

Using E-Vouchers to Improve Effectiveness of Input Subsidy Programs

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This note, prepared for the Impact Program’s learning, provides a brief overview of how e-vouchers can improve the effectiveness of input subsidy programs. It showcases recent experiences of SSA countries in implementing e-vouchers, highlighting key lessons on what has worked and not worked, and how e-vouchers should be designed and implemented.

Context

Input subsidies have long been a cornerstone of agricultural policy in SSA, intended to improve farmers’ access to fertilizers and seeds, raise productivity, reduce production costs, increase smallholders’ incomes, and enhance food and nutrition security. Input subsidy programs have been used extensively across the six Impact Program countries—**Ghana, Kenya, Malawi, Senegal, Tanzania, and Zambia**—with annual spending averaging about US\$560 million over the last three years, accounting for a major share of agricultural public expenditure.

Yet, despite significant investment, these subsidy programs have not delivered the desired outcomes as fertilizer adoption and agricultural productivity growth remain low. Moreover, these programs suffer from persistent structural weaknesses including poor targeting, elite capture, lack of transparency, delays in input delivery, private sector displacement, and high fiscal costs. In many countries, these weaknesses are compounded by centralized procurement systems, weak beneficiary registries, and limited accountability for delivery performance. As a result, the efficiency and political sustainability of subsidy programs are increasingly under strain.

Improving the design mechanisms of these subsidy programs is crucial for improving their effectiveness to improve soil health and achieve much-needed sustainable agricultural productivity growth. In addition, it is equally critical to improve the delivery mechanism of this support to make it more efficient and reduce the fiscal burden on already debt distressed countries. E-vouchers offer a promising solution by leveraging digital platforms to overcome the core challenges of traditional programs. They enable precise targeting, reduce fraud, leakages, speed up input delivery, foster private sector engagement, empower farmers with choice, and improve cost-effectiveness.

What are E-Vouchers?

E-vouchers are a digital delivery mechanism for input (and potentially other) subsidies, using ICT connectivity to transfer support directly to targeted farmers in a predictable and transparent manner. Beneficiaries redeem e-vouchers for inputs at accredited private agro-dealers. Key features include digital platforms for registration, voucher issuance (via SMS, e-wallets, or smart cards), and transaction tracking; a mix of inputs for crop diversification; farm registry databases with unique IDs and geo-referencing; and a network of accredited suppliers/agro-dealers authorized to redeem vouchers and supply inputs, with some redemption flexibility.

Recent Experience and Lessons Learned

E-voucher programs have been piloted and scaled across several countries in SSA, each offering valuable lessons. In **Kenya**, the National Value Chain Support Program transitioned from direct government input distribution to a digital, market-driven approach, reaching over 1.4 million smallholder farmers and improving efficiency, private sector engagement, and productivity. Over three years, farmers' subsidy levels declined from 60 to 10 percent to promote commercial market integration. Inputs were distributed through a network of prequalified private agro-dealers, reimbursed in real time by commercial banks. The program was widely recognized for enhancing efficiency, private sector engagement and market access.

Zambia's recent scale-up of e-vouchers enabled timely delivery of inputs to 97 percent of farmers, with 96 percent reporting improved yields, and 97 percent confirming access to high quality inputs. In West Africa, pilots in **Mali** and **Guinea** demonstrated improved targeting and transparency, with notable participation by women, though challenges such as low literacy and weak mobile infrastructure persisted. **Uganda's** Agriculture Cluster Development Project used time-bound, diminishing e-vouchers to achieve significant productivity gains and high farmer satisfaction, while **Mozambique's** pilots increased adoption of improved seeds and fertilizers, especially among women and smaller farmers. These experiences highlight both the potential and the practical considerations for successful e-voucher implementation in the region.

Design and Implementation Considerations

Successful e-voucher programs require attention to several key design features and best practices:

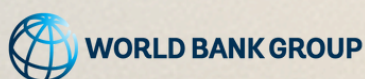
- **Clear program objectives and targeting:** Define goals (poverty reduction vs. productivity growth) and tailor targeting accordingly.
- **Crop diversification:** Include a range of inputs for a variety of crops to enable flexibility, crop diversification, and alignment with different agro-ecological zones.
- **Robust digital farmer registry and inclusiveness:** Invest in inclusive, accurate databases with unique IDs and geo-referencing. Design eligibility and input packages to reach women and address barriers to participation.
- **Adapt technology to user needs:** Use appropriate delivery mechanisms (e.g. voice messaging or Near Field Communication (NFC) cards) for local contexts and ensure accessibility for women and marginalized groups.
- **Strengthen private sector capacity and engagement:** Train and support agro-dealers in inventory management, finance, and customer service. Involvement of private sector actors in the design and implementation planning.

- **Ensure timely procurement and delivery:** Align administrative and budget processes with the agricultural calendar to avoid delays. Delays in input subsidy programs—mainly due to procurement bottlenecks and agro-dealers adapting to new systems—often led to farm inputs and e-vouchers arriving after the season began.
- **Invest in monitoring and evaluation:** Use real-time data to track delivery, assess impact, and inform adaptive management.
- **Political and fiscal commitment:** Secure high-level buy-in and plan for the fiscal implications of scaling up or phasing out subsidies.
- **Plan for sustainability and graduation:** Design time-bound, diminishing subsidies with clear exit strategies and complementary credit or extension support.

E-voucher schemes can face several challenges, including **low digital and general literacy**—especially among women and marginalized groups—can limit the use of SMS or PIN-based systems; **limited mobile phone access and poor network coverage** in rural areas can exclude intended beneficiaries; **high start-up costs** for digital platforms, farmer registration, and dealer training pose financial obstacles; **weak government institutional capacity** can lead to reliance on external providers; **procurement and logistical delays** may still cause late input delivery, reducing the benefits of digital systems; **political resistance** from vested interests and fiscal sustainability concerns, and **gender disparities** in land ownership or crop focus can unintentionally exclude women.

Potential Impact and Next Steps

At the upcoming Impact Program learning event, participants will explore e-voucher input delivery, drawing on country experiences and technical deep-dives. The event will showcase lessons from recent pilots and scale-ups, best practices for design and implementation, strategies to boost soil health and food security, and develop concrete action plans to improve e-voucher delivery in fertilizer subsidy programs.



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