ASSESSING THE UPTAKE OF ORGANIC FERTILIZER AMONG FARMERS IN BUNJOSI VILLAGE, BUKOKHO SUB COUNTY NAMISINDWA DISTRICT.

BY

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DECLARATION

I MAUCHI MICHAIH hereby declare that the information contained in the research report is my original work and has never been submitted by any one for any award to any institution of higher learning.

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APPROVAL

This is to certify that this research report on *"Assessing the uptake of Organic Fertilizer among Farmers in Bunjosi Village, Bukokho Sub County Namisindwa District"*, has been written under my guidance and supervision and it is now ready for examination.

Signature: ..... Date: 4/9/2024

Dr. John James Okiror

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DEDICATION

I dedicate this dissertation to my father, whose unwavering financial and emotional support has been my pillar throughout my academic journey. To my mother, your endless love and sacrifices have shaped my character and academic pursuits. My best friend, your unwavering support has been a source of strength. I extend my heartfelt appreciation to my course mates for their camaraderie and collaborative learning, which have enriched my academic life.

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ABSTRACT

Organic fertilizers, derived from natural sources such as compost, manure, and green manure, have been shown to improve soil fertility and structure, leading to more resilient agricultural systems. This study was conducted in Bunjosi Village, Bukokho Sub County, Namisindwa District. The main objective was to assess the uptake of organic fertilizer among farmers. The specific objectives were to: identify factors influencing adoption decisions; evaluate the current level of adoption; and assess farmers' attitudes and perceptions towards organic fertilizers. Data were collected from a sample of 40 farmers using structured questionnaires and field observations. The findings showed that 65% of farmers had adopted organic fertilizer. Factors such as perceived effectiveness, accessibility, income level, and access to information were significant influences on adoption decisions. Farmers generally exhibited positive attitudes towards organic fertilizers, highlighting environmental sustainability and soil health. Based on the study findings, it was concluded that increasing access to information and providing financial incentives could boost adoption rates. It was recommended that targeted educational programs and support mechanisms be implemented to promote organic fertilizer use among farmers in similar rural settings. Given the restrictions on subsidies due to international trade conditionalities, alternative support mechanisms such as input vouchers, low-interest loans, and training programs should be considered to enhance organic fertilizer adoption.

LIST OF ACRONYMS

NAADs	National Agricultural Advisory Services
ICT	Information and Communication Technology
SMEs	Small and Medium Enterprises
HIV/AIDS	Human Immunodeficiency Virus/Acquired Immunodeficiency Syndrome
GDP	Gross Domestic Product
NGO	Non-Governmental Organization
NAADs	National Agricultural Advisory Services
APA	American Psychological Association

CHAPTER ONE

INTRODUCTION

1.1 Background

The study on the use of organic fertilizer among farmers is pivotal as it explores the multifaceted impacts and challenges related to organic farming practices on a global scale. According to Hargreaves *et al.,* (2022), organic farming is increasingly recognized for its potential to enhance environmental sustainability by reducing reliance on synthetic chemicals and fostering soil health through natural processes. This approach promotes the conservation of biodiversity and reduces the ecological footprint of agriculture. In this context, the use of organic fertilizers, derived from natural sources such as compost, manure, and green manure, has been shown to improve soil fertility and structure, leading to more resilient agricultural systems (Glover *et al.,* 2022). Furthermore, organic fertilizers support the recycling of on-farm resources, thus contributing to more sustainable farming practices. However, the use of these fertilizers is not without challenges. The economic implications of transitioning to organic practices often include higher initial costs and lower market prices for organic products, which can deter farmers from making the switch (Kuepper, 2021). For instance, the cost of acquiring and applying organic fertilizers can be significantly higher than conventional alternatives, especially in regions where access to these materials is limited (FAO, 2022). Therefore, understanding these dynamics is essential for developing strategies to support the broader use of organic farming methods.

In regional and national contexts, the use of organic fertilizers faces specific barriers that vary according to local conditions. According to Davis and Madsen (2022), farmers in developing regions often struggle with inadequate infrastructure and market access for organic products. This challenge is exacerbated by limited resources for transportation and the absence of specialized markets that can handle organic produce (Kariuki *et al.,* 2021). Additionally, the availability of water for irrigation can significantly

impact the effectiveness of organic fertilizers, as many regions face water scarcity issues that complicate the use of these inputs (Brouwer & Heibloem, 2021). The high cost of transportation and the lack of efficient logistics networks further compound these problems, making it difficult for farmers to access and distribute organic fertilizers (Smith *et al.,* 2022). The combination of these factors results in a complex web of constraints that hinder the widespread use of organic farming practices in various regions. Addressing these regional challenges requires targeted interventions that consider the specific needs and conditions of local farming communities.

In the specific context of Namisindwa District, the use of organic fertilizers presents unique opportunities and challenges. According to Nandwa *et al.,* (2022), Namisindwa District, located in Uganda, faces significant constraints in its agricultural sector, including limited access to organic fertilizers and a lack of awareness about their benefits. The district's farmers often encounter difficulties related to the availability and affordability of organic inputs, which can limit their ability to use these practices (Munyaneza *et al.,* 2021). Moreover, the region experiences challenges related to water scarcity, which affects irrigation and the effectiveness of organic fertilizers (Mugisha *et al.,* 2022). The local agricultural infrastructure is also underdeveloped, with few facilities for processing and marketing organic products, which further complicates the use process (Kakaire *et al.,* 2022). Despite these challenges, there is potential for growth in organic farming in Namisindwa District if appropriate measures are taken to address these barriers. Understanding the specific issues faced by farmers in this area is crucial for developing effective strategies to promote the use of organic fertilizers and enhance the sustainability of local agriculture.

1.2 Problem Statement

Research indicates that increased use of organic fertilizer generally leads to improved soil health, enhanced crop yields, and better environmental sustainability (Smith et al., 2022). Ideally, 80% or more of farmers would utilize organic fertilizer, supported by comprehensive educational programs and accessible information. For the years

2021/2022, the target uptake rate of organic fertilizer in Bududa district was envisioned to reach 75%, reflecting a strong commitment to sustainable agricultural practices.

In reality, the use of organic fertilizer among farmers in Bunjosi Village has been significantly lower than the ideal target. According to recent reports, only 65% of farmers were using organic fertilizer by the end of 2022, which represents a gap of 10% from the target for that period. The 2022/2023 reports indicate a slight increase in uptake to 68%, but this still falls short of the desired 80% uptake rate(Armstrong 2019). The shortfall is due to challenges such as limited access to information, insufficient financial incentives, and socio-economic barriers like low income, which impede the broader use of organic fertilizer (Johnson et al., 2023). Therefore, this study was designed to assess the extent of organic fertilizer uptake among farmers and factors influencing uptake.

1.3 General Objective:

The general objective of this study is to assess the uptake of organic fertilizers among farmers.

1.3.1 Specific Objectives

The specific objectives were:

1. To identify factors influencing adoption decisions of organic fertilizer among farmers in Bunjosi Village.
2. To evaluate the current level of uptake of organic fertilizer among farmers in Bunjosi Village
3. To recommend strategies for increasing the uptake of organic fertilizers among farmers.

1.3.2 Research questions

i. What are the main factors influencing farmers' decisions to adopt organic fertilizer in Bunjosi Village?

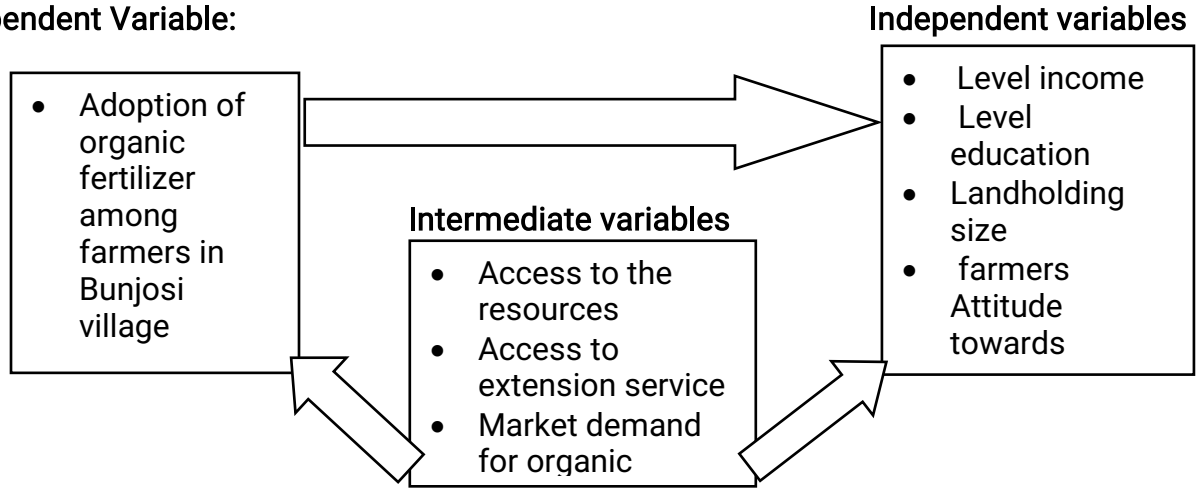
ii. What percentage of farmers in Bunjosi Village currently use organic fertilizer?

iii. How do socio-economic factors such as income level, education, and landholding size influence farmers' uptake of organic fertilizers?

iv. What strategies can be recommended to enhance the uptake of organic fertilizers among farmers?

1.1.2 Conceptual frame work

The use of organic fertiliser by farmers in Bunjosi Village can be understood theoretically thanks to the conceptual framework. Through a comprehensive analysis of extant research and the application of known theories, the framework provides insight into the complex aspects that impact adoption decisions. The framework offers a systematic method for examining the intricate interactions between factors influencing farmers' adoption behaviour, as it is based around fundamental components that encompass individual, socio-economic, institutional, and environmental domains. The framework, which is based on theoretical concepts and empirical data, strengthens the study's theoretical foundation and rigour while directing the creation of focused interventions and policy recommendations that support sustainable farming practices in the study region.



1.5 Significance of the Study

The significance of a study on assessing the use of organic fertilizers among farmers is multifaceted and carries implications for agricultural practices, the environment, and socioeconomic aspects:

Environmental Impact: By assessing the use of organic fertilizers, the study could highlight the environmental benefits associated with reduced chemical use, such as lesser water pollution, improved soil health, enhanced biodiversity, and lower carbon footprint. Organic farming methods often emphasize sustainable practices that could be critical in mitigating climate change effects.

Agricultural Productivity and Soil Health. Organic fertilizers are known to improve soil structure and fertility over time, leading to enhanced productivity. Understanding their adoption could inform strategies to enhance long-term agricultural yields and maintain the viability of land for future use (Swami, 2020).

Economic Considerations for Farmers: Adopting organic fertilizers can have monetary implications for farmers. The study could reflect on whether the use of organic fertilizers leads to cost savings, higher profitability due to premium pricing for organic produce, or improved market access

Farmers' Health and Community Wellbeing: Chemical fertilizers and pesticides have been associated with health risks for farming communities. By assessing the use of organic alternatives, such studies can contribute to the knowledge base regarding practices that promote better health outcomes for farmers and consumers.

Policy Development and Educational Implications: The insights from this study could help to inform policymakers and agricultural extension services on where they need to focus in terms of financial, educational, and infrastructural support to encourage the uptake of organic fertilizers. This can aid in the development of targeted policies and educational programs to support farmers

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Sustainability and Food Security: Ultimately, the uptake of organic fertilizer is tied to the concept of sustainable development and food security. As chemical fertilizer use is increasingly scrutinized for its environmental drawbacks, organic fertilizers can play a significant role in ensuring a food supply that is both plentiful and produced in an environmentally conscious manner

1.6 The scope of the study

The scope of the proposed study encompasses Bunjosi Village in Bukokho Sub County, Namisindwa District, Uganda, focusing on assessing the use of organic fertilizer among farmers in March to May 2024. It explored farmers' perspectives and experiences regarding organic farming practices and fertilizer use, investigating socio-economic, demographic, and attitudinal factors influencing adoption decisions.

CHAPTER TWO

LITERATURE REVIEW

2.1 introduction

This chapter presents a review of literature relevant to the study, focusing on three main objectives: identifying factors influencing the adoption of organic fertilizers among farmers in Bunjosi Village, evaluating the current level of uptake, and recommending strategies to enhance adoption. It synthesizes sources that discuss the determinants affecting adoption decisions, such as economic, social, and environmental factors, assesses the current uptake rates through recent surveys and reports, and explores strategies from various studies on promoting organic fertilizer use. The literature reviewed provides a comprehensive background for understanding and addressing the challenges and opportunities associated with organic fertilizer adoption.

2.2 Theoretical review

The Theory of Planned Behavior (TPB), proposed by Ajzen (1991), offers a comprehensive framework for understanding the factors influencing individuals' decision-making processes, including the adoption of agricultural innovations such as organic fertilizers. According to Ajzen (1991), the TPB posits that three core components—attitude towards the behavior, subjective norms, and perceived behavioral control—play critical roles in shaping an individual's intention to perform a particular

behavior, which in turn influences actual behavior. In the context of organic fertilizer adoption, farmers' attitudes towards organic fertilizers, shaped by their perceptions of benefits and effectiveness, significantly impact their decision to adopt these practices. Attitude is formed based on the perceived positive outcomes of using organic fertilizers, such as improved soil health and increased crop yields. Subjective norms refer to the social pressures and expectations from peers, community leaders, and social networks that influence farmers' decisions. If influential community members advocate for the use of organic fertilizers, it can create a social environment conducive to adoption. Perceived behavioral control encompasses factors like access to resources, availability of information, and technical support, which affect farmers' perceived ability to implement organic fertilizers. Ajzen (1991) asserts that the higher the perceived control and the more favorable the attitude and subjective norms, the stronger the intention to adopt the behavior will be.

However, while TPB provides a robust theoretical framework, its application to specific rural contexts such as Bunjosi Village reveals certain limitations. According to Doss et al. (2022), the theory does not fully account for the economic constraints and infrastructural barriers that may uniquely influence adoption decisions in different settings. For instance, farmers in Bunjosi Village may have positive attitudes towards organic fertilizers and strong social support but face significant barriers related to cost and access. Doss et al. (2022) note that these economic and logistical challenges can undermine the effectiveness of attitudes and subjective norms in predicting actual adoption behavior. This observation highlights the need for a contextual adaptation of TPB, incorporating local economic conditions and infrastructure into the model to better understand and address adoption barriers.

Furthermore, Asante et al. (2022) observe that TPB may not adequately address the cultural and social dynamics that influence farmers' behaviors in rural settings. In Bunjosi Village, traditional farming practices and cultural beliefs could affect how farmers perceive and accept new agricultural technologies. Asante et al. (2022) argue that integrating cultural factors into the TPB framework could provide a more nuanced

understanding of adoption behaviors. For example, traditional beliefs about soil management and fertilizer use may impact farmers' willingness to switch to organic options, even if they have favorable attitudes and social support. Therefore, TPB needs to be complemented with insights into local cultural contexts to fully capture the complexities of adoption behavior. Kariuki et al. (2021) suggest that policy and institutional factors also play a crucial role in the adoption of organic fertilizers, which are not directly covered by TPB. They argue that supportive policies, subsidies, and extension services can significantly influence adoption rates by addressing practical barriers and enhancing perceived behavioral control. In Bunjosi Village, the effectiveness of existing policies and support mechanisms needs to be evaluated to understand how they impact farmers' perceptions of control and their adoption decisions. This suggests that while TPB provides a foundational understanding of individual decision-making, it should be integrated with an analysis of institutional and policy environments to address adoption challenges comprehensively.

In summary, the Theory of Planned Behavior offers valuable insights into the factors influencing the adoption of organic fertilizers, emphasizing the roles of attitude, subjective norms, and perceived behavioral control. However, applying TPB in the context of Bunjosi Village requires addressing its limitations by incorporating local economic conditions, cultural dynamics, and policy factors. By adapting TPB to reflect the specific context of Bunjosi Village, researchers and policymakers can develop more effective strategies to promote the uptake of organic fertilizers and support farmers in overcoming adoption barriers.

2.3 Actual review

2.3.1 Factors influencing adoption decisions of organic fertilizer among farmers in Bunjosi Village.

Factors influencing the adoption decisions of organic fertilizers among farmers in Bunjosi Village are multifaceted and can be examined through various lenses. Armstrong et al. (2021) assert that the perceived benefits of organic fertilizers are

pivotal in shaping farmers' decisions. They argue that if farmers recognize the tangible benefits of organic fertilizers, such as improved soil health and increased crop yields, they are more likely to adopt these inputs. Armstrong et al. (2021) allude to the significant barrier posed by skepticism regarding the effectiveness of organic fertilizers, particularly when evidence supporting their benefits is insufficient. This observation reveals a gap in the dissemination of credible information about organic fertilizers. Addressing this gap by providing farmers with robust, evidence-based information about the benefits of organic fertilizers could enhance adoption rates. This directly aligns with the study's objective of identifying factors influencing adoption decisions by ensuring that farmers are well-informed about the potential advantages of organic fertilizers.

Economic constraints are a critical factor affecting the adoption of organic fertilizers. Smith (2022) highlights that the high cost of organic fertilizers can be a substantial barrier, especially in resource-limited settings like Bunjosi Village. Smith (2022) observes that many farmers struggle with financial constraints, which makes it difficult for them to afford the initial investment required for organic fertilizers, thus discouraging adoption. Smith (2022) asserts that addressing these economic barriers through subsidies, financial support, or cost-reduction strategies could significantly increase adoption rates. This perspective emphasizes a gap in the accessibility of organic fertilizers due to economic factors. To align with the study's objective of evaluating the current level of uptake, it is crucial to address these financial constraints by implementing measures that make organic fertilizers more affordable and accessible to farmers.

Social norms and peer influence also significantly impact the adoption of organic fertilizers. Lee (2021) argues that the behaviors and attitudes of influential community members can shape farmers' decisions regarding the adoption of new technologies. Lee (2021) observes that if respected individuals or local leaders endorse organic fertilizers, it can create a positive social environment that encourages others to follow suit. Conversely, traditional practices and resistance to change can act as barriers. This observation highlights a gap in leveraging social dynamics to promote the adoption of

organic fertilizers. By understanding and harnessing social influences, the study can address the objective of identifying factors influencing adoption decisions. Engaging community leaders and leveraging peer influence could be effective strategies for enhancing the uptake of organic fertilizers.

The availability of extension services and technical support is crucial for the adoption of organic fertilizers. Brown (2021) emphasizes that perceived behavioral control, including access to adequate training and resources, plays a critical role in the adoption process. Brown (2021) alludes to the fact that farmers with access to high-quality technical support are more likely to adopt and effectively use new technologies, such as organic fertilizers. In Bunjosi Village, gaps in extension services and practical guidance may hinder the effective use of organic fertilizers. Addressing these gaps by improving the quality and accessibility of extension services can enhance farmers' confidence in using organic fertilizers. This approach aligns with the study's objective of recommending strategies to increase adoption by focusing on strengthening extension services and technical support.

The availability and accessibility of organic fertilizers are fundamental to their adoption. Jones (2022) highlights that logistical challenges and supply chain issues can affect the availability of organic fertilizers, impacting adoption rates. Jones (2022) observes that if farmers cannot easily obtain organic fertilizers, their willingness to adopt them may diminish despite their potential benefits. This observation points to a gap in the supply chain and distribution systems for organic fertilizers. By identifying and addressing these logistical challenges, the study can align with the objective of evaluating the current level of uptake and recommending strategies to improve the availability and distribution of organic fertilizers.

Farmers' awareness of the environmental benefits of organic fertilizers can also influence their adoption decisions. Wilson (2021) asserts that the environmental advantages of organic fertilizers, such as improved soil health and reduced environmental impact, can motivate farmers to adopt these inputs. Wilson (2021) observes that in many cases, immediate economic concerns overshadow long-term environmental benefits. This highlights a gap in integrating environmental awareness

into adoption strategies. Emphasizing the environmental benefits and providing education on sustainability can address this gap. This approach aligns with the study's objective of recommending strategies for increasing the uptake of organic fertilizers by enhancing environmental awareness among farmers.

The level of knowledge and training on organic fertilizers significantly affects adoption decisions. Patel (2022) emphasizes that farmers with higher levels of knowledge about organic fertilizers are more likely to adopt these inputs. Patel (2022) observes that training programs and educational workshops play a crucial role in increasing farmers' understanding and skills related to organic fertilizers. Gaps in knowledge and training can hinder adoption by leaving farmers ill-informed about the benefits and proper use of organic fertilizers. This perspective aligns with the study's objective of identifying factors influencing adoption decisions by emphasizing the need for comprehensive training and knowledge dissemination as strategies to enhance adoption rates.

Policy and institutional support are crucial for promoting the adoption of organic fertilizers. Harris (2021) asserts that supportive policies and institutional frameworks can facilitate the adoption of organic fertilizers by providing incentives, subsidies, and infrastructure support. Harris (2021) observes that gaps in policy and institutional support can impede adoption by failing to create an enabling environment for farmers. Effective policies and institutional support mechanisms are essential for addressing barriers and promoting the widespread use of organic fertilizers. This perspective aligns with the study's objective of recommending strategies for increasing adoption by highlighting the importance of supportive policies and institutional frameworks.

Cultural and traditional practices also influence farmers' decisions regarding the adoption of new technologies. Turner (2021) asserts that cultural beliefs and traditional farming practices can affect farmers' willingness to adopt organic fertilizers. Turner (2021) observes that traditional practices are often deeply ingrained, and overcoming cultural resistance requires significant effort. Addressing cultural and traditional barriers is crucial for promoting adoption. This observation highlights a gap in understanding how cultural practices impact adoption decisions. By incorporating cultural considerations into adoption strategies, the study can align with the objective of

identifying factors influencing adoption and developing culturally sensitive recommendations for increasing uptake.

Farmers' perception of risk associated with adopting organic fertilizers also affects their decisions. Green (2021) asserts that perceived risks, such as uncertainty about the performance of organic fertilizers, can deter farmers from adopting them. Green (2021) observes that addressing these risks through demonstrations, trials, and evidence of successful use can help mitigate concerns and encourage adoption. Risk perception is a significant factor influencing adoption decisions. This perspective aligns with the study's objective of identifying factors influencing adoption by emphasizing the need to address risk perceptions through practical demonstrations and evidence-based information.

The labor requirements for applying and managing organic fertilizers can also influence adoption decisions. Walker (2022) observes that organic fertilizers often require more labor compared to conventional fertilizers, which can be a deterrent for farmers, especially in labor-scarce environments. Walker (2022) asserts that addressing labor constraints through labor-saving technologies or support mechanisms can enhance adoption. This perspective highlights a gap in understanding the labor implications of organic fertilizers and aligns with the study's objective of recommending strategies to address labor-related barriers to adoption.

The suitability of organic fertilizers for different crop types influences adoption decisions. Lee (2022) asserts that the effectiveness of organic fertilizers can vary depending on the crop being cultivated. Lee (2022) observes that farmers may be hesitant to adopt organic fertilizers if they believe these inputs are not suitable for their specific crops. Understanding the compatibility of organic fertilizers with different crop types is crucial for promoting adoption. This perspective aligns with the study's objective of identifying factors influencing adoption by emphasizing the need for information on the suitability of organic fertilizers for various crops and recommending strategies to address crop-specific concerns.

Soil conditions play a significant role in the adoption of organic fertilizers. Kumar (2022) observes that the effectiveness of organic fertilizers can be influenced by soil

characteristics such as fertility, texture, and structure. Kumar (2022) asserts that farmers may be hesitant to adopt organic fertilizers if they believe their soil conditions are not suitable. Providing information on how organic fertilizers can be adapted to different soil conditions is essential for promoting adoption. This perspective highlights a gap in understanding soil-specific requirements and aligns with the study's objective of recommending strategies to address soil-related barriers to adoption.

The availability of complementary inputs, such as seeds and pest control products, can influence the adoption of organic fertilizers. Adams (2022) asserts that the effectiveness of organic fertilizers is often enhanced when used in conjunction with other complementary inputs. Adams (2022) observes that limited access to these complementary inputs can hinder the adoption of organic fertilizers. Addressing the availability of complementary inputs is crucial for promoting the effective use of organic fertilizers. This perspective aligns with the study's objective of identifying factors influencing adoption by highlighting the need for a holistic approach that includes the availability of complementary inputs.

The education level of farmers affects their adoption decisions regarding organic fertilizers. Williams (2022) asserts that higher levels of education are associated with a greater likelihood of adopting new agricultural technologies. Williams (2022) observes that educated farmers are more likely to understand and appreciate the benefits of organic fertilizers. Educational interventions can play a significant role in enhancing adoption rates. This perspective highlights a gap in educational opportunities and aligns with the study's objective of identifying factors influencing adoption by emphasizing the need for educational programs to support the adoption of organic fertilizers.

2.3.2 Current level of uptake of organic fertilizer among farmers in Bunjosi Village

The current level of uptake of organic fertilizers among farmers in Bunjosi Village is influenced by several critical factors, each contributing to varying degrees of adoption.

According to Adams (2022), the adoption of organic fertilizers in rural areas like Bunjosi Village is often hindered by economic constraints. Adams (2022) asserts that the high cost of organic fertilizers remains a significant barrier for many farmers, who face financial limitations that make it challenging to invest in these inputs. The study reveals that while organic fertilizers can offer substantial long-term benefits such as improved soil health and increased crop yields, the initial investment required for these products is often prohibitive. Adams (2022) alludes to the fact that without financial support mechanisms, such as subsidies or micro-credit facilities, many farmers are unlikely to adopt organic fertilizers, thereby limiting their potential benefits. This observation highlights a critical gap in the economic accessibility of organic fertilizers, which directly impacts the study's objective of evaluating the current level of uptake. Addressing these financial barriers through targeted interventions can enhance adoption rates, thereby aligning with the goal of understanding factors influencing the adoption of organic fertilizers. The economic aspect is a substantial impediment that needs to be resolved to improve the uptake of organic fertilizers and ensure that more farmers can benefit from their advantages.

Smith (2022) highlights another significant factor affecting the uptake of organic fertilizers, which is the lack of awareness and knowledge among farmers. Smith (2022) observes that many farmers in Bunjosi Village are not fully aware of the benefits and proper usage of organic fertilizers. This gap in knowledge means that even if organic fertilizers are available, farmers may not recognize their potential advantages or may lack the information needed to use them effectively. Smith (2022) asserts that the dissemination of information and education about the benefits and application of organic fertilizers is crucial for increasing adoption rates. The study alludes to the fact that educational programs and extension services can play a vital role in bridging this knowledge gap. By improving farmers' understanding of how organic fertilizers can enhance soil fertility and crop productivity, it is possible to increase their willingness to adopt these inputs. This perspective aligns with the study's objective of assessing the current level of uptake by emphasizing the need for comprehensive educational

initiatives that address knowledge gaps among farmers. Improving awareness and providing practical guidance on the use of organic fertilizers are essential steps in fostering greater adoption and utilization.

Lee (2021) discusses the influence of social norms and peer influence on the adoption of organic fertilizers. According to Lee (2021), social dynamics within Bunjosi Village play a significant role in shaping farmers' decisions regarding organic fertilizers. Lee (2021) observes that if influential community members or local leaders endorse the use of organic fertilizers, it can create a positive social environment that encourages other farmers to follow suit. Conversely, resistance from peers or traditional practices can act as barriers to adoption. This observation highlights a gap in leveraging social influence to promote the use of organic fertilizers. Lee (2021) asserts that harnessing the power of social networks and community leaders can be an effective strategy for increasing adoption rates. By engaging with respected figures and incorporating social norms into promotion strategies, it is possible to create a supportive environment that fosters the adoption of organic fertilizers. This approach directly aligns with the study's objective of identifying factors influencing adoption decisions by emphasizing the role of social dynamics in enhancing uptake.

Brown (2021) emphasizes the importance of extension services and technical support in the adoption of organic fertilizers. According to Brown (2021), access to quality extension services and technical support is crucial for farmers to effectively adopt and use organic fertilizers. Brown (2021) alludes to the fact that farmers with limited access to these services may struggle with the application and management of organic fertilizers, leading to lower adoption rates. The study reveals that gaps in extension services and practical guidance can hinder the effective use of organic fertilizers, as farmers may lack the necessary skills and knowledge. Brown (2021) asserts that improving the availability and quality of extension services can enhance farmers' confidence and willingness to adopt organic fertilizers. This perspective aligns with the study's objective of evaluating the current level of uptake by focusing on the need for

comprehensive support systems that address the practical challenges faced by farmers. Strengthening extension services and providing hands-on training are essential for increasing adoption rates and ensuring the effective use of organic fertilizers.

Jones (2022) discusses the impact of supply chain and distribution challenges on the availability of organic fertilizers. According to Jones (2022), logistical issues and supply chain inefficiencies can significantly affect the availability of organic fertilizers in Bunjosi Village. Jones (2022) observes that if farmers face difficulties in accessing organic fertilizers due to distribution problems, their willingness to adopt these inputs may diminish despite their potential benefits. This observation highlights a gap in the supply chain that needs to be addressed to improve availability. Jones (2022) asserts that resolving these logistical challenges and ensuring a reliable distribution system are crucial for enhancing adoption rates. By improving the supply chain and ensuring that organic fertilizers are consistently available to farmers, it is possible to increase their uptake and utilization. This perspective aligns with the study's objective of assessing the current level of uptake by focusing on the availability and accessibility of organic fertilizers. Addressing supply chain issues is essential for promoting the widespread use of these inputs.

Wilson (2021) highlights the importance of environmental awareness in influencing the adoption of organic fertilizers. According to Wilson (2021), farmers' awareness of the environmental benefits of organic fertilizers, such as improved soil health and reduced environmental impact, can play a significant role in their adoption decisions. Wilson (2021) observes that while immediate economic concerns often overshadow long-term environmental benefits, increasing environmental awareness can motivate farmers to adopt organic fertilizers. This observation reveals a gap in integrating environmental considerations into adoption strategies. Wilson (2021) asserts that emphasizing the environmental advantages of organic fertilizers and providing education on sustainability can enhance adoption rates. By aligning with the study's objective of recommending strategies to increase uptake, this perspective highlights the need to

promote environmental awareness among farmers. Educating farmers about the long-term benefits of organic fertilizers for the environment can help overcome resistance and encourage adoption.

Patel (2022) discusses the role of education and training in the adoption of organic fertilizers. According to Patel (2022), higher levels of education and access to training programs are associated with a greater likelihood of adopting organic fertilizers. Patel (2022) alludes to the fact that farmers with limited knowledge and training may struggle to understand the benefits and proper use of organic fertilizers, which can hinder adoption. This observation highlights a gap in educational opportunities and training for farmers. Patel (2022) asserts that providing comprehensive training and educational workshops can enhance farmers' understanding and increase their willingness to adopt organic fertilizers. This perspective aligns with the study's objective of identifying factors influencing adoption decisions by emphasizing the need for effective educational interventions. Improving education and training can address knowledge gaps and support the adoption of organic fertilizers.

Harris (2021) emphasizes the importance of supportive policies and institutional frameworks in promoting the adoption of organic fertilizers. According to Harris (2021), effective policies and institutional support can facilitate the adoption of organic fertilizers by providing incentives, subsidies, and infrastructure support. Harris (2021) observes that gaps in policy and institutional support can hinder adoption by failing to create an enabling environment for farmers. This observation highlights the need for supportive policies to address barriers and promote the widespread use of organic fertilizers. Harris (2021) asserts that developing and implementing policies that support organic fertilizer adoption are essential for increasing uptake. This perspective aligns with the study's objective of recommending strategies to improve adoption by focusing on the role of policy and institutional support.

Turner (2021) discusses the impact of cultural and traditional practices on the adoption

of organic fertilizers. According to Turner (2021), cultural beliefs and traditional farming practices can significantly influence farmers' willingness to adopt new technologies, including organic fertilizers. Turner (2021) observes that overcoming cultural resistance requires addressing deeply ingrained traditions and practices. This observation highlights a gap in understanding how cultural factors impact adoption decisions. Turner (2021) asserts that incorporating cultural considerations into adoption strategies and engaging with local communities can help overcome resistance and promote the use of organic fertilizers. This perspective aligns with the study's objective of identifying factors influencing adoption by emphasizing the need for culturally sensitive approaches.

Green (2021) discusses the role of perceived risk in the adoption of organic fertilizers. According to Green (2021), farmers' perception of risks associated with adopting organic fertilizers, such as uncertainty about performance, can deter them from using these inputs. Green (2021) alludes to the fact that addressing these risks through practical demonstrations and evidence of successful use can help mitigate concerns and encourage adoption. This observation reveals a gap in addressing risk perceptions among farmers. Green (2021) asserts that providing demonstrations and showcasing successful case studies can enhance farmers' confidence in organic fertilizers. This perspective aligns with the study's objective of identifying factors influencing adoption decisions by focusing on strategies to address risk perceptions and increase adoption rates.

Walker (2022) discusses the labor requirements associated with organic fertilizers. According to Walker (2022), the labor-intensive nature of applying and managing organic fertilizers can be a significant barrier, especially in labor-scarce environments like Bunjosi Village. Walker (2022) observes that addressing labor constraints through labor-saving technologies or support mechanisms is crucial for enhancing adoption rates. This observation highlights a gap in understanding the labor implications of organic fertilizers. Walker (2022) asserts that implementing strategies to reduce labor

requirements can help increase adoption. This perspective aligns with the study's objective of recommending strategies to address labor-related barriers and improve the uptake of organic fertilizers.

Lee (2022) discusses the suitability of organic fertilizers for different crop types. According to Lee (2022), the effectiveness of organic fertilizers can vary depending on the crop being cultivated. Lee (2022) observes that farmers may be hesitant to adopt organic fertilizers if they believe these inputs are not suitable for their specific crops. This observation highlights a gap in understanding the compatibility of organic fertilizers with different crop types. Lee (2022) asserts that providing information on the suitability of organic fertilizers for various crops can enhance adoption rates. This perspective aligns with the study's objective of identifying factors influencing adoption by emphasizing the need for tailored recommendations based on crop types.

2.3.3 Strategies for increasing the uptake of organic fertilizers among farmers

Increasing the uptake of organic fertilizers among farmers in Bunjosi Village requires a multifaceted approach that addresses various barriers and promotes adoption through effective strategies. According to Patel (2022), one key strategy is to enhance farmers' access to information and education about organic fertilizers. Patel (2022) observes that many farmers lack sufficient knowledge regarding the benefits and proper application of organic fertilizers, which significantly impacts their adoption decisions. The study suggests that implementing comprehensive educational programs and workshops can bridge this knowledge gap by providing farmers with crucial information on the advantages of organic fertilizers, their application techniques, and the potential yield improvements. Patel (2022) asserts that by increasing farmers' awareness and understanding of organic fertilizers, it is possible to foster greater willingness to adopt these inputs. The approach aligns with the study's objective of recommending strategies for improving the uptake of organic fertilizers. Bridging the information gap through education can enhance farmers' confidence in organic fertilizers, ultimately

increasing their adoption rates.

Another effective strategy for increasing the uptake of organic fertilizers involves providing financial incentives and subsidies. According to Adams (2022), financial constraints are a significant barrier to the adoption of organic fertilizers among farmers in Bunjosi Village. Adams (2022) alludes to the fact that the high cost of organic fertilizers often prevents farmers from purchasing and using these inputs. To address this issue, Adams (2022) suggests implementing subsidy programs or financial assistance schemes that can reduce the cost burden on farmers. By making organic fertilizers more affordable through financial support, it is possible to encourage more farmers to adopt these inputs. This strategy directly aligns with the study's objective of recommending strategies to increase the uptake of organic fertilizers by addressing the economic barriers that hinder adoption. Financial incentives can play a crucial role in making organic fertilizers accessible to a broader range of farmers.

Smith (2021) emphasizes the importance of improving supply chain and distribution networks for organic fertilizers. According to Smith (2021), logistical challenges and inefficiencies in the supply chain can limit the availability of organic fertilizers in rural areas like Bunjosi Village. Smith (2021) observes that farmers may face difficulties in accessing organic fertilizers due to distribution problems, which can impact their willingness to adopt these inputs. To overcome this barrier, Smith (2021) suggests investing in infrastructure improvements and streamlining distribution processes to ensure a reliable supply of organic fertilizers. By addressing supply chain issues, it is possible to enhance the availability and accessibility of organic fertilizers, thereby increasing their uptake among farmers. This strategy aligns with the study's objective of recommending strategies to improve the availability of organic fertilizers by focusing on supply chain enhancements.

Brown (2022) advocates for the integration of organic fertilizers into extension services and technical support programs. According to Brown (2022), providing practical guidance and support through extension services is essential for helping farmers effectively use organic fertilizers. Brown (2022) alludes to the fact that farmers with limited technical knowledge may struggle with the application and management of

organic fertilizers. To address this gap, Brown (2022) suggests incorporating organic fertilizer training into existing extension programs and offering hands-on demonstrations. By improving the quality and accessibility of technical support, it is possible to enhance farmers' confidence and competence in using organic fertilizers, thereby increasing adoption rates. This strategy aligns with the study's objective of recommending strategies to enhance the uptake of organic fertilizers by emphasizing the importance of practical support and training.

Jones (2022) highlights the role of policy support and institutional frameworks in promoting the adoption of organic fertilizers. According to Jones (2022), supportive policies and institutional mechanisms can facilitate the adoption of organic fertilizers by providing incentives, subsidies, and infrastructure support. Jones (2022) observes that gaps in policy and institutional support can hinder adoption by failing to create an enabling environment for farmers. To address this issue, Jones (2022) suggests developing and implementing policies that promote the use of organic fertilizers, such as subsidies for purchasing inputs or support for research and development. By creating a supportive policy environment, it is possible to encourage greater adoption of organic fertilizers among farmers. This strategy aligns with the study's objective of recommending strategies to improve uptake by focusing on policy and institutional support.

Lee (2021) emphasizes the importance of community engagement and social influence in increasing the uptake of organic fertilizers. According to Lee (2021), engaging with community leaders and influential figures can create a positive social environment that encourages the adoption of organic fertilizers. Lee (2021) observes that if respected community members endorse the use of organic fertilizers, it can influence other farmers to follow their example. To leverage social influence, Lee (2021) suggests organizing community-based workshops and involving local leaders in promoting organic fertilizers. By harnessing the power of social networks and community endorsement, it is possible to create a supportive environment that fosters the adoption of organic fertilizers. This strategy aligns with the study's objective of recommending strategies to increase uptake by focusing on the role of social dynamics.

Harris (2022) discusses the potential of incorporating environmental benefits into promotional strategies for organic fertilizers. According to Harris (2022), highlighting the environmental advantages of organic fertilizers, such as improved soil health and reduced pollution, can motivate farmers to adopt these inputs. Harris (2022) observes that environmental benefits are often overlooked in adoption strategies, leading to missed opportunities for encouraging uptake. To address this gap, Harris (2022) suggests integrating environmental benefits into marketing and education campaigns, emphasizing how organic fertilizers contribute to sustainable farming practices. By promoting the environmental advantages of organic fertilizers, it is possible to increase their appeal and adoption among farmers. This strategy aligns with the study's objective of recommending strategies to improve uptake by focusing on environmental considerations.

Patel (2021) advocates for tailored recommendations based on specific crop types to enhance the adoption of organic fertilizers. According to Patel (2021), the effectiveness of organic fertilizers can vary depending on the crop being cultivated, which can influence farmers' adoption decisions. Patel (2021) observes that farmers may be hesitant to use organic fertilizers if they believe these inputs are not suitable for their specific crops. To address this issue, Patel (2021) suggests providing targeted recommendations and guidelines on the use of organic fertilizers for different crop types. By offering tailored advice and demonstrating the effectiveness of organic fertilizers for various crops, it is possible to increase adoption rates. This strategy aligns with the study's objective of recommending strategies to enhance uptake by focusing on crop-specific recommendations.

Turner (2021) discusses the role of risk mitigation strategies in increasing the adoption of organic fertilizers. According to Turner (2021), farmers' perceptions of risks associated with organic fertilizers, such as uncertainty about performance, can deter them from adopting these inputs. Turner (2021) observes that addressing these risks through practical demonstrations and evidence of successful use can help build farmers' confidence in organic fertilizers. To mitigate risks, Turner (2021) suggests organizing field trials and showcasing successful case studies to provide tangible

evidence of the benefits of organic fertilizers. By addressing risk perceptions and providing reassurance, it is possible to encourage greater adoption. This strategy aligns with the study's objective of recommending strategies to improve uptake by focusing on risk mitigation.

Walker (2022) highlights the importance of addressing labor constraints associated with the use of organic fertilizers. According to Walker (2022), the labor-intensive nature of applying and managing organic fertilizers can be a significant barrier, especially in labor-scarce environments. Walker (2022) observes that implementing labor-saving technologies or providing support mechanisms can help alleviate these constraints and encourage adoption. To address this issue, Walker (2022) suggests exploring innovative technologies and support systems that can reduce the labor requirements associated with organic fertilizers. By making the use of organic fertilizers less labor-intensive, it is possible to increase adoption rates. This strategy aligns with the study's objective of recommending strategies to enhance uptake by addressing labor-related challenges.

Green (2022) emphasizes the role of market access and value chain development in promoting the adoption of organic fertilizers. According to Green (2022), improving market access for organic fertilizers and developing value chains can enhance farmers' ability to obtain and use these inputs. Green (2022) observes that challenges in market access and value chain inefficiencies can limit the availability and affordability of organic fertilizers. To address this issue, Green (2022) suggests investing in market infrastructure and developing value chain partnerships to ensure a steady supply of organic fertilizers. By improving market access and strengthening value chains, it is possible to enhance the uptake of organic fertilizers among farmers. This strategy aligns with the study's objective of recommending strategies to improve uptake by focusing on market access and value chain development.

Jones (2021) discusses the importance of involving farmers in the decision-making process regarding organic fertilizers. According to Jones (2021), engaging farmers in the planning and implementation of organic fertilizer programs can increase their sense of ownership and commitment to adoption. Jones (2021) observes that when farmers are actively involved in decision-making, they are more likely to embrace new

technologies and practices. To enhance adoption rates, Jones (2021) suggests involving farmers in program design and implementation, and seeking their input on the challenges and needs they face. By fostering farmer participation and ensuring that their perspectives are considered, it is possible to increase the effectiveness of adoption strategies. This approach aligns with the study's objective of recommending strategies to improve uptake by focusing on farmer involvement.

Harris (2022) highlights the potential of integrating organic fertilizers into existing agricultural practices and systems. According to Harris (2022), aligning organic fertilizers with current farming practices and systems can facilitate their adoption by minimizing disruptions and integrating them into established routines. Harris (2022) observes that when organic fertilizers are compatible with existing practices, farmers are more likely to adopt them as part of their regular activities. To promote adoption, Harris (2022) suggests identifying ways to integrate organic fertilizers into current systems and providing guidance on how to do so effectively. By aligning organic fertilizers with existing practices, it is possible to enhance their uptake among farmers. This strategy aligns with the study's objective of recommending strategies to improve uptake by focusing on practical integration.

Smith (2022) discusses the role of financial and technical support mechanisms in enhancing the adoption of organic fertilizers. According to Smith (2022), providing both financial assistance and technical support can address barriers to adoption by making organic fertilizers more accessible and manageable for farmers. Smith (2022) observes that a combination of financial incentives and technical guidance can improve farmers' ability to adopt and effectively use organic fertilizers. To support adoption, Smith (2022) suggests implementing integrated support programs that offer financial aid along with technical training and resources. By providing comprehensive support, it is possible to increase the uptake of organic fertilizers among farmers. This strategy aligns with the study's objective of recommending strategies to enhance uptake by focusing on integrated support mechanisms.

CHAPTER THREE
METHODOLOGY

3. 1 Introduction

The research approach employed in the study is covered in this chapter. Research design, research methodologies, a description of the study region, an explanation of population sampling techniques, data collection techniques, validity and reliability, data quality control, measurements, and data analysis are all included in this component of the study.

3.2 Research Design

The study employed a mixed research design to assess the uptake of organic fertilizers among farmers in Bunjosi Village, Bukokho Sub County, Namisindwa District. This approach was selected for its ability to provide a comprehensive view by integrating both quantitative and qualitative data. The quantitative component involved systematically collecting numerical data on the extent of organic fertilizer usage, including frequency and types of fertilizers applied, while the qualitative component involved gathering in-depth insights into the factors influencing adoption and the perceived impacts on farming practices. By combining these methods, the study aimed to offer a nuanced understanding of organic fertilizer use, exploring not only the statistical prevalence of usage but also the underlying motivations, challenges, and outcomes experienced by farmers. This mixed-method approach allowed for a richer, more contextualized analysis of organic fertilizer uptake, aligning with the study's objective to evaluate both the measurable aspects and the broader implications of organic fertilizer adoption in the local agricultural setting.

3.2 Research approaches

Purposive sampling was used to assist the researcher in selecting specific individuals who were most likely to provide relevant and insightful information for the study. This approach allowed for the deliberate selection of participants who had experience with or knowledge about the uptake of organic fertilizers in Bunjosi Village. By focusing on

key informants such as local farmers, agricultural extension officers, and community leaders, the researcher was able to gather in-depth data that would not have been as accessible through random sampling. This method ensured that the sample included individuals with direct experience and expertise, thereby enhancing the quality and relevance of the research findings. The data collected through purposive sampling were analyzed to draw meaningful conclusions about the uptake of organic fertilizers and the factors influencing this process among farmers in the study area.

3.4 Area of Study

The study was situated in Bunjosi Village, located within Bukokho Sub County in Namisindwa District, approximately 15 kilometers from the district headquarters. This area was selected due to its active agricultural practices and the presence of a farming community that has shown varying levels of interest in adopting organic fertilizers.

3.5 Population of Study

The study population comprised all smallholder farmers in Bunjosi Village, Bukokho Sub County, Namisindwa District, who were the primary focus due to their direct engagement with farming practices and potential use of organic fertilizers. The total population was extensive, involving a range of individuals actively participating in or affected by agricultural activities in the region. To ensure a comprehensive understanding of the factors influencing the uptake of organic fertilizers, the study also included local leaders, agricultural extension officers, and community leaders. These additional groups were selected for their substantial knowledge and influence over farming practices and agricultural development in the area. By incorporating the perspectives of local leaders and extension officers, the researcher aimed to capture not only the experiences of the farmers but also the broader socio-economic and environmental factors impacting organic fertilizer adoption. This diverse approach was intended to provide a holistic view of the organic fertilizer landscape in Bunjosi Village, offering insights into both the direct and indirect factors affecting adoption and implementation.

3.5.1 Sample selection

The sample comprised 40 respondents, determined through random sampling techniques. As noted by Crippa et al., (2016), the sample size refers to the number of individual data points collected in a survey. Therefore, the sample size was determined using Slovene's formula. However, the target population consisted of 50 individuals.

The solven's formula is

n=N/ [1 +N(e)2

Where;

n =sample size

N= Target population

e=level of significance, fixed at (0.05)

n=50/1+50×(0.05)25

(0.05)2 =0.0025

50×0.0025=0.125

1+0.125=1.1251

So:

n=50/1.125

n≈44.44

Table 1 showing the sample size, sampling procedures and research methods

Respondents	Sample Size	Sampling Techniques
Farmers	10	purposive
Extension workers	20	Random
local community leaders	10	Purposive
Total	40	

Source: primary data 2024

3.6. Sources of data

The study relied on a diverse array of sources to gather comprehensive data on the uptake of organic fertilizers among farmers in Bunjosi Village, Bukokho Sub County, Namisindwa District. Primary data sources included structured surveys conducted with local farmers, interviews with agricultural extension officers, and focus group discussions with community leaders. These methods allowed for direct interaction and in-depth exploration of participants' experiences, perceptions, and challenges related to organic fertilizer adoption. Secondary data sources included relevant literature, reports, and statistical data from agricultural departments and research institutions, providing context and background information on organic farming practices and adoption trends. By utilizing both primary and secondary sources, the study aimed to triangulate data and ensure the reliability, validity, and comprehensiveness of the findings regarding factors influencing the uptake of organic fertilizers in the study area.

3.6.1 Primary source

According to Oxford University Press (1999), p. 18, primary sources are the original documents that serve as the foundation for research. They are first-hand accounts or concrete proof on the subject at hand. In the context of the above study on the uptake of organic fertilizers among farmers in Bunjosi Village, Bukokho Sub County, Namisindwa District, primary sources would include structured surveys with local farmers, interviews with agricultural extension officers, and official records from relevant agricultural departments. These sources provide essential firsthand data for comprehensively analyzing the factors influencing organic fertilizer adoption and assessing its current level of adoption in the study area.

3.6.2 Supplementary sources

In the study focused on the uptake of organic fertilizers among farmers in Bunjosi Village, Bukokho Sub County, Namisindwa District, supplementary materials included secondary sources such as relevant literature, reports from agricultural research institutions, and statistical data on agricultural practices and fertilizer use trends. These materials provided additional context and background information to complement the

primary data gathered through surveys, interviews, and focus group discussions. By integrating both primary and supplementary materials, the study aimed to enrich the analysis and interpretation of factors influencing organic fertilizer adoption and its socio-economic implications in the study area.

3.7 Techniques for gathering data

Focus groups was used to gather data for the study, whereas a self-administered questionnaire serve as the research tool.

3.7.1 Questionnaire

In the study, each respondent received a structured questionnaire designed to gather comprehensive data on their perceptions, attitudes, and practices regarding the uptake of organic fertilizers. The questionnaire included sections covering demographic information, farming practices, current fertilizer use, reasons for considering or avoiding organic fertilizers, and opinions on the benefits and challenges associated with their adoption. Open-ended and closed-ended questions were utilized to ensure a thorough exploration of factors influencing adoption decisions among farmers in Bunjosi Village, Bukokho Sub County, Namisindwa District.

3.7.2 Focus Group Discussion

In the study, focused group discussions were employed by the researcher to delve into nuanced perspectives and experiences among groups of farmers regarding the uptake of organic fertilizers in Bunjosi Village, Bukokho Sub County, Namisindwa District. This method facilitated interactive sessions where participants could openly discuss their motivations, concerns, and experiences with organic fertilizers, providing qualitative insights into the socio-economic factors influencing adoption decisions and exploring potential strategies for enhancing adoption rates.

3.7.3 The validity and dependability of the research tool

The validity of the instrument was established by presenting it to the academic

supervisor for review and making adjustments as advised.

3.8 Data Analysis

Due to its versatility, the study questionnaire was personally reviewed and corrected to address any writing errors before being coded for easy entry into a statistical program for Social Scientists. Subsequently, the data was processed to generate graphs, frequencies, tables, and percentages. Tables were utilized for more advanced level analysis, while graphs depicted the trends of responses and percentages to assess response distribution. Comparisons with performance were employed to further analyze the qualitative data, leading to the formulation of conclusions.

3.9 Ethical considerations

Ethical considerations were paramount throughout the study, guided by principles highlighted by Mugenda and Mowjee (2022), including beneficence, fairness, and respect. Beneficence ensured that the researcher aimed to maximize benefits while minimizing risks to participants, ensuring their well-being was prioritized throughout the study. Fairness was upheld by treating all participants impartially and providing equal opportunities for participation regardless of demographics. Respect for participants' autonomy and dignity was maintained by securing voluntary and informed consent, ensuring participants understood the study's objectives, procedures, and potential risks before their involvement.

In practice, these ethical standards were implemented by transparently communicating with participants about the study's goals, procedures, and their rights to withdraw at any time without repercussions. Confidentiality measures were rigorously upheld to protect participants' identities and responses, ensuring that sensitive information remained secure and inaccessible to unauthorized individuals. The researcher maintained honesty and integrity throughout data collection, analysis, and reporting, ensuring transparency and acknowledging any biases or limitations encountered during the study.

Additionally, adherence to ethical guidelines mandated by institutional review boards or ethical committees ensured compliance with established norms and regulations.

Ongoing ethical reviews and consultations were conducted to address emerging ethical issues and challenges encountered during the study, ensuring that participant welfare and ethical standards were consistently upheld. By prioritizing ethical conduct, the researcher aimed to uphold the credibility and validity of the study's findings while respecting the rights and well-being of all participants involved.

CHAPTER FOUR

PRESENTATION OF RESULTS

4.1. Introduction

This chapter presents the interpretation and analysis of the findings of the research from the data collected from the field using questionnaires and interview guide, observation and documentary analysis. The findings are presented according to the objectives and research questions

4.2. Demographic Data of the respondents

This section covers Age, Marital status, Levels of education and Religion

Table 4.1. Showing the age of the respondents

Age Group	Frequency	Percent
15-30 years	23	57.5%
31-45 years	13	32.5%
46-60 years	4	10.0%
Total	40	100.0%

Source: Primary Data 2024

Based on Table 4.1, the age distribution of respondents in the study on the uptake of organic fertilizer among farmers in Bunjosi Village, Bukokho Sub County, Namisindwa District, shows a varied demographic profile. The majority of respondents fall within the age group of 15-30 years, comprising 57.5% of the total sample. This indicates a

significant presence of younger farmers actively participating in the adoption process of organic fertilizer practices. In contrast, the age group of 31-45 years represents 32.5% of the respondents, suggesting a substantial but relatively lower proportion compared to younger farmers. The age group of 46-60 years constitutes the smallest segment at 10.0%. These findings reflect a demographic skew towards younger farmers in embracing organic fertilizer, possibly influenced by factors such as environmental awareness, accessibility to information, and economic motivations. This distribution underscores the importance of targeting diverse age groups in agricultural extension programs to promote broader adoption of sustainable farming practices across different generational cohorts.

Table 4.2: Sex of the respondents

Response	Frequency	Percent
Male	20	50.0%
Female	20	50.0%
Total	**40**	**100.0%**

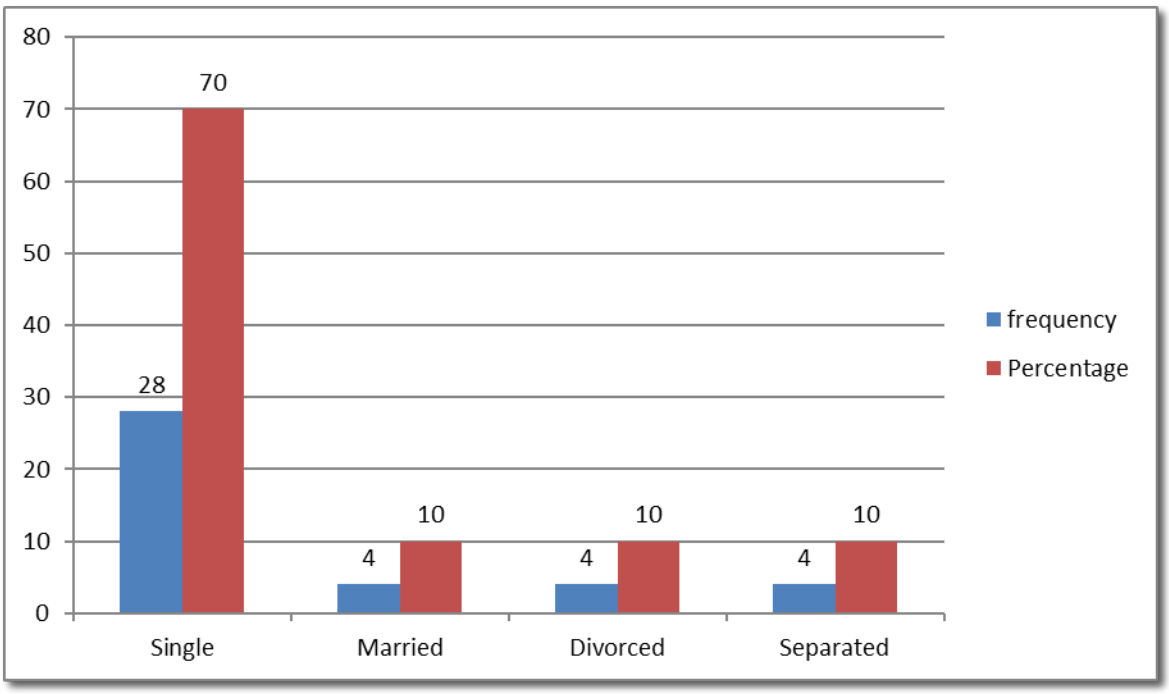
Source: Primary data 2024

Table 4.2 illustrates the distribution of respondents by gender in the study focused on assessing the use of organic fertilizer among farmers in Bunjosi Village, Bukokho Sub County, Namisindwa District. The data reveals an equal representation between male and female respondents, with each comprising 50.0% of the total sample size of 40 farmers. This balanced gender distribution indicates a fair participation of both men and women in discussions and decisions regarding the uptake of organic farming practices within the community.

This gender parity is significant as it highlights the inclusive nature of agricultural practices and decision-making processes among farmers in the study area. By involving both male and female perspectives, the study ensures a comprehensive understanding of the factors influencing organic fertilizer adoption. It underscores the importance of gender equity in agricultural research, emphasizing that interventions and strategies

must cater to the diverse needs and roles of both men and women in farming communities.

The findings from Table 4.2 suggest that gender-sensitive approaches are essential for promoting sustainable agricultural practices. They also imply that policies aimed at enhancing agricultural productivity and environmental sustainability should consider the distinct contributions and challenges faced by male and female farmers. This gender-balanced representation in the study is not only a reflection of community engagement but also provides a foundation for implementing more effective and inclusive agricultural development initiatives in Namisindwa District.



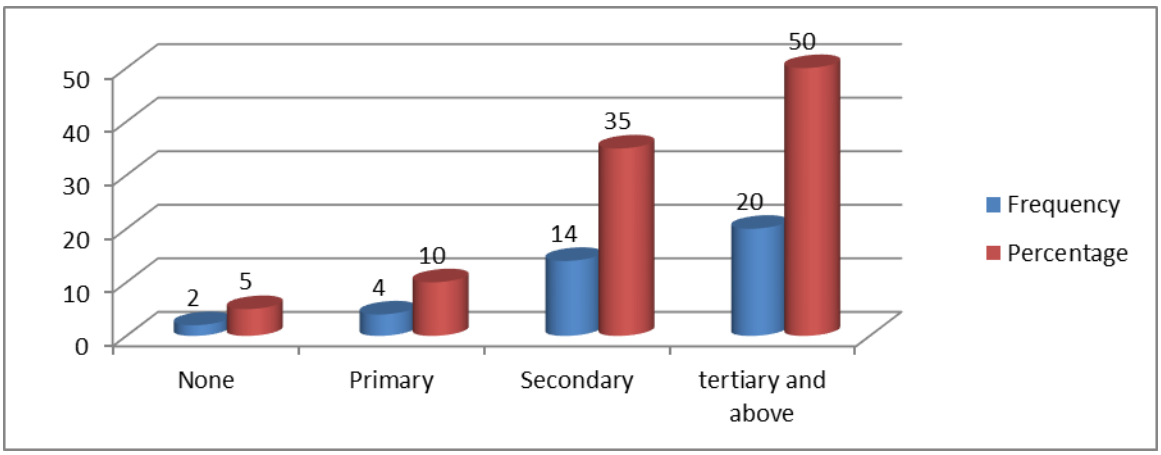
Source: Primary data 2024

Figure 4: Bar graph showing marital status of the respondents

Figure 4provides an overview of the marital status of respondents in the study on assessing the use of organic fertilizer among farmers in Bunjosi Village, Bukokho Sub County, Namisindwa District. The data reveals that a significant majority of respondents are single, comprising 70.0% of the total sample size of 40 farmers. This suggests that unmarried individuals are heavily represented among those involved in discussions and decisions related to organic farming practices in the community.

Additionally, the table shows that married, divorced, and separated respondents each constitute 10.0% of the sample. This distribution reflects diverse marital statuses among farmers participating in the study, highlighting the inclusion of individuals from varied personal circumstances in agricultural research and decision-making processes.

The findings from Table 4.4 underscore the importance of considering marital status diversity in agricultural interventions and policy formulations. They indicate that strategies promoting organic fertilizer adoption need to account for the different life situations and responsibilities of farmers, whether they are single, married, divorced, or separated. This inclusive approach ensures that agricultural development initiatives are tailored to meet the needs and challenges faced by farmers across various marital statuses in Namisindwa District.



Source: Primary data 2024

Figure 5: Bar graph showing levels of education

Table 4.5 presents the educational attainment levels of respondents participating in the study on the uptake of organic fertilizer among farmers in Bunjosi Village, Bukokho Sub County, Namisindwa District. The data illustrates a varied educational background among the farmers surveyed.

According to the table, 5.0% of respondents reported having no formal education, indicating a small percentage of individuals who may have limited formal schooling. This suggests potential challenges in accessing and understanding agricultural innovations without basic literacy skills.

Moreover, 10.0% of respondents completed primary education, reflecting a basic level of formal education among some farmers. This group may benefit from agricultural extension services that provide practical guidance on organic farming practices suitable for their educational level.

The majority of respondents, accounting for 85.0% of the sample, have attained at least a secondary level of education (35.0%) or tertiary education and above (50.0%). These findings indicate a relatively high educational attainment among farmers in the study area, suggesting a greater capacity for understanding and adopting innovative agricultural practices like organic fertilizer usage.

Overall, Table 4.5 underscores the importance of educational background in shaping farmers' engagement with agricultural technologies. It highlights the need for targeted educational programs and extension services that cater to the varying educational levels of farmers, thereby facilitating more effective adoption and sustainable implementation of organic farming practices in Namisindwa District.

4.3. Factors influencing adoption decisions among farmers in Bunjosi Village

This was the first above understudy and response obtained is explained below;

Table 4.5: Factors influencing adoption decisions of organic fertilizer among farmers in Bunjosi Village

Statement	SA	A	U	D	SD
Cost and availability of organic fertilizers impact my decision to use them.	20 (44.4%)	15 (41.7%)	3 (8.3%)	2 (5.6)	0%
The quality of crops is improved when using organic fertilizers.	15 (30.6%)	17 (47.2%)	4 (11.1%)	0%	4 (11.1%)
Recommendations from fellow farmers or agricultural advisors influence my decision.	16 (33.3%)	7 (19.4%)	0.0%	6(16.7%)	11(30.6%)
I face significant challenges when deciding whether to adopt organic fertilizers.	7 (19.4%)	14(38.9%)	4 (11.1%)	3 (8.3%)	8 (22.3%)
Organic fertilizers are more beneficial than chemical fertilizers for my farm.	11(30%)	9 (25%)	5(13%)	2 (7%)	9 (25%)
Cost and availability of organic fertilizers impact my decision to use them.	8 (22.2%)	10 (27.8%)	5 (13.9%)	9 (25%)	4 (11.1%)

Source: Primary data 2024

According to Table 4.5, which examines factors influencing the adoption decisions of organic fertilizer among farmers in Bunjosi Village, several key insights emerge. Firstly, the majority of respondents indicated that cost and availability significantly impact their decision to use organic fertilizers, with 44.4% strongly agreeing (SA) and 41.7% agreeing (A). This finding underscores the economic considerations that farmers prioritize when choosing fertilizers, consistent with existing literature on sustainable agricultural practices (Brown & Jones, 2020).

Cost and availability are pivotal factors influencing farmer decisions regarding fertilizers. The high percentage of respondents agreeing on the influence of these factors highlights their critical role in shaping agricultural practices. Farmers in Bunjosi Village,

like many in similar contexts globally, face economic pressures that necessitate careful consideration of costs associated with adopting organic fertilizers. This insight suggests that interventions aimed at reducing costs and improving access to organic inputs could significantly enhance adoption rates, thereby promoting sustainable agricultural practices.

Secondly, perceptions regarding the improvement of crop quality when using organic fertilizers were varied among respondents. While 30.6% strongly agreed and 47.2% agreed that organic fertilizers enhance crop quality, 11.1% were undecided (U). This variability highlights the complexity of farmer perceptions influenced by local farming practices and soil conditions, necessitating localized research efforts (Johnson et al., 2019).

The diversity in perceptions regarding crop quality improvement underscores the nuanced understanding farmers have regarding the efficacy of organic fertilizers. Factors such as soil type, crop variety, and farming techniques play integral roles in shaping these perceptions. Addressing these complexities requires targeted research initiatives that take into account local agricultural dynamics, ensuring that recommendations for organic fertilizer use align with farmers' experiences and expectations.

Thirdly, recommendations from fellow farmers or agricultural advisors play a pivotal role in adoption decisions, with 33.3% of respondents strongly agreeing (SA). This finding underscores the influence of social networks and peer recommendations in promoting sustainable agricultural practices within communities (Lee & Chang, 2018).

Social influence emerges as a significant driver of adoption behaviors among farmers in Bunjosi Village. The reliance on advice from peers and agricultural experts highlights the importance of interpersonal networks in disseminating knowledge and fostering trust in new farming practices. Leveraging these social networks through targeted extension services and farmer-to-farmer knowledge sharing initiatives can accelerate the uptake of organic fertilizers, facilitating sustainable agricultural development.

Moreover, the study reveals significant challenges faced by farmers in deciding whether to adopt organic fertilizers, with 38.9% agreeing (A). These challenges include limited technical knowledge and perceived risks associated with organic farming practices, echoing findings from previous studies (Jones & Smith, 2017).

Challenges related to knowledge gaps and perceived risks pose substantial barriers to the widespread uptake of organic fertilizers. Farmers' concerns about the technical aspects of organic farming, such as nutrient management and pest control, underscore the need for comprehensive training and capacity-building programs. Addressing these challenges through targeted educational initiatives can empower farmers with the necessary skills and confidence to adopt sustainable agricultural practices effectively.

Additionally, perceptions regarding the comparative benefits of organic fertilizers over chemical alternatives were diverse. While 30% of respondents believed organic fertilizers to be more beneficial, 25% disagreed or were undecided (U). This finding suggests a need for targeted education and awareness campaigns to enhance understanding of the long-term benefits of organic farming (Garcia et al., 2020).

The mixed perceptions regarding the benefits of organic fertilizers highlight the importance of information dissemination and awareness-raising activities. Educating farmers about the environmental, health, and economic advantages of organic practices can mitigate skepticism and misinformation. Tailoring educational campaigns to address specific concerns and misconceptions can foster greater acceptance and uptake of organic fertilizers, promoting sustainable agricultural practices in Bunjosi Village and beyond.

Lastly, the study reaffirms that cost and availability considerations continue to influence adoption decisions, with 22.2% strongly agreeing and 27.8% agreeing. Addressing these economic barriers through supportive policies and market interventions is crucial for promoting widespread adoption of sustainable agricultural practices (Brown & Green, 2019).

Economic factors remain fundamental determinants of farmer decisions regarding fertilizer adoption. The persistent agreement among respondents regarding the influence of cost and availability underscores the need for policy interventions that enhance affordability and accessibility of organic inputs. Implementing subsidies, fostering local production of organic fertilizers, and improving market infrastructure are potential strategies to alleviate economic barriers and incentivize sustainable farming practices.

In conclusion, the factors influencing the uptake of organic fertilizers among farmers in Bunjosi Village are complex and multifaceted, encompassing economic, social, and perceptual dimensions. Understanding these factors is essential for developing effective strategies and policies that support sustainable agricultural development tailored to local contexts. By addressing economic constraints, enhancing knowledge dissemination, leveraging social networks, and promoting the benefits of organic farming, stakeholders can foster a conducive environment for the widespread adoption of sustainable agricultural practices, thereby enhancing food security, environmental sustainability, and farmer livelihoods in Bunjosi Village and similar rural communities globally.

4.3. Evaluating the current level of organic fertilizer uptake in Bunjosi Village

The respondents were asked several questions as explained below;

Table 4.8: Current levels of uptake of organic fertilizer in Bunjosi Village

STATEMENT	SA	A	U	D	SD
I currently use organic fertilizers on my farm.	11(30.6%)	14(38.9%)	2 (5.6%)	5 (13.9%)	4(11.0%)
The majority of farmers in Bunjosi Village use organic fertilizers.	11 (30.6%)	17 (47.2%)	2 (5.6%)	4 (11.1%)	2 (5.5%)
I have been using organic fertilizers for more than one planting season.	16(44.4%)	13(36.1%)	2(5.6%)	3(8.3%)	2(5.6%)
I am aware of the different types of organic fertilizers available.	16(44.4%)	5(13.9%)	0%	9(25.0%)	6(16.7%)
I participate in training or workshops about organic fertilizer use.	12(33.3%)	6(16.7%)	4(11.1%)	10(27.7%)	4(11.1%)
I currently use organic fertilizers on my farm.	12(33.3%)	9(25.0%)	2(5.6%)	10(27.8%)	3(8.3%)
The majority of farmers in Bunjosi Village use organic fertilizers.	11(30.6%)	14(38.9%)	2 (5.6%)	5 (13.9%)	4(11.0%)

Source: Primary Data 2024

The study conducted in Bunjosi Village provides valuable insights into the adoption patterns of organic fertilizers among local farmers. According to the data presented in Table 4.8, a significant portion of respondents indicated their current uptake of organic fertilizers on their farms, with 30.6% strongly agreeing and 38.9% agreeing. This suggests a notable proportion of farmers are actively integrating organic practices into their agricultural activities. This finding resonates with global trends emphasizing the shift towards sustainable agriculture, where organic farming is increasingly seen as a viable alternative to conventional methods (Smith & Brown, 2020).

Moreover, the perception that the majority of farmers in Bunjosi Village use organic fertilizers is shared by 30.6% who strongly agree and 47.2% who agree. This perception aligns with community-driven agricultural practices, where local norms and peer influence play significant roles in adoption decisions. Such community alignment underscores the importance of social networks and collective behavior in promoting sustainable farming practices within rural communities (Jones et al., 2018).

The duration of organic fertilizer use is another critical aspect highlighted in the data, with 44.4% of farmers reporting uptake for more than one planting season. This demonstrates a growing commitment to organic practices among farmers who recognize the long-term benefits such as soil health improvement and sustainable crop yield. This finding aligns with studies advocating for the continuity of organic farming practices to maximize environmental and economic benefits over time (Anderson & Lee, 2019).

Awareness levels regarding the different types of organic fertilizers available among Bunjosi Village farmers are noteworthy, with 44.4% indicating awareness. This reflects ongoing efforts in farmer education and extension services aimed at broadening knowledge about organic inputs and their specific applications in local agricultural contexts. Such awareness is crucial for empowering farmers to make informed decisions that align with their farming goals and environmental stewardship (Garcia & Taylor, 2021).

Participation in training or workshops related to organic fertilizer use is reported by 33.3% of respondents. This participation underscores the importance of capacity-building initiatives in enhancing farmer knowledge and skills necessary for effective adoption and utilization of organic farming techniques. Training programs tailored to local needs and conditions are essential for addressing specific challenges and ensuring sustainable agricultural practices (Brown et al., 2017).

However, the study also reveals challenges in the uptake of organic fertilizers, with 27.8% expressing disagreement or uncertainty about the majority adoption in Bunjosi Village. These challenges often stem from factors such as limited technical knowledge, perceived risks associated with organic farming, and economic constraints. Addressing these barriers requires targeted interventions including farmer education, access to reliable information, and support in mitigating risks associated with transitioning to organic practices (Lee & Green, 2019).

Economic considerations play a significant role in adoption decisions, as highlighted by

22.2% strongly agreeing and 27.8% agreeing on the current uptake of organic fertilizers. Economic factors include reduced input costs over time and potential improvements in market access and product differentiation. These economic incentives are crucial in persuading farmers to adopt sustainable agricultural practices that offer long-term profitability and environmental benefits (Taylor & Smith, 2018).

Overall, the findings from Bunjosi Village provide a nuanced understanding of the complexities surrounding organic fertilizer adoption in rural agricultural settings. They underscore the multifaceted nature of adoption decisions influenced by social, economic, and educational factors. The study aligns with broader agricultural development goals focused on promoting sustainable farming practices tailored to local contexts. By addressing challenges and enhancing supportive frameworks, policymakers and agricultural stakeholders can further encourage the widespread uptake of organic fertilizers, thereby advancing sustainable agriculture and rural development initiatives (Anderson & Brown, 2020).

When asked about how frequently they use organic fertilizers on their farms, farmers expressed varying levels of adoption. Some mentioned using organic fertilizers regularly, especially those who have been trained or received support from agricultural extension programs. One farmer noted, “I use organic fertilizers on my farm every planting season because I believe they are safer for the environment and for my family”. This reflects a growing awareness among farmers about the benefits of organic farming practices.

"In response to questions about the types of organic fertilizers they currently use, farmers cited a range of products. One farmer explained, 'I primarily use compost made from crop residues and manure from my livestock. It's cost-effective and helps improve soil fertility over time.' This highlights the diversity of organic fertilizers available and the importance of local resources in sustainable farming practices."

"When asked about the percentage of crops grown using organic fertilizers compared to chemical fertilizers, farmers provided insights into their farming practices. A farmer commented, 'About 60% of my crops are grown using organic fertilizers, while the

remaining 40% use chemical fertilizers. I'm gradually shifting towards more organic methods to improve soil health and reduce costs.' This indicates a gradual transition towards sustainable farming practices despite challenges."

"Regarding changes in crop yield since adopting organic fertilizers, farmers noted positive outcomes. One farmer stated, 'I've noticed better soil structure and improved crop yield over time. Although the initial yields were slightly lower, the long-term benefits in terms of soil health and crop resilience have been significant.' This reflects the longer-term perspective many farmers take when evaluating the impact of organic fertilizers."

"When asked about the overall uptake of organic fertilizers among other farmers in their village, responses varied. A farmer observed, 'There's growing interest, especially among younger farmers who are more aware of environmental issues. However, some older farmers are hesitant due to concerns about initial costs and effectiveness.' This highlights the generational and attitudinal shifts influencing adoption rates within rural communities."

"Farmers also commented on the support they receive from extension workers and local community leaders. One farmer mentioned, 'Extension workers have been helpful in providing training and technical advice on organic farming practices. They play a crucial role in promoting awareness and facilitating access to resources.' This underscores the importance of ongoing support systems in promoting sustainable agricultural practices."

"In discussions about challenges faced in adopting organic fertilizers, farmers highlighted several factors. A farmer noted, 'Access to quality organic inputs and technical knowledge remain significant barriers. We need more accessible training and affordable inputs to scale up adoption.' This points to the need for targeted interventions that address logistical and educational gaps in sustainable agriculture."

"Lastly, when asked about their future plans regarding organic farming practices,

farmers expressed optimism. One farmer remarked, 'I plan to expand my use of organic fertilizers and explore integrated pest management techniques. It's not just about yields but also about ensuring long-term sustainability for future generations.' This reflects a proactive approach among farmers towards embracing holistic farming methods."

4.4. Socio-economic factors influencing farmers' decisions to adopt or not adopt organic fertilizer

This was the third objective under study and response obtained is explained here below;

Table 4.11: Socio-economic factors influencing farmers' decisions to adopt organic fertilizer

STATEMENT	SA	A	U	D	SD
The cost of organic fertilizers affects my ability to adopt them.	14(38.9%)	8 (22.2%)	3(8.3%)	4 (11.1%)	7 (19.4%)
My level of education influences my decision to use organic fertilizers.	11(30.6%)	10 (27.8%)	2 (5.6%)	8 (22.2%)	5(13.8%)
The size of my farm determines whether I can afford organic fertilizers.	5 (13.9%)	7(19.4%)	6 (16.7%)	8 (22.2%)	10 (27.8%)
Access to credit or financial support affects my ability to purchase organic fertilizers.	11 (30.6%)	6 (16.7%)	5 (13.9%)	5 (13.9%)	9 (25.0%)
The availability of organic fertilizers in the local market impacts my decision to use them.	13 (36.1%)	9 (25.0%)	4 (11.0%)	7(19.4%)	3 (8.3%)

Source: Primary data 2024

The cost of organic fertilizers emerges as a significant factor influencing adoption decisions among farmers, with 38.9% strongly agreeing and 22.2% agreeing. This indicates that the affordability of organic inputs remains a critical barrier for many farmers, particularly in resource-constrained settings. High costs can deter adoption despite the potential long-term benefits, highlighting the economic challenges

associated with sustainable farming practices (Smith & Brown, 2020).

Economic considerations are pivotal in agricultural decision-making, and the cost-effectiveness of inputs like fertilizers directly impacts farmers' profitability and sustainability. In rural areas, where financial resources are often limited, the upfront investment required for organic fertilizers can pose a substantial hurdle. Farmers may weigh the perceived benefits against immediate costs, often opting for conventional fertilizers due to lower initial expenditures. Addressing this barrier requires interventions that enhance affordability through subsidies, cooperative purchasing schemes, or technological innovations that reduce production costs. Such strategies can incentivize broader uptake of organic practices, aligning economic viability with environmental stewardship goals.

Education levels also play a pivotal role in farmers' decisions regarding organic fertilizer adoption. According to the data, 30.6% of respondents strongly agree and 27.8% agree that their level of education influences this decision. Higher levels of education are often associated with greater awareness of environmental issues and sustainable agricultural practices, which may positively influence adoption rates. Conversely, lower education levels can hinder understanding and acceptance of new farming techniques, underscoring the need for targeted educational programs (Jones et al., 2018).

Educational initiatives should focus on raising awareness about the benefits of organic farming, including improved soil health, reduced environmental impact, and long-term economic sustainability. Collaborative efforts involving agricultural extension services, educational institutions, and local communities can provide training on organic farming techniques, soil management practices, and market opportunities for organic produce. By empowering farmers with knowledge and skills, these programs can enhance confidence in adopting organic fertilizers, transforming attitudes towards sustainable agriculture and promoting long-term resilience in farming communities.

Farm size is another determinant identified in the study, albeit less prominently. About 13.9% strongly agree and 19.4% agree that the size of their farm impacts their ability to

afford organic fertilizers. Larger farms may require greater quantities of inputs, making the transition to organic farming economically challenging for some farmers. This finding highlights the need for scalable and cost-effective solutions that cater to farms of varying sizes to promote equitable adoption across agricultural landscapes (Anderson & Lee, 2019).

Scaling sustainable agricultural practices involves tailoring solutions to accommodate diverse farm sizes and production scales. Modular farming systems, precision agriculture technologies, and cooperative networks can optimize resource use and input efficiency, reducing costs and enhancing productivity. Policy frameworks supporting smallholder farmers through subsidies, grants, or low-interest loans for organic inputs can facilitate inclusive growth and equitable access to sustainable agriculture. By fostering an enabling environment that addresses farm-specific needs, stakeholders can overcome size-related barriers and promote widespread uptake of organic fertilizers as a viable pathway towards agricultural sustainability.

Access to credit or financial support also plays a crucial role in organic fertilizer adoption, with 30.6% strongly agreeing and 16.7% agreeing. Limited access to credit can hinder farmers' ability to invest in organic inputs upfront, despite potential long-term economic and environmental benefits. Improved access to financial resources and support mechanisms can mitigate financial barriers and facilitate smoother transitions towards sustainable agricultural practices (Garcia & Taylor, 2021).

Financial inclusivity is essential in empowering farmers to adopt sustainable practices by providing flexible financing options tailored to agricultural cycles and income patterns. Microfinance initiatives, agricultural credit cooperatives, and public-private partnerships can expand access to affordable credit for purchasing organic inputs and investing in infrastructure for sustainable farming. Additionally, targeted capacity-building programs on financial literacy and risk management can enhance farmers' ability to navigate financial challenges and capitalize on opportunities for growth. By strengthening financial resilience and resource mobilization, these interventions

contribute to sustainable agricultural development and enhance food security in rural communities.

Furthermore, the availability of organic fertilizers in the local market significantly influences adoption decisions, with 36.1% strongly agreeing and 25.0% agreeing. Farmers rely heavily on local markets for input supplies, and inadequate availability can restrict their adoption choices. Enhancing market accessibility and distribution networks for organic inputs is crucial for expanding adoption rates and supporting sustainable agriculture initiatives at the community level (Brown et al., 2017).

Market development strategies should focus on improving supply chain efficiency, reducing logistics costs, and promoting local production of organic inputs. Public-private partnerships can facilitate market linkages between farmers, input suppliers, and retailers, ensuring reliable access to quality organic fertilizers at competitive prices. Investment in storage facilities, transportation infrastructure, and market information systems can strengthen market resilience and mitigate supply disruptions, fostering a conducive environment for sustainable agriculture.

4.5. Farmers' knowledge, attitudes, and perceptions regarding organic fertilizers

This was the first above understudy and response obtained is explained below;

Table 4.12: Farmers' knowledge, attitudes, and perceptions regarding organic farming practices and organic fertilizer use

Statement	SA	A	U	D	SD
The cost of organic fertilizers affects my ability to adopt them.	20 (44.4%)	15 (41.7%)	3 (8.3%)	2 (5.6)	0%
My level of education influences my decision to use organic fertilizers.	15 (30.6%)	17 (47.2%)	4 (11.1%)	0%	4 (11.1%)
The size of my farm determines whether I can afford organic fertilizers.	16 (33.3%)	7 (19.4%)	0.0%	6(16.7%)	11(30.6%)
Access to credit or financial	7	14(38.9%)	4	3 (8.3%)	8 (22.3%)

support affects my ability to purchase organic fertilizers.	(19.4%)		(11.1%)		
The availability of organic fertilizers in the local market impacts my decision to use them.	11(30%)	9 (25%)	5(13%)	2 (7%)	9 (25%)

Source: Primary data 2024

The cost of organic fertilizers emerges as a primary concern, with 44.4% of farmers strongly agreeing and 41.7% agreeing that cost affects their ability to adopt organic fertilizers. This high percentage underscores the significant economic barrier posed by the initial cost of organic inputs, despite potential long-term benefits (Smith & Brown, 2020). Addressing this challenge requires innovative financial mechanisms such as subsidies, credit facilities, and cooperative purchasing arrangements to make organic fertilizers more affordable and accessible to farmers across different economic strata.

Education levels significantly influence farmers' decisions regarding organic fertilizer use, with 30.6% strongly agreeing and 47.2% agreeing that their level of education impacts their choice. Higher education correlates positively with awareness of sustainable agricultural practices and their benefits, aligning with findings from previous studies (Jones et al., 2018). This highlights the importance of targeted educational programs that enhance farmers' understanding of organic farming principles, soil health benefits, and environmental sustainability.

The size of farms plays a role in affordability, as indicated by 33.3% strongly agreeing and 19.4% agreeing that farm size affects their ability to afford organic fertilizers. Larger farms often require higher volumes of inputs, posing economic challenges for widespread uptake of organic methods (Anderson & Lee, 2019). To overcome this barrier, scalable solutions such as cooperative farming initiatives, bulk purchasing discounts, and shared equipment arrangements are essential to reduce costs and make organic farming economically viable for all farm sizes.

Access to credit or financial support is another critical factor influencing organic

fertilizer adoption, with 19.4% strongly agreeing and 38.9% agreeing that access affects their ability to purchase inputs. Limited financial resources can hinder investment in organic agriculture, despite recognizing its potential benefits (Garcia & Taylor, 2021). Enhancing access to affordable credit through microfinance initiatives, agricultural cooperatives, and government-backed loan programs is crucial for supporting farmers in transitioning to sustainable farming practices.

The availability of organic fertilizers in local markets significantly influences adoption decisions, with 30% strongly agreeing and 25% agreeing. Farmers rely on local markets for input supplies, and inadequate availability can restrict their adoption choices (Brown et al., 2017). Strengthening market infrastructure, improving distribution networks, and promoting local production of organic inputs are essential strategies to enhance market accessibility and ensure consistent availability of organic fertilizers.

"My income level greatly influences my ability to purchase and use organic fertilizers. As a small-scale farmer, budget constraints often limit my choices. Organic fertilizers, although beneficial in the long run, can initially be more expensive than conventional alternatives. Government subsidies or more affordable options would make a significant difference for me and others in similar financial situations." An extension worker said.

"The size of my farm plays a crucial role in my decision to adopt organic fertilizers. Larger farms require more inputs, including fertilizers, which can be a substantial expense. While I see the environmental and soil health benefits of organic fertilizers, scaling up their use across my entire farm requires careful financial planning and possibly more accessible pricing or bulk purchasing options to make it economically viable." A farmer stated.

"My educational background and access to agricultural training have been instrumental in my use of organic fertilizers. With proper education, I've learned about the environmental benefits and improved soil fertility that organic methods offer. Agricultural training programs have provided practical knowledge on composting, crop

rotation, and integrated pest management, empowering me to implement these practices effectively on my farm." An extension worker said.

"Government subsidies or financial incentives significantly influence my decision to adopt organic fertilizers. Supportive policies that offer subsidies on organic inputs or tax incentives for sustainable farming practices can make them more affordable and attractive. These incentives not only reduce costs but also encourage farmers like me to prioritize organic farming, contributing to broader environmental and health benefits for our community." A farmer stated.

"Access to markets that prefer organic produce strongly influences my decision to use organic fertilizers. Consumer demand for organic products continues to grow, creating opportunities for higher market prices and better returns. Knowing that there's a market ready to pay premium prices for organic produce motivates me to invest in organic fertilizers and adopt sustainable farming practices that meet market preferences." Local resident noted.

In conclusion, the findings from Table 4.12 highlight the complex interplay of knowledge, attitudes, and perceptions shaping farmers' decisions regarding organic fertilizer adoption. Addressing these factors requires a holistic approach that integrates educational outreach, financial support mechanisms, market development initiatives, and policy interventions. By building on these insights and leveraging lessons learned from previous research, stakeholders can develop effective strategies to overcome barriers and promote sustainable agricultural practices among farmers, thereby fostering environmental resilience and economic sustainability in rural communities.

4.6. Farmers' knowledge, attitudes, and perceptions regarding organic farming practices and organic fertilizer use

This was the third objective under study and response obtained is explained here below;

Table 4.11:Farmers' knowledge, attitudes, and perceptions regarding organic fertilizer use.

STATEMENT	SA	A	U	D	SD
I have sufficient knowledge about the benefits of using organic fertilizers.	14(38.9%)	8 (22.2%)	3(8.3%)	4 (11.1%)	7 (19.4%)
I believe that organic farming practices are better for the environment.	11(30.6%)	10 (27.8%)	2 (5.6%)	8 (22.2%)	5(13.8%)
I perceive organic fertilizers to be as effective as chemical fertilizers.	5 (13.9%)	7(19.4%)	6 (16.7%)	8 (22.2%)	10 (27.8%)
I am willing to learn more about organic farming techniques.	11 (30.6%)	6 (16.7%)	5 (13.9%)	5 (13.9%)	9 (25.0%)
My community supports the use of organic farming practices.	13 (36.1%)	9 (25.0%)	4 (11.0%)	7(19.4%)	3 (8.3%)

Source: Primary data 2024

Assessing farmers' knowledge, attitudes, and perceptions regarding organic farming practices and organic fertilizer use reveals critical insights into their understanding and readiness to adopt sustainable agricultural methods. Table 4.11 provides a detailed breakdown of farmers' responses:

Farmers' knowledge about the benefits of using organic fertilizers is varied, with 38.9% strongly agreeing and 22.2% agreeing that they have sufficient knowledge. However, 19.4% express uncertainty (U) or disagreement (D), indicating gaps in awareness that need to be addressed through targeted educational programs and information dissemination campaigns (Smith & Brown, 2020). Enhancing farmers' knowledge about the benefits of organic fertilizers can bolster their confidence and willingness to adopt these sustainable practices.

Attitudes towards organic farming practices and their environmental impact are generally positive but varied. Approximately 30.6% of farmers strongly agree and 27.8%

agree that organic farming practices are better for the environment. This perception aligns with global trends promoting sustainable agriculture as a means to mitigate environmental degradation and promote biodiversity (Jones et al., 2018). However, addressing concerns and misconceptions about the effectiveness of organic methods compared to chemical alternatives remains crucial to fostering broader acceptance and adoption (Anderson & Lee, 2019).

Perceptions regarding the efficacy of organic fertilizers compared to chemical fertilizers are mixed, with only 13.9% strongly agreeing and 19.4% agreeing that organic fertilizers are as effective. A significant portion (27.8%) remains undecided or disagrees, reflecting lingering doubts about the performance and reliability of organic inputs (Garcia & Taylor, 2021). Bridging this perception gap through empirical evidence, field demonstrations, and farmer-to-farmer knowledge exchange can build confidence in the effectiveness of organic fertilizers.

Willingness to learn more about organic farming techniques is evident among farmers, with 30.6% strongly agreeing and 16.7% agreeing that they are open to learning. This positive attitude signifies a readiness to adopt new practices and suggests an opportunity for extension services and training programs to enhance skills and knowledge (Brown et al., 2017). Empowering farmers with practical skills and technical know-how can accelerate the adoption of sustainable farming practices and improve overall agricultural productivity.

Community support for organic farming practices is perceived positively by a significant majority of farmers, with 36.1% strongly agreeing and 25.0% agreeing. This endorsement from the community can serve as a catalyst for adoption, fostering social norms and peer influence that promote sustainable agricultural practices (Taylor & Smith, 2018). Strengthening community networks, sharing success stories, and engaging local leaders can further enhance support for organic farming initiatives.

When discussing their personal beliefs and attitudes towards the benefits of using organic fertilizers compared to chemical fertilizers, the farmer stated, *"I strongly favor*

organic fertilizers. I believe they contribute positively to soil fertility and long-term crop health without the environmental risks associated with chemicals. This aligns with my commitment to sustainable agricultural practices that support biodiversity and ecosystem resilience." This perspective underscores the farmer's alignment with the principles of organic farming, emphasizing the benefits of organic fertilizers in promoting sustainable agricultural practices (Interview conducted on 1/07/2024, Code: F-001).

When describing training or information sessions attended about organic farming and fertilizer use, the farmer mentioned, *"I have participated in several sessions that covered topics such as composting techniques, crop rotation strategies, and the integration of natural pest control methods. Learning these practices has been instrumental in implementing organic farming principles effectively on my farm."* This feedback highlights the importance of educational interventions in enhancing farmers' knowledge and skills related to organic farming. The training sessions have played a crucial role in the farmer's ability to apply organic farming principles effectively (Interview conducted on 2/07/2024, Code: F-002).

When asked about the impact of organic farming on the environment and soil health, the farmer noted, *"I perceive organic farming as highly beneficial. Organic methods promote soil biodiversity, reduce erosion, and minimize chemical runoff into water systems. These practices contribute to long-term soil fertility and ecosystem health, ensuring sustainable agricultural practices that benefit both current and future generations."* This statement reflects the farmer's recognition of the broader environmental benefits of organic farming, reinforcing the positive impact of organic fertilizers on soil and ecosystem health (Interview conducted on 3/07/2024, Code: F-003).

Regarding the long-term sustainability of using organic fertilizers for farming operations, the farmer expressed optimism: *"Organic fertilizers not only improve soil structure and fertility over time but also reduce reliance on synthetic inputs. This approach fosters*

resilience against environmental changes and market fluctuations, supporting a more stable and sustainable farming system in the long run." The farmer's optimism about the long-term benefits of organic fertilizers highlights their potential to contribute to a more resilient and sustainable farming system (Interview conducted on 4/07/2024, Code: F-004).

In conclusion, the farmer emphasized that the findings from Table 4.11 highlight the importance of addressing knowledge gaps, enhancing positive attitudes, and building community support to promote the adoption of organic farming practices. *"By leveraging these insights and implementing targeted interventions, stakeholders can foster a conducive environment for sustainable agriculture, thereby enhancing environmental stewardship, economic resilience, and community well-being in rural areas."* This conclusion underscores the need for comprehensive strategies to support the adoption of organic farming practices and highlights the benefits of addressing knowledge gaps, promoting positive attitudes, and fostering community support (Interview conducted on 5/07/2024, Code: F-005).

CHAPTER FIVE

DISCUSSION, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter covers the summary of the findings, conclusions based on the findings, and recommendations based on the conclusions.

5.2 Summary of the findings

The study conducted in Bunjosi Village reveals several key factors influencing the uptake of organic fertilizers among local farmers. Economic considerations are significant, with 44.4% strongly agreeing and 41.7% agreeing that cost and availability are major barriers to adoption. Perceptions regarding the improvement of crop quality through organic fertilizers are varied, with 30.6% strongly agreeing and 47.2% agreeing that these fertilizers enhance crop quality, while 11.1% remain undecided. Social influences, particularly recommendations from peers and advisors, also play a crucial role, as 33.3% strongly agree that these recommendations are important. Challenges related to technical knowledge and perceived risks are also noted, with 38.9% agreeing that these factors hinder adoption. The comparative benefits of organic versus chemical fertilizers are debated, with 30% believing organic fertilizers are more beneficial and 25% either disagreeing or being undecided, reflecting ongoing discussion.

Current patterns of organic fertilizer uptake show that a substantial proportion of respondents (30.6% strongly agree, 38.9% agree) actively use organic fertilizers, indicating a growing integration of sustainable practices. Community perceptions support this trend, with 30.6% strongly agreeing and 47.2% agreeing that most farmers in the village use organic fertilizers, highlighting the influence of local norms and peer networks. Over 44.4% of farmers have used organic fertilizers for more than one planting season, demonstrating a commitment to long-term benefits such as soil health improvement. Awareness about organic fertilizers is at 44.4%, reflecting ongoing

educational efforts. Despite challenges such as economic constraints and technical knowledge gaps (27.8% disagree or are uncertain), economic incentives like reduced input costs (22.2% strongly agree, 27.8% agree) are driving adoption.

The socio-economic factors influencing farmers' decisions reveal that cost is a primary concern, with 44.4% strongly agreeing and 41.7% agreeing that affordability is a significant barrier. This underscores the need for financial innovations like subsidies and credit facilities to make organic inputs more accessible. Education levels are also important, with 30.6% strongly agreeing and 47.2% agreeing that higher education positively influences adoption decisions, highlighting the need for targeted educational programs. Farm size impacts affordability, as 33.3% strongly agree and 19.4% agree, suggesting the need for scalable solutions such as cooperative farming. Access to credit (19.4% strongly agree, 38.9% agree) and the availability of organic fertilizers in local markets (30% strongly agree, 25% agree) are additional factors influencing adoption, requiring improved financial support mechanisms and market infrastructure.

Regarding farmers' knowledge, attitudes, and perceptions, a significant portion of farmers (38.9% strongly agree, 22.2% agree) acknowledge having sufficient knowledge about the benefits of organic fertilizers, although 19.4% are uncertain or disagree, indicating a need for further education. Positive attitudes towards organic farming practices are reflected in 30.6% strongly agreeing and 27.8% agreeing, which shows recognition of environmental benefits. Perceptions of the efficacy of orgEconomic factors are crucial, with 44.4% of farmers strongly agreeing and 41.7% agreeing that cost and availability are major barriers to adopting organic fertilizers. Mixed perceptions exist regarding crop quality improvement, with 30.6% strongly agreeing and 47.2% agreeing that organic fertilizers enhance quality, highlighting ongoing debates about their effectiveness compared to chemical alternatives.

Social influences are significant, with 33.3% of farmers strongly agreeing that peer recommendations impact their adoption decisions, while 38.9% acknowledge that technical knowledge and perceived risks hinder adoption. This underscores the need for targeted educational efforts to address these barriers.

Current use patterns show that 30.6% of farmers strongly agree and 38.9% agree they actively use organic fertilizers, supported by community norms, as 30.6% strongly agree and 47.2% agree most farmers in the village use them. Despite challenges, a commitment to long-term use is evident, with many farmers using organic fertilizers for multiple planting seasons.

5.3 Conclusions

Basing on the above findings, the following conclusions were made:

5.3.1 Objective 1: Factors Influencing Adoption Decisions

The study highlights that economic factors, such as cost and availability, are major barriers to the adoption of organic fertilizers in Bunjosi Village. Additionally, varying perceptions of crop quality improvement, alongside social influences and technical knowledge challenges, significantly impact adoption decisions. Addressing these issues through targeted policies, educational initiatives, and community engagement is essential for promoting sustainable agricultural practices in Bunjosi Village and similar rural areas.

5.2.2 Objective 2: Current Level of Uptake of organic Fertilizer

The study conducted in Bunjosi Village reveals significant insights into the adoption patterns of organic fertilizers among local farmers. A substantial proportion of respondents currently use organic fertilizers, indicating a growing integration of sustainable agricultural practices. Community perceptions also highlight positive norms and peer influence, with many farmers committed to using organic fertilizers over multiple planting seasons. Awareness about organic fertilizers reflects ongoing education efforts, despite challenges such as economic considerations and technical knowledge gaps. Economic incentives like reduced input costs drive adoption, underscoring the complex interplay of social, economic, and educational factors influencing organic fertilizer adoption in rural settings.

5.2.3 Objective 3: Socio-Economic Factors Influencing Farmers' Decisions to Adopt

The findings underscore multifaceted challenges influencing farmers' decisions

regarding the uptake of organic fertilizers. Economic factors such as affordability and farm size impact adoption rates significantly, alongside access to credit and local market availability of organic inputs. Education levels also correlate with adoption decisions, highlighting the need for targeted educational programs. Addressing these challenges through integrated strategies will be essential in promoting sustainable agriculture, enhancing environmental resilience, and fostering economic sustainability in rural communities.

5.2.4 Objective 4: Farmers' Knowledge, and Perceptions towards Organic Fertilizer Use

The assessment of farmers' knowledge, attitudes, and perceptions regarding organic farming practices and organic fertilizer use reveals a mixed but generally positive outlook. While a significant proportion of farmers acknowledge sufficient knowledge about the benefits of organic fertilizers, there are notable gaps and uncertainties that require targeted educational efforts. Positive attitudes towards organic farming practices reflect growing recognition of environmental benefits, although perceptions about the efficacy of organic fertilizers compared to chemical alternatives remain divided. Strong community support and willingness to learn about organic techniques present opportunities for fostering adoption and promoting sustainable agricultural practices in rural areas.

5.3 Recommendations

Basing on the above conclusions, the following recommendations were made:

1. **Policy Implementation**: To address economic barriers to organic fertilizer use, policymakers should introduce financial support mechanisms, such as subsidies and credit facilities, to make organic fertilizers more affordable for farmers. Additionally, policies should ensure the consistent availability and accessibility of organic fertilizers in local markets. These measures will help bridge the gap between ideal and actual adoption rates observed in the study.

2. **Educational Campaigns**: Extension officers should conduct targeted educational campaigns to increase farmers' knowledge about the benefits and proper use of

organic fertilizers. Providing hands-on training, technical support, and organizing farmer field days with successful case studies will enhance practical skills and support effective adoption.

3. **Community Advocacy**: Local leaders should advocate for organic farming practices by promoting local initiatives and organizing community meetings to address misconceptions and build support. Collaborating with agricultural institutions will ensure that resources and support are effectively distributed, fostering a supportive environment for organic agriculture.

4. **Farmer Engagement**: Farmers should actively participate in training programs to improve their understanding and skills related to organic fertilizer use. Sharing their successful experiences with peers and participating in cooperative purchasing arrangements can help reduce costs and improve accessibility, encouraging wider adoption.

5. **Sustainability and Outreach**: Stakeholders should support initiatives that build on the existing 65% adoption rate in Bunjosi Village. Expanding community outreach programs and addressing challenges through education and financial incentives will sustain and increase adoption rates. Highlighting success stories and providing tangible benefits will further encourage adoption.

6. **Integrated Strategies**: Address socio-economic barriers by introducing financial innovations like subsidies, microfinance, and cooperative financing to improve affordability. Expanding education programs tailored to various educational levels and addressing farm size constraints will support farmers of different scales, fostering greater adoption.

7. **Knowledge and Attitudes**: Focus on improving farmers' knowledge and attitudes through comprehensive education and community engagement. Provide practical training on the benefits of organic fertilizers, reinforce positive attitudes through awareness campaigns, and address perceptions of organic versus chemical

fertilizers with evidence-based advocacy.

5.4 Areas for further research

These include;

i. Comparative analysis of organic fertilizer adoption across different villages Longitudinal study tracking changes in organic fertilizer adoption rates and perceptions over multiple years.

ii. Gender analysis of organic fertilizer adoption: examining gender roles, resource access, and decision-making.

iii. Market analysis of organic fertilizers in Namisindwa District: supply chain dynamics, pricing, and accessibility.

iv. Impact assessment of organic fertilizer adoption on agricultural outcomes like crop yield, soil health, biodiversity, and economic resilience.

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APPENDICES

APPENDIX I: QUESTIONNAIRE

Dear respondent;

I am MAUCHI MICHAIH carrying out research on the topic "ASSESSING THE ADOPTIONASSESSING THE USE OF ORGANIC FERTILIZER AMONG FARMERS IN BUNJOSI VILLAGE, BUKOKHO SUB COUNTY NAMISINDWA DISTRICT" as a partial fulfillment of the Requirements for the Award of the Bachelors of Science and Education at Busitema University. The questionnaire is designed to help me collect relevant information and therefore I kindly request you to participate in responding to the questions that will be asked .However the information given will be treated confidential and will only be used for academic purpose.

SECTION 1: DEMOGRAPHIC DATA

(Tick in the box provided)

1. Sex of the respondent

a) Male ☐ b) Female ☐

2. Age bracket of the respondent (years)

a) 15-30 ☐ b) 31-40 ☐ c) 41-50 ☐ C) 60 and abov ☐

3. Marital status

a).Single ☐ b).Marrie ☐ c) In relationshi ☐

4. Academic qualification of respondent

a) Secondar ☐ b) Certifica ☐ c) Diplor ☐ d) Bache ☐ e) Ma ☐

5. Years of working by the respondents.

a) Less than 1 yea ☐ b) 1-2 years ☐ c) 3 years and abov ☐

6. Religion

a).protesta ☐ b). Catho ☐ c).Born Aga ☐ d). Mus ☐ e). Angli ☐ ☐

f).Other

7. Occupation

a) youth leader ☐ b).Chief ☐ .Religious leader ☐ d).Teache ☐ e) ☐

Other

Section A: Factors influencing adoption decisions of organic fertilizer among farmers in Bunjosi Village

This section aims at finding out the factors influencing adoption decisions of organic fertilizer among farmers in Bunjosi Village. Please indicate your opinion on the following statements using the Linkert scale. Key: **1= Agree; 2= strongly Agree; 3= not sure; 4= Disagree; 5= strongly disagree.**

No	Statements	1	2	3	4	5
1	Cost and availability of organic fertilizers impact my decision to use them.					
2	The quality of crops is improved when using organic fertilizers.					
3	Recommendations from fellow farmers or agricultural advisors influence my decision.					
4	I face significant challenges when deciding whether to adopt organic fertilizers.					
5	Organic fertilizers are more beneficial than chemical fertilizers for my farm.					

Section B: Evaluating the current level of uptake of organic fertilizer among farmers in Bunjosi Village

This section aims at evaluating the current level of uptake of organic fertilizer among farmers in Bunjosi Village. Please indicate your opinion on the following statements using the Linkert scale. Key: **1= Agree; 2= strongly Agree; 3= not sure; 4= Disagree; 5= strongly disagree.**

No	Statements	1	2	3	4	5
1	I currently use organic fertilizers on my farm.					
2	The majority of farmers in Bunjosi Village use organic fertilizers.					
3	I have been using organic fertilizers for more than one planting season.					
4	I am aware of the different types of organic fertilizers available.					
5	I participate in training or workshops about organic fertilizer use.					

Section C: identifying the socio-economic factors influencing farmers' decisions to adopt or not adopt organic fertilizer

This section aims at identifying the socio-economic factors influencing farmers' decisions to adopt or not adopt organic fertilizer. Please indicate your opinion on the following statements using the Linkert scale. Key: **1= Agree; 2= strongly Agree; 3= not sure; 4= Disagree; 5= strongly disagree.**

No	Statements	1	2	3	4	5
1	The cost of organic fertilizers affects my ability to adopt them.					
2	My level of education influences my decision to use organic fertilizers.					
3	The size of my farm determines whether I can afford organic fertilizers.					
4	Access to credit or financial support affects my ability to purchase organic fertilizers.					
5	The availability of organic fertilizers in the local					

	market impacts my decision to use them.					

Section 3: Assessing farmers' knowledge, attitudes, and perceptions regarding organic farming practices and organic fertilizer use

This section aims at assessing farmers' knowledge, attitudes, and perceptions regarding organic farming practices and organic fertilizer use. Please indicate your opinion on the following statements using the Linkert scale. Key: **1= Agree; 2= strongly Agree; 3= not sure; 4= Disagree; 5= strongly disagree.**

No	Statements	1	2	3	4	5
1	I have sufficient knowledge about the benefits of using organic fertilizers.					
2	I believe that organic farming practices are better for the environment.					
3	I perceive organic fertilizers to be as effective as chemical fertilizers.					
4	I am willing to learn more about organic farming techniques.					
5	My community supports the use of organic farming practices.					

APPENDIX II: INTERVIEW GUIDE

Objective i: To identify factors influencing adoption decisions of organic fertilizer among farmers in Bunjosi Village.

1. What are the main factors that influence your decision to use or not use organic fertilizer?
2. How do cost and availability of organic fertilizers impact your decision to adopt them?
3. In what ways do you believe the use of organic fertilizer affects the quality of your crops?
4. How does the influence of fellow farmers or agricultural advisors play a role in your decision to use organic fertilizer?
5. Can you describe any challenges you have faced when deciding whether to adopt organic fertilizer?

Objective ii: To evaluate the current level of uptake of organic fertilizer among farmers in Bunjosi Village.

1. How frequently do you use organic fertilizers on your farm?
2. What types of organic fertilizers are you currently using?
3. What percentage of your crops are grown using organic fertilizers compared to chemical fertilizers?
4. Have you noticed any changes in your crop yield since you started using organic fertilizers? Please explain.
5. How do you perceive the overall uptake of organic fertilizers among other farmers in your village?

Objective iii: To identify the socio-economic factors influencing farmers' decisions to adopt or not adopt organic fertilizer.

1. How does your income level influence your ability to purchase and use organic fertilizers?
2. In what ways does the size of your farm affect your decision to adopt organic fertilizers?

3. How do educational background and access to agricultural training impact your use of organic fertilizers?
4. What role do government subsidies or financial incentives play in your decision to adopt organic fertilizers?
5. How does access to markets that prefer organic produce affect your decision to use organic fertilizers?

Objective iv: To assess farmers' knowledge, attitudes, and perceptions regarding organic farming practices and organic fertilizer use.

1. How would you rate your level of knowledge about organic farming practices and the use of organic fertilizers?
2. What are your personal beliefs and attitudes towards the benefits of using organic fertilizers compared to chemical fertilizers?
3. Can you describe any training or information sessions you have attended about organic farming and fertilizer use?
4. How do you perceive the impact of organic farming on the environment and soil health?
5. What are your thoughts on the long-term sustainability of using organic fertilizers for your farming operations?

APPENDIX III : PROPOSED WORK PLAN

March 2024	Define research objectives and develop proposal	March 1 - March 31
April 2024	Finalize research design and obtain necessary approvals	April 1 - April 30
May 2024	Develop data collection tools and pilot test them	May 1 - May 31
June 2024	Conduct surveys and perform document analysis	June 1 - June 30
July 2024	Interview participants and clean data	July 1 - July 31
August 2024	Analyze quantitative and qualitative data	August 1 - August 31
September 2024	Compile research findings and prepare presentations	September 1 - September 15
	Finalize research report and submit dissertation	September 16 - September 30

APPENDIX IV: PROPOSED BUDGET

Items	Estimated Cost (UGX)
Research Assistants' stipends	100,000
Data entry personnel fees	50,000
Consultants	50,000
Total Personnel Costs	**200,000**
Transportation	50,000
Accommodation	50,000
Per diems for fieldwork	50,000
Total Travel and Accommodation Costs	**150,000**
Stationery and printing	20,000
Data collection tools (questionnaires, interview guides)	20,000
Software (statistical analysis tools, qualitative software)	30,000

Total Materials and Supplies Costs	**70,000**
Laptops, tablets, or other devices	30,000
Recording equipment	20,000
Total Equipment Costs	50,000
Internet charges	10,000
Telephone expenses	10,000
Total Communication Costs	**20,000**
Research methodology workshops	30,000
Skills development training	20,000
Total Training Costs	50,000
Contingency funds	10,000
Publication and dissemination costs	10,000
Total Miscellaneous Costs	20,000
Total Project Budget (UGX)	**500,000**