

This chapter's goal is to provide an overview of the research that was done. This chapter concludes with a summary of the study's findings, conclusions, suggestions for additional research, and potential studies.

### **5.2. Summary of Findings**

With farming predominately serving as the main economic activity, the project exhibits demographic inclusion by involving individuals of diverse genders, ages, marital positions, and educational levels. With a clear relationship between increased levels of involvement and better economic results, stakeholder engagement emerges as a key component. Stakeholders applauded the concrete support they received through training, but the degree of satisfaction suggests that more sophisticated strategies are required. Building capacity, especially through training, is crucial because it gives farmers the skills they need, yet different people's perspectives on its effects necessitate different approaches. While there is recognition for Monitoring and Evaluation (M&E) techniques, which are essential to maintaining economic empowerment, different viewpoints emphasize the significance of customized approaches. When difficulties are openly discussed, they act as stimulants for development, highlighting how important it is to execute projects with equity and inclusivity. Stakeholder engagement is crucial, as evidenced by statistical satisfaction levels; nonetheless, obstacles such as a 39.2% "very low extent" response point to the need for improved approaches. Capacity building, as demonstrated by the 39.2% assessment of "very low extent," necessitates customized strategies even in the face of positive outcomes mentioned by others. M&E practices are acknowledged (to a "great extent" by 29.4% of respondents), with a focus on their contribution to ongoing skill development. According to the findings, KCSAP is a transformative force in Mukurweini, with M&E practices, capacity building, and stakeholder involvement all crucial to the local agricultural community's economic empowerment. As we move into the last chapter, these realizations provide the groundwork for a sophisticated comprehension of KCSAP's influence.

### **5.3. Conclusion**

Our results have ramifications that go beyond the KCSAP initiative and into the larger field of agricultural development and economic empowerment. These ramifications perfectly capture the necessity of approaching sustainable development projects from a comprehensive angle:

#### *Collaborative Development Paradigm*

Our study highlights how important it is to collaborate with a wide range of stakeholders. To optimize the financial benefits of agricultural development initiatives, stakeholders from many fields must collaborate and exchange expertise. A comprehensive strategy can be provided by fostering collaborations between local communities, government representatives, non-governmental groups, and international organizations.

#### *Investment in Capacity Building*

A key role for capacity building in agricultural development programs must be played. Projects that invest in workshops, training programs, and knowledge dissemination can enable local farmers by providing them with the necessary skills to successfully traverse the complexities of modern agriculture. Increased productivity and economic empowerment follow from this.

#### *Enhanced M&E Protocols*

M&E has a wider significance than everything else, even though it could not have a major impact on economic influence assessment when considered in isolation. Creating more comprehensive M&E procedures that include frequent visits and follow-ups guarantees that project activities stay aligned with their intended goals, maximizing their total impact.

### **5.3. Recommendations**

Stakeholder participation that is effective is still essential to the goal of economic empowerment. This can be achieved by actively encouraging the active participation of a wide range of stakeholders, including project officers, farmers, and government representatives. The foundation of any successful endeavor is their involvement. Also, through communication and cooperation. To enable information sharing, problem solving,

and solution ideation, stakeholders must be encouraged to communicate and work together. Collaboration creates synergy and improves results in an ecosystem.

A key element of every project aimed at agricultural growth must be capacity building. Purchasing extensive training courses, workshops, and knowledge-sharing events would be essential to do this. Give local farmers the knowledge and abilities they need to succeed in the agriculture sector. In order to guarantee that local farmers have access to contemporary agricultural technologies and practices, it is imperative to give resources for capacity building. The gap between implementation and knowledge can be filled by resources. Additionally, training modules that are specifically designed to address the demands and difficulties of the local environment must be developed. Training that is contextualized guarantees application and relevance.

M&E is still the compass that directs agricultural development forward. Therefore, it is necessary to improve M&E procedures by implementing frequent visits, thorough evaluations, and follow-ups. These improvements ensure that the project's operations are in line with its goals, which increases its total impact. Creating processes for ongoing improvement based on information from M&E and input from stakeholders would also be beneficial. The success of a project depends on the iterative learning and adaptation process. Promoting transparency in M&E procedures is another issue. Make certain that the outcomes are disseminated to all relevant parties, promoting group education and responsibility.

#### **5.4. Limitations of the Study**

We must recognize the limitations of our investigation notwithstanding the depth of our findings. A significant limitation was the sample's size and geographic distribution. A larger and more varied sample size could yield a more thorough understanding of the project's influence on economic empowerment. Furthermore, responses may be prone to a number of biases, such as recollection bias and social desirability bias, as with any surveys and interviews. These restrictions could affect how broadly applicable our findings are.

## 5.5. Future Research

Future research projects that can deepen and improve our knowledge of agricultural development and economic empowerment are made possible by this study. Subsequent investigations could explore the enduring influence of economic empowerment on the welfare of nearby communities. Examining the ways in which improved economic standing affects education, health, and general quality of life might offer a more comprehensive viewpoint. Research on the contribution of financial literacy initiatives to increased economic empowerment is still needed. Examining the efficacy of financial literacy initiatives can clarify how they can amplify economic results. Future research on the impact of climate-smart farming practices on sustainability and resilience is quite promising. Examining the relationship between economic empowerment and climatic resilience can play a significant role in developing sustainable agricultural systems. Comparative studies of comparable projects from other regions might reveal important best practices and shared difficulties. These comparison analyses provide an opportunity to provide guidance for the overall planning and implementation of agricultural development programs.

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## APPENDICES

### Appendix I: Informed Consent

You are requested to take part in a research study being conducted by Irene Ngina Gachungi from the university of Nairobi. We request your consent for participation in a study that seeks to understand the influence of KCSAP project implementation on economic empowerment of farmers in this area. This consent form asks you to allow the researcher to record all your responses to enhance understanding of the topic. Participation in this study is completely voluntary. If you decide not to participate there will not be any negative consequences. Please be aware that if you decide to participate, you may stop participating at any time and you may decide not to answer any specific question. All answers will be kept confidential and to the highest degree permitted by the technology used and by the Kenyan law. Any information that identifies you will be separated from your responses, so that only our researchers will be able to track your answers back to you.

Your participation in this study is voluntary.

If you have any questions, contact Irene Ngina Gachungi, Mobile No: + 254 726 450156

Thank you in advance for your participation!

Name	Consent to participate in the survey (Check one box)		Signature or mark
	YES	NO	

## Appendix II: Survey Questions

### A. Demographics

1. What is the farmer's gender?
  - a. Male
  - b. Female
  
2. How old are you?
  - a. (Years....)
  - b. Don't Know
  
3. If [2= b] Can you please tell me your age estimate?
  - a. [18-28] years
  - b. [29-39] years
  - c. [40-50] years
  - d. 51-61] years
  - e. [62-71] years
  - f. [72-82] years
  
4. Can you tell me what best describes your marital status?
  - a. Single
  - b. Monogamously Married
  - c. Polygamously Married
  - d. Divorced
  - e. Widowed
  - f. Widowed & Remarried
  - g. Separated
  
5. What is the highest grade of schooling that you have completed?
  - a. None
  - b. Preschool

- c. Standard 1
- d. Standard 2
- e. Standard 3
- f. Standard 4
- g. Standard 5
- h. Standard 6
- i. Standard 7
- j. Standard 8
- k. Form 1
- l. Form 3
- m. Form 4
- n. College Certificate
- o. College Diploma
- p. University 1
- q. University 2
- r. University 3
- s. University 4
- t. Postgraduate
- u. Vocational Training

6. What is the total number of household members in your household?  
(Including yourself)

- a. I am the household head
- b. I am their spouse
- c. I am their son/daughter
- d. I am their father/mother
- e. I am their grandchild
- f. Other relative [please specify...
- g. Other non-relative [please specify

7. What is your **primary (main)** economic activity?

- a. Formal employment
- b. Informal employment



- c. Casual jobs
  - d. Farming
8. What is the total income earned by all members of your household in 2023?  
This includes harvest sales revenues, business profits, and regular/casual paid work/remittances and transfers

**B. Economic Empowerment of farmers in Mukurweini Sub-County**

9. To what extent have the following factors related to project implementation affected the following aspects of economic empowerment as a farmer?
- a. Stakeholder engagement.  
How has your engagement with project group leaders and local administration, participation in meetings for consultation on KCSAP project and feedback, influenced the following aspects?
  - b. Capacity building  
How has the training sessions and skills acquired, adoption of value chain and technology provided influenced the following aspects?
  - c. Monitoring and evaluation  
How has presence of monitoring and evaluation of the KCSAP project influenced the following aspects?

	Greatly Improved (5)	Improved (4)	Constant (3)	Decreased (2)	Greatly decreased (1)
Household income					
Level of savings					

Farm/animal production					
Level of farming uptake					

### C. Stakeholder Engagement

10. Have you interacted with any Govt, World Bank representatives, project representative within KCSAP project?

- a. Yes
- b. No

11. To what extent did the following aspects of stakeholder engagement in the KCSAP project enhance your economic empowerment?

	Very great Extent (5)	Great Extent (4)	Moderate Extent (3)	Low Extent (2)	Very low Extent (1)
Participation and representation in project meetings with other stakeholders					
Level of satisfaction in stakeholder engagement					
Presence of feedback system among the stakeholders					
Number of stakeholders in the project					

12. In your own words, how has the above aspects of stakeholder engagement influenced Economic empowerment of Farmers in Mukurweini Sub-County?

Remember there is no right or wrong answer, we value your opinion

.....

**D. Capacity Building.**

13. Have you attended any capacity building forums from KCSAP e.g., trainings, monitoring of your farming progress and being offered advice, being introduced to better farming methods etc.?

- a. Yes
- b. No

14. To what extent has Capacity building enhanced economic empowerment of farmers in Mukurweini Sub-County?

- a. Very great extent
- b. Great extent
- c. Moderate extent
- d. Low extent
- e. Very low extent

15. To what extent do the following aspects of Capacity building enhance your economic empowerment?

	Very great Extent [5]	Great Extent [4]	Moderate Extent [3]	Low Extent [2]	Very low Extent [1]
Trainings and workshops					
Long term sustainability of skills acquired					
Technology adoption					

16. In your own words, how has the above aspects of capacity building influenced Economic empowerment of Farmers in Mukurweini Sub-County?

Remember there is no right or wrong answer, we value your

opinion.....

**E. Monitoring and Evaluation**

17. To what extent are you familiar with the monitoring and evaluation process of the KCSAP project?

- a. Very great extent
- b. Great extent
- c. Moderate extent
- d. Low event
- e. Very low extent

*Enumerator to describe to farmers that may not understand what M&E is and ask the question again*

18. To what extent do you think monitoring and evaluation of KCSAP projects contributed to your economic empowerment as a farmer in Mukurweini Sub-County?

- a. Very great extent
- b. Great extent
- c. Moderate extent
- d. Low extent
- e. Very low extent

19. To what extent do the following aspects of Monitoring & Evaluation influence your economic empowerment?

	Very great Extent [5]	Great Extent [4]	Moderate Extent [3]	Low Extent [2]	Very low Extent [1]
Project economic influence assessment					
Cost benefit analysis of the project					

Return on investment analysis of the project					
Project Outcome Evaluation					

20. In your opinion, how do the above aspects of monitoring and evaluation influence

Economic empowerment of Farmers in Mukurweini Sub-County?

Remember there is no right or wrong answer, we value your opinion.....

## **Appendix IV: Interview Schedule for group leaders and local administration leaders**

- 1) Are/Were you a stakeholder at the KCSAP project?
- 2) What is your role in the Project?
- 3) Are farmers economically empowered in Mukurweini Sub-County?
- 4) In your opinion, does KCSAP project implementation contribute in improving economic status of farmers in Mukurweini Sub-County? Please explain.
- 5) Was there sufficient stakeholder engagement in the KCSAP project? In your own opinion do you think it has enhanced economic empowerment of farmers in Mukurweini Sub-County?
- 6) How has capacity building of farmers affected economic empowerment of farmers in Mukurweini Sub-County?
- 7) How has Monitoring and Evaluation of KCSAP empowered farmers economically?
- 8) Generally, do you think the KCSAP project implementation has improved economic status of farmers in Mukurweini Sub-County?
- 9) What was the biggest challenge in implementing KCSAP project?

## Appendix V: Population

<b>CIG (Common Interest Group)</b>	<b>Sample Size</b>
CIG 1 - CIG 10	3 farmers per CIG
CIG 11 - CIG 15	4 farmers per CIG

Appendix VI: NACOSTI LETTER

Republic of Kenya  
Ministry of Science, Technology and Innovation  
National Commission for Science, Technology and Innovation

Ref No: 468701

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