Int. j. adv. multidisc. res. stud. 2026; 6(2):1686-1695

Received: 02-03-2026
Accepted: 12-04-2026

International Journal of Advanced Multidisciplinary Research and Studies

ISSN: 2583-049X

Assessing the Effectiveness of the Farmer Input Support Program (FISP) on Household Food Security: A Case Study of Mpunde Ward, Kapiri Mposhi District, Central Province

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DOI: https://doi.org/10.62225/2583049X.2026.6.2.6154

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Abstract

This study examines the effectiveness and efficiency of the farmer input support program on household food security with an emphasis on the need to diversify inputs given in line with meeting the dietary needs of smallholder farmers. Using a case study design paired with purposive sampling technique, the research finds that the farmer input support program is accessible to most of the farmers in the area with many of them facing little to no problems in accessing the inputs. The findings also showed that all the farmers experienced increased maize yields due to sufficient fertilizer use. The sustainability of the farmer input support program is one that raises a lot of debate, this is especially true because the program does not run on profit basis and has very low graduation levels from the beneficiaries of the program. The research also showed that all the farmers interviewed felt they have not developed the capacity to be self-sufficient despite majority of them being on the program for many years. The overreliance of the program to meet farming needs of the people without willingness to graduate has reduced the effectiveness of the program over the years making the program centered around the same people over the years. While the farmer input support program improves the level of food availability and accessibility in most smallholder farming households, the program does not address dietary diversity if the ultimate goal of food security is to be achieved. This study recommends the government should introduce and enforce a graduation criterion to create space force for new, vulnerable farmers, agricultural diversification to broaden people's menu and increase incomes and implement mechanisms for transparent feedback and reporting should be implemented to help identify any inefficiencies the program might have as well as strengthen management of the program.

Keywords: Farmer Input Support Program, Food Security, Smallholder Farmer, Diversity, Farmer Engagement

1. Introduction

Food security remains a central concern for countries globally with small scale farmers being the backbone of food production in most developing countries. Despite being the major producer of food, small-scale farmers often face many barriers to accessing agricultural inputs. To address this, governments have come up with initiatives that help ensure farmers have access to quality seed, fertilizers, extension services and irrigation subsidies (Mason and Jayne 2017).

The farmer input support program is one such initiative whose aim is to subsidize farming inputs so that they are more affordable and accessible to farmers whose financial situation makes it hard for them to buy agricultural inputs at their actual price. This initiative was first launched in Malawi 2005 to respond to the severe food shortages caused by the reoccurring droughts and economic challenges faces by most smallholder farmers in the country (Chirwa and Doward 2016) [19].

Small scale farmers form the backbone of food production and yet they often face many barriers to access agricultural inputs that they can use to make production easier and more cost effective. The introduction of subsidies in the farming sector is a policy implemented by many countries to address the constraints faced by small scale farmers in the agricultural practices. A study by Gulati and Banergee 2019 revealed that subsidizing farming inputs such as fertilizers and seeds improved productivity and yields. This in turn meant food was more available and accessible even during climate induced crisis. However, the implementation of the Direct Benefit Transfer for fertilizers (DBT) had its own challenges. Targeting of beneficiaries and transparency of distribution of fertilizers was a challenge due to administrative issues.

In Ghana, a program similar to FISP was launched in 2017. This program is called Planting for Food and Jobs, the aim of this program is to provide seeds, fertilizers and extension services to smallholder farmers to improve yields and food security in the country. Since the launch of this program in 2017, the country has had increased cereal production which has positively impacted food security. The program has also attracted more youths to agriculture thereby reducing the number of unemployed youths in the country (Benin *et al* 2018).

In Zambia, the FISP has contributed to the increased maize production and improved income among smallholder farmers. The increased maize production has positively impacted food security at both household and national level which means food has been made more available and accessible. However, Jayne *et al* 2016 argues that the Farmer Input Support Program might not be as effective in the long run due to the insufficient investment and high fiscal cost. Jayne *et al* 2016 also emphasized that the risk of beneficiaries of this program becoming fully dependent on this program was high. This meant that the beneficiaries of the program will want to remain beneficiaries even when their livelihood improves and they can afford to get agricultural inputs without government support. This negatively impacts the sustainability of the program and reduces chances of new people becoming beneficiaries of the program.

The Electronic voucher system is an internet-based system that makes it easier to monitor distribution of inputs which helps to identify potential issues, reduces corruption and provides a streamlined input collection process thereby reducing wait times for farmers. This has made farming inputs more accessible and has improved transparency in the distribution process (Chapoto and Sitko 2016).

1.1 General Objective

The general objective of this study is to assess the effectiveness of Farmer Input Support Program on food security.

1.1.1 Specific Objectives

1. To analyze the accessibility of the Farmer Input Support Program inputs among farmers.
2. To assess the contribution of Farmer Input Support Program to smallholder farmer's crop productivity.
3. To investigate the sustainability of Farmer Input Support Program in enhancing household food security.

1.2 Theoretical Framework

This research used the green revolution theory of the 1940s. This theory was introduced by Norman Borlaug to address the severe food shortages that were experienced in Mexico due to drought. The term green revolution was coined by William Gaud in 1968 after the revolution became famous world-wide and became an approach used by many countries. The aim of this approach was to reduce hunger by introducing high yielding, hybrid seeds, introduction, integration and expansion of improved irrigation technologies and provide improved fertilizers and pesticides to farmers (Pingali, 2015).

Much like the farmer input support program, the objectives of this revolution were to increase agricultural produce to improve food accessibility and availability, make agriculture marketable so as to promote economic development, improve and stabilize food supplies by reducing the cost of production and reduce famine in developing countries by adopting modern technologies.

FAO (2021) [23] report on the future of food and agriculture reinforced that the green revolution theory greatly improved the ratio of food availability per capita in Asia thereby ensuring that the larger population that was facing severe hunger did not experience starvation.

Pingali (2015) observed that many countries that participated in the green revolution experienced tripled rice yields between the years 1960-1990. this meant more households to food and the prices of the staple food had decreased.

Evenson and Gollin (2015) reiterated that the introduction of machinery and irrigation systems created a source of employment in areas that practiced the green revolution. This meant more incomes for the people which made it easier to purchase food items needed to meet their dietary needs.

Despite the many positives brought about by the implementation of the green revolution theory, many scholars argued that the green revolution theory does not promote dietary diversity. Pingali and Sunder (2017) argued that the green revolution theory did not fill the nutritional gap but promoted the growth of plants like rice, maize and wheat which are calorie based foods.

2. Literature Review

2.1 To analyze the accessibility of Farmer Input Subsidy Program inputs among farmers

Ngandwe and Kunda (2021) evaluated the impact of the farmer input support program on smallholder food security in Eastern, Central and Sothern provinces of Zambia. The research sought to assess how access to these inputs affects household food security and whether participation in the program leads to long term self-sufficiency or temporal production gains. The research also assesses the socio-economic factors that influence access to the farmer input support program.

The research used a quasi-experimental cross section design applying propensity score matching model to estimate the casual impact of participation in the farmer input support program on food security outcomes. The study used structured questionnaires and focus group discussions to collect data, 480 smallholder farming households participated in the survey with 240 being beneficiaries and 240 being non-beneficiaries. A multi-stage stratified random sampling technique to select participants.

Findings revealed that access to FISP inputs was strongly influenced by a person's farm size, membership to a cooperative, proximity to markets and input depots and the level of education of the head of the household. It was evident that female headed households and youth headed households were less likely to access these inputs indicating inequality in input accessibility. Other findings revealed high incidences of mono-cropping which meant limited nutritional improvement and heavy reliance on the program.

Ngandwe and Kunda (2021) concluded that targeting inefficiencies and high levels of inequality limited the reach of the program and its effectiveness in improving national food security. The scholars recommended making targeting transparent and introducing graduation mechanisms for long-term sustainability. They also recommended strengthening digital systems to minimize corruption and exclusion errors.

2.2 To assess the contribution of the Farmer Input Subsidy Program to small-scale farmer's crop productivity

Mason & Smale (2017) conducted quasi-experimental research on the impact of subsidies on technology adoption and maize productivity in Zambia with the aim to evaluate the effect of subsidies on adoption of improved seed varieties, examine whether increase in productivity means better food security and to asses if input subsidies improve maize yields. The study included 8,000 small-scale farming households as participants from Eastern, Northern, Southern and Northern provinces of Zambia.

The findings revealed that beneficiaries of FISP increased their application of fertilizer to their crops as compared to none beneficiaries. The study also revealed that farmers began to accept the improved maize seed varieties and began to plant them in their fields. The adoption of these changes led to increased yields of 0.2% as opposed to the earlier 0.15%. The modest yields where experienced in areas that had targeting inefficiencies and delayed input deliveries.

Mason & Smale (2017) concluded that the effects of FISP on crop productivity is positive and existent but is quite minimal as compared to the expected outcome, timely delivery and proper targeting is necessary if FISP beneficiaries are to receive better yields.

2.3 To investigate the sustainability of the Farmer Input Subsidy Program supported farming practices in enhancing household food security

Chisanga and Zulu-Mbata (2022) [20] evaluated the impact of agricultural subsidies on smallholder food security in Eastern, Southern and Central provinces of Zambia. The aim of this research was to fill the gap in literature linking the farmer subsidy policy with sustainable food systems all while encompassing economic, social, environmental and nutritional factors.

The study used purposive sampling technique to collect data from 120 participants per province, 20 agricultural officers and affiliated stakeholders and 5 key interviews with representatives of the ministry of agriculture.

The study revealed that despite the improved maize yields due to fertilizer application, the emphasis on maize was overwhelming thereby limiting its impact on the nutrition of farmers. The findings also revealed that little to no environmental safeguards were put in place with minimal promotion of climate resilient agriculture.

Establishment of Research Gaps

The literature on farmer input support program in Zambia has focused mainly on the program's implementation with regard to its impact, targeting, impact of delayed delivery, use of the e-voucher system and maize productivity. However, it has neglected to examine the farmers' personal experiences and expectations of the program with regards to diversification of inputs received through this program in line with dietary diversity. The existing literature focuses on what the Government is expected to do and not on the changes the smallholder farmers wish to experience. This has created a situation where both farmers and the government are expecting to see change in the inputs delivered while the government is waiting to see results. The result of continuous focus on maize production only has led consistent food insecurity and diet deficiencies among smallholder farmers. In line with the identified gaps in the literature, the research aims to assess the smallholder farmers' experiences with FISP and food security in their households. The study discussed the farmers' perspectives of FISP and whether they'd be open to diversifying their agriculture venture into practices such as horticulture, cash crops or livestock farming. The inclusiveness of other types of agricultural support in FISP has been lacking. Therefore, this research aims to highlight the transformations that need to take place in the agricultural sphere for policies like FISP to improve the diet and food security for smallholder farming households.

3. Research Methodology

3.1 Research Design

The study made use of a case-study research design to assess the effectiveness of the farmer input support program on food security among small-scale farmers. A case-study design is ideal for this study as it will help give in-depth analysis on the real-time effects of this program among farmers in that particular area. The qualitative data was collected through interviews and focus group discussions. This will give an understanding of the perception farmers have concerning FISP and the contextual factors such as delayed delivery and climate variability that affect wanted FISP outcomes (Abdulai and Mukuka, 2017).

3.2 Target Population

The target population comprises of FISP beneficiaries and cooperative leaders of Kato agricultural camp of Mpunde ward, Kapiri Mposhi district. Kato agricultural camp has 891 beneficiaries of the farmer input support program for the 2025/2026 farming season.

3.3 Sampling Design

The sampling design used for this research is purposive sampling. This research technique was ideal as it was used to select particular respondents such as agricultural officers, cooperative leaders and people who are FISP beneficiaries. It was also used to organize focus group discussions to enhance the validity and contextual understanding of the research (Abdulai & Mukuka, 2017).

3.4 Sampling Size Determination

50 respondents were enough to provide adequate data about the research. The decision to select 50 respondents was due to inadequate finances and transport costs. The 50 respondents were a combination of cooperative leaders, FISP beneficiaries and Kato agricultural camp coordinating officer. To justify that 50 is an adequate number of respondents, the single-proportion formula was used.

Calculation of number of respondents needed for the research using the single-proportion formula

$$n = \frac{Z^2 p(1-p)}{e^2}$$

Where:

- n= 50 (sample size)
- Z *a/z*= 1.96 (score of the desired confidence level)
- P= 0.5
- e= *?*

$$e = Z\,a/z\sqrt{\frac{p(1-p)}{n}}$$

$$e = 1.96\sqrt{\frac{0.5 * 0.5}{50}}$$

e = 0.1385929291

e = 13.8%

confirming the n = 50 margin

$$n = \frac{Z^2 p(1-p)}{e^2}$$

$$n = \frac{1.96 * 1.96 * 0.5 * 0.5}{0.1385929291 * 0.1385929291}$$

$$n = \frac{3.841 * 0.25}{0.019208}$$

$$n = \frac{0.9604}{0.019208}$$

n = 49.9

n = 50

3.5 Data Collection Methods
A broad range of data was collected using qualitative and quantitative methods. The questionnaires were a mixture of fixed and open-ended questions which ensured that the respondents were able to fully express themselves when they answered the questions. Qualitative data was collected through focus group discussions which helped the researcher to explore community level understanding of the topic at hand. Cooperative leaders were interviewed as well (Abdulai & Mukuka, 2017).

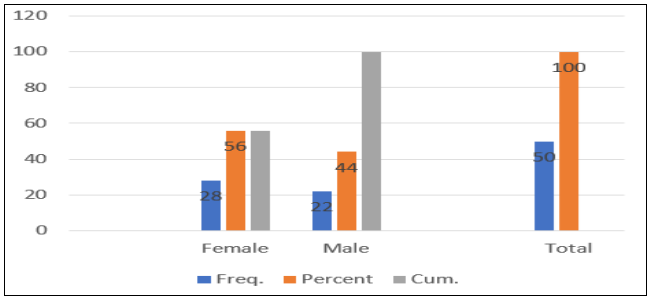
3.6 Data Analysis
Data analysis will be conducted using qualitative and quantitative methods. Qualitative data will be manually analyzed and presented according to the themes in-line with the research questions. Quantitative data will be analyzed using Microsoft excel and STATA to come up with histograms, tables and charts.

3.7 Triangulation
Creswell & Plano Clark (2018) [21] define triangulation as the use of the multiple data sources, methods and theories to validate and enrich findings to enhance their credibility, reliability and validity. In this study, triangulation is applied through quantitative and qualitative methods. The quantitative data is collected through structured household surveys with maize and legume yield per hectare, input usage and access, household income and the household dietary diversity score as the key indicators (Jayne 2018). Qualitative data will be collected through focus group discussions and interviews with key informants (Abdulai & Mofya-Mukuka, 2017) [1].

3.8 Limitation of the Study
The main limitations of this study were that farmers are usually busy so scheduling a meeting was a challenge, transport in the area is quite scarce so movements were limited and the overall cost of transport was quite high.

3.9 Ethical Considerations
This research was guided by the ethical guidelines used when conducting a research. Cooperative leaders and the counselor were engaged prior to the interviews to obtain permission to conduct the interviews. Permission was obtained from the participants before asking them to participate in this research. The participants will have a detailed explanation of what is expected of them in this research and are free to withdraw from participating in the research at any point. The local languages which are Lenje and Nyanja were used to ensure the participants understood the questions and what was required of them. All personal and sensitive information shared was handled with the highest level of confidentiality.

4. Presentation of Research Findings and Discussion of Results
4.1 Presentation of results on background characteristics of the respondents



Source: Primary data, 2025.

Fig 4.1.1: Graph showing the number of males and females that participated in the survey

The above graph depicts the percentage of males and females. Of the interviewed beneficiaries, 56 % were females while 44% were males.

Table 4.1.1: Names of cooperatives that participated in the survey

Name of Cooperative	Freq.	Percent	Cum.
Malyoti	9	18	18
Muchenga Multipurpose	13	26	44
Pakulya Tabayobeli	11	22	66
Tindi	17	34	100
Total	50	100	

Source: Primary data 2025.

The above table shows the names of cooperatives that participated in the survey.

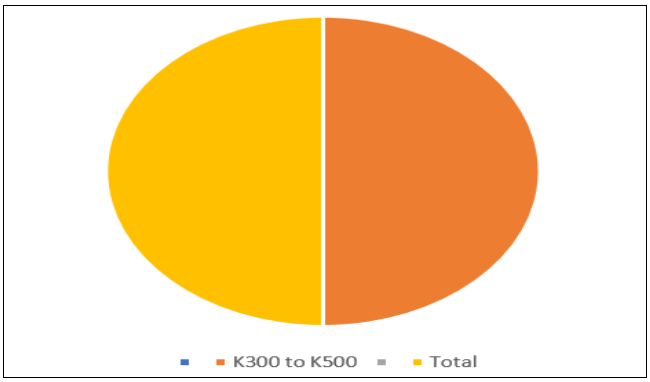
Table 4.1.2: Household size of particiants

Size of Household	Freq.	Percent	Cum.
3	3	6	6
4	13	26	32
5	21	42	74
6	9	18	92
7	4	8	100
Total	50	100	

Source: Primary data, 2025.

Of the 50 beneficiaries interviewed, 42% mentioned that they have 5 members of their households while 26%

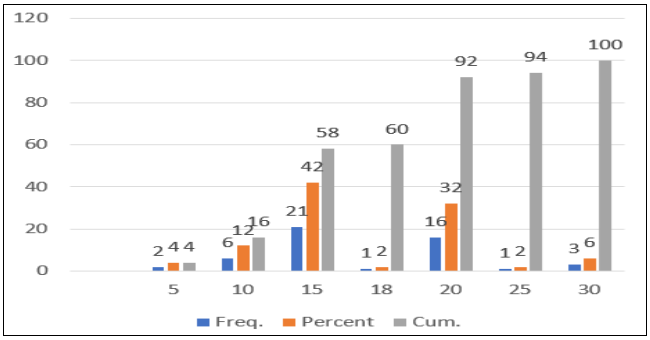
mentioned that they are a household of 4 people, 18% of the beneficiaries mentioned that they have household of 6 people, 8% of the beneficiaries run households of 7 people and lastly 6% of the interviewed beneficiaries run households of 3 people.



Source: Primary data, 2025.

Fig 4.1.4: Monthly food budget.

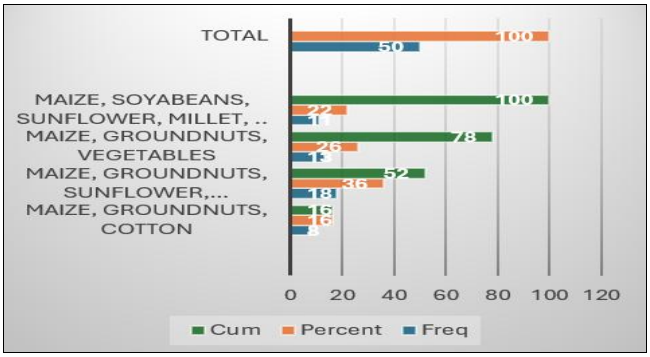
All the 50 interviewed beneficiaries mentioned that their monthly food ranged between K300 to K500.



Source: Primary data, 2025.

Fig 4.1.3: Farmland size of beneficiaries

Figure 4.1.5 depicts a graph showing the size of farmland owned by the individual beneficiaries who participated in the survey. 42% of the beneficiaries own 15 hectares of land, 32% of the beneficiaries own 20 hectares of land each, 12% of the beneficiaries have 10 hectares, 6% of the farmers have 30 hectares of land, 2% of the beneficiaries have 25 hectares of land while the other 2% have 18 hectares of land. 4% of the interviewed beneficiaries mentioned having 5 hectares of land.



Source: Primary data figure, 2025

Fig 4.1.4: Main crops grown by beneficiaries of FISP

Figure 4.1.5 shows the main crops grown by the farmers who were interviewed. 16% of the interviewed people grow maize groundnuts and cotton, 36% grow maize, groundnuts, sunflower and soya beans, 26% grow maize, groundnuts and vegetables while 22% grow maize, soya beans, sunflower, millet and sweet potatoes.

4.2 Presentation of results on the accessibility of Farmer Input Subsidy Program inputs among farmers

Table 4.2.1: Assessment of how many participants are beneficiaries

Are you currently a beneficiary of FISP	Freq.	Percent	Cum.
Yes	50	100	100
Total	50	100	

Source: Primary data, 2025

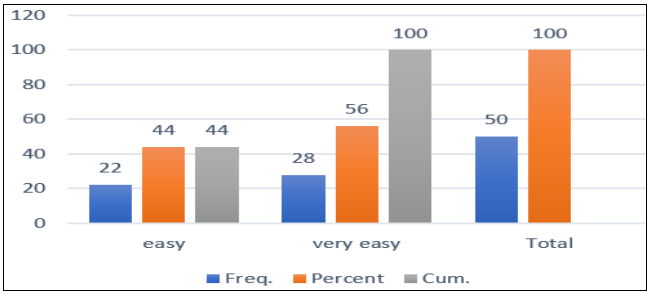
All the participants of the survey confirmed that they are currently beneficiaries of the Farmer Input Support Program.

Table 4.2.2: Assessment of the level of knowledge beneficiaries have about the procedure involved when trying to access FISP inputs

Do you understand The procedure involved in Accessing FISP inputs?	Freq.	Percent	Cum.
Yes	50	100	100
Total	50	100	

Source: Primary data, 2025

All participants confirmed having an understanding of the procedure used in order to access FISP inputs.



Source: Primary data,2025.

Fig 4.2.3: Ease of accessing FISP inputs

Of the interviewed beneficiaries, 56% rated the ease of accessing FISP inputs to be very easy while the remaining 44% said its easy.

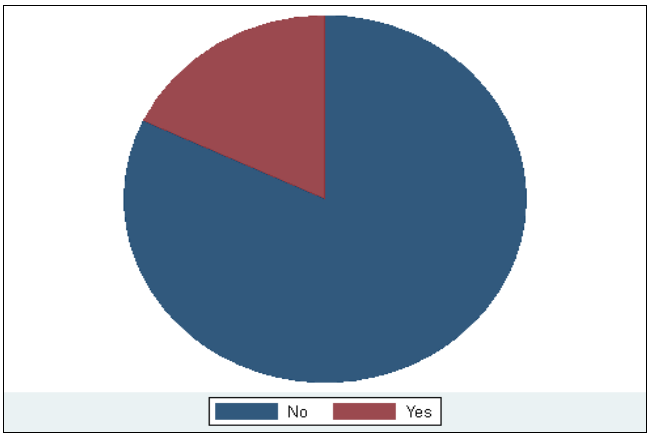
Table 4.2.4: Type of inputs received through FISP

Specify the type of inputs received through FISP	Freq.	Percent	Cum.
fertilizer, maize seed, groundnut seeds, soybean seeds	15	30	30
maize seeds, bean seeds, fertilizer	6	12	42
maize seeds, groundnut seeds, fertilizer	15	30	72
maize seeds, soybean seeds, fertilizer	14	28	100
Total	50	100	

Source: Primary data, 2025

The table above shows the inputs received by beneficiaries through FISP. 30% receive fertilizer, maize, groundnut and soybean seeds, 12% receive fertilizer, maize and bean seeds,

30% receive fertilizer, maize and groundnut seeds, while 28% receive maize and soybean seeds and fertilizer.

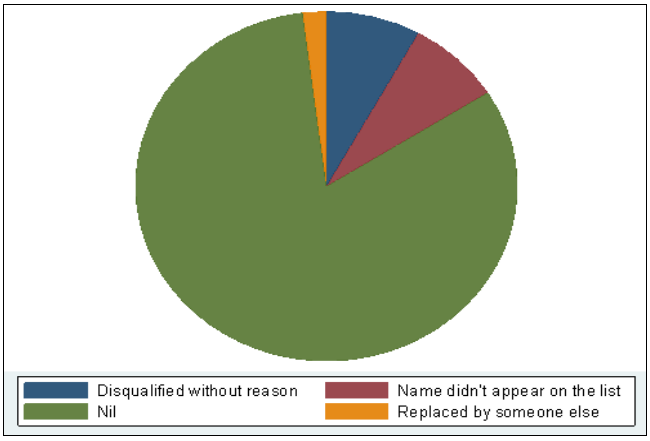


Source: Primary data, 2025.

Fig 4.2.5: FISP beneficiaries experience

82% of the beneficiaries have not encountered any hurdles in accessing FISP while the remaining 18% have face some challenges.

The following chart shows the challenges face by some farmers in their quest to access FISP inputs.



Source: Primary data, 2025.

Fig 4.2.6: Challenges faced by farmers who want to access FISP inputs

80% of the respondents did not face any challenges accessing inputs and so did not answer this question, 8%at some point were disqualified from receiving inputs without reason, 2% were replaced by someone else without their knowledge while the remaining 8% claimed their names didn't appear on the list of beneficiaries.

Table 4.2.7: Assessment on whether FISP inputs meet the farming needs of beneficiaries

Is the quantity of inputs received enough to meet your household food needs	Freq.	Percent	Cum.
Yes	50	100	100
Total	50	100	

Source: Primary data, 2025

When asked if the inputs received give them enough yields to meet their household food needs, all 50 respondents confirmed that the inputs are enough to meet their needs.

4.3 Presentation of results on the contribution of Farmer Input Subsidy Program on food security

Table 4.3.1: Impact of FISP on crop yields

Since becoming beneficiary of FISP, have your crop yields….			
	Freq.	Percent	Cum.
Increased	50	100	100
Total	50	100	

Source: Primary data, 2025.

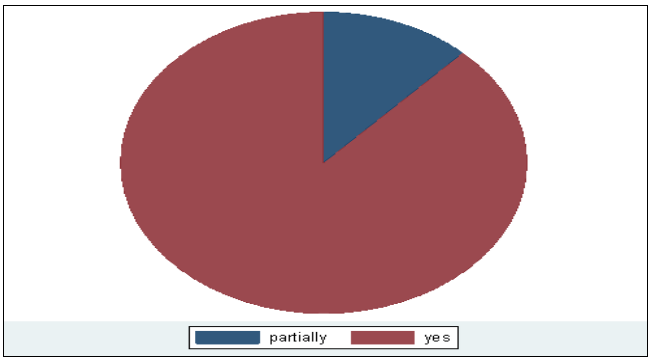
All the respondents mentioned that their crop yields increased since becoming FISP beneficiaries.

Table 4.2.2: Impact of FISP on household food availability

Has FISPenabled you to grow enough food to feed your household until the next harvest			
	Freq.	Percent	Cum.
Yes	50	100	100
Total	50	100	

Source: Primary data, 2025

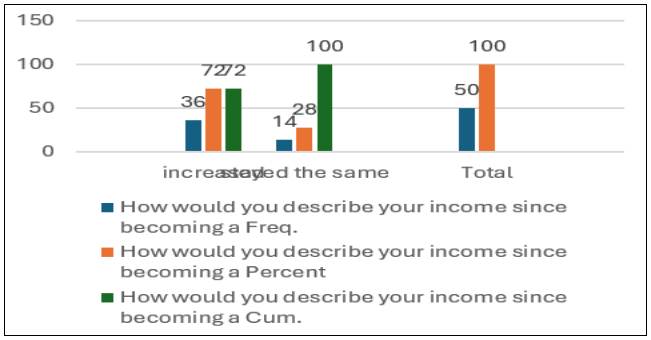
All respondents confirmed being able to grow adequate food which lasts them until the next harvest season the following year.



Source: Primary data, 2025.

Fig 4.2.3: Impact of FISP on the quality and quantity of food in beneficiary households

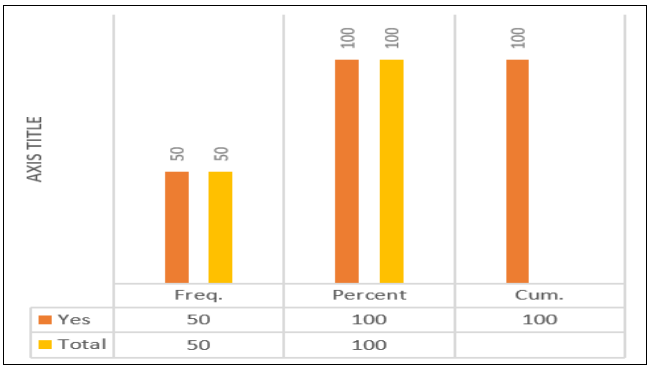
When asked if FISP has helped improve the quality and quantity of food in their households, 88% attested to an improvement in the quality and quantity of food in their households since becoming beneficiaries of FISP while 12% said the quality and quantity of food in their homes only improved partially and that being FISP beneficiary didn't have a major impact on the quantity and quality of food in their household.



Source: Primary data, 2025.

Fig 4.2.3: Description of income since becoming beneficiaries

When asked to describe their income since becoming beneficiaries of FISP, 72% said their income increased while 28% mentioned that it stayed the same.



Source: Primary data, 2025.

Fig 4.3.4: Assessment of adequacy of inputs on meeting the farmer's needs

All respondents confirmed receiving inputs that were adequate for their farming needs.

Table 4.3.5: Suggestions by farmers on which inputs they would like to receive

What inputs do you suggest should be included to help you improve the nutrition value pf the program			
	Freq.	Percent.	Cum.
Fish	5	10	10
fish & poultry	14	28	38
Livestock	3	6	44
Poultry	3	6	50
poultry & livestock	25	50	100
Total	50	100	

Source: Primary data, 2025.

When asked what they would want included in the FISP program to make it more nutritionally viable 28% said they would want fish keeping and poultry to be part of the inputs given under FISP, 10% mentioned that introducing aquaculture to the farmer input support program can prove to be more nutritionally viable, 50% believe livestock rearing and poultry farming are better options with regards to making FISP more nutritionally adequate while 6% only want poultry to be included and the remaining 6% believe including livestock to the program would be enough.

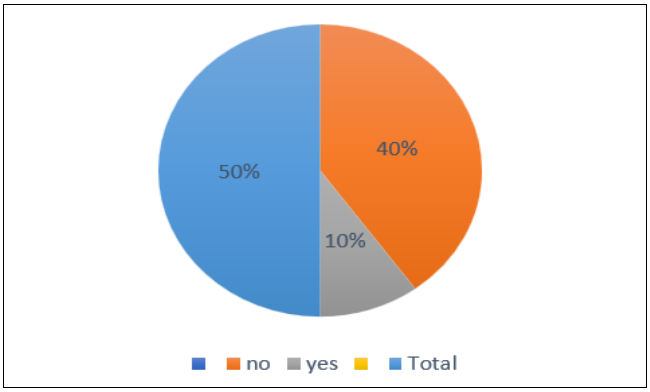
4.4 Presentation of results on the sustainability of the farmer input support program in enhancing household food security

Table 4.4.1: Thoughts of the beneficiaries about the existence of FISP 10years from the date of the survey

Do you believe FISP will be available in the next 10 years			
	Freq.	Percent	Cum.
not sure	27	54	54
Yes	23	46	100
Total	50	100	

Source: Primary data, 2025.

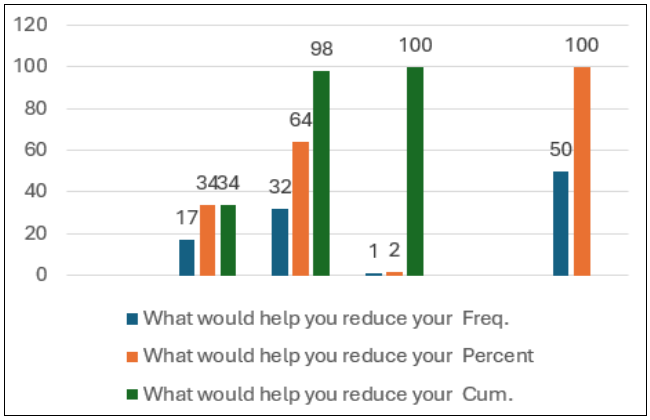
When asked if they believe the farmer input support program will be available in the next 10 years, 54% of the respondents expressed uncertainty while 46% said they believe it will still exist.



Source: Primary data, 2025.

Fig 4.4.2: Assessment on how many beneficiaries are willing to farm independently without help from FISP

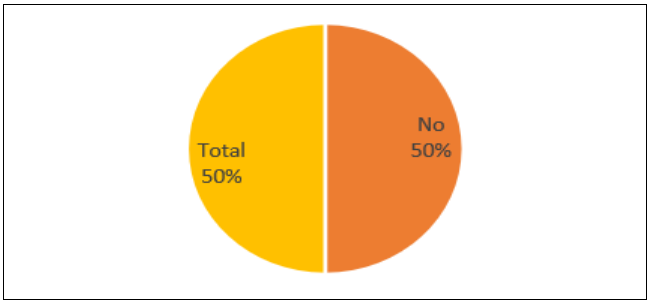
The respondents were asked if they plan to continue farming without relying on inputs under FISP, 80% said no while the remaining 20% said yes stating that they would like to be independent farmers who purchase their own inputs.



Source: Primary data, 2025.

Fig 4.4.4: Initiatives that would help reduce reliance on FISP inputs

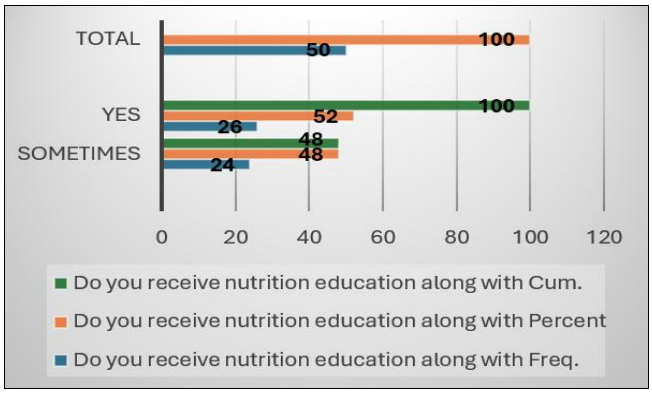
When asked what would help them reduce reliance on the farmer input support program as a source of their farming inputs, 64% mentioned that their reliance on FISP is as a result of wanting fertilizer, they added that learning about organic agriculture would reduce their reliance on fertilizer and on FISP inputs. 34% mentioned that they would want to be empowered with irrigation tools so that they do not rely on rain-fed agriculture while the remaining 2% said having farming machinery would help them reduce their reliance on FISP.



Source: Primary data, 2025.

Fig 4.4.3: Assessment of the capacity of farmers to practice their farming minus FISP inputs

When asked if they have developed the capacity to farm without relying on inputs from the farmer input support program, all the respondents said they have not developed capacity to be independent farmers.



Source: Primary data, 2025.

Fig 4.4.5: Availability of nutrition based education alongside FISP

When asked if they receive nutritional education which is basically them getting taught on how they can ensure they have balanced diets and avoid nutrition deficiency ailments, 52% said they do have lessons before getting the inputs while 48% said they don't always have lessons.

Table 4.4.6: Recommendations from beneficiaries on ways to make FISP more sustainable

What recommendations do you suggest to improve the effectiveness and sustainability of FISP	Freq.	Percent.	Cum.
educating farmers on basic economic knowledge on agribusiness	5	10	10
removing people who have been beneficiaries for a long time	22	44	54
setting a time period for how long one can be a beneficiary	16	32	86
Taxing farmers so that they take farming as a business and the program is sustained	7	14	100
Total	50	100	

Source: Primary data, 2025

Respondents were asked to recommend initiatives that would make the farmer input support program more sustainable and effective. 44% of the respondents recommended graduating/removing old participants from the program to create space for new participants, 32% mentioned that there should be a timeline as to how long one can be a beneficiary, this will create room for new participants to benefit from the program while ensuring people do not misuse or sell the inputs. 14% of the beneficiaries believe taxing farmers will encourage small-holder farmers to look at farming as a business, this will also mean that the government will get returns thus aiding the sustainability of the program. 10% of the respondents mentioned that they lack knowledge on agribusiness and so believe increased advocacy on the importance of agribusiness among smallholder farmers can improve the way they manage the financial aspect of farming.

4.5 Discussion of Research Findings

The research revealed a number of aspects concerning the effectiveness of the farmer input support program in enhancing food security at household level. The respondents of the survey comprised of small-holder farmers with land ranging between 5-30 hectares of land. Majority of the farmers who were interviewed were female and the grew mainly maize, soya beans and groundnuts as the main crops on their farms. The monthly food budget of the farmers ranged between K300-K500, the food budget in the area is quite low because the farmers grow most of the food they consume and only buy food that they do not have.

When analyzing how accessible the farmer input support program is among the interviewed farmers, majority of the farmers mentioned being current beneficiaries and experiencing little to no problems accessing the program. However, some of the farmers expressed failure in accessing the program due to technical faults and miscommunication between them and the food reserve agency officers. Some of the problems faced were being disqualified without reason, name not appearing on the list and being replaced by someone else without reason. This led to the respondents not receiving inputs during some farming seasons. On a positive note, all the interviewed farmers asserted that the inputs received are enough to meet their farming needs.

The farmers expressed having experienced increased yields since becoming FISP beneficiaries, this is because the farmer input support program provides adequate fertilizer and improved seed varieties which are best suited for the area. The increased yields have enabled the farmers to grow enough food to feed their households all year round. Majority of the farmers also observed improved quality and quantity of food in their households since becoming beneficiaries. 72% of the respondents mentioned that the increased yields have led to increased incomes in their households because less money is spent on buying foods like mealie meal and so can be directed to other aspects of their livelihood. Others feel the FISP inputs have had no impact on their income because it has remained the same. When asked if what inputs they would want to be included in the program, the respondents responded with livestock, fish and poultry as the main things they would want added to the program. The said the inclusion of these items will not only improve the nutritional/ dietary aspect the program brings to their livelihood but will also prove useful in improving their household income because animal sales bring in more income than from sales from plant-based produce.

The sustainability of the farmer input support program is one that raises a lot of debate, this is especially true because the program does not run on profit basis and has very low graduation levels from the beneficiaries of the program. When asked if they believe the farmer input support program will exist in 10 years, 54% expressed uncertainty while the remaining believe it will still be in existence. The research also showed that all the farmers interviewed felt they have not developed the capacity to be self-sufficient despite majority of them being on the program for many years. The respondents were asked what would help them reduce their reliance on inputs from FISP, 64% of the farmers said they would want to learn more about organic farming practices so that they rely less on fertilizers to fertilize the soil and know what can be used as an alternative. Others said irrigation tools and farming machinery would reduce their reliance on FISP inputs because they would be able to farm all year round and so would have enough income to buy their own inputs.

Unfortunately, the nutritional education part of the program is lacking with most farmers having had no little to no lessons about the program and what can be done to improve the nutritional value the program can bring to their households. The farmers recommended graduating old beneficiaries, setting a time period for how long one can be a beneficiary and adding some form of tax so that farmers use the inputs to generate enough money to pay back the government. The farmers believe tax will also ensure the sustainability of the program because it will have some returns.

5. Conclusion and Recommendations

5.1 Conclusion

The Farmer Input Support Program (FISP) has played a pivotal role in boosting household food security in Mpunde ward by providing small scale farmers with subsidized inputs in form of fertilizers, maize seeds and a legume of their choice for planting. Subsidizing these inputs has enabled many farming households in the area to be food secure all year round by increasing their crop yields particularly for maize which is a staple food.

The increased crop yields have resulted in food availability at household level which means families in the area are spending less on buying food and more on improving other aspects of their livelihood. The improved food availability at household level has also reduced hunger cases in the area meaning cases of nutrient deficiency diseases have been reduced significantly.

Despite the many positive outcomes of the farmer input support program, many challenges have continued to emerge with relation to continued participation of the same beneficiaries over the years. The program does not have an effective system that emphasizes the need for beneficiaries to transition long term beneficiaries into self-sufficient farming after a certain period of time. This has reduced the effectiveness and reach of the program with regards to helping newer, more vulnerable farmers who cannot access the program due to limited beneficiary spots.

The limited beneficiary turnover has constrained the developmental impact of the program and has encouraged dependency instead of promoting a mindset of self-sufficiency and independent agriculture and risks having a negative effect on the long term sustainability of the farmer input support program.

In summary, despite the farmer input support program boosting household food security for its beneficiaries, limited ability to graduate it beneficiaries reduces its effectiveness and potential to reach more people across the farming community. Implementing a system that graduates beneficiaries after a certain period of time will make the program more sustainable and improve its reach in farming communities.

5.2 Recommendations

The following are recommendations that aim to guide policy creation which will improve the effectiveness and sustainability of the Farmer Input Support Program.

1. The Farmer Input Support Program is one such program that could prove to be very effective in tackling food insecurity in many areas but its lack of benchmarks that are supposed to determine when the farmers transition from the program to being independent farmers reduce its potential. To tackle this challenge, the government should introduce and enforce a graduation criterion to create space force for new, vulnerable farmers.
2. Crop diversification remains a challenge among farmers who are beneficiaries of the farmer input support program. This is because farmers are dependent on the inputs received through FISP to determine which crops they will grow. Diversification is necessary to improve household food security and nutrition as well as enhance soil fertility and reduce vulnerability against climate shocks. The need to diversify inputs from maize, fertilizer and a legume of choice to different forms of agriculture such as horticulture, aquaculture and livestock rearing will not only create dietary diversity but will improve the incomes of farming households.
3. Farmer training in Mpunde area remains quite limited with most farmers rarely or never receiving training about climate smart agriculture, soil management, crop diversification and agri-business. Improved knowledge will reduce reliance on fertilizers and improve soil fertility. Educating farmers on how to handle agriculture as a business will enable farmers to use inputs more efficiently which will eventually make farmers less dependent on input subsidies over time.
4. The farmer input support program lags behind in its effectiveness due to insufficient monitoring, evaluation and feedback mechanisms, the limited extension officers in the area means little to no evaluation of the program takes place and so farmers do not always use the inputs as they should. Policy makers do not receive adequate feedback concerning the program and what adjustments can be made to it to make more nutritionally viable to all its beneficiaries. Mechanisms for transparent feedback and reporting should be implemented to help identify any inefficiencies the program might have as well as strengthen management of the program.

6. Acknowledgements

I would like to express my gratitude to my academic supervisor, Ms Keresia Taranhike for her guidance and support through the course of this research, her insights and academic knowledge proved instrumental in shaping the content and direction of this research. I wish to extend my gratitude to the Information and Communications university for facilitating this research from the start up to its completion. I would also like to extend my sincere appreciation to my family and friends for their belief, love and support through-out this research their belief in me has been a major source of strength and motivation.

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