



From Subsidies to Sustainability

Rethinking public support to
agriculture in sub-Saharan
Africa

IISD REPORT

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From Subsidies to Sustainability: Rethinking public support to agriculture in sub-Saharan Africa

June 2026

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Acknowledgements

The author is grateful to all the individuals and organizations who generously offered their time by participating in interviews and consultations. Special thanks are due to the external reviewers, Julie Middleton (ActionAid) and Anna Locke (Overseas Development Institute), for their comprehensive reviews and thoughtful comments on earlier drafts of the report.

The author greatly appreciates the support of IISD colleagues Cristina Larrea and Sean Woolfrey, whose guidance, feedback, and contributions were invaluable throughout the development of the report.

Finally, sincere gratitude is extended to the Swedish International Development Cooperation Agency, whose support made this research possible.



Executive Summary

Agricultural subsidies and broader public support policies are critical to building resilient, inclusive food systems to advance sustainable development objectives. This is particularly true in countries in Eastern and Southern Africa, where the agricultural sector is central for food and nutrition security, economic development, and rural livelihoods. Globally, governments spend over USD 840 billion annually on support for agriculture. Although introduced to address specific challenges, such as productivity and food and nutrition security, much of this support has unintended negative impacts that undermine long-term sustainability and resilience. In recent years, momentum has grown to repurpose public support to agriculture and realign public spending toward policies and practices that support more sustainable, resilient, and inclusive agriculture and food systems.

Although public expenditure on agriculture and food systems in Eastern and Southern Africa is a fraction of the global total, it has significant implications for productivity, food security, livelihoods, and land management in the region. The repurposing agenda is increasingly important in Eastern and Southern Africa, where agriculture forms the backbone of the economy in many countries. However, public investment is often concentrated in input subsidy programs, typically for inorganic fertilizer and maize seed, rather than in broader policy interventions that cover extension and research and development. These input programs are frequently associated with unintended negative impacts and pressures, such as soil degradation, fiscal pressure and uneven access to support. As countries face increasing climate impacts, ever-constrained public budgets, and declining soil health, improving the effectiveness and efficiency of public spending on agriculture is more necessary than ever.

This report thus asks, under which conditions can reforming public support to agriculture improve productivity, equity, and environmental sustainability outcomes in Eastern and Southern Africa? The report examines public support and reform experiences in Kenya, Malawi, and Zambia, exploring how different subsidy models have influenced development outcomes and identifying lessons learned from these experiences.

Key insights from the case studies include the following:

There is often a trade-off between short-term gains and long-term sustainability. The Kenyan example illustrates how centralized subsidy programs can respond quickly to stabilize input prices during periods of crisis, but can undermine longer-term progress on equity and sustainability goals. Slower, longer-term reform efforts, such as the soil health pilots in Malawi, allow for greater focus on the transformation of agriculture and food systems and more support for building resilience and sustainability, yet may result in temporary reductions in yields.

Improving equitable access to agricultural support and subsidies requires more than input price reductions alone, as affordability does not equate to equitable access. In all three countries, access to public support was uneven, with the poorest and most marginalized farmers often less able to benefit fully from available schemes. Reforms that reduced the cost of agricultural inputs did not automatically guarantee fair or equal



access for these groups. Instead, access was strongly influenced by how support was delivered, with reforms that increased the number of distribution points or extension officers improving reach amongst poorer and more rural farmers. Access was also shaped by factors such as awareness of subsidy schemes and structural constraints, including land tenure.

Investment in soil health has the potential to significantly improve subsidy effectiveness. Degraded soils reduced the impact of fertilizers on yields in all three countries, despite high levels of public spending. This link between soil health and yields is increasingly recognized in regional policy frameworks, such as the African Fertiliser and Soil Health Plan (2024–2034), which underscores the importance of integrated soil health management and improved soil health as vital for sustainable productivity growth. Early findings from Malawi’s soil health pilots, corroborated by results from soil health pilots in India, suggest that increasing support for organic and blended organic-inorganic inputs alongside support for soil management can increase yields more than inorganic fertilizer alone.

Reforms and their impact are influenced by a combination of fiscal pressure, broader policies, and local conditions for farmers. Price shocks in Kenya, debt reform in Zambia, and foreign exchange constraints in Malawi all played a role in creating space and political will for reform. The outcomes of these reforms depended on tenure security, access to extension services, the quality of inputs, access to finance, and markets for agricultural produce.

Based on these insights, the report identifies a clear set of policy priorities for policy-makers and partners to design reforms that better deliver on long-term sustainable development goals, including a greater focus on equity and environmental sustainability:

1. Make soil health an integral part of subsidy design and public spending, including support for soil testing, organic inputs, and strengthened extension services.
2. Place equity and inclusion at the heart of reforms, working with farmers’ groups and organizations representing the interests of smaller-scale farmers, women farmers, and disabled farmers, to address the administrative, structural, and informational barriers that limit access to support. This should ensure delivery mechanisms recognize and address all barriers to access and ensure better access for poorer and more remote farmers, as well as the most marginalized.
3. Strengthen complementary policy, legal, and market frameworks, ensuring subsidy reform is aligned with strong land governance and tenure security, regulated standards and certification processes for inputs and the development of markets for a more diverse range of agricultural products.
4. Develop inclusive digital systems, such as digital farmer registries and eVoucher systems, which can help improve both transparency and ensure support is reaching the farmers who need it most. In parallel, factors which have so far constrained the use of digital tools need to be addressed, including limited infrastructure, poor connectivity in rural areas and insufficient training for farmers and agrodealers.
5. Build the capacity of governments and development partners to respond to—and act on—windows of opportunity for reform, including investing in building the data and



evidence base, strengthening the capacity of all relevant stakeholders to participate in reforms, and understanding political economy dynamics and vested interests.

6. Facilitate greater coherence of both support and messaging for farmers from government, development partners, and civil society, including aligning trainings, extension services, and support for communications, to ensure farmers receive clear and consistent guidance on sustainable inputs and practices.



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Acronyms and Abbreviations

AIP	Affordable Input Subsidy Programme
CAADP	Comprehensive Africa Agriculture Development Programme
FAO	Food and Agriculture Organization of the United Nations
FISP	Farm Input Subsidy Programme
IFPRI	International Food Policy Research Institute
MAFAP	Monitoring and analysing food and agricultural policies
NCPB	National Cereals and Produce Board
NFSP	National Fertilizer Subsidy Programme
OECD	Organisation for Economic Co-operation and Development
ZIAMIS	Zambia Integrated Agricultural Management Information System



1.0 Public Support to Agriculture: Role, scale, and importance for sustainable food systems

Transforming the way we produce and consume food and other agricultural products is imperative for meeting both climate and biodiversity targets under the Paris Agreement and the Global Biodiversity Framework, as well as for achieving broader national and international sustainable development goals, such as ending poverty and hunger.

This imperative is particularly significant in low- and middle-income countries, where agriculture and food systems are closely linked to a wide range of development outcomes. The type, quality, and quantity of food produced shape food security and nutrition outcomes. In these contexts, government support to food and agriculture is a critical lever in improving a range of public health objectives, including combatting hunger, stunting, and malnutrition.

Beyond their implications for human health, agriculture and food systems also play a decisive role in influencing the health of our climate and biodiversity. Food and land-use systems are currently estimated to be responsible for around one third of global greenhouse gas emissions (Crippa et al., 2021) and are the leading driver of biodiversity loss, with 24,000 of the 28,000 species at risk of extinction threatened by agriculture (Benton et al., 2021).

Box 1. Defining public support to agriculture

Despite challenges in agreeing on a single definition of “public support,” the instruments and incentives listed below are widely agreed upon.

- market price support, including guaranteed minimum prices for certain crops, and border measures (e.g., import tariffs) that keep domestic prices above global market prices.
- direct payments, including coupled payments tied to the production of certain crops or livestock, decoupled payments that provide income support without influencing production decisions, payments for environmentally sustainable practices, and payments to enhance rural development.
- input subsidies, including subsidies for fertilizers, pesticides, seeds, and machinery and subsidies or investment in irrigation and infrastructure.
- export subsidies to help farmers access and compete in international markets.
- credit and financial support, including low-interest loans and subsidized insurance for crops and livestock to protect against various risks.
- disaster relief and emergency assistance, including financial assistance to help them recover from natural disasters and financial aid during crises.
- research and extension services, including funding for research into new technologies, varieties, and practices, and provision of training and technical assistance.



At present, global public support to agriculture totals over USD 842 billion annually, of which USD 624 billion per year was support to producers in the form of market price support and budgetary support (Organisation for Economic Co-operation and Development [OECD], 2025a). The Food and Agriculture Organization of the United Nations (FAO) United Nations Development Programme (UNDP) and United Nations Environment Programme (UNEP) (2021) estimate that under current trends, public support to agriculture could exceed USD 1.8 trillion by 2030. Despite the scale and significance of public support to agriculture, government spending is not always well-aligned with long-term sustainable development goals. In many countries, a significant share of government support incentivizes practices that undermine both the long-term resilience of food systems and sustainability objectives (FAO et al., 2021).

Much of the support governments currently provide to their food and agriculture sectors is considered harmful to the environment, health, and equity (World Bank, 2023). Public support tied to large-scale, industrial agriculture, for example, exerts significant pressure on both our climate and environment. The intensification and expansion of agriculture are associated with large-scale land conversion, deforestation, and loss of biodiversity (United Nations Environment Programme, 2021). These environmental and social impacts highlight the importance of exploring how public support and policies can be reformed or repurposed to better align with sustainable development objectives.

1.2 Research Objectives and Approach of This Report

Drawing on examples from Malawi, Kenya, and Zambia, this report aims to generate useful insights and evidence on how, where, and under which conditions agricultural subsidies and support policies can be reformed in other Eastern and Southern African countries. The findings may also offer useful lessons and insights for countries in other regions facing similar challenges.

In producing snapshots of current public support to agriculture alongside reform efforts, this policy report seeks to answer the following key research questions:

- In what ways is public support to agriculture an important lever for developing/low-income countries to transform their agriculture and food systems in ways that advance their sustainable development objectives?
- Can reforming this support improve outcomes? In what ways?
- What examples of good practice in reforming public support are there for developing/low-income countries?
- What opportunities exist in specific developing/low-income countries to advance the reform of their public support to agriculture?
- What challenges do these countries face? And what do they need to overcome these challenges?

To address these questions, a mixed methods approach was chosen for this report. Quantitative data and reviews of secondary data allow us to build a picture of how much governments are spending on support to their agriculture sectors and the policy priorities



and objectives they are trying to achieve through this spending. This is complemented by qualitative data obtained through interviews, allowing us to build a more comprehensive picture of the impact of this spending on different stakeholders, as well as identify some of the barriers and challenges to reform.

This report does not seek to provide a comprehensive, in-depth overview of all public support to agriculture in the countries covered. Rather, it aims to provide a snapshot of subsidy programs and reform efforts, highlighting lessons learned and best practices that could inform future efforts.



2.0 Public Support to Agriculture in Sub-Saharan Africa

The global case for reforming public support to agriculture is increasingly well established. However, much of the available data and evidence are drawn from high-income and larger emerging economies, with far less information available on lower-income countries, including in sub-Saharan Africa. Given that the relevance and implications of this agenda vary widely across different contexts, it is important to examine the sub-Saharan African context and address these gaps in evidence.

2.1 Public Support to Agriculture in Sub-Saharan Africa: Scale, composition, and policy commitments

While the extent and share of public support to agriculture in low-income countries remain small compared with larger economies, such spending is strategically important for many national development objectives, including food and nutrition security, rural incomes, and poverty reduction.

Although public spending on agriculture is often relatively modest, the sector plays a foundational role in low-income countries, where it remains the primary source of employment and income in rural communities, particularly for those living in extreme poverty (FAO et al., 2021). Growth in the agriculture sector is likewise a critical driver of economic growth and poverty reduction in these countries. Investments in storage and other infrastructure, as well as in improving market access, can help address post-harvest losses and boost rural livelihoods (Turley & Uzsoki, 2018).

While progress toward the continental commitment of allocating at least 10% of domestic budgetary spending to implementing policies for agricultural and rural development varies across the continent—and African governments have made progress toward investing more in their agriculture sectors—public spending on agriculture still typically remains well below the 10% target (see Box 2). The FAO estimates suggest that between 2004 and 2018, government spending on agriculture in sub-Saharan Africa averaged around 6% of domestic budgets (Pernechele et al., 2021). In this context, the way in which constrained public resources are allocated is particularly significant.

One of the most significant ways in which sub-Saharan African governments support their agricultural sectors is through producer support, particularly through input subsidy programs and providing subsidized fertilizer and maize seed. These subsidy programs emerged largely in response to persistently low agricultural productivity and fertilizer use relative to other regions of the world, with governments seeking to improve smallholder access to inputs and raise staple crop yields (Just Rural Transition et al., 2025). In some countries, input subsidies also cover broader agricultural inputs, such as support for irrigation and mechanization equipment; however, this is less common in part due to the higher fiscal cost to governments (Hemming et al., 2018). Input subsidies frequently form the dominant expenditure item in agricultural budgets (Pernechele et al., 2021). In Malawi, for example, the Farm Input



Subsidy Programme (FISP) has historically dominated a significant share of agricultural spending since its inception in 2005 (Pernechele et al., 2021). Although such subsidies can support short-term increases in staple crop production, evidence suggests that longer-term productivity benefits are limited, and the public financial burden can be costly and undermine longer-term sustainability goals (Just Rural Transition et al., 2025).

Box 2. The African Union commitment to allocate at least 10% of public spending to agriculture

In 2003, African Union leaders agreed on a series of targets to incentivize African governments to prioritize agriculture. The Maputo Declaration (2003) outlined a target of a minimum allocation of 10% of public spending to agriculture, alongside broader targets for growth in the agriculture sector.

Within the broader framework of the Comprehensive Africa Agriculture Development Programme (CAADP), leaders agreed to “adopt sound policies for agricultural and rural development, and commit [themselves] to allocating at least 10% of national budgetary resources for their implementation within five years” (Maputo Declaration, 2003, p. 1).

The Malabo Declaration (2014) reaffirmed this target “to allocate at least 10% of public expenditure to agriculture, and to ensure its efficiency and effectiveness” (Conference of Ministers of Agriculture of the African Union, 2014, p. 3) alongside a commitment to ensuring the necessary policy and institutional processes and capacity are in place to encourage private sector investment into the sector.

And the Kampala Declaration (2025, p. 8) likewise reaffirmed the 10% target, but broadened earlier language on agriculture to “agrifood systems”: “ensuring that at least 10% of annual public expenditure is allocated to agrifood systems and that at least 15% of agrifood GDP is reinvested annually into the sector.”

According to the 4th CAADP Biennial Review Report (2015–2022), while some countries have increased their public spending on agriculture compared to previous reporting cycles, no country has consistently met the 10% target, and no country is on track to meet the broader set of targets outlined in the Malabo Declaration.

Producer support can also include investment in agricultural research and development and extension services, as well as measures intended to improve access to finance, such as subsidized credit schemes. Across sub-Saharan Africa, however, these typically receive a far smaller share of public investment when compared with input subsidy programs (Pernechele et al., 2018).

In some countries, particularly those facing food affordability challenges, producer support is complemented by consumer support and social protection mechanisms, such as food price stabilization and cash transfer programs. Consumer-focused subsidies can include the establishment of strategic grain reserves, guaranteed food prices, and, occasionally, trade measures such as export bans or import tariff reductions with the aim of stabilizing domestic food prices, particularly for staple crops (Deconinck et al., 2023). Since the global food price crisis of 2007/08 and especially since the COVID-19 pandemic, social protection programs,



such as cash transfers, have expanded across sub-Saharan Africa to protect the poorest and most vulnerable households from price shocks and guarantee access to food (Gentilini et al., 2020). While such measures can secure access to affordable food in the short term, it is worth noting that such measures are not without their fiscal costs and have disincentivized private sector participation in the agriculture sector in certain contexts (Amaglobeli et al., 2022).

A significant share of what is considered public support to agriculture is crosscutting and addresses broader rural development and public services. This support does not necessarily target agriculture directly but provides broader support to rural livelihoods. Across sub-Saharan Africa, this includes public investment in rural infrastructure, such as roads and electrification, which reduces transport costs alongside improving farmers' access to both input and output markets (Berg et al., 2016). It also includes investments in human capital, through health care and education, facilitating improvements in labour productivity within the sector (FAO, 2018). Although not strictly classified as agricultural subsidies, such public investment nonetheless indirectly supports agricultural productivity and addresses some of the structural and human capital constraints on production.

Despite the central role that public support for agriculture plays in food production, food security, and rural livelihoods across sub-Saharan Africa, concerns about the long-term economic, environmental, and social impacts of current subsidy programs are prompting increased debate over the need for reform.

2.2 Impacts of Current Support on Soil Health

Certain subsidy programs or instruments can have particularly negative spillover impacts on soil health, with implications for both the yield and nutritional quality of crops. Soil health is a growing policy priority for the African Union and its member states, reflecting its central importance for long-term productivity, resilience, and food security across sub-Saharan Africa, where widespread soil degradation, low levels of soil fertility, and high exposure to climate impacts undermine yields. This analysis prioritizes the impact of current subsidy programs on soil health, while acknowledging broader economic and social effects.

Fertilizer price subsidies, particularly for nitrogen-based fertilizers, can unintentionally contribute to long-term soil degradation. Although these subsidies can improve access to inputs and boost short-term production, over time, excessive use of inorganic fertilizers contributes to soil acidification, nutrient imbalance, and declining soil biodiversity (FAO, 2015), reducing soil fertility and deepening dependence on fertilizer to maintain yields.

Subsidies tied to production or the area of land under cultivation can also undermine soil health over time (DeBoe, 2020). Area-based and output-linked payments encourage intensive input use, monocropping, and the cultivation of high-yield staple crops to intensify and maximize production (DeBoe, 2020). Though these practices may initially increase productivity, over time, they can reduce soil fertility and increase vulnerability to erosion, pests and disease (OECD, 2025b).

The implementation of soil-enhancing practices, such as cover cropping, composting, agroforestry, and crop rotation, remains limited and varies across farming systems and



geographies (OECD & FAO, 2023). As a result, subsidized inorganic inputs often remain the most economically attractive option for farmers despite the benefits more sustainable practices may deliver in the longer term (OECD & FAO, 2023). Continued underinvestment in soil health risks reinforcing soil degradation and undermining both future agricultural productivity and resilience (FAO, 2021).

Box 3. The Nairobi Declaration on Fertilizer and Soil Health

In response to low fertilizer use and widespread soil degradation across sub-Saharan Africa, the Africa Fertilizer and Soil Health Summit was convened by the African Union in Nairobi in May 2024. The Summit aimed to bring together African governments, development agencies, research, the private sector, and farmers' organizations to address the challenges that poor soil health and low fertilizer use pose to agricultural productivity in sub-Saharan Africa, including knock-on impacts on food security across much of the continent.

While the Abuja Declaration (2006) focused mainly on targets for increasing fertilizer use across the continent, the Nairobi Declaration (2024) marked a shift toward a more holistic approach to broader soil health, climate resilience, and sustainable nutrient management.

Heads of state agreed on a 10-year African Union framework, intended to improve soil health, expand access to fertilizer, and boost agricultural productivity. On domestic financing of the framework, governments agreed to “Deploy innovative incentive mechanisms—including repurposing current subsidy programs—to encourage soil health investments by smallholder farmers” (p. 5).

This is the main commitment related to domestic budgets under the Nairobi Declaration and indicates that governments are planning to redirect budget from existing subsidy programs to support soil health, rather than simply increasing subsidy spending.

There is also growing evidence that, despite governments often spending a significant share of their agricultural budget on input subsidies, this does not translate into reliable, long-term returns (Jayne et al., 2018). Research conducted by the International Food Policy Research Institute (IFPRI) (Jayne et al., 2018) shows that while input subsidies for maize and fertilizer can boost yields in the short term, over time they are typically less cost-effective at improving productivity than investments in agricultural research and improvements to extension services. Research from the World Bank (Morris et al., 2007) demonstrates how allocating such a large share of public support to fertilizer subsidies, for example, not only delivers limited yield gains but also crowds out other public expenditures and private investments.

In the context of high debt burdens and constrained public resources, this high concentration of spending on input subsidy programs with uneven long-term returns reinforces broader calls for the reallocation of spending toward more efficient, effective, and sustainable interventions. The movement toward reform, however, is not without its challenges and opposition.



2.3 Constraints and the Political Economy of Reform

Despite growing awareness of the inefficiencies, high fiscal and environmental costs, and unreliable long-term returns of current agricultural support programs, reforming them remains both politically and institutionally challenging across sub-Saharan Africa. A range of structural, political, and institutional barriers currently hinder reform efforts, influencing how the direction, scale, and pace of efforts to redesign public support to agriculture play out in practice.

Political Economy and Vested Interests

Input programs, particularly those providing packages of subsidized fertilizer and seed, can be challenging to reform. The benefits of such programs are visible, immediate, and easily attributable to government action, creating strong incentives for governments to maintain them (Mason et al., 2017). When compared with less visible investments that can generate better returns, such as support for research, extension services, or improvements to soil health, input subsidies are more politically attractive because their impacts are easy for voters to both observe and connect with the government (World Bank, 2007).

Such programs are especially attractive to governments in contexts where smallholder agriculture remains integral to rural livelihoods and where rural communities form a significant share of the electorate, as in many sub-Saharan African countries (Mason et al., 2017). Input subsidy programs have therefore often become an important political tool for governments looking to build and maintain rural political support (Resnick, 2020). The repeated provision of input subsidies from successive governments can establish political and behavioural lock-in in farmers and farming communities, making attempts to scale down or reform programs politically unpopular (Dorward & Chirwa, 2010). Reforms may be perceived as removing support from rural livelihoods, despite growing evidence that alternative investments may deliver better long-term results (Dorward & Chirwa, 2010).

Over time, subsidy programs also typically produce entrenched interest groups, who have a vested interest in maintaining the status quo and the benefits this affords them. For example, companies producing inorganic fertilizers or other subsidized agricultural inputs benefit from guaranteed sales under subsidy programs and therefore have an interest in lobbying politicians to block reform efforts that may compromise their sales.

Perceived Risks and Rural Livelihoods

Closely linked to political economy challenges and concerns regarding the removal or reduction of support from rural livelihoods, reform efforts are also constrained by perceived risks. Many of these are tied to concerns around short-term agricultural impacts, such as potential yield decreases, and to welfare concerns, such as possible food price increases. Given the close ties between input subsidy programs and staple crops in the region, notably maize, efforts to reform or scale back input subsidy programs typically trigger concerns regarding short-term yield declines (Jayne et al., 2018). This feeds into broader concerns that yield declines could lead to higher food prices, concerns that are both politically and



socially sensitive across a region in which food and nutrition security remains a policy priority for many governments (World Bank, 2007). Because agricultural subsidy programs are typically concentrated amongst smallholder farmers, the main producers of staple crops in many countries across the region, reforms to these programs raise concerns regarding rural livelihoods, especially where investment in alternative forms of support may be limited or lacking altogether (Jayne & Rashid, 2013).

Lack of Reliable Data

In many countries across sub-Saharan Africa, limited capacity for monitoring and evaluation, coupled with significant gaps in agricultural data, can make it challenging for governments to accurately assess the effectiveness of existing support programs (Goyal & Nash, 2017). This, in turn, undermines the ability of governments to make evidence-based decisions about whether, how, and where support programs should be reformed (Pernechele et al., 2018). This can be a combination of limitations to data collection and monitoring systems, resulting in limited or outdated data on subsidy programs and their impacts on yields and soil health; difficulties in demonstrating the benefits of alternative approaches, e.g., payments for ecosystem services due to a weak evidence base; and a shortage of impact assessments that track the longer-term environmental and economic impacts of subsidy programs and reforms.

Limited Capacity to Track Reform Efforts

Limited institutional capacity at both national and local levels of government can also hinder the design and implementation of reforms to support programs, particularly those that require cross-departmental coordination or long-term monitoring and evaluation (de Laiglesia, 2006). Ministries of Agriculture may face institutional constraints, such as a lack of human, technical, and financial resources to design and implement subsidy reforms, as well as challenges in enforcing and monitoring the adoption and impacts of more sustainable practices. These institutional and data constraints can lock governments into relying on existing programs and policies, especially if these have a lower administrative demand.

Fragmented Governance

Coordination challenges between ministries (e.g., agriculture, finance, and environment), as well as between national, regional, and local authorities involved in the design and implementation of subsidy reforms, are not uncommon. This can result not only in conflicting priorities for reform efforts but also in a lack of clarity about which agency leads on what and in communication challenges, all of which limit policy effectiveness.

Concerns Around International Competitiveness

There may be concerns that redirecting subsidies toward a different set of policies or practices could make farmers less competitive than those in other countries receiving more traditional subsidies. The private sector might also have concerns about investing in sustainable practices unless they are clear on the stability of government support mechanisms for these new practices.



The barriers listed above represent a complex and intertwined set of challenges to efforts to reform harmful agricultural subsidies; however, addressing these barriers is essential to achieving more sustainable, resilient, and equitable food systems, as well as improving the health of sub-Saharan African soils.

2.4 Fiscal Pressure Creating a Window of Opportunity for Reform

Beyond the challenges and constraints to reform listed above, growing fiscal pressure on many governments in the region is increasingly influencing the space for agricultural subsidy reform.

Public support to agriculture in sub-Saharan Africa is also increasingly influenced by fiscal constraints, with governments coming under increasing pressure to ensure efficient use of limited public resources. This squeeze on government budgets is well documented in both International Monetary Fund (2026) and World Bank (2025a) regional assessments, illustrating how rising debt servicing burdens are shrinking fiscal space for governments in sub-Saharan Africa to invest in development outcomes. Although public spending on agriculture remains below the regional 10% target, averaging around 6% of total public expenditure from 2004 to 2018 (Pernechele et al., 2021), a public expenditure review conducted by the FAO's Monitoring and Analysing Food and Agricultural Policies program (n.d.) shows that input subsidies often still account for a significant share of the agriculture budget in many sub-Saharan African countries. Against a backdrop of rising public debt burdens and narrow tax bases, governments are increasingly forced to make trade-offs between subsidy programs and investments in other public programs (International Monetary Fund, 2026). As fiscal space tightens, these trade-offs are increasingly shaping the political feasibility of maintaining existing subsidy programs and opening space for reform.



3.0 Case Studies in Eastern and Southern Africa

The following case studies of Kenya, Malawi, and Zambia illustrate how political, institutional, and fiscal challenges and pressures can play out in different national contexts, and how this influences the design and implementation of reforms.

3.1 Kenya

Reforms to Kenya's National Fertilizer Subsidy Programme (NFSP) reflect shifts in government priorities, from improving targeting and access through decentralized, market-oriented digital systems and stabilizing fertilizer prices through a return to a state-led procurement and distribution system in response to volatility on global markets. Recent reforms have highlighted the tension between short-term price controls, productivity goals, and equitable access and longer-term sustainability concerns, such as the need to improve soil health.

Background

Agricultural policy in Kenya historically prioritized increasing smallholder productivity and improving national food security, particularly through policies designed to improve access to, and uptake of, agricultural inputs such as fertilizer and improved seed (Boulanger et al., 2022). Under the original NFSP (2008–2018), the government procured fertilizer and delivered it to depots operated by the National Cereals and Produce Board (NCPB), allowing registered farmers to purchase fertilizer at subsidized, fixed prices at a below-market rate from the NCPB depots (Jayne et al., 2018).

Despite its goals, the NFSP faced challenges, such as long travel distances to depots limiting access for more remote farmers, the capture of a disproportionate share of subsidies by wealthier farmers, and long-term concerns regarding the fiscal and environmental sustainability of the program (Kananu et al., 2017; Ricker-Gilbert et al., 2024).

Pilots of a digital eVoucher system in 2019–2022 addressed targeting and access challenges by registering farmers on a digital platform, then providing registered farmers with codes via SMS, which they could use at authorized private agrodealers to redeem subsidized inputs.

The Problem: Why reform was necessary

As a result of global supply shocks linked to both the COVID-19 pandemic and the Russian invasion of Ukraine, global fertilizer prices rose sharply as trade disruptions and increased energy costs constrained global fertilizer markets and raised the production costs of nitrogen, phosphate, and potash fertilizers (Kee et al., 2023). Under the digital eVoucher pilots, the government didn't provide a fixed price subsidy; rather, the subsidy covered a portion of the cost of the fertilizer and the remainder was covered by the farmer. If the price



of fertilizer increased on international markets, the portion of the cost covered by the farmer also increased.

To try and mitigate the impact of these price increases on farmers, the government returned to a centralized model (NFSP-2) in 2022, shifting focus to national coverage and price caps for fertilizer distributed once again through NCPB depots. The NFSP-2 reforms prioritized improving the availability and affordability of fertilizer for smallholder farmers and lowering the cost of agricultural production (Agriculture and Food Authority, 2022). The intention was to ensure smallholder access to fertilizer, and in doing so, safeguard livelihoods, reduce exposure and vulnerability of farmers to external shocks, and maintain the national food supply.

Alongside concerns regarding price stabilization, there were also concerns regarding the environmental sustainability of long-term inorganic fertilizer use, particularly its contribution to nutrient imbalances in soil over time (Kananu et al., 2017). Long-term fertilizer trials in Kenyan maize systems have already shown that repeated applications of inorganic fertilizers contribute to nutrient imbalances in the soil (Kananu et al., 2017). However, these concerns were not central to the design of the NFSP-2 and received less consideration than efforts to increase productivity and access.

The Reform

Under the NFSP-2, the Government of Kenya reinstated a centralized fertilizer distribution subsidy model, with the intention of improving the availability and affordability of fertilizer for smallholder farmers in response to rising costs (Agriculture and Food Authority [AFA], 2022). The government made fertilizer available at subsidized rates through the National Cereals and Produce Board (NCPB) depots, with individual limits imposed on eligible farmers to ensure broad access (AFA, 2022).

The NFSP-2 brought both the procurement and distribution of fertilizer back under government control, with the government contracting fertilizer importers to supply fertilizer at a discounted price, which is then distributed from NCPB depots (AFA, 2022). These reforms replaced the earlier eVoucher pilots (2019–2022), which had relied on networks of private agrodealers for the distribution of subsidized inputs.

The program retained farmer registration and eligibility verification introduced under the 2019–2022 reforms, ensuring subsidized fertilizer reached verified farmers and limiting opportunities for rent seeking (Ricker-Gilbert et al., 2024). By transitioning back to distribution via NCPB depots, the government hoped to balance broad access with input affordability to address the challenges that prompted the 2022 reforms (Ricker-Gilbert et al., 2024). The NFSP-2 reforms, therefore, prioritized improving fertilizer affordability, stabilizing prices, and ensuring nationwide access for smallholder farmers.

More recently, interest in integrating soil fertility management into subsidy design to address declining soil health has grown. International development partners such as the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) and the IFPRI are cooperating with the Ministry of Agriculture and Livestock to explore how support for organic inputs, soil testing and soil fertility management practices impacts soil health, productivity and livelihoods



(GIZ, 2024). These programs support efforts to identify how to better align subsidy programs with soil health; however, they have not yet been formally included in NFSP-2 reforms.

Reform Results

Evidence suggests that NFSP-2 succeeded in reducing the cost of fertilizer for smallholders, and that government price controls helped drive down costs relative to pre-subsidy levels (Kenya Institute for Public Policy Research and Analysis, 2024). A 50 kg bag of fertilizer priced at KES 6,900 before the 2022 reforms fell to roughly KES 3,500 under NFSP-2 (Kenya Institute for Public Policy Research and Analysis, 2024).

Evidence also suggests that improvements in affordability under NFSP-2 translated into increased use of fertilizer and maize yields for participating farmers (Ayalew et al., 2024). IFPRI estimates show fertilizer adoption increased by about 7%, and maize yields increased by roughly 26%–37% among farmers participating in the subsidy scheme (Ayalew et al., 2024). In this respect, it can be argued that the reforms succeeded in improving national food security and supporting rural livelihoods.

Despite demonstrated productivity gains, NFSP-2 struggled with inequities. The return to distribution via NCPB depots meant that larger, better-connected farmers were typically more likely to access subsidized fertilizer, while smaller, more remote farmers faced longer travel distances and higher transaction costs (Ricker-Gilbert et al., 2024). This stands in contrast to the 2019/20 reforms, which improved rural access through switching to an eVoucher system redeemable from private agrodealers in local communities (Njagi et al., 2024). In this respect, we can argue that the NFSP-2 reforms reversed progress previously made toward a more equitable subsidy program.

Environmental and soil health considerations were likewise missing from the 2022 reform. These reforms addressed immediate challenges to productivity and food security but failed to address broader environmental or soil health objectives, leaving some sustainable development considerations outside the scope of the 2022 reforms. NFSP-2 continued the focus on inorganic fertilizers, without including support for soil testing, organic inputs, or integrated soil fertility management.

Implementation Dynamics: Enablers and constraints shaping results

Centralizing procurement and distribution of fertilizer under NFSP-2 allowed the government to stabilize fertilizer prices in the short term; however, it introduced access barriers for some farmers and undermined equity outcomes. By negotiating in bulk and agreeing price caps with importers, the government was able to bring down and stabilize prices during a period of volatility, but the return to NCPB depot-based distribution of inputs increased travel distances and transaction costs for many farmers, particularly in remote areas. Compared with distribution via private agrodealers, this reduced accessibility and limited uptake amongst certain farmers, particularly the poorest and most rural.



Retaining the farmer registries introduced in earlier reforms helped maintain oversight and reduced opportunities for rent-seeking behaviour; however, barriers to access persisted. While digital registries improved oversight and reduced the risk of subsidized inputs being lost to “ghost” farmers, the costs and barriers associated with centralized distribution meant that larger, better-connected farmers were still more likely to benefit from the program, undermining the extent to which improved oversight contributed to equitable outcomes.

Continued focus on inorganic fertilizer without support for complementary soil health measures undermines the long-term sustainability of NFSP-2. In the Kenyan context, where declining soil health is already recognized as a key constraint to agricultural productivity (Kananu et al., 2017), this narrow focus risks reinforcing dependence on inorganic inputs and locking farmers into unsustainable production practices. Although not well reflected in the design of the NFSP-2, this concern is increasingly reflected in broader policy frameworks, including the Government of Kenya’s Agricultural Soil Management Policy (2023), which emphasizes the need for integrated soil fertility management, soil testing, and introducing organic inputs alongside inorganic inputs (Kananu et al., 2017).

The NFSP-2 reforms in Kenya underscore the inherent trade-offs faced by policy-makers when designing or reforming agricultural subsidy programs. Efforts to prioritize short-term objectives, such as price stabilization and productivity, can yield near-term benefits; however, they risk reinforcing longer-term challenges related to equity and environmental sustainability when social and environmental outcomes are not well embedded in subsidy program design and reform.

Box 4. Reforming agricultural subsidies to support soil health in Kenya

In December 2025, the International Institute for Sustainable Development hosted a workshop in Nairobi, bringing together farmer organizations, civil society, and philanthropy, research, and development actors to discuss how agricultural subsidy programs affect soil health and sustainable development outcomes in Kenya. The dialogue formed part of ongoing research examining how public support for agriculture in low-income countries can better contribute to sustainable and resilient food systems.

Key findings from the discussion included:

1. Current subsidy programs are not delivering sustainable outcomes.

While fertilizer subsidies initially increased yields, long-term reliance on synthetic inputs has contributed to soil acidification, degradation, and stagnating productivity. Their effectiveness is further undermined by governance challenges such as delayed input distribution, inaccessible distribution points, and corruption, which particularly affect smallholder farmers.

2. Political, governance, and technical barriers complicate reform efforts.

Subsidy programs are often influenced by political considerations, while governance challenges slow the delivery of inputs and reduce program effectiveness. At the same



time, many farmers lack access to extension services, training, and soil testing, limiting their ability to manage soil health and use inputs effectively.

3. Several practical opportunities for reform exist.

Participants highlighted the potential to:

- better integrate high-quality organic inputs into subsidy programs;
- strengthen community-based extension services and farmer training focused on soil health;
- improve access to affordable soil testing;
- invest in storage infrastructure and organic waste management to reduce food loss and support soil restoration; and
- move toward better-targeted, systems-based approaches that also support practices such as crop rotation and agroforestry.

4. More inclusive and coordinated stakeholder engagement is needed.

Effective reform will require stronger collaboration among governments, farmers' organizations, researchers, financial institutions, private sector actors, and international partners. Participants also stressed the importance of better representation of smallholder farmers, organic producers, and farmers in arid and semi-arid regions

5. Clearer narratives on soil health and input use are needed.

Participants emphasized the need for consistent messaging to avoid conflicting guidance to farmers and to highlight the role that organic inputs and regenerative practices can play alongside inorganic fertilizers.

6. Subsidy reform must be supported by broader financial and market measures.

Developing markets for a wider range of crops can encourage diversification away from monocultures and support soil health. Complementary financial mechanisms, such as microfinance, grants, and partnerships with savings and credit cooperatives, can also help farmers adopt more sustainable practices.

3.2 Malawi

Malawi is conducting a series of soil health pilots to inform the reform of the FISP, where traditional inorganic fertilizer-based support for maize production is now complemented by a series of pilots to trial more sustainable inputs and approaches. While these pilots are at present limited in scale, they are generating important evidence on how Malawi's agricultural input subsidies can best be reformed to support soil restoration and build greater resilience, while maintaining yields and reducing pressure on public finances and foreign exchange reserves.



Background

Historically, agricultural subsidies in Malawi have focused on increasing productivity, particularly maize, primarily through support for inorganic fertilizer and improved seed provision (Benson et al., 2024). These subsidies aimed to both mitigate the costs borne by farmers when trialling and adopting new inputs, and to improve food security through higher yields (Benson et al., 2024). At the same time, rapid population growth has increased pressure on both food production and arable land (Bizikova et al., 2022), leading to continuous cultivation of small plots of land and limited scope for agricultural expansion (Chilumpha et al., 2024).

Input subsidy programs to boost maize production emerged in the 1980s, declined in the 1990s as a result of structural adjustment policies, and have since regained prominence (Ragasa & Mazunda, 2018). The FISP, introduced in 2005, aimed to improve smallholder incomes and household food security by increasing access to inputs (Chibwana & Fisher, 2011). Its successor, the Affordable Input Subsidy Programme (AIP), launched in 2020, significantly expanded coverage while seeking to improve the reach and efficiency of input distribution (World Bank, 2025b); however, following the 2025 elections, the program name was changed back to FISP. In parallel, soil health pilots have been introduced in recent years (post-2020) as part of efforts to improve agricultural subsidy programs and address soil health concerns.

The Problem: Why reform is necessary

Malawi's fertilizer subsidy model reflects a policy choice to prioritize input subsidies, placing significant pressure on both the government budget and on foreign exchange reserves. All fertilizers must be imported, placing strain on already constrained foreign exchange (Benson et al., 2024) and imposing a significant burden on public expenditure. This has limited the government's ability to invest in other areas of the agriculture sector. In 2012/13, for example, FISP represented 58% of total agricultural spending, in contrast to only 1.6% allocated to agricultural extension services (Ragasa & Mazunda, 2018). As such, fertilizer subsidies have not only been costly, but also potentially crowded out public investment in research and extension services.

These fiscal and foreign exchange pressures have been exacerbated by external economic shocks. Global supply chain disruptions during the COVID-19 pandemic and rising fertilizer prices following the Russian invasion of Ukraine significantly increased the cost of inorganic fertilizer on international markets (Rice & Vos, 2024). In Malawi, where fertilizer is procured centrally and subsidized at a fixed cost, this increased the fiscal burden of the program to the government, resulting in constrained coverage, limiting access to subsidized inputs for some farmers (World Bank, 2026). At the same time, the devaluation of the Malawian Kwacha in 2022 and 2023 further increased import costs, undermining the government's ability to sustain the AIP and reach intended beneficiaries (United Nations Development Programme, 2023). As a result, coverage declined to just 29% of smallholder farmers in the 2024/25 season (Ragasa et al., 2025).



Finally, previous iterations of the FISP failed to adequately account for declining soil health. Malawian soils are widely affected by nutrient depletion and soil degradation, limiting their capacity to maintain agricultural production (FAO, 2018). Although inorganic fertilizer use has been promoted to address nutrient deficiencies, evidence suggests that fertilizer use alone (predominantly inorganic fertilizer in the case of Malawi) has been associated with low and highly variable yield responses, particularly in the context of degraded soils (Benson et al., 2024; Burke et al., 2022).

This is closely tied to a limited adoption of soil management practices, including the use of organic inputs, crop rotation, and soil conservation measures, driven in part by weak support for appropriate extension services and low farmer awareness (Omuto & Vargas, 2018). As a result, many soils have low organic matter and high acidity, both of which reduce fertilizer efficiency (Burke et al., 2022; Omuto & Vargas, 2018). This has been compounded by topsoil loss, further reducing soil fertility (Benson et al., 2024).

Despite significant investment in the FISP, empirical evidence suggests that resulting gains in maize yields have been highly variable (Ricker-Gilbert & Jayne, 2017). The impact of the FISP on maize production has been small, with only weak evidence to suggest sustained productivity gains and indicating low returns on fertilizer use (Ricker-Gilbert & Jayne, 2017). These limited productivity gains are consistent with the broader constraints outlined above and help explain why Malawi continues to experience seasonal food insecurity, with many rural households struggling to secure enough food to meet their needs despite long-standing investment and support through the FISP and other agricultural support programs (World Bank, 2026b; World Food Programme, n.d.).

The increasing fiscal burden, growing pressure on foreign exchange reserves, persistent food insecurity, deteriorating soil health, and evidence of limited yield gains under previous iterations of the FISP underscore the need to shift how agricultural support is designed and delivered in Malawi.

Rethinking Public Support to Agriculture: Soil health pilots

In response to the challenges outlined above, the Government of Malawi, with support from the World Bank's FoodSystems 2030 Trust Fund, is undertaking a series of pilots to test alternative approaches to agricultural subsidies. The pilots represent an instance of policy experimentation, testing how government support could be repurposed away from conventional input subsidies and toward practices that improve soil health, while simultaneously generating evidence to inform future reform efforts and scaling of the pilots.

The soil health pilots aim to assess whether shifting away from a narrow focus on support for inorganic fertilizer and maize production toward greater support for integrated soil health management can help address the challenges the FISP/AIP has faced so far. Namely, it seeks to determine whether redirecting public investment and support policies toward practices specifically intended to improve soil health can improve productivity, restore and maintain soil health, and support farmer livelihoods, while boosting food and nutrition security and reducing the fiscal burden on the government.



At the heart of the pilot design is testing and collecting data on how different subsidy models affect farmer behaviour and a range of sustainable development outcomes. Using a new eVoucher system and digital farmer registry, farmers across 12 districts are assigned to one of three different support packages. These packages include a control group of farmers receiving the standard support provided under the FISP (inorganic fertilizer and maize seed, with no additional soil health support or conditions). A second group receives a semi-flexible package of support, with farmers able to choose from structured soil health packages (including combinations such as inorganic fertilizer and lime, or legumes integrated into crop rotations). A third group receives a fully flexible package of support, where farmers are free to choose their inputs but are required to adopt at least one soil health practice (including composting, conservation agriculture, or liming). In contrast to earlier iterations of FISP/AIP, these pilots include support for extension services and information on soil and water management practices, alongside more traditional support for agricultural inputs.

A key innovation of the soil health pilots is the introduction of soil health monitoring. This monitoring facilitates the assessment of the relationship between different subsidy models, soil health, and productivity over time. Baseline data on soil health has been gathered and will be tracked over time to measure the impact of the different subsidy packages on soil health, farmer livelihoods, and productivity.

The pilots test three areas of reform: the diversification of support beyond inorganic fertilizer and maize seed; greater flexibility in how support is provided to farmers; and the integration of soil health and soil management practices into subsidy design. As the pilots continue, the evidence generated is expected to contribute to future reforms of the FISP, for a subsidy program that delivers more effective and efficient public spending, strengthens farmer livelihoods and agricultural production, and promotes more sustainable agricultural practices.

Early Results

The first full pilot was implemented in the 2024/25 season. Early findings indicate farmers using blended organic-inorganic fertilizers, paired with support for soil-enhancing practices, saw slight increases in yields when compared with farmers using inorganic fertilizer alone. Although detailed quantified impact estimates have not yet been released, these reported improvements do align with similar findings from long-term studies in other regions. A 12-year study in India, for example, found that farmers applying an organic-inorganic fertilizer blend saw increased maize yields, alongside improvements in water use and soil health, compared with farmers using only inorganic fertilizer (Abrol et al., 2024).

Farmers, however, emphasize the need for guaranteed long-term investment in extension services, particularly to address gaps in soil management knowledge and inconsistent local-level dissemination of best practices. Extension services would also build the capacity of public research institutions to generate and share context-specific evidence on soil fertility and input use. Such investments will be important for consolidating and sustaining these early improvements.

These early findings suggest that subsidies focused on soil health may deliver productivity gains while reducing the need for such high quantities of inorganic fertilizer over time. Given



that organic fertilizer inputs are mainly sourced domestically, this could significantly reduce the government's fiscal burden and relieve pressure on foreign exchange reserves tied to fertilizer imports. However, these are uncertain preliminary findings. Soil restoration is an inherently long-term process, and meaningful changes to soil health may only be visible several years from now.

Implementation Dynamics: Enablers and constraints shaping results

The soil health pilots highlight a set of interrelated enablers, constraints, and trade-offs that together influence both the effectiveness and the future potential for scaling subsidy reforms beyond the pilot phase.

Support from international organizations, such as IFPRI and the World Bank, has been critical in enabling the design and implementation of the soil health pilots.

Through its FoodSystems 2030 Trust Fund, the World Bank has provided funding, technical guidance, implementation funding, and support for soil testing and monitoring to the Government of Malawi. This support has enabled the government to trial more flexible, soil health-focused subsidy models and, in turn, generate the data and evidence necessary to make an informed decision about where and how to reorient budget allocated to the FISP to deliver better sustainable development outcomes in the future. This has facilitated policy experimentation at a level that would have been difficult to support using domestic resources alone. However, reliance on external support raises questions for the long-term sustainability of these reforms, particularly if donor priorities change. This highlights a broader constraint on the sustainability of the soil health pilots: while donor support enables experimentation and implementation capacity in the short term, longer-term sustainability and scaling depend on strengthening domestic institutional and technical capacity to regulate and support continued implementation once external support is withdrawn or reduced.

Engagement of farmers through consultations has helped ensure that the soil health pilots and support packages speak to farmer priorities and concerns. This is vital to securing both farmers' buy-in and ensuring that practices supported through the pilots are likely to be adopted. However, evidence from civil society interviews indicates that very small-scale farmers (less than 3 acres), women farmers, and disabled farmers could be better included in these processes. This indicates the need for more deliberate inclusion of marginalized voices into both the design and implementation of subsidy reform processes. These gaps in inclusion become apparent in implementation.

Challenges in input procurement and distribution continue to hamper implementation. Delays in procurement that predated the soil health pilots have resulted in inputs arriving mid-season, reducing their effectiveness; farmers similarly report needing to make multiple trips to distribution points due to insufficient stock. This disproportionately disadvantages already marginalized farmers, such as those with disabilities and women with childcare responsibilities, for whom making multiple trips is especially challenging due to time or mobility constraints. This directly impacts who benefits from the pilots. Although the introduction of barcode-based eVouchers has improved transparency in the allocation and distribution of subsidies, the shift toward a digitalized process has introduced new barriers



to access for farmers with limited digital literacy and similarly limits who benefits. This demonstrates that improvements in the allocation and targeting of subsidies do not necessarily translate into equitable access during implementation, as both logistical challenges and digital barriers influence uptake.

Regional and continental commitments, frameworks, and targets have helped reinforce domestic subsidy reform efforts to enhance soil health. Malawi's 2063 Vision (2021) reflects both commitments under the CAADP to increase agricultural spending and emphasizes soil restoration and productivity. More recent commitments, such as the Nairobi Declaration (2024), further encourage the reallocation of resources toward agricultural inputs and practices that help support long-term soil health and productivity. These international frameworks and agreements both help legitimize domestic reform efforts and generate political momentum for redesigning agricultural subsidies; however, they do not directly address the implementation and system-level constraints that shape on-the-ground uptake.

Variable input quality, partly resulting from the absence of clear regulatory standards, undermines the effectiveness of the pilots. Inconsistent quality of blended fertilizers reduces their reliability and risks eroding farmers' trust in both the inputs themselves and the broader soil health reform process. At the same time, **farmers reported tenure insecurity** currently limiting uptake beyond plots supported through the pilots, as farmers working on rented land or land with customary titles may be reticent to invest in improvements with long-term benefits if they are unsure they will retain the benefits of the investment. These constraints compound one another. Uncertainty regarding input quality reduces the perceived return on using new organic or blended inputs, which is then reinforced by perceived or actual tenure insecurity, undermining the incentive to invest in longer-term improvements to soil health outside of support provided via the pilots. This creates a set of reinforcing disincentives in which both the expected returns and long-term security of those returns are called into question. This indicates that farmers' adoption of new inputs and practices depends not only on access to inputs and knowledge but also on broader institutional standards and frameworks. Subsidy reform alone is therefore not always sufficient to drive behaviour change, unless paired with complementary systems-level reforms, such as to quality control of inputs and to land tenure security.

The Malawian experience highlights both the opportunities and the challenges of repurposing public support to agriculture toward soil health and longer-term sustainability objectives. The current pilots are generating valuable evidence that can inform reforms; however, scaling these will depend not only on designing reforms but on strengthening extension services and addressing the broader institutional and market constraints that shape implementation.

3.3 Zambia

Zambia's reform of the FISP reflects a shift from state-led input distribution toward a more market-oriented model. While reforms have improved targeting, transparency, and private sector participation, the implementation of this reform has highlighted how poor soil health, uneven market development, and institutional capacity constraints hinder efforts to repurpose agricultural support toward broader sustainability objectives.



Background

Traditionally, public spending on agriculture in Zambia has overwhelmingly prioritized maize cultivation (Resnick et al., 2016). The FSP and, later, the FISP have been central to this support (Central Statistical Office, 2016). The FSP, which ran from 2002 to 2009, aimed to increase maize production, increase private sector participation in agricultural input markets, and improve household food security (Kuntashula & Mwelwa-Zgambo, 2022).

Following a multi-country study tour to study agriculture subsidy programs in Kenya, Malawi, and Tanzania, the FSP was reformed and renamed the FISP. The FISP supported a wider variety of crops and inputs and retained the objectives of the FSP, while adding a focus on improving incomes (Resnick et al., 2016).

In 2015, the government piloted an eVoucher system (including weather insurance coverage in some districts) under FISP in selected districts (World Bank, 2017). Despite lowering the fiscal burden of the FISP on the government, challenges persisted, including continued difficulties in targeting and reaching intended beneficiaries, delayed payment by government to agrodealers, technological challenges, limited stocking of diverse inputs, insufficient controls, and limited access to financial services in remote areas. These challenges, coupled with strong pushback from political elites and bureaucrats who had benefited from the poor targeting and lack of transparency under the previous system, ultimately led to the government reverting to direct input supply (World Bank, 2017).

The Problem: Why reform was necessary

Zambia's subsidy program faced three interrelated challenges: weak targeting and inequitable access; low fertilizer returns due to poor soil health; and a high fiscal burden relative to program outcomes.

Despite the reforms introduced in 2009/10, the FISP experienced many of the same implementation challenges as the FSP. A substantial portion of subsidized fertilizer continued to be captured by farmers already purchasing fertilizer commercially, resulting in poorer households having more limited access to subsidized inputs (Mason et al., 2013). This means the FISP often reinforced existing inequalities rather than improving access for poorer farmers.

Poor soil health limited the productivity gains expected from applying subsidized fertilizer, limiting the effectiveness of the subsidy program. Many smallholder farmers have either highly acidic soils or soils low in organic matter, both of which limit crops' response to inorganic fertilizer (Burke et al., 2016). For example, 57% of smallholders' largest maize fields have soils with a pH lower than 5.4 and 28% have organic matter below 1.4%, thresholds below which inorganic fertilizer is far less effective (Burke et al., 2016). Even when farmers accessed and applied subsidized inputs, poor soil health reduced both productivity gains and profitability, undermining the aim of improving farmer incomes and boosting food security (Resnick et al., 2016). Together, weak targeting, poor soil health, and persistent delays in the delivery of inputs limited productivity gains, despite the large volume of fertilizer and improved seed distributed (Mason et al., 2013).



Concerns regarding targeting and modest gains in productivity raised questions about the financial sustainability and value for money of the program. The FSP/FISP accounted for 30%–40% of Zambia’s total agriculture budget between 2004 and 2011 and almost half of the agricultural spending dedicated to poverty reduction (Mason et al., 2013). Given the high fiscal burden and limited productivity gains, it has been argued that alternative investments, including in soil management techniques, research, or extension services, could potentially generate more positive results (Resnick et al., 2016).

The Reform: The introduction of an eVoucher system

The persistent challenges outlined above prompted a series of reform efforts to improve the targeting, efficiency, and effectiveness of the FISP. A range of factors led to the government deciding to reform the FISP from the 2024/25 planting season. Increasing fiscal pressure saw the issue of subsidy reform escalated and prioritized within the government. The reintroduction of the eVoucher scheme was championed by President Hichelima, and the Ministry of Agriculture received support from both the Presidential Delivery Unit and the Jobs Accelerator Project in reforming the FISP (Presidential Delivery Unit, 2026).

From the 2024/25 planting season, the government transitioned away from direct input supply. With support from the World Bank, it reintroduced the digital eVoucher system originally piloted in 2015 (World Bank, 2026a). As of 2026, the eVoucher system covers all 116 districts (World Bank, 2026a). Smallholder farmers now make a small deposit at a bank and then receive digital eVouchers from the Ministry of Agriculture, delivered directly to their mobile phones, which they can redeem for inputs at accredited private agrodealers (World Bank, 2026a).

By allowing farmers greater flexibility to choose, the reform also aims to encourage greater crop diversity (Ndhlovu & Muchapondwa, 2025). This emphasis on diversification aligns with the broader objectives of the Comprehensive Agriculture Transformation Support Programme, which was launched in 2023, promoting crop diversification, expanded extension services, improved access to farmer credit, and investments in mechanization and irrigation. Transitioning back to distributing inputs via private agrodealers, as opposed to government-led procurement and distribution, also addressed concerns regarding accessibility for poorer and more rural farmers.

Concerns regarding the targeting of input subsidies led to a shift toward a digital registration and verification system for farmer support. This reform aimed to reduce the inclusion of “ghost” farmers and limit rent-seeking behaviour by strengthening the enforcement of eligibility under the FISP. Central to this change was the introduction of the Zambia Integrated Agricultural Management Information System (ZIAMIS), a digital database of farmers, and the 2024 launch of the electronic Know Your Customer (e-KYC) platform. Developed by SMART Zambia (the Government of Zambia’s digital transformation program), these digital tools support improvements to digital identity verification and ensure only eligible farmers are registered on the platform and can access subsidized inputs under FISP.



Farmers benefiting from the reformed FISP are now required to sell any surplus maize to the Food Reserve Agency once household food security has been met (Ministry of Agriculture, 2024). This helps identify farmers who are actively applying subsidized inputs.

Box 5. Soil health mapping in Zambia

Although improving soil health is not yet an explicit objective of FISP reform, the introduction of greater flexibility for farmers to choose inputs creates opportunities for integrating soil-health-focused support into future subsidy design. This can be built on in future reforms by including data on soil health, currently being collected by the Zambia Agriculture Research Institute. Soil health mapping undertaken by the Institute has so far resulted in the provision of lime through the FISP in eastern Zambia. However, the completion of nationwide mapping and the development of a digital soil health management system by 2027 should facilitate the development of a FISP that better responds to farmers' individual soil and soil health needs.

Early Results

The transition to eVouchers has helped address the poor targeting of beneficiaries under previous iterations of the FSP/FISP. The paper-based system previously used frequently resulted in “ghost” farmers being registered as FISP beneficiaries, resulting in inputs being diverted away from intended beneficiaries. Transitioning to a digital eVoucher system, together with the introduction of the ZIAMIS digital farmer database and the e-KYC platform, has helped remove “ghost” farmers from the system and ensure more support is reaching smallholder farmers (Presidential Delivery Unit, 2026; World Bank, 2026).¹

The eVoucher system has also supported increased private sector participation and job creation in the food and agriculture sector, with positive knock-on impacts on rural economic growth. Data from both the World Bank and the Government of Zambia show that, by transitioning to distribution through private agrodealers, the most recent FISP reforms have helped create input markets and supported the creation of over 5,000 jobs among agrodealers nationwide (Presidential Delivery Unit, 2026; World Bank, 2026). This allows the government to leverage its agriculture budget more strategically, to support a broader range of outcomes beyond FISP's core remit.

As part of efforts to better target support under the eVoucher system, the government is working with women farmers' cooperatives and associations working on the welfare of disabled persons to improve their registration and participation in the program (Presidential Delivery Unit, 2026). As a result, some farmers with disabilities report improvements in accessing the program and inputs (Presidential Delivery Unit, 2026). However, early evidence on improvements to the targeting and delivery of support to smallholder farmers, as well as whether the new model is reducing travel distances for more rural farmers, remains anecdotal

¹ Work to “clean” the ZIAMIS database is ongoing, as not all data in the system has been verified at the time of writing. However, an additional benefit of transitioning to a digital system has been a reduction in staff time required to oversee the FISP, improving efficiency at both the national and regional levels.



at this stage. More data is needed on the true impact of reforms on equity and inclusion outcomes, as well as on the quality of newer impacts delivered to farmers through FISP.

Despite greater flexibility, farmers are not consistently adopting alternative inputs (Ndhlovu & Muchapondwa, 2025). This suggests that expanding farmer choice alone may be insufficient to drive diversification where market incentives, awareness, and value chains remain heavily oriented toward maize production and the use of inorganic fertilizer.

At the time of writing, the FISP continues to represent a sizable fiscal burden upon the governments, despite reforms. While there should be savings on transaction costs due to private agrodealers assuming some of the functions previously carried out by the Ministry of Agriculture, the evidence does not yet confirm this.

Implementation Dynamics: Enablers and constraints shaping results

The implementation of the FISP reforms and introduction of a set of digital tools and platforms highlight a set of interrelated enabling factors, constraints, and trade-offs that shape the potential for scaling and sustaining future reforms.

Digital connectivity challenges in rural areas and low levels of digital literacy among both farmers and agrodealers initially restricted accessibility and uptake of the eVoucher system. These constraints compound one another. Limited digital infrastructure restricted farmers' and agrodealers' ability to access the eVoucher system, and low levels of digital literacy limited both groups' ability to engage with and use the system, even where connectivity exists. The government responded by constructing more towers in rural areas, which has improved connectivity and access; however, some parts of the country are not well covered, indicating that more investment in building mobile towers is necessary to ensure full coverage and accessibility in all regions. Capacity building has also been introduced to build the understanding of agrodealers, with the government providing support in accessing and using online systems. However, there is clearly a need for extension officers to provide similar support to farmers in understanding the new digital system.

Many agrodealers are financially constrained and rely heavily on support from the government to restock inputs. Any delays in the release of funding from the government mean delays in restocking and ultimately delays in providing farmers with the necessary inputs. These delays are not only financial but are also compounded by institutional challenges. Agrodealers communicate with the Ministry of Agriculture, which in turn needs to communicate with the Ministry of Finance regarding funding disbursement, creating multiple levels of communication. Liquidity challenges amongst agrodealers currently increase dependence on government processes, and administrative complexities then undermine the efficiency and effectiveness of these processes. Improving inter-ministerial communication or moving the FISP budget to the Ministry of Agriculture could help reduce unnecessary delays. However, strengthening agrodealers' access to finance must also be addressed to reduce dependence on government funding and ensure the timely delivery of inputs to farmers.



A lack of awareness amongst farmers of new types of support available to them under the reformed FISP, combined with constraints on the availability of certain inputs, limited uptake of inputs beyond the traditional inorganic fertilizer and improved maize seed. Not all farmers are aware of the flexibility the reforms introduced, and, as a result, are not making use of the opportunity to select inputs better suited to their individual needs. The availability of alternative inputs also remains uneven, with some agrodealers continuing to stock predominantly conventional input packages rather than a wider range of inputs. Farmers may also be reticent to shift production toward non-maize crops if markets for new crops are not assured or value chains underdeveloped. This limits diversification into a wider range of crops, undermining the FISP's ability to help farmers build resistance to climate impacts through farming crops less susceptible to drought. It also limits attempts to diversify diets and encourage the consumption of more fruits, vegetables, and legumes alongside maize. The result is that outcomes are currently shaped not only by the availability of alternative inputs but also by constraints on the information being shared with farmers and broader market incentives. Increased investment in extension services and in developing targeted messaging for farmers can help ensure they receive information on the new types of support now available to them through the FISP.

Increasing fiscal pressure and the need to improve the efficiency of public investment forced the government to revisit FISP reform. This pressure ultimately resulted in the President himself prioritizing the reform of agricultural subsidies at a high level, and in the Presidential Delivery Unit supporting the Ministry of Agriculture in implementing reforms. Elevating the issue to the office of the president placed FISP reform at the top of the government's priorities and helped advance changes that had been rolled back following the 2015 reform efforts. However, political will and prioritization can only achieve so much without addressing the underlying institutional, infrastructure, and information constraints flagged above. For high-level political ambition on subsidy reform to translate into concrete results, these constraints need to be addressed in parallel.

Zambia's experience illustrates both the potential and the limits of market-oriented subsidy reform. Digitalization and private sector participation have improved targeting, transparency, and efficiency, while also generating broader economic benefits by working through agrodealer networks. However, the case also demonstrates that changing delivery mechanisms alone does not automatically transform agricultural systems. Persistent dependence on maize, uneven uptake of alternative inputs, and ongoing soil health constraints indicate that broader institutional, market, and behavioural changes are required for subsidy reform to support longer-term sustainability and resilience.



4.0 Lessons From the Case Studies

1. Reducing the price of agricultural inputs alone is insufficient to ensure equitable access; delivery mechanisms and targeting are equally important in determining who benefits from subsidy programs. Across all three countries, simply reducing the cost of agricultural inputs did not, on its own, result in equitable access for all farmers. In Kenya, the return to centralized distribution helped rapidly lower fertilizer costs for farmers; however, by concentrating distribution in fewer locations, it made it harder for farmers in more remote areas to access these inputs. In Malawi, delays in the delivery of inputs and instances in which inputs ran out and needed to be restocked added disproportionately to the transaction costs for more marginalized farmers, who are less able to absorb the costs of repeated travel and delays. Reforms that included improving targeting as a central objective typically performed better when it comes to improving access for poorer, more rural, and more marginalized farmers. This indicates that equitable access to subsidized inputs is shaped as much by delivery mechanisms as by the price of inputs, and targeting and barriers to access remain central for future reforms.

2. Soil health is key to agricultural productivity and the effectiveness of subsidy programs. Evidence from all three countries underscores the negative impact that degraded soils have not only on agricultural productivity but also on the effectiveness of the very fertilizer subsidies intended to boost productivity. Soils with low organic matter and high acidity significantly reduced the impact of inorganic fertilizer in all three countries, limiting yield gains despite substantial public investment. Malawi's soil health pilots show early promise that by broadening the scope of support to include blended organic-inorganic fertilizers alongside support for improved soil management practices, yields may increase, reflecting improvements to fertilizer effectiveness under better soil conditions. While long-term improvements to soil health and impacts on yields will only become evident in time, these initial improvements indicate that prioritizing soil health in subsidy programs can support yield gains and improve the efficiency of public investment.

3. There are important trade-offs between subsidy programs to address short-term crises and programs intended to drive long-term system change. In Kenya, the NFSP-2 reform illustrates clearly how centralized subsidy programs, with procurement and distribution controlled directly by the government, can rapidly stabilize prices in times of crisis. However, equally clear is that this can come at the expense of other sustainable development outcomes, in this instance at the expense of earlier progress made on equity and inclusion and longer-term sustainability considerations, such as soil health. Malawi's soil health pilots, in contrast, take a slower approach, with a focus on data generation to inform longer-term system change and environmental sustainability, but which will deliver slower results given the time required for behavioural and system-level changes. The case studies highlight a tension between reforms for rapid results and those intended to support the long-term transformation of agriculture and food systems. In designing future reforms, this highlights the need to find a balance between achieving swift improvements to some development outcomes (e.g., food security) and longer-term sustainability and resilience.



4. Digitalization can improve targeting and efficiency of subsidy programs, but can introduce new barriers to access. The introduction of digital tools plays a significant role in improving the effectiveness, efficiency, and transparency of subsidy programs. The introduction of digital farmer registries and eVouchers can help eliminate “ghost” farmers, reduce rent-seeking behaviour, and improve targeting of subsidies, in turn ensuring more support reaches intended beneficiaries and reducing financial losses. However, in both Malawi and Zambia, the introduction of digital technologies introduced new challenges. Limited digital literacy and challenges accessing and using digital tools and platforms amongst both farmers and agrodealers, as well as connectivity issues in rural areas, risk excluding certain stakeholders and limiting uptake of subsidized inputs. The evidence highlights the role of complementary investments in digital infrastructure and in capacity building and user support if these tools are to be inclusive.

5. Effectiveness of subsidy programs is contingent on complementary policies and frameworks. It is clear across all three countries that the impact of subsidy programs and of reforms is heavily influenced by the broader policy and institutional landscape. Limited awareness amongst farmers of changes under reforms restricted the uptake of new inputs and practices. In parallel, continued dominance of traditional staple crops and limited market incentives for farmers to produce and sell new crops disincentivize diversification, even when farmers are given more choice under reformed subsidy programs. These challenges are compounded by broader structural constraints, such as tenure insecurity and access to finance for agrodealers. All three case studies demonstrate that reform efforts do not take place independently of broader policy, legal, and institutional frameworks; rather, they underscore the importance of factors such as access to land, regulatory standards and frameworks for inputs, the provision of extension services, and the creation of markets for new or traditional crops other than staple crops.

6. Subsidy reforms are shaped as much by fiscal constraints and crisis response efforts as by long-term policy objectives. In all three countries, external pressures were instrumental in driving reform, alongside longer-term, strategic objectives. In the case of Kenya, concern about global price shocks on international markets was the key factor shaping policy decisions. In Malawi, it was fiscal and foreign exchange pressures, and in Zambia, debt reform and external conditionalities. This indicates that subsidy reform often arises from—and is steered by—crises and constraints as much as sustainable development plans and priorities.

7. Subsidy reform is often incremental, overlapping, and non-linear, rather than a wholesale transformation. Across the three countries, reforms built on existing systems, combining elements of old and new approaches. This results in hybrid systems where improvements in targeting or delivery coexist with continued reliance on conventional input subsidies.

8. The scope and ambition of subsidy reforms are strongly shaped by political constraints. Measures that improve efficiency or reduce leakage are often more politically feasible than those that fundamentally reallocate support or challenge existing production systems, which often face greater political resistance due to their more pronounced distributional impacts. This helps explain why sustainability-oriented reforms remain limited or are pursued through incremental or pilot-based programs.



5.0 Policy Recommendations for Future Reforms

The crosscutting lessons from Kenya, Malawi, and Zambia highlight a set of recurring constraints and trade-offs in agricultural subsidy reform, including challenges related to equity, soil health, implementation capacity, and political feasibility. The recommendations below translate these lessons into actionable priorities for governments, civil society, and development partners.

5.1 Policy Recommendations for Governments

Integrate soil health into subsidy programs, including investment in soil testing, organic and inorganic-organic inputs, and integrated soil fertility management. This investment should be paired with support for extension services and farmer training on soil management practices, tailored to the individual needs of farmers and their soils. Where possible, governments should support pilot projects to generate data on how specific policies and investments impact soil health, ensuring future reforms are evidence based.

Design subsidy programs to facilitate equitable and inclusive access. This could include, for example, conducting stakeholder consultations in advance of reforms to understand the barriers to access faced by farmers. Attention should be taken to ensure all farmers are well represented in these discussions, especially the poorest and most marginalized, for example, women, youth, and disabled farmers. In designing reforms, price reductions need to be complemented by delivery mechanisms that reduce barriers to access (both physical and digital) for poorer and more remote farmers. Governments should also consider introducing eligibility criteria to specifically target smaller-scale farmers, women farmers, and rural farmers and monitor their uptake of subsidized inputs.

Strengthen complementary policy and legal frameworks alongside subsidy reform. Depending on the country context, this could include strengthening land governance and tenure security to encourage farmers to adopt sustainable practices with benefits which accrue over longer time periods. It could also include developing regulatory standards for organic inputs, to ensure farmer confidence in newer, more sustainable inputs, the development of markets and market incentives alongside raising public awareness and demand for a wider variety of crops, to encourage diversification of crops produced and of diets. Or the reform of seed laws, to enable farmers to trade seed locally, invest in community seed banks, and undertake participatory plant breeding.

Develop inclusive digitalization strategies, backed up with investment in capacity building and training. Where possible, governments should explore introducing digital farmer registries and eVoucher systems to improve targeting and transparency. The introduction of new digital tools and platforms should be supported with investment in training and capacity building for key stakeholders (e.g., agrodealers and farmers), as well as investment in necessary digital infrastructure to ensure connectivity and access in more remote areas. Complementing the rollout of digital tools and platforms, the development of a



monitoring framework can help the government track access and inclusion, ensuring existing inequalities are not exacerbated, and new ones do not emerge.

Strengthen farmers' financial resilience, including through better integrating agricultural subsidies programs with broader financial tools. This could include exploring how subsidy programs can be paired with grants or low-interest loans, as well as partnerships with savings and credit cooperatives. Targeted social protection measures may also be needed to support farmers transitioning toward a greater use of organic inputs, recognizing that degraded soils can take time to recover from years of chemical input use, and yields may temporarily decline. Improving access to finance for farmers can help support investment in soil health and reduce dependence on input subsidies over time.

Be prepared to act when windows of opportunity for reform open. Shifts in the policy landscape that create space and opportunity for reform are hard to predict; however, governments can ensure they are ready to act swiftly if and when such a window opens (for example, collecting data to understand the scale and scope of inefficient or harmful subsidies in need of reform). This can be complemented with research and consultations to identify evidence-based reform options and efforts to understand the main political economy challenges and vested interests that will need to be addressed to build political will for reform.

5.2 Policy Recommendations for Farmers' Organizations and Civil Society

Strengthen the evidence base for sustainable subsidy reform, including generating and consolidating evidence on the impact and efficacy of sustainable practices, particularly for practices related to soil health and soil fertility management, such as the use of organic or bio-inputs. Helping to build a robust evidence base that speaks to local needs and experiences and demonstrates the effectiveness of sustainable practices and inputs can help shift the focus from short-term productivity gains to policies and support that prioritize longer-term resilience and sustainability in agriculture and food systems.

Support farmer training, extension support, and peer learning. Farmers' organizations and civil society have an important role to play in supporting governments and development partners in designing and delivering training and extension services that best address farmers' needs. This could include training in climate-resilient practices, soil fertility management, and sustainable input use, as well as support for peer-to-peer learning exchanges among farmers, to help address the limitations in awareness and uptake observed across all three case studies.

Advocate for inclusive access and accountability in subsidy programs. Ensure that marginalized farmers, such as women, youth, smaller-scale farmers, and farmers with disabilities, are included in both the design and implementation of subsidy programs. Civil society also has an important role to play in monitoring the implementation of subsidy programs, helping governments identify where barriers to access persist or where new barriers appear.

Support the development of standards for sustainable inputs. Work with governments, research institutions, and input suppliers to develop regulatory standards and certification



schemes for new inputs to guarantee consistent quality, as well as provide independent testing and validation of new inputs. Civil society and farmers' organizations can also help translate any technical guidance on how to use new inputs or practices into more accessible language for farmers. Civil society can also support peer-learning spaces or demonstrations of new inputs and practices to help build farmer confidence and encourage uptake.

5.3 Policy Recommendations for International Development Partners

Support pilot programs and evidence generation, with financing and technical assistance as appropriate. For example, support to governments, civil society and research institutes to trial and scale up alternative subsidy and incentive models, and to build the capacity of government and non-governmental actors to implement these models. This could take the form of funding for research into sustainable practices and inputs, support for extension services, assistance in developing digital tools and platforms, delivery of training for farmers, and helping governments integrate monitoring frameworks to track inclusion and impact.

Facilitate multistakeholder engagement in the reform process. International development partners are well-placed to convene multistakeholder workshops and platforms to bring together governments, farmers, research institutes, and civil society to co-design more sustainable subsidy programs, ensuring these are flexible and inclusive enough to address the needs of all farmers and improve coordination among different stakeholder groups.

Support the development of alternative markets and market incentives for crop diversification to ensure that diversification is economically viable for farmers. This could include investment in the storage, processing, and broader infrastructure for non-staple crops, such as legumes or agroforestry products, or de-risking instruments for private sector investments in new markets. It could also include support for governments to identify how public procurement processes; for example, school feeding programs can be aligned with sustainability objectives and create sustainable demand for new agricultural produce.

5.4 Crosscutting Recommendations for All Stakeholders

Improve the coherence of messaging on sustainable agricultural practices and on soil health. Governments should spearhead efforts to coordinate with civil society, research institutions, and international development partners to better align messaging on soil health, soil fertility management, and sustainable agricultural practices and inputs. Ensuring farmers receive clear and consistent guidance is critical to avoiding confusion and building trust in support for new inputs and practices.



6.0 Conclusion

Public support for agriculture is one of the most powerful policy levers available to governments in Eastern and Southern Africa to shape not only agriculture and food systems, but also to support broader sustainable development objectives. However, agricultural subsidy programs have historically faced challenges and trade-offs that risk undermining their efficiency and effectiveness and their ability to support countries' long-term development trajectories.

The three examples examined in this report, as well as broader research into public support to agriculture in low-income countries, illustrate how subsidy programs have historically delivered on short-term objectives, such as lowering the price of agricultural inputs and boosting the productivity of staple crops. However, it is also clear that these subsidy programs have frequently been poorly aligned with longer-term development objectives, including fiscal and environmental sustainability as well as equity and inclusion.

At the heart of this is not just how much countries spend on supporting their agriculture sector, but how this spending is structured and delivered. Emerging reforms in Eastern and Southern Africa show potential; however, success will depend on governments embedding reform efforts within broader investments in soil health, extension services, and inclusion. It also depends on developing or strengthening complementary policy and legal frameworks, such as guaranteeing land rights and the development of standards and regulations for new inputs, digital literacy, and infrastructure.

For those countries embarking on their own reform processes, the challenge is not only to increase spending on agriculture in line with regional targets, but to spend that money smarter. Governments need to design subsidy and support programs that strike a balance between securing food supply in the short term, while simultaneously building resilience, equity, and sustainability into agriculture and food systems in the long term.



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Published by the International Institute for Sustainable Development

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