Evaluating the contribution of effective FISP implementation in Agriculture to Zambia's Economic Growth

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ABSTRACT
This paper aims to examine the role of government interventions in Zambia's agriculture sector, evaluating their impact on productivity and economic growth. The Farmer Input Support Program (FISP), the government's flagship intervention, which accounts for most of the Ministry of Agriculture's budget, is currently being implemented in 10 provinces and 116 districts. The number of beneficiaries has remained static at 1,024,434 since the 2018 farming season. Using a mixed-methods approach, the research integrates qualitative and quantitative data gathered from farmers and stakeholders to gain a holistic understanding of the effectiveness and challenges of the FISP intervention. The findings reveal that 46.93% of farmers rate the FISP as effective or very effective, indicating that the FISP has facilitated improved access to agricultural inputs for smallholder farmers. Stakeholders opinion of FISP was that of a mixed nature some rating it effective and others rating it ineffective or indicating a neutral position It is important to note that even though the FISP has been rated so highly, the findings revealed that its implementation has faced systematics inefficiencies like delayed deliveries and inadequate targeting thereby limiting its potential. While interventions like FISP have made tangible contributions to Zambia's agricultural productivity, their impact on the broader economic development is constrained by the systematic inefficiencies and fragmented stakeholder coordination. There is a need to digitize FISP operations, reduce delivery delays, and increase transparency.

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Introduction

Agriculture is considered a cornerstone of economic development in most developing countries. According to the World Trade Organization (WTO), the sector accounts for at least one-third of export earnings in almost 50 developing countries (Chibomba, 2017). Zambia, with its vast natural resources, is convenient for agricultural production, and it is for this reason that various Zambian governments, past and present, have been deliberate about ensuring the sector receives the necessary aid to allow for improvement.

To allow for the realisation of this, the Zambian government has implemented various agricultural subsidies and social benefits to support the sector in fulfilling its objective of improving the industry for poverty reduction and aiding the nation's economic development. The interventions include the Fertiliser Credit Programme (FCP) which was in place between 1997 to 2002 where eligible farmers could obtain fertilizers on a credit loan arrangement where only 10% of the market price value was payable at planting and the remaining 90% was payable after harvest (Mason, Jayne, & Mukuka, 2013).

The eligibility criteria were that the farmer needed to be a bona fide farmer cultivating a maximum of 2 hectares of land, the farmer was also required to have been a member of a cooperative, ability to repay the loan, and must not have been a defaulter of the scheme in the previous seasons. The program was not necessarily a subsidy but was rather a temporary measure until the private and public sectors had a well-articulated input credit program. As such, this program had no specific objectives to meet, and as such, not much analysis on effectiveness was undertaken (Mason, Jayne, & Mukuka, 2013)

In 2008/09 soon after his election president Rupiah Banda renamed the FSP to Farmer Input Support Programme (FISP) and the number of farmers supported by the program doubled, during this transformation, there was a diversification made to the program where seeds were added as part of the input subsidies and this contributed to an increase in the overall production. In 2015, the government introduced the Electronic Voucher System where farmers were allowed to select inputs required for their production however the implementation of the E-voucher witnessed a

lot of challenges such as delayed payments to Agro dealers, technological challenges and limited availability of inputs and these challenges saw the nation discontinuing the E-voucher system and returning to the traditional direct input support model (Teschemacher, Ng'ombe, Fajardo-Steinhauser, & Wani, 2023).

It is also important to note that the FISP consumes a significantly large amount of the Ministry of Agriculture budget, standing at at least 73% of the budget as shown in 2022, and the allocation for 2023 is expected to increase to about 9.1 billion Kwacha. Even with this amount of money set aside, the FISP has had various challenges, ranging from a lack of understanding of its impact, effectiveness, and cost-effectiveness concerning its benefits (Teschemacher, Ng'ombe, Fajardo-Steinhauser, & Wani, 2023).

The Second National Agriculture Policy re-emphasizes the Zambia National Agriculture Policy 2012-2030 and places emphasis on specific measures to achieve the objectives for instance to increase production, increase research and development and private sector participation, increase access to affordable finance opportunities, increase training opportunities in agricultural markets and how to effectively respond to climate change. The Comprehensive Agriculture Transformation and Support Program (CATSP) has seven strategic priorities as set out in its implementation framework for 2022-2026 which include improving the quality of public expenditure, promoting local supply chains, providing farmers with access to financial services, investing in upgrading the agricultural infrastructure, improve technology adaption and avoid distortive government interventions (Teschemacher, Ng'ombe, Fajardo-Steinhauser, & Wani, 2023).

Literature Review

This chapter reviews the available literature relevant to the research topic and discusses the various studies on the impact of government interventions in agriculture as a tool for economic transformation. The main aim of this chapter is to gain an in-depth understanding of how the availability of government interventions can directly affect a nation's economic growth.

Government Aid in Agriculture in Sub-Saharan Africa

In sub-Saharan Africa, studies to evaluate the effectiveness of government aid in agriculture revealed that there is a positive correlation between development aid and agricultural productivity in its general sense. However, when broken down into various agricultural recipients, the study noted a substitution effect between food crop production and industrial crop production. The study further discovered that the structural economic transformation, which is associated with agricultural development assistance, is weak (Ssozi, Asongu, & Amavilah, The Effectiveness of Development Aid for Agriculture in Sub-Saharan Africa, 2018). They also argued that it remains a challenge for researchers to measure, analyze, and evaluate aid to agriculture in terms of components and ultimate implications. The findings concluded that not all official development assistance is an effective mechanism for the structural transformation of agriculture in sub-Saharan Africa; the structural transformation would require sustainable growth as well as effective institutions for policy management (Ssozi, Asongu, & Amavilah, Is Aid for Agriculture Effective in Sub-Saharan African?, 2017)

Addressing the large pool of low-productivity and low-skilled labor may require moving away from traditional strategies. The continent requires renewed industrialization policies that will develop comparative advantages at higher values that support the manufacturing industry as well as agro-processing sectors. Evidence from Asia and Latin America has shown that agricultural productivity growth is vital not only for broad-based economic growth and poverty reduction but also for bringing about structural transformation. There is therefore a need to have more policies in agriculture and industry that need to be supported by more balanced roles of government in conjunction with both public and private sectors to yield effective results (Badiane & Makombe, 2014).

Government aid in agriculture in Nigeria

The study revealed that agriculture remains the key to achieving developmental growth, and the only way this can be achieved is by formulating policies that go over and above the traditional market failure approach but also recognize the linkages between agriculture and the non-farm economy (Olowa & Olowa, 2013).

The results also showed that there is very little confidence in public expenditure in agriculture; there is therefore a need to sharpen accountability and administration of this expenditure to make a convincing claim of why so much funding should be spent and demonstrate effectiveness and efficiency in what is being done in the agricultural sector. Suggestions made were such that there is a need to revisit the role of government in agriculture, and this could entail a reform of existing policies, identifying what has worked and why, having open policy debates with stakeholders about

the role of agriculture in economic growth and poverty reduction (Olowa & Olowa, 2013)

Government aid in agriculture in Burkina Faso

Results in a study done in Burkina Faso indicate that public funding has a positive impact on agricultural production in the short term. it is therefore necessary to ensure that there is an increase in funding in agriculture to achieve better growth and meet development goals (Ouedraogo & Bako, 2014)

The agricultural sector is a major contributor to Burkina Faso's economy, the sector employs 63% of its active population and in the past 5 years, the nation has experienced growth in the sector by 17% between 2015 to 2020 (Burkina Faso Strategic Plan 2023-2027) .in its Strategic Plan, Burkina Faso through AGRA has emphasised that a functioning government and well-coordinated administration is necessary for transforming the agricultural sector. AGRA works with other stakeholders to build state capability and support policy reform.

This was done to allow for an increase in incentives for private sector participation and investment, enhancing access to finance and markets, and adopting climate-smart technologies and the use of inputs, seeds, and fertilizer (Burkina Faso Strategic Plan 2023-2027). The result has been seen in how much the sector has grown and a testament from one of the Burkinabe farmers who has managed to purchase 3 motorcycles and several mobile phones after participating in the seed rice cultivation since the intervention, the farmer testified that there has been tremendous improvement in his livelihood (Burkina Faso Strategic Plan 2023-2027).

Government aid in Agriculture in Zambia

Past and present governments in Zambia have identified the agricultural sector as the number one driver of the economy to supplement the mining sector, which the nation has been significantly reliant on for national revenue (Ministry of Agriculture and Ministry of Fisheries and Livestock, 2016). The country has great potential to expand agricultural production due to its vast resources, like land, water, climate, and labor. The Eight National Development Plan (8NDP) envisions an agricultural growth rate of at least 10% per annum and an increase in exports to $2 billion by 2026 from $756.2 million in 2021 (Ministry of Agriculture, 2022). The Comprehensive Agriculture Support Programme (CASP) is an all-encompassing program that is aimed at driving growth in the sector. Its main components include infrastructure development, irrigation development, farm block support, and climate change adaptation (Ministry of Agriculture, 2022). The CASP is an integrated program that not only encourages the development of the input support program but also involves agriculture value chains by combining programs that are interlinked to enhance agriculture production and productivity from research.

One of the key programs under the CASP is the Farmer Input Support Program (FISP). Agricultural production witnessed substantial growth from 1.8 to 2.7 million metric tons within a single season following the initial launch of the FISP program, although the increase cannot be attributed to the program alone. The FISP has been significantly increasing and currently takes up a substantial amount of the Ministry of Agriculture budget of at least 73% in 2022 (Teschemacher, Ng'ombe, Fajardo-Steinhauser, & Wani, 2023). For the past few years, the delivery of the FISP has been through the direct input support system, including for the current 2022/2023. The current delivery system has proven to be expensive and does not allow the farmers a choice, and it is characterized by low productivity (Ministry of Agriculture, 2022).

The revised Sixth National Development Plan recognizes that agricultural development is critical for achieving inclusive growth and poverty reduction in Zambia. This document clearly states that to attain more inclusive agricultural growth, there is a need to urgently address the unbalanced agricultural policies that favoured maize production (Ministry of Agriculture and Livestock, 2015). The consequences of the current policy approaches are such that the majority of the agriculture budget is used to subsidize inputs for maize production, and despite having growth rates in agriculture of at least 6%, crop yields have remained low and below international standards

Knowledge Gap

Various studies have been done regarding the impact that government interventions have on agriculture in Zambia. These studies have all been limited to addressing the impact that these interventions have on poverty reduction. There have not been conclusive studies done to draw attention to how much is spent on implementing these interventions relative to the benefits realized.

There is a limitation in studies done to assess whether these interventions are effective and can fulfill the objective that various governments have of transforming the agricultural

sector to become a support for the mining industry as a revenue-generating unit of the country.
Lastly, we have seen studies done in other African countries like Burkina Faso where evidence has shown significant growth in the sector shown by its sung transformation of the agricultural sector but not in Zambia and it is from this limitation that this study seeks to provide a voice on how effective the existing government interventions like the FISP are in fulfilling the national long-term vision (vision 2030) of becoming a prosperous middle-income nation by 2030 (Nawiko, et al., 2022)

Methodology

The research onion by (Saunders, Lewis, & Thornhill, 2016) was used as a guide for the construction of the research framework. The chapter begins by highlighting the philosophy and research approach used, including the strategy justification. This then helps to define the method of data collection and analysis most appropriate for the research. The chapter will also aid in addressing the questions raised and provide answers on the effectiveness of government interventions like FISP in agriculture on Zambia's economic growth.

Underlying Philosophy

This study adopts pragmatism, aligning with its mixed-methods approach. Pragmatism emphasizes the practical application of knowledge, integrating quantitative and qualitative methods to address the research objectives comprehensively. Surveys quantified farmers' perceptions, while interviews provided in-depth insights into stakeholders' experiences, allowing for an in-depth understanding of what is prevailing on the ground for practical policy reform.

Research Approach

This study adopted a mixed-methods approach that integrates deductive and inductive reasoning. The deductive component tested existing theories, such as modernization theory, to assess whether government interventions align with Zambia's economic development goals. The inductive component allowed for the emergence of themes and insights from qualitative data, such as stakeholder interviews. A similar mixed approach was utilized by Jayne et al. (2018), who examined input subsidy programs in sub-Saharan Africa by combining statistical trends with qualitative accounts from stakeholders. This contrasts with single-method studies, such as those by Ssozi et al. (2018), which exclusively used quantitative methods to measure aid effectiveness, providing robust but narrower insights.

Time Horizon

This study adopted a cross-sectional time horizon, capturing data on agricultural programs and their impacts within a specific timeframe. The cross-sectional design is cost-effective and suitable for assessing current policies. A similar approach was employed by Ouedraogo and Bako (2014) in their evaluation of agricultural funding in Burkina Faso. In contrast, longitudinal studies, such as those by Badiane and Makombe (2014), focus on long-term trends, offering richer temporal insights but requiring more resources.

Research Method and Justification

A descriptive non-experimental research strategy was employed, allowing the researcher to observe and document phenomena without manipulating variables. This strategy is appropriate for assessing the impact of interventions already in place, such as FISP, where experimental control is neither feasible nor ethical (Chibomba, 2017).
Descriptive research is cost-effective and allows for a comprehensive analysis of real-world conditions. It is particularly suited for studies like this, which aim to evaluate existing policies and programs. By combining descriptive surveys with qualitative interviews, the strategy ensures that the study captures both the scope of interventions and their contextual impact

Sampling frame and sample size

The sampling frame included small-scale farmers, grain traders, input suppliers, and enablers operating within the agricultural sector. Farmers represented the direct beneficiaries of interventions, while stakeholders provided institutional perspectives.
The study adopted a mixed sampling approach appropriate for a mixed-methods design. For the quantitative component, simple random sampling was employed among small-scale farmers to ensure each individual had an equal chance of being selected, enhancing the representativeness of the sample and reducing selection bias (Saunders et al., 2016).

For the qualitative component, purposive sampling was used to select stakeholders (e.g., Grain traders, input suppliers), based on their knowledge and direct involvement with agricultural interventions. This method allowed the researcher to obtain rich, context-specific insights from those most knowledgeable about policy implementation. The combination of random and purposive sampling reinforces the methodological triangulation in the study, providing both statistical generalizability and depth of understanding (Creswell, 2014).

Data collection and analysis

Data collection is a process of gathering information necessary for the research to address specific questions and test hypothesis. For purposes of this study, data collection process employed a duo method where structured questionnaires and in-depth interviews were administered. Structured questionnaires were used to collect the quantitative component, and in-depth interviews were used to collect the qualitative part of the research

Data processing refers to organizing raw data into a structured format suitable for analysis, while data analysis involves applying statistical or thematic techniques to interpret the data and draw conclusions (Kothari, 2004). For this study, quantitative data from questionnaires were entered into statistical software for analysis. Descriptive statistics, such as frequency distributions and cross-tabulations, were used to summarize the data and identify relationships between variables. Inferential statistical methods were also employed, where applicable, to draw conclusions about the broader population.

For quantitative data analysis, both descriptive and inferential statistics were employed using SPSS. Descriptive statistics included frequencies, percentages, and cross-tabulations to describe farmers' and stakeholders' perceptions. To test relationships and draw generalizable conclusions, the study used inferential statistics such as:

- Chi-square tests to examine associations between categorical variables (e.g., perception of FISP vs. access to inputs),
- T-tests to compare mean satisfaction scores between stakeholder groups,

These inferential techniques enhanced the rigor of the study and provided insights into whether observed patterns were statistically significant or due to chance (Bryman, 2012; Kothari, 2004).

For qualitative data, thematic analysis was performed to identify recurring themes using manual coding, with triangulation to confirm results across different participant groups.

Reliability, Validity, and Generalizability of Research Findings

In this study, reliability was achieved by standardizing data collection tools, such as using structured questionnaires with clear instructions and semi-structured interview guides. Validity was ensured through triangulation, combining quantitative and qualitative data to cross-verify findings. For instance, questionnaire data on FISP satisfaction were corroborated with insights from interviews to ensure a comprehensive understanding. Ensuring reliability, validity, and generalizability is crucial for the credibility of research. According to Bryman (2012), triangulation enhances validity by addressing the limitations of individual methods. This study's systematic approach to data collection and analysis ensures that the findings are robust, credible, and applicable to similar agricultural contexts

Findings and Analysis

As indicated the aim of the study was to evaluate the contribution of effective implementation of FISP subsidies in agriculture to Zambia's economic growth, various stakeholders like small scale farmers, grain traders and input suppliers were consulted to gain a holistic understanding on how the implementation is perceived on the ground in conjunction with what has been set out in our policies. The study also aimed to identify any challenges that exist and provide necessary recommendations that policymakers can implement to ensure the expected benefits are realized.

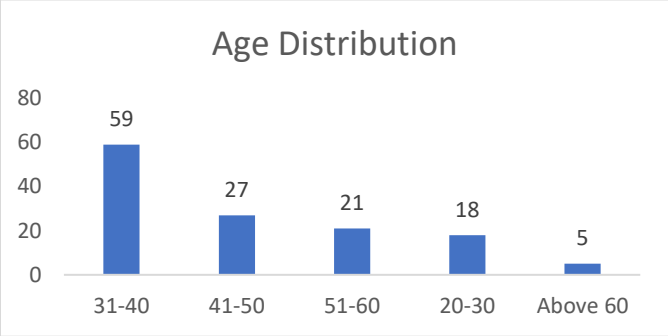
Age Distribution

The age distribution of farmers reveals that the largest age group is between 31-40 years (59 individuals), followed by 41-50 years (27 individuals). Suggesting that a vibrant and youthful workforce is actively engaged in farming activities, with nearly 75% of farmers below the age of 50. This trend is significant as younger age groups are often more adaptable to modern farming techniques, including mechanization, digital tools, and sustainable practices. However, there is a notable drop-off in participation among individuals above 60 years, with only 5 farmers represented in this age category. This could indicate a decline in physical capacity, a lack of interest among older generations, or the passing of family farms to younger heirs.

In comparison with global trends, studies conducted by the FAO (2020) reported similar age distributions, particularly in emerging economies, where farming is increasingly dominated by individuals aged 30-50. However, the steep decline in participation beyond 60 years in the present study contrasts with European trends, where aging farmers dominate, as noted by Eurostat (2021). This discrepancy highlights the differing dynamics between developing and developed economies.

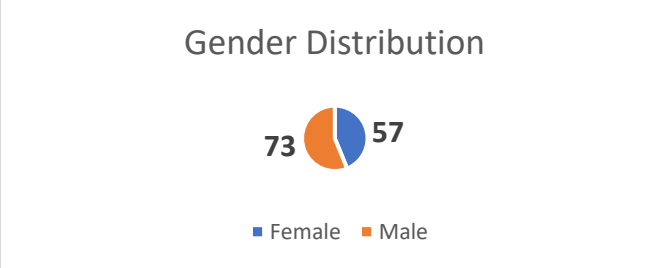
Below is an extract of the age distribution from the respondents

Figure 1.



Gender Distribution

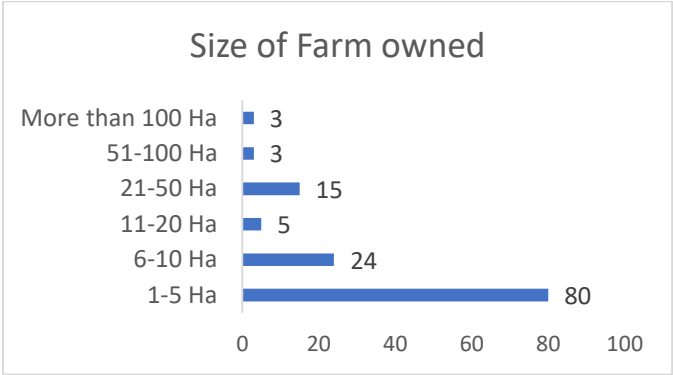
Figure 2



The gender analysis reveals a higher proportion of male farmers (73 individuals) compared to females (57). This reflects the increasing participation of women in agriculture, likely driven by socio-economic factors such as male migration to urban areas for alternative employment and empowerment initiatives targeting women. This represents a positive trend in the quest to empower more women in the agricultural sector.

Farm Size

Figure 3.

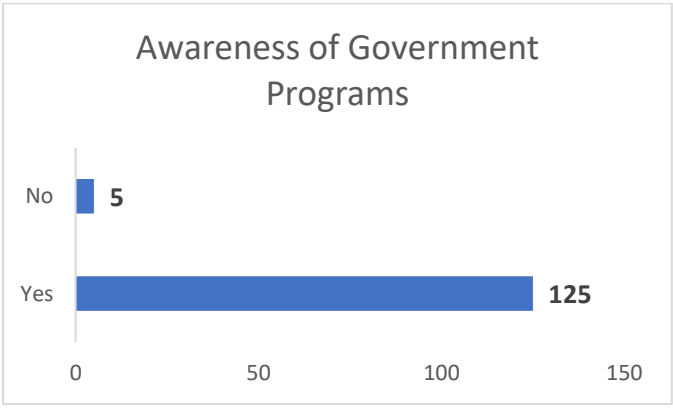


The size of farms in the dataset varies significantly, with most farmers operating small-scale farms ranging from 2 to 57 hectares. The presence of a single farm at 980 hectares represents a stark outlier, indicative of commercial-scale farming. This dichotomy between smallholder farming and large-scale operations highlights the dual nature of the agricultural economy. The prevalence of small farms aligns with findings from the FAO (2020), which identified small-scale farming as a cornerstone of food security in developing countries.

The outlier farm's size may reflect either corporate farming practices or a well-capitalized individual. Such cases are rare but are becoming increasingly significant as countries look to modernize their agricultural sectors, as highlighted in the World Bank's 2021 report on commercial farming.

Effective implementation of FISP subsidies

Figure 4: Awareness of Government Programs



The majority of farmers (125 out of 130) reported awareness of government programs supporting agriculture, while only 5 farmers were unaware. This overwhelming majority

indicates that information about agricultural initiatives is reaching most farmers, suggesting effective dissemination channels such as community meetings, extension services, or media outreach.

These findings align with a study conducted by Mogues et al. (2019) in Ethiopia, which reported that over 80% of farmers were aware of government-sponsored programs. Similar awareness levels were observed in Kenya, where extension services played a vital role in promoting programs like subsidized fertilizer schemes (Ogutu et al., 2021). However, in some regions of sub-Saharan Africa, such as Ghana, awareness is lower due to limited outreach efforts (Asare et al., 2020).

Among the programs mentioned, the Farmer Input Support Program (FISP) is the most recognized (82 farmers), followed by agricultural credit programs (12 farmers). Interestingly, 36 farmers indicated familiarity with "all the above," demonstrating broader exposure to multiple initiatives.

FISP's popularity suggests that it is the flagship government intervention in the region. This is consistent with findings from Jayne and Rashid (2020), who highlighted the dominance of input subsidy programs in sub-Saharan Africa. These programs typically provide fertilizers, seeds, and other inputs at subsidized rates to support smallholder farmers.

Perception of Farmer Input Support Program (FISP)

Table 1 PERCEPTION OF THE FARMER INPUT SUPPORT PROGRAM (FISP)

Perception of the Farmer Input Support Program (FISP):	%
Very Ineffective	6.92
Ineffective	20
Neutral	26.15
Effective	40.77
Very Effective	6.16

Farmers' perceptions of FISP reveal a mixed response. While the majority find it effective (40.77%) or very effective (6.16%), a significant number express dissatisfaction, labelling it ineffective (20%) or very ineffective (6.92%). Additionally, 26.15% of farmers hold a neutral opinion.

46.93% of farmers who rated FISP as effective or very effective likely benefit from timely access to subsidized inputs. These perceptions align with studies by Chirwa and Dorward (2019), which demonstrated the positive impact of input subsidy programs on smallholder productivity in Malawi. Improved crop yields and reduced input costs were cited as the primary benefits.

26.92% of farmers who found FISP ineffective or very ineffective may have faced challenges such as late input deliveries, corruption, or mismanagement. Similar criticisms were noted in a study by Jayne et al. (2018), which examined input subsidy schemes in Zambia and highlighted issues of inefficiency, political interference, and exclusion of marginalized farmers.

The neutral stance taken by 26.15% of the farmers suggests ambivalence, possibly due to inconsistent experiences with the program. This mirrors findings from Holden and Lunduka (2018), who observed that some farmers viewed input subsidy programs as unreliable due to their variability in quality and timing.

The diverse perceptions indicate that while FISP is impactful for many, addressing inefficiencies and ensuring equitable distribution could enhance its effectiveness.

Stakeholder Perception of FISP's Role in Economic Growth

Table 2 Perception of Fisp's Role in Economic Growth

Perception of FISP's Role in Economic Growth:	%
Very Ineffective	12,5
Ineffective	37.5
Neutral	12.5
Effective	37.5
Very Effective	0

Stakeholders' opinions on FISP's contribution to economic growth are mixed; 37.5% of the stakeholders view FISP as effective, whereas 12.5% of the stakeholders find it very ineffective. 12.5% of the stakeholders hold a neutral perception and at least 37.5% of the stakeholders find it ineffective.

The stakeholders who rated FISP as effective may have observed tangible benefits, such as increased productivity and economic activities driven by subsidized inputs. This is consistent with findings by Chirwa and Dorward (2019), who highlighted the role of input subsidy programs in enhancing agricultural productivity and rural incomes in Malawi.

The neutral and very ineffective ratings may stem from systemic issues such as delayed input delivery, political interference, and limited impact on smallholder productivity. Similar criticisms were noted by Jayne et al. (2018) in Zambia, where inefficiencies in FISP's implementation diminished its economic impact.

While stakeholders' positive views align with the general success of subsidy programs in regions like Malawi, the mixed perceptions underscore challenges unique to the local context, such as operational inefficiencies and a lack of complementary support services. Addressing these gaps could enhance the program's contribution to economic growth.

Thematic Analysis Farmer Data-

Effective implementation of FISP subsidies

The data provided reflects farmers' responses regarding the perceived impact of government programs, such as the Farmer Input Support Program (FISP) on their productivity, income, and livelihood. Below is a thematic analysis organized into key themes derived from the responses, while being compared to similar studies.

A significant portion of respondents noted that government programs have provided timely and affordable access to farming inputs like seeds, fertilizers, and other essential resources. For example:

- *Respondents mentioned "able to access affordable farming inputs on time with a good repayment plan."*
- *Farmers credited FISP for reducing production costs, enabling them to cultivate larger areas, and achieving higher yields.*
- *Specific responses, such as "able to cultivate 5 hectares with support from government loans,"* underline the importance of these programs in increasing land utilization.

Similar studies in Sub-Saharan Africa reveal that input support programs, when efficiently implemented, lead to increased agricultural productivity. For instance, a study by Katengeza et al. (2019) in Malawi demonstrated that subsidized inputs significantly boosted maize production and income levels among smallholder farmers. However, challenges such as delayed input delivery, as seen in this dataset ("late delivery of inputs affected produce"), often undermine the program's impact, consistent with findings in Zambia (Jayne et al., 2018).

Thematic Analysis of Stakeholder Data

This section highlighted concerns raised by various stakeholders with suggestions and observations about the existing input support programs, particularly the FISP input subsidy

Effective implementation of FISP subsidies

Stakeholders emphasized the need for comprehensive reform and effective implementation of the programs. Suggestions include robust monitoring and evaluation mechanisms, transparency in processes, and feedback loops. A repeated concern is that current systems lack accountability, allowing mismanagement, such as ghost farmers benefiting and inputs being misused or sold. One participant noted that agricultural extension officers, who are tasked with monitoring, are sometimes beneficiaries themselves, leading to conflicts of interest.

Similarly, a study by Jayne et al. (2018) on African agricultural input subsidy programs found that poor implementation often stems from bureaucratic inefficiencies and lack of proper oversight, leading to a diversion of resources. The stakeholders' suggestions align with these findings, emphasizing digitization and depoliticization to increase transparency and minimize corruption.

Addressing Corruption and Politicisation

A recurring theme was the perceived politicization of agricultural input programs. Respondents called for depoliticization, suggesting that neutral entities such as traditional leaders, head teachers, or churches manage programs instead of politicians. Corruption, favouritism, and bureaucratic hurdles were identified as major impediments to program effectiveness.

Similar challenges have been observed in Nigeria's agricultural programs, where political interference has undermined input subsidy initiatives (Adebayo et al., 2020). Transparency and accountability mechanisms, such as digitized beneficiary lists and community-based oversight, have been recommended and are consistent with the stakeholders' suggestions.

Overall findings

The data provides insights into the perspectives and recommendations of stakeholders concerning the Farmer Input Support Program (FISP) and other related agricultural programs. Thematic analysis was conducted to identify key themes, including timeliness of input delivery, credit access and management, program monitoring and evaluation, inclusivity, and structural reforms.

A recurring concern among stakeholders is the late distribution of inputs, which disrupts farming cycles and leads to suboptimal productivity. Timely distribution is frequently emphasized as essential for proper planning and increased yields. This issue mirrors findings in studies such as Nyembe and Jayne (2021), which underscore the importance of input delivery timing in enhancing program efficacy.

The lack of proper monitoring mechanisms is highlighted as a significant flaw in FISP. Stakeholders point out that some farmers misuse inputs, while others do not receive them due to corruption or inefficiencies. Effective monitoring, they argue, would ensure equitable distribution and proper utilization of inputs. Similar conclusions are drawn by Mason et al. (2020), who suggest that robust monitoring frameworks increase accountability and program effectiveness.

There are concerns about the exclusion of certain groups, such as youth, women, and retirees, from FISP benefits. Suggestions for equitable distribution, gender-inclusive programming, and consideration of diverse farming needs, including livestock and irrigation, resonate with studies such as FAO (2018), which advocate for tailored interventions that cater to the needs of marginalized groups in agriculture.

Structural issues, including the politicization of FISP and inefficiencies in its implementation, were also discussed. Stakeholders recommend depoliticizing agricultural programs and enhancing the role of agricultural extension officers. Moreover, they suggest that beneficiaries should "graduate" from receiving inputs after a few years to encourage self-reliance. These recommendations align with the World Bank's (2020) findings that institutional reforms improve the long-term sustainability of subsidy programs.

Limitations and Implications for Future Research

Due to the time frame of the study, findings were limited to a particular period, and therefore, Future research should delve deeper into the transformative potential of digital technologies in agricultural programs. Specifically, studies could assess the impact of digitizing subsidy programs like FISP on efficiency, transparency, and accessibility.

The adoption of climate-smart agriculture is another area warranting detailed investigation. Future studies could evaluate the effectiveness of practices such as conservation agriculture, organic farming, and agroforestry in improving resilience and productivity among smallholders.

Additionally, research into gender dynamics in agriculture is essential to identify and address the unique challenges faced by female farmers, including access to resources, decision-making authority, and participation in value chains

Lastly, research should focus on the economic potential of value-added agriculture, exploring ways to integrate smallholders into value chains for processed goods and exports. This approach could help policymakers understand the role of agro-industrialization in driving rural development and diversifying Zambia’s economy.

Conclusion

The research aimed to assess the effectiveness of government interventions in the agricultural sector in Zambia and their role to economic growth. The findings reveal a complex landscape of opportunities and challenges that define the agricultural sector.

The Farmer Input Support Program (FISP), a central government initiative, shows mixed results. On the one hand, it has significantly improved access to inputs for smallholder farmers, leading to increased productivity in some areas. Approximately 46.93% of farmers rated FISP as effective or very effective, indicating its positive role in enhancing agricultural output. However, systemic challenges such as delayed input delivery, political interference, and inefficiencies in program management have hindered its full potential. Stakeholders, including grain traders and agro-dealers, echoed these concerns, emphasizing the need for a more streamlined and transparent system

Overall, while government interventions have made strides in addressing agricultural challenges, their effectiveness is diluted by systemic inefficiencies and insufficient stakeholder alignment. Addressing these issues could transform agriculture into a cornerstone of Zambia’s economic diversification strategy, reducing reliance on the mining sector and creating opportunities for rural development and poverty alleviation.

Recommendations

To improve the effectiveness of agricultural interventions in Zambia, several key recommendations are proposed. First, the Farmer Input Support Program (FISP) should be fully digitized to streamline operations, reduce delays, and increase transparency.

This involves addressing technical issues such as network instability in rural areas and improving user interfaces for both farmers and suppliers. Ensuring the timely delivery of inputs and expanding the program's reach to marginalized communities would significantly enhance its impact.

To further improve its effectiveness, the FISP should be depoliticized, and neutral entities like the church and NGOs should form part of the managers of the program to mitigate favouritism, corruption.

Transparency should be at the core of implementing and managing the program if we are to realise the program's full potential

References

Asare, R., et al. (2020). Challenges of Agricultural Extension Services in Ghana.

Badiane, O., & Makombe, T. (2014). The Theory and Practice of Agriculture, Growth and Development in Africa. Helsinki: United Nations University, World Institute for Development Economics Research (WIDER).

Burkina Faso Strategic Plan 2023-2027. (n.d.). Improving the Productivity of Major Crops in Breadbasket Areas in Burkina Faso. AGRA Sustainably Growing Africa's Food Systems.

Chambers, R., & Conway, G. R. (1992). Sustainable Rural Livelihoods: Practical Concepts for the 21st Century. IDS Discussion Paper 296.

Chibomba, K. (2017). Investigating the effectiveness of Zambia's Agriculture Policy towards Women Empowerment: A Case Study of Women in Shimabala in Chilanga District. The International Journal of Multi-Disciplinary Research, 1.

Chirwa, E., & Dorward, A. (2019). The Impact of Input Subsidy Programs in Malawi.

Ejiogu, A., et al. (2021). Anchor Borrowers' Program and Agricultural Growth in Nigeria.

Feder, G., et al. (2020). The Role of Credit in Agricultural Development: A Case Study from India.

Holden, S., & Lunduka, R. (2018). Unreliable Subsidy Programs in Malawi.

International Monetary Fund. African Dept. (2023). Second Review Under the Arrangement Under the Extended Credit Facility, Requests for a Waiver of Nonobservance of a Quantitative Performance Criterion, Modifications of the Monetary Policy Consultation Clause and of Quantitative Performance Criteria. USA: International Monetary Fund.

Jayne, T. S., et al. (2018). Inefficiencies in Input Subsidy Programs in Zambia.

Jayne, T. S., & Rashid, S. (2020). Subsidy Programs in Africa: A Review.

Klapper, L., et al. (2020). Challenges of Financial Inclusion for Smallholder Farmers.

Mason, N. M., Jayne, T. S., & Mukuka, R. M. (2013). A Review of Zambia's Agricultural Input Subsidy Programs: Targeting Impacts and The Way Forward. Lusaka: Indaba Agricultural Policy Research Institute (IAPRI).

Ministry of Agriculture. (2022). Action Plan for the Full Migration of the Farmer Input Support Programme to an Electronic Agriculture Input Support System. Lusaka: Ministry of Agriculture.

Ministry of Agriculture. (2022). Strategic Plan 2022-2026. Lusaka: Ministry of Agriculture.

Ministry of Agriculture. (2023). Direct Input Supply and Electronic Voucher Implementation Handbook. Lusaka: Ministry of Agriculture.

Ministry of Agriculture and Livestock. (2015). Opportunities and Challenges in Enhancing Agricultural Development in Zambia. Lusaka: Indaba Agricultural Policy Research Institute.

Ministry of Agriculture and Ministry of Fisheries and Livestock. (2016). Second National Agricultural Policy. Lusaka: Ministry of Agriculture.

Mogues, T., et al. (2019). Farmer Awareness of Government Programs in Ethiopia.

Nawiko, M., Chomba, C., Mambwe, M., Nkanyani, S., Mwamakamba, S., Jacobs-Mata, I., & Ires, I. (2022). Zambia Agriculture Policy Profile. Colombo, Sri Lanka: International Water Management Institute, Southern Africa.

North, D. C. (1990). Institutions, Institutional Change, and Economic Performance. Cambridge University Press.

Ogutu, S., et al. (2021). The Role of Extension Services in Promoting Fertilizer Use in Kenya.

Olowa, O. W., & Olowa, O. A. (2013). Policy Interventions and Public Expenditure Reform for Pro-Poor Agricultural Development in Nigeria. Lagos: Africa Journal of Agriculture Research.

Ouedraogo, S., & Bako, D. (2014). Public Expenditures and Agricultural Growth in Burkina Faso. Asian Journal of Agriculture and Rural Development.

Rostow, W. W. (1960). The Stages of Economic Growth: A Non-Communist Manifesto. Cambridge University Press.
Ssozi, J., Asongu, S. A., & Amavilah, V. (2017). Is Aid for Agriculture Effective in Sub-Saharan Africa? South Africa: Munich Personal RePEc Archive.
Ssozi, J., Asongu, S. A., & Amavilah, V. (2018). The Effectiveness of Development Aid for Agriculture in Sub-Saharan Africa. South Africa: Munich Personal RePEc Archive.
Teschemacher, C., Ng'ombe, T., Fajardo-Steinhauser, M., & Wani, S. (2023). What Constrains Agricultural Productivity in Zambia? Lusaka.