



Beyond Subsidies: Farmers' Perception on Implementation of Affordable Input Program in Malawi

Rossina Chimkwita ^{1*}, Olalekan Fatoki ²

¹⁻² The Heller School for Social Policy and Management, Brandies University Waltham, USA

* Corresponding Author: **Rossina Chimkwita**

Article Info

ISSN (online): 3049-0588

Volume: 03

Issue: 05

Received: 25-06-2026

Accepted: 27-07-2026

Published: 29-08-2026

Page No: 13-22

Abstract

The Affordable Inputs Program (AIP) was introduced in Malawi as a flagship agricultural subsidy initiative aimed at increasing agricultural productivity, improving food security, and reducing poverty among smallholder farmers. Despite its broad coverage, concerns remain regarding the effectiveness and equity of its implementation. This study examines these concerns through the lived experiences and perceptions of smallholder farmers. Using qualitative secondary data, the study employs thematic analysis to explore three key areas: farmers' perceptions of AIP's impact on agricultural productivity and household food security, the equity of beneficiary targeting and selection processes, and experiences with program implementation. The findings indicate that while farmers recognize the value of subsidized inputs, the program's effectiveness is undermined by significant implementation challenges. These include delays in input distribution, inconsistent input availability, weaknesses in beneficiary targeting and verification systems, inadequate rural and digital infrastructure and limited institutional capacity. Such challenges restrict timely access to inputs, reduce potential productivity gains, and weaken improvements in household food security. Furthermore, targeting and verification deficiencies contribute to inclusion and exclusion errors that undermine perceptions of fairness and program effectiveness. The study recommends strengthening rural and digital infrastructure, improving targeting and registration systems, enhancing distribution efficiency, and building institutional capacity to improve the overall effectiveness and equity of the AIP.

DOI: <https://doi.org/10.54660/GARJ.2026.3.5.13-22>

Keywords: Affordable Inputs Programs, smallholder farmers, agricultural productivity, food security and agricultural subsidies

Introduction

Malawi depends on agriculture as the main source of Gross Domestic Product (GDP) and livelihoods, particularly for rural populations ^[23]. The agricultural sector contributes to 36% of the national GDP and employs more than 87% of the total labor force ^[3]. Eighty percent of agricultural produce is produced by smallholder farmers ^[30]. Despite this significant contribution to Malawi's economy, the agricultural sector succumbs to chronic ills of low productivity, pervasive food insecurity and widespread poverty. The sector is highly dominated by smallholder farmers owning less than two hectares of land, with high dependence on rain fed agriculture. Climate variability coupled with limited access to agricultural technologies perpetuate Malawi's vulnerability especially in rural areas. The battle against food insecurity and extreme poverty has been a common policy issue for every regime because of the nature of the persistence of the problem. National development frameworks spanning from the Vision 2020, Malawi Growth Development Strategy II (MGDS) to the Malawi 2060 agenda, consistently identify food insecurity as a major problem the country is facing, with agricultural productivity and commercialization as key solutions.

A portion of the literature, in analyzing the causes of the growth slowdown in the transition countries, concentrates on political decision-making, excessive spending, cumbersomeness, and the combination of political decision-making, excessive spending, and cumbersomeness, which leads to rising costs and expenditure and a departure from economically effective practices.

Since the 2005/2006 growing season, the Government of Malawi has been implementing the Farm Input Subsidy Program (FISP) which provided access to subsidized farm inputs including fertilizer, improved maize and legumes to smallholder farmers (Nyondo *et al.*, 2021) ^[19]. The program which is mainly financed by a combination of domestic tax revenues and public borrowing (domestically and internationally), aimed to reduce the vulnerability of food insecurity and end hunger (Chirwa, 2010) ^[8]. These were the efforts towards achieving the Malawi Food Security Policy aimed at improving the availability, accessibility, and affordability of maize as a key strategy in addressing hunger and food insecurity (Mapila *et al.*, 2013). In 2020/21 financial year, the Government later restructured the program into the Affordable Inputs Program (AIP) with the aim of reducing poverty, improving food security, food productivity, nutrition, through increasing farmers' access to improved agricultural inputs. The AIP program was designed as an improved version of the FISP program, aimed to reach a much larger number of beneficiaries (4.2 million farm households from 900,000 to 1.5 million farm households each year), embracing the concept of 'universality and equity' in targeting (Nyondo *et al.*, 2021) ^[19].

While AIP seeks to address food security and boost production of maize which is a staple produce of Malawi, its overall effectiveness of AIP is highly debated as it has not fully addressed Malawi's deep-seated agricultural and food security challenges. Firstly, the recurrent seasonal hunger, despite consistent subsidy interventions, presents a food security paradox which raises concerns on whether the AIP is addressing the dimensions of food security: availability, utilization, access and stability (Organisation for Economic Co-operation and Development [OECD], 2021) ^[20]. Secondly, although subsidies theoretically support productivity, smallholder farmer's lived experiences indicate that AIP implementation challenges like delays in input delivery, vendor interference and inequitable distribution shape their actual benefits from the program. In theory and practice, subsidies can only translate into productivity gains if inputs are delivered before or at the onset of the planting season. However, bureaucratic inefficiencies, political interference and corruption influence procurement processes and beneficiary selection, undermining equity and timing. Politically-influenced beneficiary selection often marginalizes women, youth and ultra-poor farmers (Holden & Fisher, 2015) ^[12] and undermines AIP's credibility (Ragasa *et al.*, 2022a) ^[21].

In addition, broader structural factors complicate the effectiveness of AIP. Limited access to agricultural credit constrains farmers' ability to supplement subsidized inputs, particularly in the absence of functional agricultural credit institutions or affordable loan mechanisms. Where it is available, collateral requirements often exclude poorer farmers.

At the same time, uncertainty around maize pricing, whether determined by free market forces or government intervention, affects incentives for production and commercialization, further influencing farmer outcomes. These challenges suggest that, although the AIP remains central to Malawi's agricultural policy, its success and effectiveness depend on both implementation quality and broader systematic factors. However, little is known about how smallholder farmers themselves perceive the AIP, leaving room for a comprehensive assessment of their experiences on the access, redemption process, timeliness as well as perceived impact of the program and how the program influences their sense of food security and productivity.

Objectives of the Study

The main objective of the study is to examine how the implementation processes and dynamics of AIP influence smallholder farming in Malawi from the farmer perspective lens. The specific objectives culled from the primary objective include:

1. Explore farmers' perceptions of how the AIP affects household food security and agricultural productivity.
2. Assess the equity of AIP targeting, particularly for women, youth, and vulnerable smallholder households.
3. Examine farmers' experiences and perceptions on accessibility, timeliness, and adequacy of AIP inputs.

The Affordable Inputs Program (AIP) is one of Malawi's most significant agricultural interventions, designed to improve agricultural productivity, enhance food security, and reduce poverty among smallholder farmers. Given that the program consumes a substantial share of the national agricultural budget, assessing its effectiveness and value for money is critical for both agricultural policy and public resource management (ActionAid, 2023; Mabaya *et al.*, 2021) ^[16].

Although previous studies suggest that agricultural subsidies can increase input adoption, productivity, and food availability (FAO, 2013; Chirwa *et al.*, 2011) ^[11, 7], concerns remain regarding their sustainability, targeting efficiency, and long-term impacts (Jayne & Rashid, 2013; Jayne *et al.*, 2018) ^[14, 13]. Research has also identified persistent implementation challenges, including delayed input distribution, beneficiary targeting errors, and governance weaknesses that may undermine program outcomes (Chirwa, 2010; Chinsinga & Poulton, 2014) ^[8, 5].

Despite extensive research on subsidy programs in Malawi, there is limited qualitative evidence capturing smallholder farmers' lived experiences and perceptions of AIP implementation. In particular, little is known about how farmers perceive the program's influence on household food security, input accessibility, timeliness of delivery, and beneficiary selection processes. This study addresses this gap by centering farmers' voices and experiences, providing a deeper understanding of how implementation challenges affect program effectiveness. By applying Input Subsidy Theory, Food Security Frameworks, and Equity and Targeting Frameworks, the study contributes valuable evidence to inform policy reforms aimed at improving the effectiveness, equity, and sustainability of agricultural subsidy programs in Malawi.

Methodology

Research Design

This study employed a qualitative research design based on secondary qualitative data analysis. The study analyzed raw interview data collected through focus group discussions (FDGs) conducted during the implementation of the Affordable Inputs Program. This design was suitable for addressing the study's research question by focusing on how AIP is implemented, the challenges faced by smallholder farmers and how all these encounters influence how they perceive the program's implementation and impacts. Qualitative research was particularly appropriate as AIP is a development policy where implementation processes, institutional dynamics and beneficiary perceptions and perspectives are central. As such, the study explored how AIP functioned beyond its policy design.

Data Sources and Population

The study relied exclusively on secondary qualitative data collected by the MwAPATA Institute in Malawi. MwAPATA Institute is an independent agricultural policy think tank in Malawi which engages the government of Malawi, the private sector and the civil society stakeholders in applied policy analysis and policy coordination. Data collection was done in 2021; a year after FISP was redesigned to AIP. Data was collected through FDGs with smallholder farmers who benefited from the farm inputs subsidies. Eight districts were purposively sampled out of 24 districts in Malawi. These were based on their diverse levels of roads infrastructure and agro-ecological conditions, level of access to markets and agricultural services as well as different levels of food security and poverty. In each district, two agricultural extension planning areas (EPAs) were selected, one with relatively poor infrastructure and one with relatively good road infrastructure (which affects input distribution). Within

each EPA, two sections were selected using the same criteria. In the end, the assessment comprised of 38 FDGs comprising 10 (6 males, 4 females) smallholder farmers per each FDG.

Data Analysis and Method

The study employed inductive reflexive thematic analysis to analyze the qualitative data related to the AIP informed by Braun and Clarke's six-phase approach. Thematic analysis is a widely adopted method that focuses on analysis and interpretation of patterns (themes) within qualitative data, enabling content-specific understanding of stakeholder experiences and perceptions. Employing a reflexive thematic analysis as articulated by Braun and Clarke, emphasizes the role of the researcher in deriving meaning from data while allowing themes to inductively emerge from the participants' accounts. This approach goes beyond simple categorization of data to explore both implicit and explicit meanings within the qualitative data, making the analysis appropriate for understanding stakeholder perceptions, lived experiences and interpretation of the program implementation.

Using Atlas.ti, the six-phase approach analysis began with familiarization involving repeated reading of the transcripts to get a holistic understanding of the narratives of interview participants, followed by inductive coding of themes or issues relevant to the research questions from the data without using a pre-defined coding framework. Following that, coded data were examined to generate initial themes which were then refined and defined with representative quotations identified to illustrate key findings. Finally, the themes were linked to literature and the study's conceptual framework.

Thematic analysis has been extensively applied in agricultural studies including a study on Australian farmers' mental health help seeking behaviors (Vayro *et al.*, 2023)^[28], and a thematic analysis of agricultural government policy and operational problems in Nigeria (Strang *et al.*, 2022)^[25].

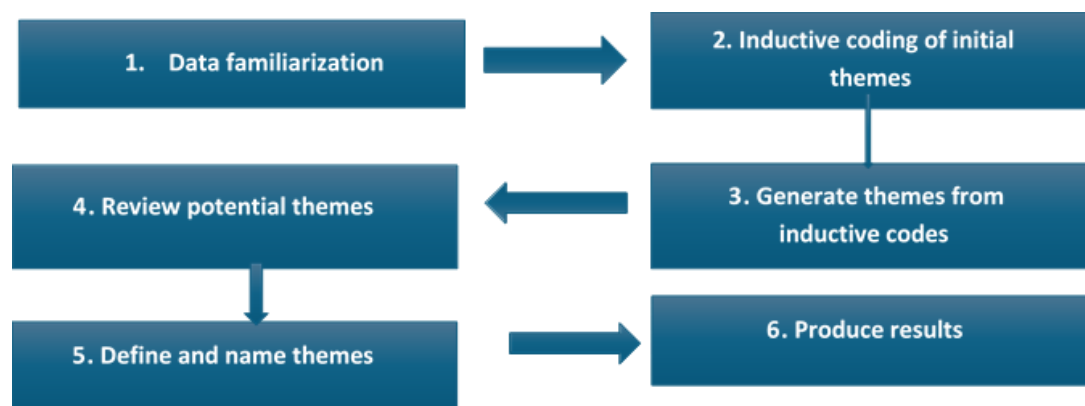


Fig 1: Six-phase thematic analysis

Results and Discussion

Key Findings

Figure 2 below presents a thematic analysis of the key factors affecting the implementation of AIP among smallholder

farmers in Malawi. The analysis identified interconnections of the themes including beneficiary targeting, institutional capacity, timing, infrastructural issues.

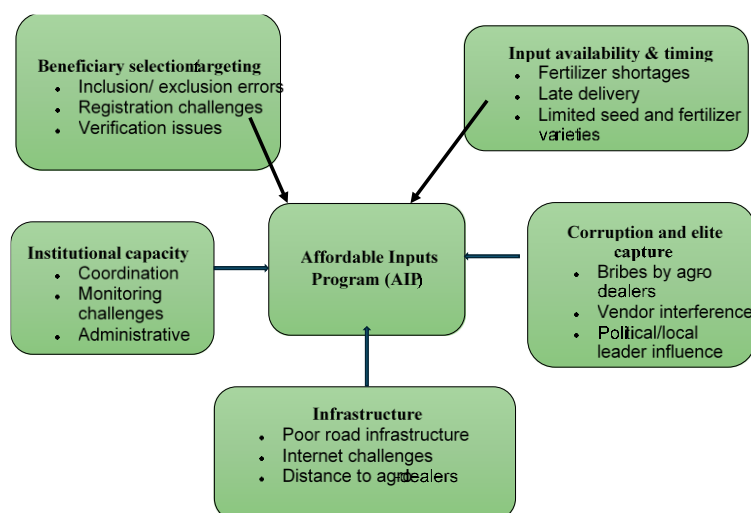


Fig 2: Thematic map of factors affecting AIP

Beneficiary Targeting and Selection

Being the backbone in AIP implementation, the process of identifying, selecting and verifying beneficiaries emerges as one of the major challenges in the implementation of AIP. Respondents reported hurdles associated with inclusion and exclusion errors, where some farmers who met the eligibility requirements were excluded while the ineligible were included. These inconsistencies undermine the fairness of the program.

One of the important issues raised by the participants relates to the registration system which records the household head as the beneficiary. This approach creates difficulties in case of separation, death or migration of the household head to a different country, especially South Africa, in search of employment. This disproportionately affects women who remain responsible for farming but do not qualify to access the farm inputs as their names are not registered in the system. A respondent lamented,

Our husbands go to the south not because they want but because we are poor and we need to find another source of income, so why exclude us because the household head is not around? - Champhira EPA.

In addition to that, verification challenges arise at redemption joints. Respondents highlighted that some names do not appear during redemption even though they were registered and confirmed by the authorities. These errors were attributed to the digital verification systems and poor internet connectivity which affected reconciliation of beneficiary list with the National Registration Bureau (NRB) database.

There are cases of a beneficiary been registered and selected but his/her ID reads invalid when it comes to verification. This has been reported to agriculture offices for consideration. – Nsipe EPA FGD, Ntcheu District.

These findings are consistent with previous studies on inputs subsidies in Malawi. Chirwa & Dorward 2013)^[6], found that beneficiary identification and targeting in Malawi's subsidy program is complex and controversial, and has persistently challenged beneficiary selection at the community level, which often resulted in exclusion of vulnerable and eligible households. Similarly, a study on the political effects of agricultural subsidies; with evidence from Malawi found that beneficiary targeting is influenced by political and social connections, reducing the effectiveness of the program. (Dionne & Horowitz, 2016)^[10], and a feasibility study on African countries found very little to no correlation between

the official targeting criteria and the characteristics of households and farmers actually benefitting from the input subsidies (Jayne *et al.*, 2018)^[13].

Farm Inputs Availability and Timing

Shortages and uneven availability of farm inputs emerged as another significant challenge in AIP. Participants reported that delays in input distribution, shortages as well as limited varieties of inputs as well as fertilizer and seed affect timely farming systems and the farmer's ability to apply inputs at the appropriate stage of crop production which negatively affect crop yields and productivity. In Malawi, first onset of rains typically occurs in early November, making the beginning of the planting season of maize and other staple crops. As such, timely access to the farm inputs is essential for crop yield maximization. However, this study found that in some cases, farmers were unable to redeem their subsidized inputs until mid-December, more than a month after the onset of rains.

The study also found out that due to limited and inconsistent supply and distribution of inputs at the redemption centers, farmers experience long waiting times and extended queues. In some instances, farmers sleep on the queue for several days waiting for inputs to arrive, only to find out that supplies had run out of stock and are forced to go back home empty handed. These challenges not only delay access but also increases costs for smallholder farmers who are already resource constrained. Slow or poor network exacerbates the situation as it causes congestion at redemption centers, causing farmers to spend multiple nights waiting for network problems to be resolved.

One of the respondents said,

They bring the inputs in phases, and we end up queuing for days, some of us sleep outside the shops during rainy season leaving our families. There have been incidences of theft, conflicts when people sleep outside the shops. We do not understand why they do not bring enough inputs, yet they know the specific beneficiary list of this village. – Mwansambo EPA FDG, Nkhotakota District

Another respondent said,

They are not bringing enough fertilizer, like for example now they have run out of stock for weeks and we do not know when they bring the next stock. This year we are only finding one type of fertilizer; there has never been a time where they had both UREA and NPK – Chitsime EPA, Lilongwe

These findings reflect the broader trends in national studies of Malawi's inputs subsidy programs. The MoA and IFPRI argued that delays in procurement and supply of farm inputs have been a major operational setback affecting the performance of AIP, emphasizing that timely distribution of inputs is critical for maximizing agricultural outcomes as late distribution of farm inputs affects optimal productivity gains. Evidence from agricultural systems beyond Africa also shows that effectiveness of fertilizer highly depends on the timely application relative to crop growth stages, meaning that delays in input distribution significantly affect crop yields (Davies *et al.*, 2020) ^[9].

Evidence from qualitative studies based on farmers' perspectives in other countries equally reveals the same experiences reported by the farmers in Malawi. A qualitative study on farmers' perceptions of fertilizer subsidies in Ghana conducted using focus group discussions with smallholder farmers revealed that farmers were dissatisfied with the timeliness and availability of subsidized fertilizer. Farmers reported several implementation challenges including limited availability of inputs, late distribution of inputs, and inefficiencies in the distribution systems (Anang & Kudadze, 2019) ^[11].

Similar patterns have been noted in other African countries implementing input subsidy programs. A study on subsidized fertilizer in Zambia, focusing on fertilizer distribution systems found that implementation delays and distribution inefficiencies limit smallholder farmers' ability to apply fertilizer at the optimal time, thereby questioning the effectiveness of the program (Mason *et al.*, 2013) ^[17]. Similarly, in a cross-country analysis of fertilizer subsidy programs in sub-Saharan Africa, Jayne *et al.* (2018) ^[13], argued that although subsidy programs increase fertilizer use and agricultural outcomes, their success and effectiveness depends on efficient supply chains and timely distribution of inputs prior to the farming season.

Corruption and Elite Capture

The study further revealed that corruption and elite interference significantly affect the implementation of AIP in Malawi. Farmers highlighted several forms of corruption including bribery by agro-dealers, vendor interference and local leaders' influence in the allocation of the inputs. These practices question the accountability and transparency of the program as it limits the vulnerable smallholder farmers who intended to benefit from the program.

Demand for bribes or informal payments and rent seeking behavior among the agro-dealers responsible for distributing the inputs emerged as one of the key issues reported. Farmers indicated that beyond the official redemption price set by the government, agro-dealers ask for additional fees to be served fast. Such practices increase the financial burden to the economically vulnerable households.

One respondent said, "Here, the selling agent has his own agents who talks to individuals privately to bribe them so as to quicken their input redemption." – Misuku EPA FD

Participants further lamented that in some cases, they initiate the corruption by bribing the sellers due to fear of missing out or late redemption of the limited inputs as well as long waiting periods.

They further said, "This corruption is sometimes driven by us, the farmers for fear of not buying, we tend to bribe the seller, hence the seller starts to demand more from more farmers." -Misuku EPA FGD.

Local leaders and politically connected individuals were also reported to influence beneficiary lists by favoring relatives or political supporters who otherwise would not meet the eligibility criteria. This results into excluding vulnerable eligible households from the program while better-off individuals receive subsidies. In addition to that, respondents reported vendor interference as another major setback in the program implementation. Vendors took advantage of the weak redemption system by purchasing the subsidized inputs through acquiring beneficiary Identification cards from the eligible beneficiaries, using them to redeem the inputs and subsequently selling them at the prevailing higher market prices. Not only that, but respondents also reported that some vendors collude with agro-dealers to obtain the subsidized inputs ahead of the registered beneficiaries. In these cases, vendors redeem large quantities of fertilizer while smallholder farmers queue for days at redemption centers without accessing the inputs. Such practices undermine the fairness and transparency in the distribution process and significantly affect the availability of the subsidized inputs at the redemption centers, affecting accessibility by vulnerable households, ultimately affecting the effectiveness of the program in improving agricultural productivity and household food security.

Vendors are the ones buying the inputs. When we ask the salesman about this, he says they are buying commercial inputs not those under AIP but ironically the AIP inputs are the running dry of stock. – Nsipe EPA, Ntcheu

The vendors are giving some community members cash to use their IDs to buy fertilizer, and most of the times the community members do not have cash to buy because we are busy sourcing funds; we have to go do casual labor in order to find the money, and by the time we have enough cash to go buy we find the fertilizer is finished. – Chileka EPA-Lilongwe

A study on the Farm Inputs Subsidy Program found evidence of informal payments and rent seeking behavior among distribution agents and local leaders which affect targeting efficiency and limited access of the inputs by ultra-poor households (Holden & Lunduka, 2013). Another study reported that elite capture, political and traditional leader interference were involved in the selling and redistribution of fertilizer subsidy coupons and sometimes divert farm input coupons to relatives, friends or other influential individuals who were not intended to benefit from the subsidies (Munthali, 2011) ^[18]. These findings mirror the experiences and perceptions reported by the respondents in this study and reveal the persistence of these challenges since the start of the subsidies despite numerous policy reforms and transition from FISP to AIP.

Comparative patterns have been documented in Nigeria's fertilizer subsidy program. The study argued that although agro-dealers and private vendors improved the distribution chain and improved efficiency, weak oversight of the program created opportunities to divert the inputs, manipulate prices and preferentially allocate inputs to certain farmers (Liverpool-Tasie, 2014) ^[15]. Similarly, a study on subsidies in Ghana found that inputs distribution was sometimes affected by intermediaries and political actors (Banful, 2011) ^[2]. These studies support the claims that collusion of vendors and agro-dealers as well as political and local leader interference affect inputs distribution and accessibility.

Infrastructure constraints

Infrastructure-related challenges were identified as another important theme in AIP implementation. Poor road infrastructure, particularly in rural hard to reach areas and long distances to redemption centers makes it hard for farmers to reach agro-dealers in distribution units. Participants indicated that long distance (sometimes up to 70km) to redemption centers combined with poor road conditions, especially during the farming season, increases travel time and transportation costs thereby increasing the financial burden on the vulnerable households.

A respondent explained,

The roads are inaccessible, we 40km distance to reach selling points. Most farmers wake up at night to reach around 3am at the selling point and spend about 5hours to buy inputs. – Bua ADMARC.

Poor road infrastructure also discourages agro-dealers from operating in rural areas, and most of them were concentrated in trading centers with relatively good road infrastructure. As a result, beneficiaries are forced to travel longer distances to access the inputs at the nearest depot. Unavailability of inputs and limited variety of the inputs at the redemption depots compound this problem as farmers are forced to redeem one input at a time, doubling the financial costs associated with transportation. This practice discourages farmers from rural areas from accessing the AIP inputs.

Agro-dealers claim there is no profit selling inputs in this side of the district because its hilly and a lot of cost is incurred. The other reason is that most agro-dealers claim that there is no security as there is no police office hence forth it is not safe. – Khosolo EPA

These findings are consistent with broader structural challenges in rural infrastructure in Malawi. Research has shown that poor road network, especially in rural areas, significantly affect accessibility of agricultural inputs, markets and other extension services. A study on how road accessibility affects farmer's access to agricultural extension services in Malawi found a negative and non-linear relationship between access to paved roads and extension services, showing a 14.1% decline in the extension services accessed as the distance from paved roads increases (Banful, 2011) ^[2]. The study indicates that poor road infrast reach to remote communities. Eventually, rural farmers located farther from the roads tend to receive less agricultural services and face higher transportation costs to acquire farm inputs, limiting their participation in subsidy programs. Similarly, an assessment on Malawi's rural infrastructure found many feeder roads in poor condition affecting farmers' access to agricultural inputs and markets as well as other essential services, with worse situations during the ratructure increases transportation costs for extension agents and agro-dealers, limiting theiiny season as rural roads become impassable (RickerGilbert *et al.*, 2011) ^[22].

A study conducted in Ghana to examine farmer's perceptions of fertilizer subsidies (Tetteh *et al.*, 2025) ^[26], found that some farmers are able to access subsidized fertilizers while others are excluded due to distance, infrastructure challenges and poor road networks whereby flooded roads and weak transportation systems forced retailers to be located in urban centers, forcing farmers from the rural communities to travel long distances and limiting access to subsidy distribution centers.

Beyond poor road infrastructure, farmers cited internet connectivity challenges affecting digital registration

verification systems under the AIP. As the program transitioned from use of physical coupons under FISP to digital registration and verification, poor network connectivity in many parts of the country often delays and affects the verification process at redemption centers. This was also partly due to low capacity of the government system (server) which become overwhelmed due to high traffic and simultaneous multiple transactions during normal working hours. Farmers explained that due to internet failures, they were forced to wait long periods or return home empty handed, increasing the financial burden and inconvenience of accessing subsidized inputs. This challenge also forced agro-dealers to work in early hours or late evening hours to dodge network challenges (Nyondo *et al.*, 2021) ^[19].

Sometimes, we are told by the agro-dealer to pay her money so that she can take our IDs with her to the trading center where there is network so she can scan them. Unresolved network issues lead to this challenge. We wonder if at all this government will ever be serious with its citizenry. – Kalambo EPA FDG

Farmers reported challenges resulting from network problems, including false redemptions and theft of inputs by agro-dealers. False redemptions occurred when farmers attempted to redeem inputs and got obstructed by network failures at second trial, after waiting for a network recovery, they were told that the system had validated their ID during the first attempt as such could not be resubmitted. In such instances, the situation had to be reported to the Ministry of Agriculture (MoA) to clear the false redemption. On the other hand, farmers reported that some agro-dealers took advantage of the poor network connectivity to steal from the beneficiaries' false redemptions and all the unclaimed inputs by reporting to the ministry and selling the sorted inputs without letting the beneficiaries know.

Somehow, we believe there is corruption happening at the redemption centers when we go to access the inputs. Some don't get all the inputs they are supposed to get. They are told that they can only redeem NPK bag of fertilizer. And then at second attempt, they are told that their account is empty meaning they cannot redeem Urea and the rest of the AIP inputs. – Nyafodya EPA – Chikwawa

As evidenced by World Bank (2020) ^[29], the use of electronic voucher systems implemented in Chad, Mali and Niger was highly affected by poor mobile network coverage and limited access to mobile phones which delayed the delivery and redemption of agricultural subsidies, ultimately excluding some eligible beneficiaries from benefitting from the program. Such challenges reflect the broader digital infrastructure challenges affecting the technological agricultural service delivery in rural areas of many developing countries that depend on agriculture as the main source of GDP and livelihoods. Research on digital agricultural extension services for smallholder farmers as a pathway to sustainability cited limited internet connectivity, unreliable telecommunication network and low access to digital services as the major constraints to effective electronic systems use in agricultural programs (Sen *et al.*, 2025) ^[24]. Furthermore, United Nations Department of Economic and Social Affairs argued that although digital technologies can potentially improve agricultural productivity, weak internet infrastructure, inadequate rural investment and limited digital literacy collectively affect the adoption of the technologies (United Nations Department of Economic and Social Affairs, 2021) ^[27].

Institutional Capacity

Challenges associated with coordination, monitoring as well as administrative inefficiencies were reported to affect implementation of AIP. Respondents indicated that weaknesses in institutional operations and administrative delays affected timely implementation, delivery of inputs and delays in addressing challenges reported including corruption cases as well as false redemptions. The implementation of AIP involved multiple actors, including government ministries, local councils, community structures as well as agro-dealers. However, as a centralized system, it is highly associated with communication inconsistencies and delayed decision making. These challenges created confusion during program implementation and led to inefficiencies in the distribution process.

Participants explained, “We would like the agriculture monitoring team to always be present in all outlets so that we can curb corruption malpractices here.” -Nyafodya EPACHikwawa.

Participants highlighted cases involving damaged and or lost IDs, missing names and name mismatches attributed to administrative challenges associated with beneficiary registration and verification. In some cases, farmers’ IDs could not be scanned or were unreadable as such could not be verified at the redemption points. In addition to that, those that lost their IDs and had not yet been replaced were not

allowed to redeem the inputs. In other cases, some names in the farming registers could not be reconciled with the National Registration Bureau database during verification, as such some qualifying farmers did not have their correct names on the beneficiary list. These barriers disproportionately affected poor households who are financially incapacitated from accessing the subsidies.

Limited beneficiary sensitization and lack of awareness of reporting mechanisms. Due to inadequate sensitization provided to beneficiaries, farmers lacked awareness of the reporting mechanisms for any challenges faced during redemption including the toll-free line set by the MoA. However, in some cases, those who tried using the number reported that the calls went unanswered.

Previous research on the predecessor FISP observed similar patterns in coordination and administrative systems and how they affect agricultural input subsidy programs (Chinsinga, 2012) ^[4]. Similarly, another study highlighted that weak institutional capacity and accountability as well as limited monitoring create opportunities for poor governance and inefficiencies during program implementation (Jayne *et al.*, 2018) ^[13].

Figure 3 below shows the distribution of themes, based on the frequency of the coded responses, summarizing the relative prominence of the key implementation issues influencing the implementation of AIP.

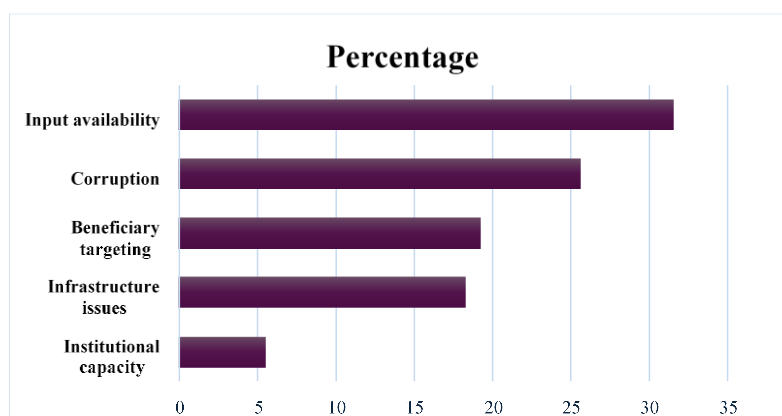


Fig 3: Distribution of themes

Conclusion

This study examined the implementation of Malawi’s Affordable Inputs Program (AIP) and its implications for smallholder farmers by exploring their lived experiences and perceptions regarding agricultural productivity and household food security. Drawing on qualitative secondary data and guided by Input Subsidy Theory, Food Security Frameworks, and Equity Theory, the study provides important insights into how implementation processes influence the effectiveness of agricultural subsidy programs. The findings reveal that while smallholder farmers generally acknowledge the importance of subsidized agricultural inputs in supporting crop production, the anticipated benefits of the AIP are frequently undermined by implementation challenges. Delays in input distribution, inconsistencies in supply, administrative inefficiencies, and verification difficulties limit farmers’ ability to utilize inputs effectively

during critical planting periods. Consequently, the program’s capacity to improve agricultural productivity, enhance food availability, and reduce household food insecurity remains constrained.

The study further demonstrates that equity concerns represent a significant challenge to the success of the AIP. Although the program was designed to prioritize vulnerable farming households, weaknesses in beneficiary identification, targeting, and verification processes have resulted in both inclusion and exclusion errors. These shortcomings undermine farmers’ perceptions of fairness and reduce the program’s ability to reach those most in need. Additionally, inadequate digital infrastructure and technological barriers have further complicated beneficiary verification and access to subsidized inputs, particularly in rural areas.

Beyond issues of targeting and distribution, the study highlights broader institutional and infrastructural constraints

affecting program implementation. Poor rural road networks, weak transportation systems, and limited internet connectivity continue to hinder efficient service delivery and farmer access to program benefits. These challenges suggest that the effectiveness of agricultural input subsidy programs depends not only on the provision of subsidized inputs but also on the strength of the systems through which such programs are implemented.

Overall, the study concludes that agricultural input subsidies alone are insufficient to achieve sustainable improvements in agricultural productivity and household food security. The success of the AIP depends on strengthening implementation mechanisms, improving transparency and accountability, enhancing targeting and verification systems, and investing in supportive rural infrastructure. Greater collaboration between government agencies, private-sector agro-dealers, and local stakeholders is also essential to improve distribution efficiency and expand access to subsidized inputs.

The findings contribute to the growing body of literature on agricultural subsidy programs in developing countries by emphasizing the critical role of implementation quality in determining policy outcomes. For Malawi and other countries pursuing similar agricultural interventions, the study underscores the need to adopt a more holistic approach that combines input subsidies with institutional strengthening, digital innovation, and rural infrastructure development. Such reforms are necessary to maximize the impact of agricultural support programs and ensure meaningful progress toward food security, poverty reduction, and sustainable agricultural development.

Future research should build upon these findings by employing mixed-methods approaches that integrate quantitative measures of program performance with qualitative assessments of farmers' lived experiences. Such research would provide a more comprehensive understanding of program effectiveness and generate evidence-based recommendations for enhancing agricultural policy interventions in Malawi and similar contexts.

Recommendations

Based on the findings from the analysis, the study proposes several recommendations to improve implementation and effectiveness of the program.

Invest in Rural and Digital Infrastructure

There is an urgent need to improve both physical and digital infrastructure, especially in rural areas to enhance the effectiveness of the program. Since AIP heavily relies on digital systems to register and verify beneficiaries, weak internet connectivity underscores the efficiency of the systems, leading to delays in redemption, name mismatches, missing beneficiary names, long queues, false redemptions and sometimes unsuccessful transactions. At the same time, poor road infrastructure and long distances increases the financial burden on vulnerable beneficiaries and affect their access to subsidized inputs in a timely manner.

To address the above-mentioned challenges, the Malawi government should adopt an integrated infrastructure development approach to simultaneously expand digital connectivity as well as improve rural road networks.

Improved internet connectivity would promote functioning of electronic beneficiary registration and verification systems, while investment in road networks especially in rural areas would improve access to agro-dealers, and attract more agro-dealers in rural areas hence reducing logistical and financial constraints on poor farming households.

Evidence from other African countries shows this improved integrated system can significantly improve the effectiveness of the agricultural subsidy programs. For example, Zambia and Kenya successfully implemented improved digital subsidy systems that enhanced timely and efficient distribution with Zambia reporting over 97% of farmers redeeming inputs before or within the planting season from local agro-dealers within shorter travelling distance (World Bank, 2026). Similarly, Benin, Cote D'Ivoire and Cameroon adopted digital agriculture initiatives that combined digital platforms with improvements in rural connectivity which has successfully improved farmer's access to inputs and markets, thereby improving agricultural productivity (World Bank, 2025). These experiences demonstrate that integrating digital systems with investments in rural infrastructure can improve accessibility and reduce inefficiencies in subsidy programs.

Strengthen Beneficiary Targeting and Registration Systems

The government should undertake comprehensive reforms in beneficiary targeting, registration and verification systems. The current criteria used by the government which primarily registers household heads, leads to significant exclusion errors. For example, residents reported cases where the registered head died, migrated for employment, or otherwise is absent, other family members could not access the inputs. This rigid registration criteria disproportionately affects vulnerable household members and women who are actively engaged in the farm activities.

To promote equity and ensure effective targeting, government should adopt a more inclusive and flexible registration framework that recognizes multiple adult members within a household. To be effective, this should be complemented by regular updating and validation of beneficiary lists to reflect changes in family composition. This need place emphasis on investing in reliable digital registration and verification systems to minimize registration and verification errors. Collectively, these measures would reduce both inclusion and exclusion errors and enhance transparency.

Strengthen Timely Distribution and Agro-Dealer Incentives

To maximize agricultural productivity, the government should improve timely distribution and introduce appropriate incentives for agro-dealers. There is a need to ensure timely procurement and distribution of inputs, that is before the onset of first rains as delayed implementation limits farmer's ability to achieve optimal yields. As such, the study proposes a need for reforms intended to improve supply chain and logistics management, as well as strengthen coordination among procurement agencies, suppliers and distribution centers. For example, establishing clear coordination mechanisms like inter-agency task forces to improve communication and coordination, as well as establishing an

integrated supply chain management system to enable real-time tracking of procurement, transportation and distribution. In addition to that, strengthening public-private partnerships with agro-dealers by providing incentives especially to local level agro-dealers to enable them to participate in input distribution processes. These incentives will reduce infrastructural challenges and transaction costs that limit smallholder farmers in rural communities from accessing the farm inputs.

References

- Anang BT, Kudadze S. Ghana's fertiliser subsidy programme: assessing farmer participation and perceptions of its effectiveness. *Int J Agric Sci*. 2019;3(1):1-11. doi:10.25077/ijasc.3.1.1-11.2019.
- Banful AB. Old problems in the new solutions? Politically motivated allocation of program benefits and the "new" fertilizer subsidies. *World Dev*. 2011;39(7):1166-1176. doi:10.1016/j.worlddev.2010.11.004.
- Botha B. Amid maize bumper harvests in Malawi, food insecurity reigns. *World Bank Blogs*. 2020. Available from: World Bank Blogs
- Chinsinga B. The political economy of agricultural policy processes in Malawi: a case study of the fertilizer subsidy programme [report]. Brighton: Institute of Development Studies and Partner Organisations; 2012. Available from: IDS OpenDocs
- Chinsinga B, Poulton C. Beyond technocratic debates: the significance and transience of political incentives in the Malawi farm input subsidy programme (FISP). *Dev Policy Rev*. 2014;32 Suppl 2:s123-s150. doi:10.1111/dpr.12079.
- Chirwa E, Dorward A. Agricultural input subsidies: the recent Malawi experience. Oxford: Oxford University Press; 2013.
- Chirwa EW, Matita M, Dorward A. Factors influencing access to agricultural input subsidy coupons in Malawi. London: SOAS University of London; 2011. Available from: SOAS Research Online
- Chirwa TG. Program evaluation of agricultural input subsidies in Malawi using treatment effects: methods and practicability based on propensity scores [MPRA Paper]. Munich: Munich Personal RePEc Archive; 2010 Feb 22. Available from: MPRA
- Davies B, Coulter JA, Pagliari PH. Timing and rate of nitrogen fertilization influence maize yield and nitrogen use efficiency. *PLoS One*. 2020;15(5):e0233674. doi:10.1371/journal.pone.0233674.
- Dionne KY, Horowitz J. The political effects of agricultural subsidies in Africa: evidence from Malawi. *World Dev*. 2016;87:215-226. doi:10.1016/j.worlddev.2016.06.011.
- Food and Agriculture Organization of the United Nations. The state of food insecurity in the world 2013. Rome: FAO; 2013. Available from: FAO
- Holden ST, Fisher M. Subsidies promote use of drought tolerant maize varieties despite variable yield performance under smallholder environments in Malawi. *Food Secur*. 2015;7(6):1225-1238. doi:10.1007/s12571-015-0511-4.
- Jayne TS, Mason NM, Burke WJ, Ariga J. Review: taking stock of Africa's second-generation agricultural input subsidy programs. *Food Policy*. 2018;75:1-14. doi:10.1016/j.foodpol.2018.01.003.
- Jayne TS, Rashid S. Input subsidy programs in sub-Saharan Africa: a synthesis of recent evidence. *Agric Econ*. 2013;44(6):547-562. doi:10.1111/agec.12073.
- Liverpool-Tasie LSO. Do vouchers improve government fertilizer distribution? Evidence from Nigeria. *Agric Econ*. 2014;45(4):393-407. doi:10.1111/agec.12094.
- Mabaya E, Kachule R, Waithaka M, Mugoya M, Kanyenji G, Tihanyi K. Malawi country report. African Seed Access Index; 2021.
- Mason NM, Jayne TS, Mofya-Mukuka R. Zambia's input subsidy programs. *Agric Econ*. 2013;44(6):613-628. doi:10.1111/agec.12077.
- Munthali JK. Corruption: the form of selling fertilizer subsidy [dissertation]. Johannesburg: University of the Witwatersrand; 2011. Available from: Wits Institutional Repository
- Nyondo CJ, Nyirenda Z, Sentala T, Muyanga M, Mkumbwa S, Burke WJ. The 2020/21 affordable inputs program: key implementation issues and messages. MwAPATA Institute Policy Brief No. 12. 2021. doi:10.22004/ag.econ.329245.
- Organisation for Economic Co-operation and Development. Agricultural policy monitoring and evaluation 2021: addressing the challenges facing food systems. Paris: OECD Publishing; 2021. doi:10.1787/2d810e01-en.
- Ragasa C, Carrillo L, Balakasi K. Farmers' perspective on the implementation of the affordable inputs programme: insights from nationally representative household and community surveys. Washington (DC): International Food Policy Research Institute; 2022. doi:10.2499/p15738coll2.135061.
- Ricker-Gilbert J, Jayne TS, Chirwa E. Subsidies and crowding out: a double-hurdle model of fertilizer demand in Malawi. *Am J Agric Econ*. 2011;93(1):26-42. doi:10.1093/ajae/aaq122.
- Schiesari C, Mockshell J, Zeller M. Farm input subsidy program in Malawi: the rationale behind the policy [MPRA Paper]. Munich: Munich Personal RePEc Archive; 2016 May 22. Available from: MPRA
- Sen LTH, Phuong LTH, Chou P, Dacuyan FB, Nyberg Y, Wetterlind J. The opportunities and barriers in developing interactive digital extension services for smallholder farmers as a pathway to sustainable agriculture: a systematic review. *Sustainability*. 2025;17(7):3007. doi:10.3390/su17073007.
- Strang KD, Che F, Vajjhala NR. Thematic analysis of agricultural government policy and operational problems. *Agric Res*. 2022;11(3):549-556. doi:10.1007/s40003-021-00588-2.
- Tetteh S, Leeuwis C, Macnaghten P, Freeman C, Maat H, Bindraban P, et al. Under farmers' eyes: understanding differential access to subsidized fertilizers in Ghana. *Nutr Cycl Agroecosyst*. 2025;131(3):693-711. doi:10.1007/s10705-025-10440-6.
- United Nations Department of Economic and Social Affairs. Frontier technologies for smallholder farmers:

- addressing information asymmetries and deficiencies. New York: United Nations; 2021. Available from: United Nations DESA
28. Vayro C, Brownlow C, Ireland M, March S. A thematic analysis of the personal factors influencing mental health help-seeking in farmers. *J Rural Health*. 2023;39(2):374-382. doi:10.1111/jrh.12705.
 29. World Bank. Digitizing agriculture: evidence from e-voucher programs in Mali, Niger, Guinea and Chad. Washington (DC): World Bank; 2020. Available from: World Bank Documents
 30. World Bank. Malawi country climate and development report. Washington (DC): World Bank; 2022. Available from: World Bank Documents

How to Cite This Article

Chimkwita R, Fatoki O. Beyond subsidies: farmers' perception on implementation of Affordable Input Program in Malawi. *Global Agron Res J*. 2026;3(5):13-22. doi:10.54660/GARJ.2026.3.5.13-22.

Creative Commons (CC) License

This is an open access journal, and articles are distributed under the terms of the Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International (CC BY-NC-SA 4.0) License, which allows others to remix, tweak, and build upon the work non-commercially, as long as appropriate credit is given and the new creations are licensed under the identical terms.