Future Agricultures

CAADP Policy Brief

Food and Hunger: Protecting Livelihoods Through Agricultural Growth

Agricultural growth is critical to reducing poverty and hunger. But even in Asia, where the Green Revolution drove economic development and reduced hunger, it is clear that growth alone is not sufficient to eliminate hunger and malnutrition.

The Comprehensive Africa Agricultural Development Programme (CAADP) Pillar III is a deliberate attempt to ensure that the agricultural growth agenda targets the chronically poor and vulnerable directly[1]. It focuses on ensuring that growing agricultural productivity, well-integrated markets and expanded purchasing power of vulnerable groups – central to the CAADP vision – combine to eradicate hunger, malnutrition and poverty.

The conventional view – that agricultural policies promote growth in yields and incomes, while social protection stabilises yields and consumption (when production falls) – is being challenged by evidence that both objectives can be achieved, for specific groups, through a single instrument. The new focus emphasises that vulnerable populations can both contribute to, and benefit from, agricultural growth.

This briefing paper draws on latest FAC research on achieving economic growth and poverty reduction objectives around three policy sets and asks:

- How can large-scale **agricultural input subsidy programmes** meet hunger and growth objectives?
- How can **social protection programmes** be designed to support agriculture-based livelihoods?
- Can **Home Grown School Feeding** deliver improved nutrition and locally driven development?

What are the lessons from input subsidy programmes in addressing hunger and growth?

Large scale input subsidies – particularly for fertilisers – are back on the agricultural development and food security agenda.

Conventional input subsidies - aimed at increasing productivity through adoption of new technologies - were abandoned under structural adjustment regimes as being ineffective and inefficient. Now interest in new 'smart' subsidies is being driven by: recognition that liberalised policies have failed to support staple crop production, political demands for subsidies, concerns over declining soil fertility, national and household food security objectives, and the potential of subsidies to provide social protection for poor recipients[2].

The new generation of subsidy programmes have broad objectives – food security (household or national), welfare of smallholders and input adoption. Programme focus, scale, operation and outcomes vary between countries (Table 1). Here we focus on the experience of Malawi which has attracted considerable interest and draw out possible lessons for input subsidy programmes elsewhere.

Features of 'smart' subsidies

- Promote fertiliser as part of a wider development strategy
- Favour market based solutions
- Promote competition in input supply
- Pay attention to demand
- Insist on economic efficiency
- Empower famers
- Include an exit strategy
- Pursue regional integration
- Ensure sustainability
- Promote pro-poor growth.

The Malawi experience of input subsidy programmes

Malawi has implemented a series of subsidy programmes over the past decade. Input 'starter packs' were distributed to all farm households following severe drought in the late 1990s, and then scaled down to a 'targeted input programme' for selected beneficiaries. Since 2005/6 the government has implemented a very large scale Agricultural Input Subsidy Programme[4] providing about 50 percent of farm households with vouchers for 100kg of fertiliser and small quantities of maize (and now legume) seed.

What constraints is the programme trying to address?

Rural development and livelihoods can become trapped in a vicious circle of low maize productivity and unstable prices:

- Continuous cultivation of maize on the same land without organic or inorganic fertilisers results in low yields (on poor soils), reducing people's ability to purchase inputs. Credit for inputs is often inaccessible.
- Low demand for inputs raises unit costs and deters suppliers in less accessible areas.
- Poverty and shocks – low yields, high food prices, sickness, loss of employment – constrain productivity and investment. Women are particularly vulnerable.
- 'Thin' maize markets can lead to fluctuating maize prices - adding to farmer risks.
- Government interventions – setting minimum or maximum prices, export bans, bans on private traders – can deter investment and market development, exacerbating the situation.

Inorganic fertilisers and hybrid and composite maize varieties are an important and, in principle, relatively simple way of increasing maize productivity. But increasing fertiliser use by smallholders faces problems of *profitability* and *affordability*. Improving *profitability* requires: lower fertiliser prices (through lower import/distribution costs or a subsidy), higher maize prices (which make net purchasers worse off), and/or greater efficiency in fertiliser use (raising grain output: N ratio). But changes to maize prices and improved fertiliser efficiency will not improve *affordability* of fertiliser for poor farmers. This requires low cost, accessible and viable financial services – difficult to achieve - and/or large reductions in fertiliser prices. This explains enthusiasm for agricultural input subsidies.

How has the programme performed?

Scale and logistics: The very large scale disbursement of subsidised fertilisers and seed to up to 3 million beneficiaries per year nationwide is a significant logistical achievement. Importation of fertilisers has been handled by parastatals – agrodealers have been largely excluded - limiting the development of a more sustainable input supply system.

Table 1: Experiences of four countries with input subsidies

	Malawi Agricultural Input Support Programme	Zambia FertiliserSupport Programme	Kenya National Accelerated Input Programme	Ghana
Year	2005 onwards	2002 onwards	2007 onwards	2008
Objectives:				
Food security	✓ Yes	✓ Later years	✓ Household	✓
Input adoption	✓ Remote, poor	✓ Remote area	✓	✓
Welfare	✓ Later years	✓ Limited	✓ Later years	✓ limited
Input supply system		✓	✓	
Political benefits	✓	✓	✓	✓
Design/implemention				
Recipient focus (actual)	Producers	Producer(+trader)	Producers/dealer	Producers
Product focus (actual)	Mainly staples	Staples	Staples	Staples(wider)
	National 1.5m<	National	<2.5m farmers	National
Subsidy per beneficiary	60-90% for 0.4ha	50% costs	100% for 0.4ha	50% costs
Volume inputs	220,000mt fert, seed	66,000mt pa ferts.	250,000 mt ferts.	30,000mt fert.
Voucher, distribution	Vouchers	Vouchers	Vouchers	Vouchers
Targeting	Poor productive	Farmers 1-5 ha	Resource poor	X
Supply system	Parastatal+private	Trader/agrodealer	Retail/agrodealer	Importers
Complementary policies	Some legume seed		Extension, stores	x
Outcomes				
Incremental input use	60-80% - fertilisers	<60%:s/holders	n/a	Where timely
Incremental production	30%increase maize	Could be more		
Output price changes	Policy managed	Policy managed		
Benefit:Cost ratio	Potentially >1	>=1.07		
Welfare impacts	Producer+consum.-			
Macroeconomic effect	Budget impact	Negative		Mainly negative

Meeting programme objectives: National maize production and productivity have increased significantly. This has contributed to increases in food availability, higher real wages, economic growth and poverty reduction. However, in recent years the programme has been hit by high international fertiliser prices, increasing costs and high maize prices - undermining food security and welfare improvements for consumers – who include the majority of Malawian smallholder farmers. Net benefits from the programme are broadly positive, but could be improved substantially if fertiliser prices or imports fall. Targeting to poorer households has improved with open community meetings for allocating vouchers.

Lessons – conditions for success

Experiences from Malawi and elsewhere show that large-scale subsidy programmes can realise potential benefits – under the right conditions and if well designed and implemented:

- **Focus** – should be on inputs for staple crops with high response to input use, and where the subsidy relieves profitability and affordability constraints to input use.
- **Scale** – needs to be large enough to positively affect prices of staples and/or labour, but limited so affordable and do not crowd out investment.
- **Rationing and targeting** – required to limit costs and ensure subsidies reach producers who cannot otherwise afford inputs.
- **Innovation** - in technology and systems to improve efficiency and effectiveness and keep ahead of fraud and distortions
- **Input supply systems development** – support for public-private sector dialogue and policies to foster private sector investment.
- **Monitoring, information and auditing** – to control fraud and encourage effective involvement of public, private, civil society and political stakeholders.
- **Macroeconomic management** – should promote good conditions for investment and growth, and budgetary resources for agriculture.
- **Political commitment** – essential to mobilise the sizeable resources needed for a large-scale subsidy programme, whilst avoiding patronage traps.
- **Flexibility** – is required to adjust to changing prices, weather and economic conditions.
- **Complementary policies and investments** – in infrastructure, staple markets, integrated soil fertility management, agricultural research and extension, and rural diversification are needed to realise productivity, market and economic impacts of large-scale subsidy programmes.

How can social protection support agricultural-based livelihoods?

Smallholder agriculture is widely recognised to be central to rural livelihoods and therefore indispensible to food security and poverty reduction. At the same time, the multiple risks and vulnerabilities facing smallholders are increasingly recognised. New policy frameworks offer different responses to different types of risk: investment in crop protection, irrigation, market stabilisation, cash transfers and so on.

Reducing risk in smallholder farming requires policies to promote agricultural development and policies to create an enabling environment for agriculture; while managing risk in smallholder farming requires social protection policies – which can also contribute to reducing risk. Social protection and agricultural policies interact in different ways – creating synergies or conflicts. Where social protection measures make it possible for poor people to expand their assets, use them more efficiently and adopt activities with higher returns - there should be strong synergies with agricultural development. Reverse synergies can also happen if agricultural policies help farmers improve their livelihoods and reduce vulnerability. But conflicts can occur if policy objectives are incompatible.

Synergies and conflicts between social protection and agriculture

Policy instrument selection Social protection can: i) alleviate cash constraints, enabling smallholders to purchase farm inputs and assets using social transfers; ii) generate multiplier effects through local sourcing, such as school feeding schemes (see below); iii) generate multiplier effects through cash transfers which are spent on goods and services, creating jobs and income (sometimes after an initial inflationary effect).

Seasonality i) Agricultural production seasonality - which causes seasonal hunger and under-investment on small farms - can be tackled through productive safety nets e.g. inputs-for-work. ii) Commodity price seasonality - which raises food costs and causes 'distress sales' - can be addressed by food price indexation or index-linking cash transfers to food prices. iii) Labour market seasonality - which creates conflict between on-farm and off-farm demand for labour - can be reduced by demand-driven employment guarantee schemes.

Thresholds and scale effects i) Market failures - caused by low levels of market activity, high marketing costs, poor contract enforcement

and supply chain failures – can be addressed by market information systems and strengthening institutions. ii) Vicious cycles of low economic activity may require interventions until economies of scale are achieved.

Policy complementarities and sequencing Where markets are weak and vulnerability is high, social protection must be part of a sequenced approach to small farmer development: i) Immediate: Where there are no effective markets, social safety nets must be in place. ii) Medium term: Develop markets and infrastructure but maintain market-sensitive social protection measures. iii) Long-term: When markets and traders are well established and rural infrastructure is in place, market-based policies can promote food security and growth.

Predictability and risk-taking Agricultural investment and moderate risk-taking by poor farmers can be encouraged through provision of an effective safety net or social insurance against future shocks. Possible interventions include: i) predictable social transfers, ii) employment guarantee schemes, iii) weather indexed agricultural insurance schemes.

Targeting Who should be targeted for public support: the poorest farmers (to protect subsistence consumption) or less poor farmers (to promote agricultural growth) or both? The solution may be different instruments for different target groups: predictable social transfers to the poorest, seasonal food/cash-for-work for other poor households 'hanging in' and weather-indexed crop insurance for the transient poor 'stepping up' their livelihoods[5].

Political economy Policy selection involves both economic and political decisions by government and donors. Many political obstacles remain to expanding social protection: i) fears of 'dependency', ii) perceived 'unaffordability' of social transfers, iii) perceptions of the 'undeserving poor', iv) donor ideologies (e.g. anti-subsidies). Solutions include: i) co-responsibility – imposing conditionality on social transfers, ii) graduation – transfers must generate income growth for some farmers, iii) social protection as a right of citizenship. Involving different farmers and other stakeholders in designing, financing and delivering interventions is important. Governments and donors also need to consider the sustainability of their commitments to farmers and their exit strategies if they cannot pledge long-term support.

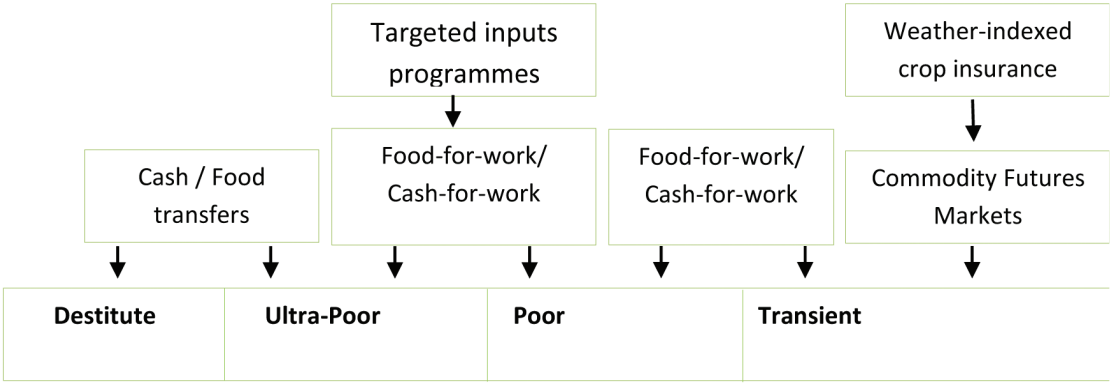
Trade-offs To maximise synergies and minimise conflicts between agricultural and social protection polices a series of trade-offs must be negotiated:

1. Low food prices (good for social protection) versus higher food prices (good for agricultural production)
2. Subsidising access to food (social transfer) versus investing in food production (input subsidies)
3. Promoting agricultural livelihoods versus facilitating diversification out of agriculture
4. Permanent programmes versus temporary programmes with exit strategies.

Exploiting welfare and growth synergies – policy lessons

- ***The appropriate mix*** of policies and instruments to achieve livelihood protection and livelihood promotion in poor farming communities differs between countries at different stages of development. Market-based solutions which work well in countries experiencing growth and transformation may not work in low-input, low-output economies.
- **Adaptability and flexibility** – policy makers need to respond flexibly to changing circumstances by adapting policy mixes. For instance, food aid might be an essential social protection instrument at one point, but may slow growth if it becomes institutionalised.
- **Continuity and stability** – small farmers, traders and rural service providers need stable policies for investment and growth. Policy uncertainty undermines market development.
- **Capacity building** – policy makers and managers need the right information and analytical skills to: assess what mix of interventions is required, select the most appropriate instruments, design and deliver agricultural and social protection programmes effectively and adapt these as circumstances change, without undermining the confidence of farmers and markets.

Figure 1: Targeting social protection interventions to different poor households



Source: Adapted from Slater, 2007

School Feeding Schemes – Exploiting Synergies

School feeding schemes are potentially powerful instruments for exploiting synergies between social protection and agricultural development policies – generating multiplier effects through local sourcing. Direct benefits include: i) improved child nutrition, ii) insurance against consumption shocks and iii) more children in school. A well designed school feeding programme can achieve positive synergies: i) educated farmers are more productive ii) local purchase of food commodities provides market outlets and production incentives for farmers in the area. But there may also be potential conflicts through reduced labour for agriculture and food price impacts.

Can school feeding programmes deliver nutrition and local growth?

Home grown school feeding (HGSF)[6] is attracting increasing interest alongside policy debates on agricultural development and social protection. It attempts to link – actively and explicitly - agricultural development with school feeding, through the purchase and use of locally and domestically produced food.

Narratives behind HGSF

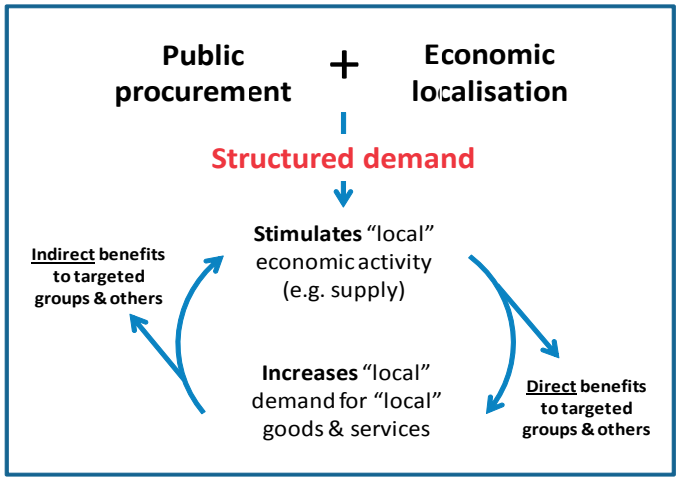
Arguments behind the HGSF narrative on agricultural development appear to run thus:

- The agriculture sector and livelihoods of small-scale farmers can be transformed through better ***engagement with markets***.
- However, potential for ***transformation is constrained*** by input and output market failure, poor infrastructure and low uptake of productivity-enhancing technology.
- By ***'structuring' demand*** to make it easier, less risky and more profitable for small-scale farmers to engage with markets (e.g. through interventions to reduce entry barriers and costs) and by providing complementary services (training, credit, access to technology), school feeding programmes can be used to kick-start market-based transformation.

Plus an additional argument on ***localisation and public procurement***:

- The public sector can be used to stimulate 'local' supply which in turn creates new demand for local goods and services. In theory, once established, this cycle becomes stronger and self-sustaining.

Figure 2: The localised public procurement model



Issues and questions for HGSF

A number of issues arise around the steps linking school feeding and agricultural development and the implications for programme design:

- ***Context and scale***: The process of establishing the virtuous circle through HGSF, if not handled carefully, could result in large negative impacts: if the programme's demand for food is large relative to the 'local' market and supply of food cannot be increased immediately, prices could rise, with negative consequences for local people. Context and scale must figure prominently in programme design.
- ***Multipliers and spin-offs***. Direct benefits can arise from the expenditure on food purchases creating increased demand and marketing and income opportunities for food producers and suppliers. Indirect effects on the local economy may be widely distributed and develop over a long time frame. An important question is whether these spin-offs reach specified target groups (smallholder farmers) as well as provide a stimulus to local dynamism and long-term agriculture development (Figure 2).
- ***Devolution and structured demand***. Devolving purchasing to school level may give a sense of 'local ownership', but a single buyer cannot exercise much control in the market - breaking the link between HGSF and agricultural development. A number of schools purchasing together (or for a whole year) would be in a much stronger position to set the terms (origin, quality, lot size etc.) i.e. 'structure' demand.
- ***Primary objective*** of an HGSF procurement system must be reliable supply of safe, appropriate food at low cost. Stimulating agricultural development may not be realistic as a primary objective.
- ***Coordination and delivery***. Benefits of HGSF for agricultural development will be limited unless there is an accompanying increase in productivity. This depends on improved access to information, training, technology, inputs and production credit (supply-side strategies).

HGSF – an untested solution

HGSF is a relatively new and untested intervention with ambitious aims. It is not clear that successes from elsewhere (notably small and medium scale enterprises in Brazil) can be repeated by smallholder farmers operating under severe environmental and resource constraints in Sub-Saharan Africa. The challenge is to identify under what conditions, and for which groups of farmers HGSF is likely to be a cost-effective vehicle for livelihood transformation.

Key policy findings

- Large-scale agricultural input subsidy programmes can realise potential growth and welfare benefits – but only under the right conditions and if well designed and implemented.
- Social protection can deliver both agricultural growth and poverty alleviation if policies are designed to maximise synergies minimise conflicts between the two.
- Home grown school feeding programme's ability to provide social protection and contribute to locally-driven development depends on whether it can deliver positive synergies between the two and be cost-efficient.

Endnotes

1. CAADP Pillar III: Increasing food supply, reducing hunger and improving responses to food emergency crises. Framework for African Food Security. NEPAD March 2009.
2. Abuja conference – significant milestone
3. Morris M., Kelly V., Kopicki R. and Byerlee, D. (2007). Fertiliser use in African Agriculture. Washington DC, World Bank.
4. Now called the Farm Input Subsidy Programme
5. The three-step model of livelihoods strategies: hanging in-stepping up-stepping out (see Policy Brief 0)
6. HGSF Project is funded by the Bill and Melinda Gates Foundation and implemented by the Partnership for Child Development, Imperial College, London. Institute for Development Studies (IDS) is a project partner.

This CAADP Policy Brief was edited by **Kate Wellard** of the **Future Agricultures Consortium**. The series editor is **David Hughes**. Further information about this series of Research Updates at: www. future-agricultures.org / The **Future Agricultures Consortium aims** to encourage critical debate and policy dialogue on the future of agriculture in Africa. The Consortium is a partnership between research-based organisations across Africa and in the UK. Future Agricultures Consortium Secretariat at the University of Sussex, Brighton BN1 9RE UK T +44 (0) 1273 915670 E info@future-agricultures.org / Readers are encouraged to quote or reproduce material from Future Agricultures Briefings in their own publications. In return, the Future Agricultures Consortium requests due acknowledgement and a copy of the publication.

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