

PLANTING IDEAS

How agricultural subsidies are working in Malawi

By Blessings Chinsinga and Aoiffe O'Brien

Malawi is the most densely populated country in southern Africa. Without affordable fertiliser and other inputs, small farmers have struggled to grow enough food from over-cultivated soils. But after successive food crises, the government of Malawi acted against the advice of donors and many international experts to introduce a home-grown subsidy programme for smallholder farmers.

In this balanced and timely study, Blessings Chinsinga and Aoiffe O'Brien examine how agricultural subsidies can be made to work for rural populations. Despite fears of a return to the pervasive corruption, cronyism and waste which led to the abolition of agricultural subsidies throughout much of sub-Saharan Africa in the 1980s and 1990s, Malawi has set an important precedent.

The authors argue - plainly, and without jargon - that it is possible to design an effective and efficient subsidy for small farmers. While more remains to be done, Malawi's innovative voucher-based programme has brought bumper maize harvests and stable prices. Many more rural communities, in Africa and across the developing world, could benefit if the lessons of this study are taken up by governments, donors and policy makers.



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Cover photograph by Lewis Mudge

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Foreword

As a litmus test of attitudes to development and donor aid, few subjects are more revealing than the fiercely contested question: Are agricultural subsidies good for Africa? They have a chequered history, after all. In most sub-Saharan countries, state regulation of agriculture has led to cronyism, corruption and a very bad deal for the poorest farmers. No-one should pretend otherwise.

Nor is criticism of agricultural subsidies confined to people who insist rural populations would be best served by a genuinely free market. Too often, the benefits of subsidised fertiliser, seed and other inputs for subsistence farmers, have been undone by governments and greedy elites. For many decades, Africa's agricultural boards paid below-market prices for farmers' crops. In the commercial markets, middlemen have reaped the lion's share of the profits.

These injustices are mirrored in the global trading arena, where industrialised nations have rigged the market against those who need it most. Despite some progress to open western markets to more competitive exports from the least developed countries, rich nations spend almost a billion dollars every day – equivalent to the entire income of all African people – on subsidising production of unwanted food.¹ Notoriously, the bill includes US\$2 a day for every cow in Europe – and a lavish US\$4 for Japanese cows.

Recognising these failures, economists at the leading international development institutions have favoured a practical solution to what they saw as largely political problems. For the World Bank and International Monetary Fund, subsidies failed largely because people – and certainly politicians – are more fallible than markets. Donors' priorities have shifted accordingly: away from the dubious loyalties of

the Cold War, towards a new emphasis on better governance and economic liberalisation.

Malawi, one of the world's poorest countries and heavily aid-dependent, has followed this changing imperative – like most African countries, its leaders had little choice. Dismantling agricultural subsidies has been a first condition for international development assistance, including cancellation of its foreign debt. The consequences for rural populations were often catastrophic. Successive hunger crises culminated in the famine of 2005, when five million people needed food aid.

In response, Malawi's government introduced the voucher-based fertiliser subsidy which is the subject of this paper. The experiment is still at an early phase, but the results to date are encouraging. Soil, demographics and often climate are against Africa's smallholders; but with fertiliser and other inputs, these disadvantages can be overcome. Malawi's maize harvest in 2007 was the highest on record, bringing an end to dependence on food aid. A country with few natural advantages has become a net exporter of maize to its southern African neighbours.

The Agricultural Input Subsidy Programme (AISP) is not aimed at the poorest farmers: the most vulnerable are deemed unable to make optimal use of it. The immediate goal is simply to increase the *total* application of fertiliser, by providing adequate incentive for farmers with sufficient land and skills – but not money – to use it effectively. In so far as this has been achieved in Malawi, it is due in large part to the selective targeting of beneficiaries by means of vouchers – a mechanism with significant potential in Africa.

Malawi needs its parastatal institutions, but the role of the private sector remains vital if the wider economy is to build on the stimulus of improved maize harvests. Recent evidence suggests some adverse and

unintended effects: subsidised fertiliser has on occasion displaced the fully-priced, while some farmers regrettably have been tempted to plant new maize crops in place of unsubsidised alternatives. The ultimate goal must be to reduce dependence on subsistence crops, so that rural populations can pursue more promising livelihoods.

Authorities in Malawi acted boldly – initially against the advice of international agencies. Their achievement has given experts and foreign donors reason to think again; a revision led, in this instance, by Britain’s Department for International Development (DFID). More thought must be given to the long-term objectives of Malawi’s approach: amid shifting priorities, policy-makers should include price stability and a new emphasis on complementary strategies for economic development. But an important example has been set. Blessings Chinsinga and Aoiffe O’Brien demonstrate convincingly that subsidies for smallholder farmers must have their place in sub-Saharan Africa.

Mark Ashurst

Director, Africa Research Institute

Summary

This paper examines the role of fertiliser subsidies in Malawi, the world's fifth poorest country.² Malawians depend on domestic crops from over-cultivated soils. Recurrent poor harvests have had disastrous consequences for food security, but yields have improved significantly since the introduction of a government scheme to improve access to fertiliser by smallholder farmers.

- Malawi is the most densely populated country in southern Africa with 88% of its population living in rural areas.³ There is only one rainy season and one main harvest each year. Importing food is costly and complicated because the country is landlocked and infrastructure is underdeveloped.
- At least 2.8 million households depend on farming. The vast majority farm very small plots of land. Few of these can afford to invest in agricultural inputs or expect to produce a surplus for sale. Half of all rural households routinely face a shortage of food lasting up to five months, before the harvest in spring.
- Dependence on primary crops both worsens the impact of poor harvests and makes them more likely to occur. Lack of alternative livelihoods, combined with the small size of plots, compels farmers to cultivate maize on the same land year after year. Over-cultivation has reduced soil fertility.
- Fertiliser is the quickest and most effective method to increase soil fertility. But fertiliser use is low in Africa, by comparison with Asia and other regions. Prices vary widely by region, but unsubsidised fertiliser is beyond the means of most smallholders.

- Food crises in Malawi have coincided with attempts to phase out agricultural subsidies under policies of Economic Structural Adjustment and economic liberalisation favoured by foreign donors. In 2002, cutbacks to the ‘Starter Pack’ for smallholders were followed by famine.
- Fertiliser has become the most important issue in Malawian politics. Increased competition between political parties since elections in 2004 is reflected in rival promises to smallholders. All parties and political formations propose different, but consistently generous, methods of subsidising agricultural inputs.
- Subsidies are problematic and have been prone to corruption. They can hinder long-term development by distorting markets, crowd out private sector participation in the supply of agricultural inputs, and discourage diversification among farmers.
- The Agricultural Input Subsidy Programme (AISP), introduced in 2005, uses vouchers to provide a partial subsidy for fertiliser and other inputs, and to target beneficiaries. The programme favours poor farmers with the land and human resources to use subsidised inputs efficiently, when they could not otherwise afford to buy enough fertiliser.
- It is cheaper to subsidise fertiliser than to import food. AISP provides two vouchers for maize fertiliser to more than half Malawi’s smallholder households. One fertiliser voucher reduces the cash cost of a 50kg bag of fertiliser to 950 Kwacha, about a quarter of the commercial price. The programme absorbed almost half the ministry of agriculture’s budget in 2006/2007.
- There is room for improvement within the programme. More effective targeting would ensure that vouchers are not allocated to

farmers who would otherwise buy unsubsidised fertiliser. Political imperatives preclude any exit from AISP in the foreseeable future, but Malawi must also promote alternatives to farming.

- Despite weaknesses, the subsidy is a cost-effective way of feeding the population and averting the disastrous effects of food crises. AISP has improved smallholder access to fertiliser and to maize seed, and achieved higher yields. The 2007 harvest produced a record surplus of over one million metric tonnes of maize.⁴
- Donor collaboration can help. Despite initial reservations, support from DFID and the UNDP reflects a shift towards a more pragmatic, less ideological approach to international aid. Improved mechanisms to deliver agricultural subsidies are the best option to improve food security in Malawi.

1. Introduction

A nation of farmers

Malawi is an agrarian country. The vast majority of its people live in rural areas and depend on the land. The largest commercial farms, or estates, traditionally have grown cash crops for export – notably tobacco, tea and coffee. Most smallholders rely on a few staple crops – chiefly maize – to feed their families. But the population has grown, while smallholder plots have become smaller and less fertile.

Agriculture generates 83% of foreign exchange earnings, and 39% of gross domestic product (GDP). In contrast, manufacturing accounts for only 11% of GDP, of which just over a quarter is processing of agricultural products. 85% of Malawian households are smallholders.

Smallholders' dependence on staple crops was encouraged by colonial policies and entrenched, during the early post-independence period, by policies which favoured large estates over small farmers. From independence in 1964 to the late 1980s, development strategies focused on the growth of commercial farming.

In the 1970s and early 1980s, the key parastatal marketing and export agency, Malawi's Agricultural Development and Marketing Corporation (ADMARC), diverted profits from the sale of smallholders' crops to fund estates. These policies encouraged the expansion of estate land and banned smallholders from producing high value crops, including burley tobacco, tea, coffee and sugar.

The demographics of poverty

The land available for smallholder farming has been reduced, since independence, by transfers of land to estate farms. Over the same period, rising population density led to a reduction in the average plot size to less than 0.5 hectares. Malawi is the most densely populated country in Southern Africa, with annual population growth estimated

at 2.4%.⁵ Since 1964, the population has increased from about 3.9 million to more than 13.5 million in 2007.⁶

Harvests are dependent on rainfall, with farmers' options constrained by a lack of rural infrastructure. Only 14,000 hectares of smallholder land are irrigated.⁷ For the most part, small farmers depend on seasonal rains and are vulnerable to adverse weather. The rainy season, from around November to March, sustains only one annual harvest.

The economic reality is grim. By international measures, almost all Malawian smallholders are poor. According to Malawian criteria, 52% of the population are “poor” – defined as per capita income of less than US\$0.40 per day. At least 22% live on less than US\$0.26 per day and are classified as “ultra poor”.⁸

Importing food is costly and complicated: Malawi is landlocked and infrastructure is underdeveloped. Bad weather inflates food prices across the southern African region, making food imports still more expensive. Smallholders often supplement their own production with maize purchased at market, food donations or by participating in food-for-work programmes. Some may have a family member in employment who sends money home, while others seek employment at larger farms. In both instances, opportunities to earn a cash income are limited.

Non-food crops such as tobacco or paprika offer the prospect of cash earnings, with the potential to reduce dependence on maize production. But agricultural markets are volatile, and for subsistence farmers the risk of diversification is too great. For those smallholders who attempt to grow cash crops, a single year of low prices can be devastating.

For smallholders with slightly larger plots, staple crops remain attractive – and prudent. They act as a “safety net” when the market for cash crops is weak; or, conversely, when there is a shortage of maize

at the market, or if maize prices are high. The history of significant fluctuations in maize prices is a disincentive to diversify, and deters effective planning by farmers.

A farmer who ends the season with nothing to eat and no means to buy food has very little incentive to grow cash crops again.

Dependence on primary crops both worsens the impact of poor harvests and makes them more likely to occur. The scarcity of alternative livelihoods, combined with the small size of farms, compels farmers to cultivate the same crops year after year. Over-cultivation has reduced soil fertility, which in turn causes poor harvests.

The dispute over subsidies

Malawi's Agricultural Input Subsidy Programme (AISP) was launched in the 2005/2006 growing season, in the face of fierce opposition from donors and technical experts. Many feared a return to inefficiencies and corruption, after a period of concerted efforts to liberalise Malawi's economy. No donor supported the programme in its first year.

The failures inherent in state control of agriculture and marketing are clearly evident in much of sub-Saharan Africa. During the 1970s and early 1980s, fertiliser programmes in African countries contributed to fiscal deficits without generating sustained agricultural growth. International development agencies became wary of state subsidies for agriculture, because they are hugely expensive, prone to corruption and difficult to target.

However, the failure of donor-prescribed development programmes to help the most vulnerable smallholders encouraged a reconsideration of

fertiliser subsidies. The prescriptive liberalisation agenda favoured by multilateral donors throughout the 1980s and 1990s significantly reduced access to fertiliser and other agricultural inputs.⁹ In sub-Saharan Africa, the prospect of food security remained remote – for national governments and rural households alike.

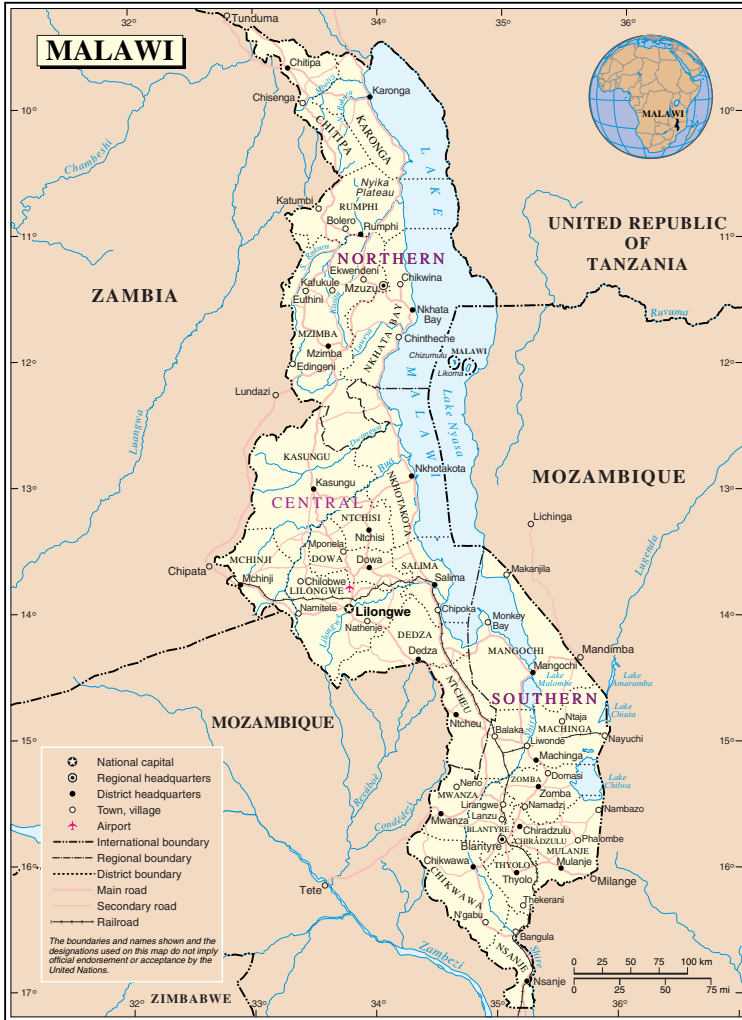
In Malawi, dependence on agriculture made the problem especially acute. Even at the best of times, when the annual harvest is good, about one million Malawians receive food aid. Any shock to the smallholder sector can lead to an exponential increase in hunger. By 2005, food insecurity had become endemic – rather than periodic. The poor harvest of 2004/2005 left five million people in need of food aid.¹⁰

The unprecedented impact on yield of the 2005/2006 AISP prompted a re-evaluation by foreign donors.

Malawi's AISP has improved food security and promotes agricultural development by using vouchers to provide a partial subsidy for fertiliser and maize seed to smallholders.

Britain's Department for International Development (DFID) and the UNDP agreed to co-operate with the government of Malawi in the second year of the programme. In 2006/2007, they sought to build on the achievements of the previous year while encouraging more involvement by the private sector.

The 2007 harvest yielded a record surplus of more than one million metric tonnes of maize – an example to the region, and an invitation to revise some of the conventional wisdom about the risks of agricultural subsidies in Africa.



Key Facts

- Population of 13,603,181
- Most densely populated country in southern Africa.
- Agriculture is the main source of livelihood for 85% of the population.
- GDP per capita is US \$800
- Average life expectancy is 43
- Under-five mortality rate is 118 per 1000 live births
- Prevalence of stunting (caused by malnutrition) in children under 5 is 45.9%

2. Why small farmers need subsidies

The case for fertiliser

Modern agriculture needs fertiliser. Plants need essential nutrients which can be provided by the soil, manure, compost or inorganic fertiliser. Poorer soils need nutrients to be introduced if they are to produce significant yields; but even good quality soils require additional nutrients when cultivated intensively. Lost nutrients must be replaced if the same land is to be farmed year after year.

Soil fertility can be improved by leaving land fallow, by crop rotation, and by applying manure, compost and inorganic fertiliser. However, although a combination of these is generally used, inorganic fertiliser is commonly considered the most important weapon in a farmer's artillery of nutrient-adding techniques. Manure and compost are an inexpensive source of nutrients if they come from a local source, but they are rarely sufficient to replace nutrients in very depleted soils.*¹¹

Africa accounts for only two to three percent of global fertiliser use.

Commercial agriculture uses fertiliser to increase yields, and consequently profitability per hectare. Large-scale farmers depend on fertiliser to cultivate efficiently, without leaving land fallow. Smallholder farmers use fertiliser for reasons of necessity, where plots are too small to leave portions fallow between cropping.

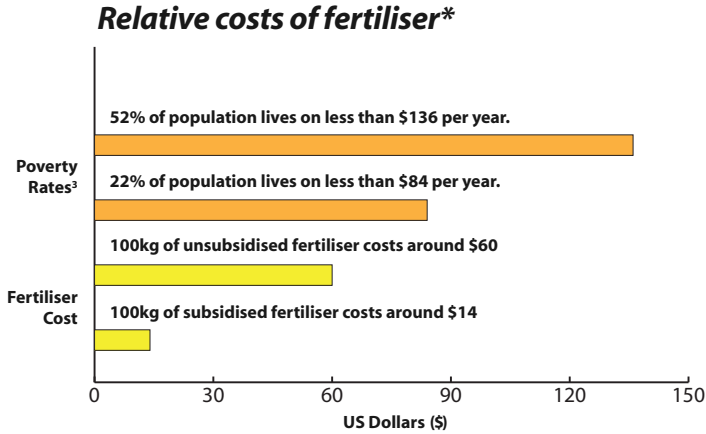
Soil depletion in Malawi

Malawi's soils are among the most gravely depleted on the continent. On average, the soil loses an estimated 100kgs of key nutrients – nitrogen, phosphorous and potassium (NPK) – per hectare per year.¹² Without the addition of nutrients, yields remain stubbornly low.

Malawi is experiencing excessive nutrient losses against the backdrop of rapidly diminishing average farm sizes. With fertiliser, one hectare

* When sold commercially organic fertilisers lose their economic advantage as large scale production of organic fertilisers requires mechanical and chemical preparation. They must be dried, mixed, complemented with nutrients and free of substances that might harm plants such as heavy metals or pathogenic germs.

of land can produce an annual harvest of 50-60 sacks of maize.¹³ Without fertiliser, the same land yields as little as four sacks – enough to feed an average family for about two months.



With only one main harvest each year, land at the disposal of the majority of smallholders is limited. Poverty and limited access to credit mean that most smallholders cannot obtain fertiliser without help. At around US\$30 per 50kg, the commercial price of fertiliser is beyond the means of most smallholder farmers. Even when fertiliser is added, the average plot yields barely enough to support a family.

Fertiliser in Africa

Low soil fertility is especially problematic in Africa, where continuous cropping of cereals without rotation has depleted nutrients. Poor conservation, a scarcity of legumes and inadequate use of fertiliser compound the situation. About 86% of African countries are characterised by nutrient deficits of more than 30kgs of nitrogen, phosphorous and potassium (NPK) per hectare per year.

Limited availability of water and the demographic pressures of a growing population have restricted crop diversification. In the absence of more sustainable land management, the estimated annual nutrient loss for sub-Saharan Africa is 7,629,900 metric tonnes. The replacement cost of lost nutrients using fertiliser has been estimated at about US\$1.5 billion per year.¹⁴

Increased use of fertiliser has been the most important factor in the significant growth in agricultural productivity in many parts of Asia, and elsewhere. Fertiliser prices have risen steeply since the 1980s; but in most of Africa, economic growth has not kept pace with the real cost of fertiliser. These – and other agricultural inputs – have become prohibitively expensive for most African smallholders.

Low agricultural productivity in Africa cannot be addressed without stimulating greater use of appropriate fertiliser. Policies are urgently needed to make fertiliser more easily available to subsistence farmers.

The economics of food security

Access to fertiliser is often a matter of life or death for Malawi's rural populations. In recent history, every reduction in smallholder access to fertiliser has coincided with food shortages. Malawi has experienced five severe food shortages since 1990 – in 1992, 1994, 1997/1998 and – the most severe – in 2001/2002 and 2005.

Food crises have a disastrous impact on the health of the population, followed by serious lingering consequences – economic, social and psychological. Hungry children find it difficult to concentrate in class, while hungry adults find it difficult to work. Pupils are withdrawn from school so that the fees can be spent on food. The rate of HIV infection increases in tandem with prostitution, deepening the epidemic in a country where 10% of the population is estimated to be HIV-positive.

“The scope for exploitation increases massively during a food crisis. There are desperate people who work for promises of food that never materialise and women who are forced into high risk sexual conduct.”*

Malawi's annual maize requirement has been estimated at 2.1 million metric tonnes.¹⁵ The food deficit in 2001-2002 was 570,000 tonnes, with more than 3.2 million people short of food. In 2005, the hunger crisis affected more than 4 million people, with a deficit of about 700,000 metric tonnes.**

Humanitarian aid only partly mitigates the effects of serious food shortages. Donations of food often arrive late, and distribution of food is often politicised – to favour regions or population groups. Food aid invariably triggers a variety of market-distorting side-effects, both for the commercial markets and government finances. By comparison with

28 * Anne Conroy, co-author of *Poverty, Aids and Hunger: Breaking the Poverty Trap in Malawi*. Interview with Aoiffe O'Brien, July 2007

** In its *Country Assistance Plan 2007-2011* DFID reported that a total of five million people received humanitarian food aid.

other interventions – and certainly, fertiliser subsidies – food aid is expensive.

In 2002, World Food Programme (WFP) spent US\$85.7 million on emergency food aid for Malawi. The government imported additional maize at a further cost of US\$67.4 million, funded by domestic borrowing and loans from international institutions. These obligations led to a 64% rise in the cost of servicing external debt during the 2003/2004 financial year.¹⁶

“Malawian farmers live on the edge of a precipice. Every time they fall off it takes time to recover. They must move away from the precipice in order to develop.”**

It is cheaper to subsidise food production than consumption. One dollar spent on food imports achieves only 30% of the benefit of one dollar spent on a production subsidy.^{*17} Food imports during the 2004/2005 hunger crisis cost MK13 billion (US\$93 million); this compares with MK7.1 billion (US\$51 million) spent on the 2005/2006 subsidy programme.

Improving smallholder access to fertiliser can foster wider development and innovation in agriculture. Although external shocks such as bad weather are unavoidable, adverse effects can be reduced by fostering a predictable market environment for farm inputs and crop sales. Vulnerable farmers need stability in order to contemplate the risks implicit in most longer-term development strategies.

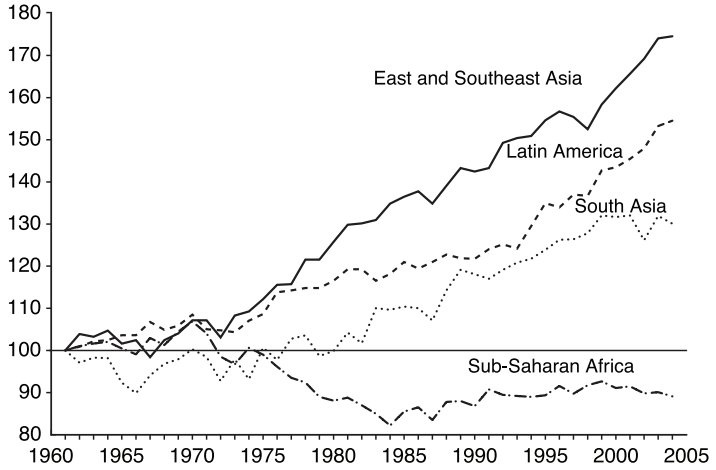
Subsidies are not a panacea for rural poverty in Malawi. Improvements in land management, infrastructure and irrigation will also improve

*A study in 2002 by the Institute for Global Economic Research, Surrey, estimated that importing one tonne of maize costs around US\$ 300 and feeds five families for 96 days. The same US\$ 300, however, could procure enough fertiliser to support 7 hectares of farm land, producing 13 tonnes of maize – enough to feed five families for 10 months.

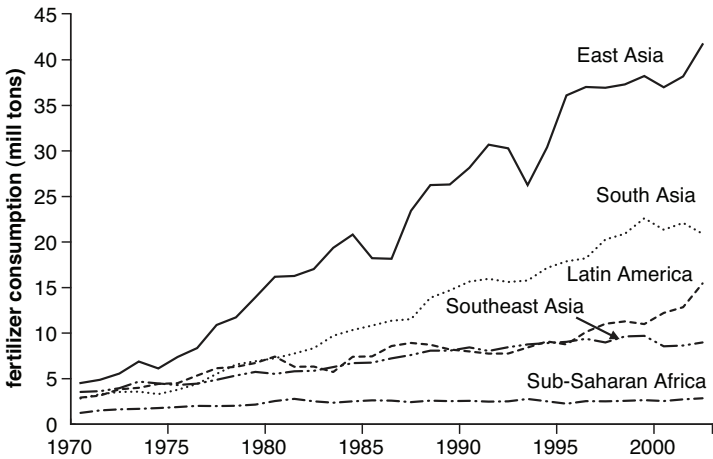
** Dr Harry Potter, former livelihoods advisor, DFID Malawi. Interview with Aoiffe O'Brien. May 2007.

Index of Food Production per Capita, 1961–2004

(1961 = 100)



Fertilizer Consumption, Developing Regions, 1970–2004



harvests, and remain important in the long term. But immediate solutions to boost productivity among smallholders are essential to avoid the disastrous consequences of food crises.

The government of Malawi is constrained by lack of resources and dependence on external support. Since the 1980s, successive administrations have relied on the sometimes unpredictable grace of donors to fund input subsidy programmes. Subsidies are vulnerable to corruption and maladministration, but they are cheaper than food aid.

The major disadvantages of subsidies:

- *High administrative costs, leakages and poor targeting.*
- *Political manipulation, especially where food security is a key political issue.¹⁸*
- *Misallocation of resources, ie: the inefficient substitution of inorganic for organic fertiliser, or the use of fertiliser on inappropriate land or crops.*
- *Damage to the private sector and market development, ie: state agencies can crowd out private sector suppliers, causing uncertainty in commercial markets.¹⁹*

The Agricultural Input Subsidy Programme (AISP)

Despite well-founded criticism that subsidies have in the past proved a grossly inefficient way to help the poor, the policy debate has evolved in Malawi. A significant consensus has emerged in recent years that the best – and only practical – option is to run a subsidy programme that minimises unwanted side-effects.

The main aim of the Agricultural Input Subsidy Programme is to boost national maize production by increasing the use of maize fertiliser and maize seed by smallholder farmers. It provides maize fertiliser

vouchers to about half of Malawi's smallholders. The secondary aim of kick-starting the rural economy is also served by a provision of smaller, but significant, quantities of fertiliser for tobacco crops.

The programme is designed to improve national food security, rather than to alleviate food shortages in every household. Vouchers are allocated to households with sufficient resources to make use of the subsidy, ie: farmers who can afford MK1,900 (US\$14; the subsidised price of two 50kg bags of fertiliser), with adequate land and family members to farm it. This excludes the poorest farmers.

Vouchers should *not* be given to smallholders who could otherwise afford fertiliser at a commercial price. The aim of the programme is to increase aggregate fertiliser consumption, not merely to replace commercial sales with subsidised fertiliser.

Recipients are entitled to some combination of the following vouchers:

- One seed voucher.
- One voucher for basal maize fertiliser and one voucher for top dressing maize fertiliser.
- One voucher for basal tobacco fertiliser and one voucher for top dressing tobacco fertiliser.*

In accordance with the overall priority of boosting food security, the prices of maize and tobacco fertilisers were differentiated in the first year of the programme. Subsidised maize fertilizers were sold at MK950 (US\$7) per 50kg bag, whereas tobacco fertilizers were sold at MK1,400 (US\$10) per 50kg bag.²⁰

Differentiated pricing was subsequently removed, after concerns that the comparatively low cost of maize fertiliser had encouraged farmers to apply fertiliser allocated for maize to tobacco crops. In the second

32 * Basal dressings are applied at the time of planting, while top dressings are applied later in the season. Each performs a different function and both are necessary to achieve any significant improvement in yield.

year, AISP provided both fertilisers at a market price of MK950. In 2007/2008, the programme priced both fertilisers at MK900.

Other modifications to the AISP in 2007/2008 were devised to encourage diversification into new crops. The subsidy programme has been extended to include pesticides for cotton and various legumes, which can help restore nutrients in soil. While beneficiaries continued to receive vouchers for both basal and top dressing fertiliser, a flexible seed voucher was introduced, enabling farmers to access seeds other than maize.

The results so far

Malawi and the donor community confronted a stark choice between subsidies and food aid. Contrary to the fears of the donors and technical experts, the decision by the government in 2005 to proceed unilaterally with a subsidy programme has brought substantial achievements.

The 2005/2006 maize harvest of 2.6 million metric tonnes²¹ was the highest on record, at least half a million tonnes greater than Malawi's annual requirements of 2.1 million tonnes. The surplus for the 2006/2007 growing season reached another record high, of 1.3 million tonnes – or 73% above the average harvest over the preceding five year period.

In 2006/2007, Malawi became a net exporter of food within the southern African region. Rather than depending on food aid, the government donated 10,000 metric tonnes of maize to both Lesotho and Swaziland. Exports to Zimbabwe, once known as the regional “bread basket” reached 272,000 metric tonnes, and are forecast to rise to 400,000 metric tonnes – a source of national pride in Malawi.²²

Indirect benefits are also evident. Lower maize prices resulting from successive bumper harvests have had a beneficial impact on the general

The link between ganyu and poverty has been weakened, reversing a vicious cycle of labour exploitation and food insecurity.²³

livelihoods of rural populations – including people who did not receive the subsidy. The improved agricultural economy increased the bargaining power of *ganyu* labourers (casual farm workers) to negotiate better wages.

Vouchers

The achievements of Malawi's programme owe much to the use of vouchers as a delivery mechanism. Although administratively onerous, vouchers bring some significant advantages by comparison with other methods of subsidy. In Malawi, they have enabled:

- Targeting of the subsidy to specific beneficiaries.
- Delivery of partial subsidies to a large number of recipients.
- Reduction of the scope for a parallel market in subsidised products, especially outside Malawi's borders.
- Inclusion of the private sector from the second year of the programme.

Vouchers can also provide a mechanism for controlling costs and allow a gradual exit strategy, where the value of the voucher is fixed. Fixed value vouchers were introduced in the seed subsidy from the second year of the programme, but the fertiliser vouchers guarantee a price at market rather than a reduction on the commercial price.

Evaluation of the 2006/2007 Agricultural Input Supply Programme

An evaluation of the 2006/2007 Agricultural Input Subsidy Programme, funded by USAID and DFID, was carried out by a team of researchers led by Professor Andrew Dorward, from the University of London, and Professor Ephraim Chirwa, from the University of Malawi. Their report considers every stage of the design and implementation process of the AISP.

Notable achievements identified by the report were:

- The procurement and distribution of a large quantity of fertiliser.
- The development and implementation of new distribution systems involving government and the private sector.
- The sale of nearly 175,000 metric tonnes of subsidised fertiliser and over 4,500 tonnes of subsidised maize seed.
- Higher wages for informal farm labourers.
- A record maize harvest.

Problems identified by the report were:

- Unclear objectives and targeting criteria.
- The late deliveries of inputs and vouchers.
- Regional imbalances in voucher allocations.
- Displacement of commercial sales by voucher sales.
- Communications activities that focused on planting methods at the expense of explaining the processes of the subsidy programme.

The report also noted that it is difficult to establish to what extent increased maize production, in the 2005/2006 and 2006/2007 seasons, has been due to the subsidy programme or to good weather. It estimates that the subsidy programme had a positive impact on maize production in the range of 15-22% of total production.

Source: Dorward, A., et al., 2007, *Evaluation of the 2006/7 Agricultural Input Supply Programme, Malawi*. Undertaken for the Ministry of Agriculture and Food Security. Imperial College London, Wadonda Consult, Michigan State University, Overseas Development Institute.

3. A short history of fertiliser subsidies

Malawi has balanced precariously on the edge of famine since the late 1980s, often falling over the precipice. The government and donors have responded with a variety of interventions to subsidise seed and fertiliser, with intermittent measures to control the price of maize.

Policymakers confront the difficult task of finding immediate responses to the urgent problems of small farmers, without exacerbating dependence on unsustainable livelihoods or policies. This dilemma has been reflected in a stop-start process of economic liberalisation, apparently at odds with the sporadic adoption of mechanisms to support and subsidise agricultural production.

The era of universal subsidies and price controls

From 1964-1994, Malawi's post-independence government was heavily involved in the agricultural sector. Under the auspices of the Agricultural Development and Marketing Corporation (ADMARC) and Smallholder Agriculture Credit Administration (SACA), the state:

- Funded a universal fertiliser subsidy for all farmers.
- Provided cheap credit for smallholders.
- Acted as a buyer of last resort and guaranteed minimum prices for maize.

The statist approach created a predictable environment. Farmers were able to plan effectively, achieving relatively good levels of productivity. Agricultural inputs were affordable to a majority of smallholders, with credit facilities administered locally by farmers' clubs. About 30% of smallholders were able to access credit during this period, compared with more recent estimates of less than 10%.²⁴

Stability was achieved at a price, however. Government policies handed an effective monopoly of the supply of seed and fertiliser to ADMARC. The state agency played a dual role as both supplier of agricultural

inputs and a guaranteed purchaser of crops, with a monopoly of exports. This relationship locked smallholder farmers into dependence on an institutional framework that did not always work in their best interests.

What the post-independence government of Hastings Banda gave to smallholders with one hand, it took away with the other. Farmers purchased farm inputs at subsidised prices, but ADMARC acquired their harvest at average prices far below the export rate. High profits captured by ADMARC subsidised the low consumer price of maize, but also funded investment in other economic sectors including estate farms.

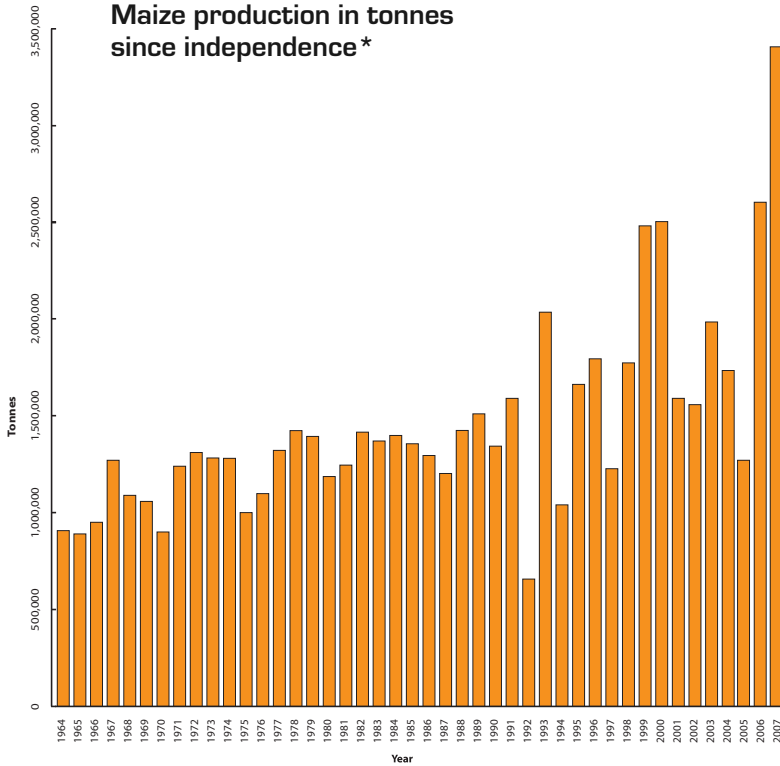
The slow death of universal subsidies

Attempts to dismantle the state monopoly and liberalise agricultural markets failed to improve the lives of smallholders in the 1980s. Under the terms of three loan agreements with multilateral institutions between 1981 and 1986, steps were taken to liberalise both marketing arrangements and prices for agricultural crops. The role of ADMARC was scaled back, and fertiliser subsidies were phased out. Smallholders were encouraged to grow crops for export.

“The result was an apparent paradox: during most of the decade, Malawi embraced an adjustment and development strategy guided and supported by the Bank and the IMF, but its economic performance was disappointing.” – The World Bank Group.*

In practice, the reforms undertaken during the era of Economic Structural Adjustment policies proved inappropriate for Malawi’s vulnerable agricultural economy. Higher input prices, the abolition of ADMARC’s traditional role as a buyer of last resort, and a shift among smallholders

40 *TheWorld Bank Group, Operations Evaluation Department, January 3rd 1997. World Bank website: <http://wbln0018.worldbank.org/oed/oeddoclib.nsf/d6e15766d406a12d85256808006a000c/48fff860cad1b59852567f5005d8ede?OpenDocument>



in favour of tobacco, hurt maize production. This led to a scarcity of maize at market and soaring prices.

The impact of these policy failures was made starkly apparent by the food crisis of 1987. Shortages forced the government to import 140,000 metric tonnes of maize, and provoked Malawi’s first open defiance of donor advice. Ignoring the conditionality attached to loans from the World Bank and the International Monetary Fund, President Banda reinstated both fertiliser subsidies (at 22%, higher than the pre-reform period) and the safety net of floor prices guaranteed by ADMARC.²⁵

In response, the World Bank reviewed its policy positions in Malawi, leading to the creation in 1990 of a new Agricultural Sector Adjustment Credit (ASAC). The initiative tackled structural constraints on

* FAOSTAT; Dorward, A., et al.

Malawian smallholders, including the scarcity of land, restrictions on farmers' choice of crops, lack of infrastructure and poor access to credit.

“The Washington Consensus held that good economic performance required liberalized trade, macroeconomic stability, and getting prices right. Once the government handled these issues – essentially, once the government ‘got out of the way’ – private markets would produce efficient allocations and growth. To be sure, all of these are important for markets to work. It is very difficult for investors to make good decisions when inflation is running at 100 percent annually. But the policies advanced by the Washington Consensus are hardly complete and sometimes misguided.” – Joseph Stiglitz*

The ASAC represented a shift in thinking towards what became known as the “post-Washington Consensus”, a revised development paradigm which emerged in the late 1980s. While the new approach advocated market-led economic growth, it diluted the earlier “neo-liberal” stance by emphasising the need for careful management of liberalisation in the interests of the poor. The role of the state was re-cast as a necessary partner in opening and developing markets, rather than a hindrance.²⁶

Subsidies – a reprieve

The reforms implemented under ASAC from 1990 included a pilot scheme for targeted fertiliser subsidies.²⁷ In the view of the World Bank, input subsidies – while still a second-best option – made better use of government resources and scarce foreign exchange than the more costly alternative of imports. The ASAC programme successfully boosted small farmers: a good maize crop and increased tobacco production contributed to 15.8% growth in smallholder agriculture in 1991.²⁸

42 * Joseph Stiglitz, former senior vice president and chief economist, The World Bank. Speaking at the 1998 WIDER Annual Lecture Helsinki, Finland. January 7th 1998

The improvement was short-lived. In subsequent years, a sequence of external shocks combined with a volatile political environment inside Malawi to damage the economy. Rising prices for fuel and fertiliser coincided with civil war in neighbouring Mozambique, while in Malawi donors suspended non-humanitarian aid in protest at President Banda's suppression of pro-democracy movements. These factors, compounded by drought, contributed to food crises in 1992 and 1994.²⁹

Farmers also suffered from the collapse of the smallholder credit system, itself a victim to the faltering discipline within Banda's regime. In the aftermath of the 1992 food crisis, the government had issued a moratorium on repayment of credit by small farmers. As opposition groups gained momentum, signs of Banda's fragile grip on power combined with a lapse in the iron rule that had characterised the Banda regime. In these circumstances, farmers learned that credit did not always have to be repaid.³⁰

The new dispensation

President Banda was roundly defeated in Malawi's first democratic elections in 1994. His successor, President Bakili Muluzi, at the helm of a triumphant United Democratic Front (UDF), inherited a highly unstable economy. The payment on external debt contributed to a fiscal deficit of 16%, with inflation running at 34.6%.³¹

The UDF government continued the policy of agricultural liberalisation during its first years in office, in line with commitments made to multilateral lenders under the terms of the ASAC. The ban on exports of food crops was lifted and prices were left, within strictly defined limits, to the market. But controls were not abandoned, and ADMARC could intervene outside the range of a new price band of floor and ceiling prices for maize.

Politics, parties and fertiliser

President Bingu wa Mutharika came to power in July 2004, after winning elections as the candidate for the United Democratic Front (UDF). Shortly after his victory, the new president fell out with Bakili Muluzi, former UDF leader and president of Malawi from 1994 to 2004. Mutharika left the UDF in February 2005 to form the new Democratic Progressive Party (DPP).

The third substantial force in Malawian politics is the Malawi Congress Party (MCP) of former “President for Life” Hastings Kamuzu Banda. Banda held power from independence in 1964 until his defeat by Bakili Muluzi in the first multi-party elections of 1994. The MCP, led by John Tembo, is the official opposition despite claiming the highest number of MPs of any party in the National Assembly.

Both the UDF, led once again by former president Muluzi, and the MCP, question the legitimacy of a president who has “crossed the floor” of the National Assembly. They have attempted to force President wa Mutharika, and other members of the DPP, to give up their seats and run for re-election under the banner of their new party. The President defends the legality of forming the DPP and claims that the UDF campaign to unseat him is in retaliation for his anti-corruption campaign.

Political rivalries have an impact on Malawi’s agricultural policy. Recurrent food crises have made agricultural policy, and particularly access to inputs, the most important election issue in Malawi. No Malawian member of parliament could be elected without expressing support for agricultural subsidies of some kind.

In the way that presidents in ethnically divided countries anchor their claim to legitimacy on promises to protect their countries from conflict, Malawian presidents invest heavily in their promise to provide agricultural inputs for farmers. In addition to his roles as head of state and minister of education, President Bingu wa Mutharika holds the position of minister of agriculture.

Differences in approach emerged more clearly by the mid-1990s, prompting a cooling in relations between the Malawian government and donors. Confronted by evidence of growing corruption in the public finances, fostered by an inflationary economic environment, the advice from the World Bank began to revert to the tone of its pre-1987 stance. Donors argued that food security would be more readily achieved by market liberalisation and promotion of cash-crops.³²

In 1996, under pressure from donors, the government abolished subsidies for fertiliser and maize. The increased costs of agricultural inputs were reflected in a steep decline in the profitability of the maize crop, adding to constraints caused by the collapse of the smallholder credit mechanisms. The proportion of smallholders using fertiliser dropped to as low as 15%.³³

Against a backdrop of deepening rural poverty, 80% of rural households became net purchasers of maize. More than half Malawi's population were found to be unable to provide for their basic needs.³⁴ Among the public at large, the principles of economic liberalisation and market-led reform became increasingly discredited and unpopular.

From Starter Packs...

By 1996, resistance to liberalisation among Malawi's political leaders had once again gathered momentum. The abolition of subsidies and dwindling of smallholder credit provoked fears that Malawi was on the brink of another food crisis. An Agricultural Productivity Investment Programme (APIP) sought to provide farmers with loans to buy seeds and fertiliser. But high rates of default quickly rendered the programme unsustainable.

The turning point in attempts by Malawi's political leadership to devise a home-grown agricultural strategy came in 1998, when the ministers of

finance and agriculture supported recommendations by a government-appointed Maize Productivity Taskforce to distribute essential inputs for smallholders.

Malawi's new Starter Packs were made available free of charge to all smallholder families, estimated at 2.86 million households. DFID agreed to fund the Starter Pack programme as a temporary measure and was instrumental in securing commitments from other donors. The design of the subsidy reflected a prevailing view that incentives to encourage household self-sufficiency in food were preferable to the costs of importing maize.

World Bank support for the programme was reluctant, although the subsidy ultimately suited other agendas within the institution: Starter Packs exhausted the government's fertiliser stock, and provided an opportunity to disburse US\$6m of leftover funds from the World Bank's Agricultural Services Programme.³⁵

"From the outset, the Starter Pack programme provoked heated debate among donors and even between individuals within donor agencies."*

Starter Packs successfully boosted maize production and reduced demand at market, keeping food prices down. But the World Bank and other donors became increasingly uncomfortable with the policy of distributing Starter Packs to all smallholders – an approach reminiscent of the universal subsidies of the post-independence era.

... to the Targeted Inputs Programme

The Starter Pack concept was revised, in preparation for the 2000/2001 agricultural season, into a targeted safety net package which became the Targeted Input Programme (TIP). The scheme distributed lower-yielding inputs to a restricted target group of only the most vulnerable farmers.

46 * Potter, H., 2005, "The Players and Policy Issues". In ed. S. Levy, *Starter Packs: A Strategy to Fight Hunger in Developing Countries?* CABI Publishing, Oxfordshire.

The packs contained lesser quality inputs and were distributed to only 50% of farming families.

In contrast to Starter Packs, TIP failed to bring food security. Whereas Starter Packs had contributed an estimated 15.6% to overall maize production in 2000, the comparable figure for TIP was an increase of only 3.6% in 2001 and 2.6% in 2002.³⁶ Malawi was once again plunged into a food crisis.

More than 3.2 million people were affected by hunger during 2001/2002, a crisis whose severity was described by some analysts as a famine. In response donors agreed to increase funding for a larger initiative, the Extended Targeted Inputs Programme (ETIP).

Maize production subsequently increased, but within the wider donor community attitudes again began to change. The persistence of food shortages in spite of the new emphasis on targeted subsidies led DFID to question the wisdom of continued support for the programme.³⁷

The retirement of Dr Harry Potter, DFID's Livelihoods Adviser in Malawi, may have contributed to a fall in support for the subsidy. Incoming staff at DFID's office in Lilongwe favoured a food security strategy which placed greater emphasis on public works programmes, under which poor families received fertiliser in exchange for work on community projects.³⁸

In 2004/2005, DFID withdrew its financial support – as the leading donor – for the ETIP. The newly elected government of President Bingu wa Mutharika hesitated over whether to attempt to implement a universal subsidy for smallholders, as promised in its election campaign. Finally, it resolved to press ahead with ETIP unilaterally. But implementation was delayed.

Once in office, the new government confronted the constraints on its capacity to finance its election promise – a concern reinforced by donors’ hostility to the plan. At the height of the 2004 campaign, as industrialised nations were writing off the foreign debt of many African governments, donors warned wa Mutharika that increasing the subsidy would jeopardise the prospect of debt cancellation worth up to US\$113 million.³⁹

Delays in the ETIP created confusion in the market for fertiliser and seeds, culminating in a maize deficit of about 700,000 metric tonnes in 2005 – equivalent to one third of the estimated annual food requirement. About five million people went hungry, as Malawi suffered the worst food crisis in recent history.⁴⁰

Malawi’s big issue

By 2004, fertiliser had become the dominant issue in Malawian politics. The presidential campaign, while bitterly fought, brought a new consensus on the importance of fertiliser subsidies. All leading candidates promised some method of support for smallholder farmers. Among the various claims and counter-claims, two broad positions emerged:

- The incumbent United Democratic Front (UDF) and its coalition partners advocated a universal fertiliser subsidy for maize producers only. They promised to reduce the price of fertiliser from MK3,000 to MK1,500 per 50kg.
- The opposition block, led by the Malawi Congress Party (MCP), advocated a universal fertiliser subsidy for both maize and tobacco producers. It pledged to reduce prices for both maize and tobacco fertilisers to MK950 per 50kg.

Differences in the subsidy proposals between the government and opposition groups reflected variations in popular support between

Malawi's main regions. For electoral reasons, the MCP, with its stronghold in the tobacco-producing central region, advocated subsidies for both maize and tobacco farmers.⁴¹

After the 2005 hunger crisis, agricultural subsidies again dominated the parliamentary agenda of the opposition parties. In a hotly contested – and delayed – vote on the 2005/2006 budget, the MCP and UDF made ratification of the budget conditional on the adoption of a subsidy programme.

A home-grown solution

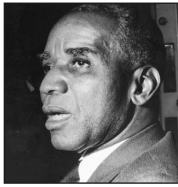
President wa Mutharika announced the introduction of a new fertiliser subsidy to parliament in the June 2005 budget session. Donors remained sceptical, and the new Agricultural Input Subsidy Programme (AISP) was funded entirely from government resources.

Unlike previous attempts to target the poorest and most vulnerable populations, the AISP was restricted to maize farmers with land and skills to make use of fertiliser, but not enough cash to buy it – in development jargon, the “resource-constrained”. Despite cross-party support for a subsidy, the mechanism adopted by wa Mutharika's administration drew fierce criticism from parliament.

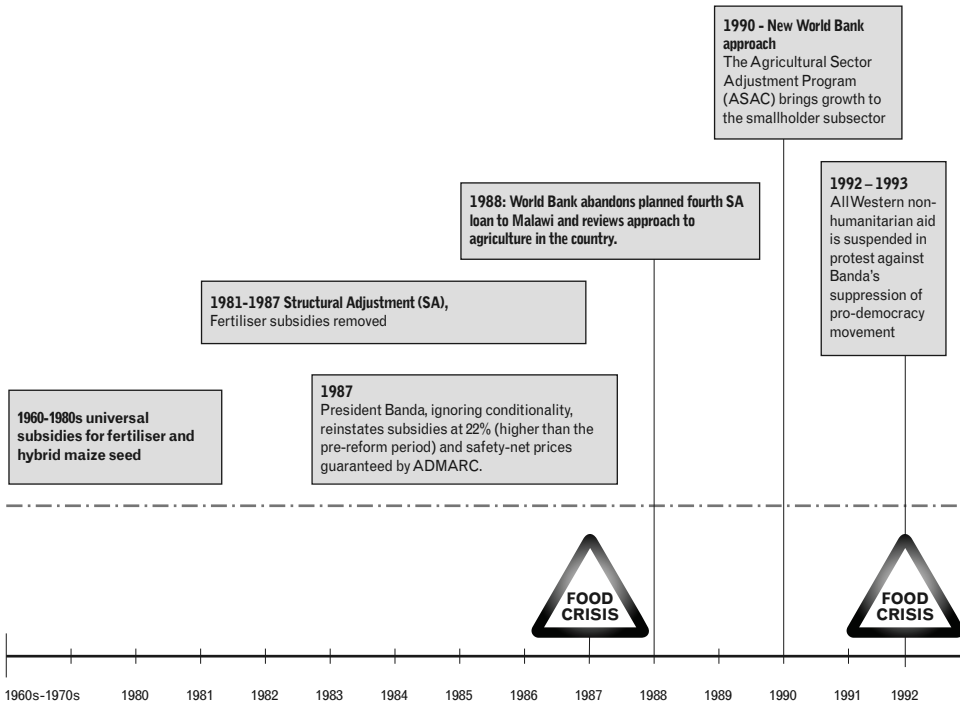
The opposition MCP argued for the extension of the subsidy to tobacco, a position supported by the Parliamentary Committee on Agriculture and Natural Resources. A study by the committee argued that subsidies for tobacco fertilisers would generate a substantial increase in economic growth and foreign exchange earnings.

Members of parliament, recalling the government's earlier commitment to a universal subsidy, were surprised to discover the scheme involved rationing. Many wanted a programme which would allow every

Policy and food security in Malawi, a timeline.



**President Hastings Kamuzu Banda
1964-1994**





**President Bakili Muluzi
1994-2004**



**President Bingu
wa Mutharika, 2004 ▶**

From 1990s

World Bank shifting back to state-minimalist approach of the 1980s. Returns to view that food security can be attained by using profits from cash crops to import food. From 1994 agricultural liberalisation is stepped up.

**2005-2007
Agricultural Input Subsidy
Programme (AISP)**

2006/2007

175,000mt of fertiliser subsidised for which 3,366,821 vouchers made available. 6,000mt of maize seed 100% subsidised for which 2m vouchers made available.

1997/1998
Fear of another food crisis

1996
Fertiliser and hybrid maize seed subsidies removed

1994-1998
Some initial progress is made by the new government. Economic growth rates average 4.6% per annum between 1995 and 1998 and in 1995 and 1996 smallholder growth registers 43.6% and 41.0% respectively.

**1998-2000
Starter Pack Programme**
Malawian ministry of agriculture wins support from a number of international donor agencies Distribution of "starter packs" to all farming households. Packs contain 2kg hybrid maize seed, 10kg fertiliser and 1kg either groundnut or soybean seed Allows farmers to plant 0.1 ha of land.

**2000-2002
Targeted Inputs Programme (TIP),**
A scaled down Starter Pack Programme. Packs are distributed only to the most vulnerable farmers: 2000/2001 – 1.5m households, 2001/2002 1m households

**2002-2005
Extended TIP**
2002/2003
1.9+0.8m households receive TIP
2003/2004
1.7m households receive TIP
2004/2005
2m households receive TIP, but late

2005/2006
147,000mt of fertiliser and 6,000mt of maize seed subsidised. Vouchers required to purchase subsidised fertiliser. Programme intended to provide 1 million maize farmers and 200,000 tobacco farmers with vouchers – 2,179,718 vouchers made available. Subsidised seeds available for sale without vouchers.



1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008

smallholder farmer to buy as many bags of subsidised fertiliser as he/she could afford. Instead, the new AISP introduced a voucher or coupon-based system, limiting the quantities available to selected beneficiaries.

Despite not being a universal subsidy, the AISP has enjoyed widespread popular support. This popularity underscores its political importance, placing a burden of expectation on the government to sustain the subsidy at its current level. Opposition leader and former president Bakili Muluzi has raised the political stakes by pledging that a UDF government would provide free fertiliser to smallholders.

The changing stance of donors

Having withdrawn support for agricultural subsidies in 2004, donors initially attempted to persuade the government not to run the AISP in the 2005/2006 season. They found their influence on policy constrained, in comparison with previous years, by the strength of Malawian public opinion.

Negotiations between the government and donors illustrated the consequences of recent adjustments in the institutional architecture of international development. Much international donor aid – led by Britain’s DFID – has shifted from conditional funding to general budget support for recipient governments. The changed approach gave the government of Malawi more autonomy over agricultural policy, while debt relief increased the funds at its disposal.

The mechanisms of conditional loans and project funding have drawn increasing criticism from governments across the developing world. In response to past failures, the provision of funds in the form of budget support allocated directly to the recipient government became – in principle – the preferred method of delivering aid from bilateral European donors, the European Union and the World Bank.*

52 * USAID, the official American aid agency, has not adopted budget support; preferring a combination of intensively managed project finance, and out-sourcing of development programmes.

The early achievements of AISP, combined with the Malawi government's determination to continue the programme, led DFID to provide financial and technical support for the programme in 2006/2007. Britain's involvement was, however, conditional on the government signing contracts with private distributors. Nevertheless, the cooperation has been beneficial to the programme.

DFID's support has contributed to the continuing success and sustainability of Malawi's agricultural subsidies. Within the donor community, its support lends some legitimacy to Malawi's policy in the face of continuing scepticism from other donors, notably the World Bank and USAID.

DFID on the benefits of Poverty Reduction Budget Support (PRBS)*

- *"In the short-term, it can promote increased engagement by partner countries in the development agenda, improved policy dialogue between donors and partner countries on poverty reduction, and better coordination among donors.*
- *In the medium-term, it can lead to increased efficiency and better allocation of public expenditure in support of poverty reduction, and lower transaction costs between partners and donors.*
- *In the long-term, it can lead to improved service delivery, and stronger domestic accountability between partner countries and their citizens."*

4. A guide to voucher-based programmes

A voucher scheme for agricultural inputs depends on two distinct processes, namely: the supply of inputs, and the administration of vouchers. These processes will be common to any subsidy programme of this kind. Malawi's example provides insights into how vouchers for smallholder farmers can be managed effectively.

Key Roles

Each aspect of a voucher programme should be administered by a competent agency, whether a government body, donor agency, non-governmental organisation or private company. The main roles are:

- Procurement of subsidised products
- Distribution of products
- Production and allocation of vouchers
- Redemption of vouchers, and payment of service providers
- Internal and public communications.

WORKING PRINCIPLE ***Agencies should be chosen for their competence and ability to work transparently. The role and responsibility of each agency should be clearly identified.***

In Malawi, most aspects of the implementation of the subsidy programme are funded and managed by government or parastatal organisations. In 2005/2006, the first year of the programme, the Smallholder Farmers' Fertiliser Revolving Fund of Malawi (SFFRFM) and the Agricultural Marketing Board (ADMARC) were charged with the procurement and sale of subsidised fertiliser and seed.

In the second year of the programme, however, these responsibilities were shared between parastatals and the private sector. About two thirds of fertiliser imports in 2006/2007 were undertaken by private companies with the balance handled by SFFRFM.⁴² Sales of subsidised fertiliser were

handled by both ADMARC and established private sector agro-dealers who were licensed by the government to accept vouchers.

In 2006/2007, seed procurement and distribution were handled entirely by the private sector from local stocks of seed produced in the previous year. A small number of seed suppliers worked through a much larger number of distributors. DFID funded the seed subsidy.⁴³

Vouchers for both seed and fertiliser are produced by the ministry of agriculture, and allocated to each district according to instructions from the ministry. Vouchers are channelled through a series of committees, in which traditional authorities play a significant role. The committees allocate vouchers, first, to villages; ultimately, to individuals.

Returned vouchers are processed by a Logistics Unit, tasked with approving payment by the ministry of Finance. The Logistics Unit, formerly the logistics section of DFID's Malawi office, is an arm of the Malawi government but continues to be funded indirectly by the British development agency.⁴⁴

The 2006/2007 communications campaign was run by the Department of Agricultural Extension Services, a sub-department of the ministry of agriculture, and was partially funded by the United Nations Development Programme (UNDP). The UNDP funded a communications expert to advise the government on the use of different media to develop internal and external communication campaigns to support the subsidy programme.

Procurement and distribution

Fertiliser use in Africa is complicated by poor transport infrastructure and the lack of any significant indigenous fertiliser industry. Seeds are more readily procured from domestic seed markets in most African countries. Private sector expertise in fertiliser procurement and sales can reduce overall costs and improve the efficiency of a subsidy programme.

Where possible, the private sector should be tasked with the complex organisation required to procure large quantities of agricultural inputs. In order to mitigate the potential distortions of a subsidy in the commercial markets, a voucher scheme should be designed to include participation by agro-dealers.

A vibrant private market for agricultural inputs contributes to the wider economy by generating employment, building a supply chain for agricultural products, maintaining competitive market prices, improving choices for farmers, and paying taxes.

Squeezing out the private sector can foster long-term dependence on the government for provision of agricultural inputs. Subsidy programmes should be designed to boost commercial sales in the long-term by making a lasting improvement to the agricultural economy.

WORKING PRINCIPLE ***A well-managed partnership with the private sector saves money in the short term, and can encourage sustainable markets in the longer term.***

The market for agricultural inputs in Malawi is valued at US\$100 million annually. A liberalised market, it is one of the country's four largest agricultural sectors – with maize, tobacco and sugar.⁴⁵ The relatively large number of private companies fosters a high level of competition

Voucher distribution chain

The District Coordinating Committee (DCC)

Members: District Commissioner, District MPs, Chiefs, District Agricultural Development Officer, District Manager ADMARC, Officer in Charge of Police, Chairperson of the Disaster Preparedness Committee, a representative from SFFRM, three religious representatives, one agricultural NGO representative.

Tasks:

- Conduct civic education
- Monitor delivery and distribution
- Stamp out malpractice
- Review guidelines for identification of beneficiaries
- Advise on opening and closing of retail points



The Area Development Committee (ADC)

Members: Traditional Authorities, MPs, Agricultural Extension Development Coordinator, ADMARC Supervisor, Group Village Headmen, a representative of the Disaster Preparedness Committee, representatives from the police and NGOs, one male farmer, one female farmer.

Tasks:

- Conduct civic education
- Stamp out malpractice
- Supervise identification of beneficiaries
- Communicate need for new sales points
- Assist in communicating technical information



The Village Development Committee (VDC)

Members: Group Village Headman, Village Headmen, Agricultural Extension Development Officer, Chairs of village policing committees, local MP, two male farmers, two female farmers.

Tasks:

- Receive and distribute coupons
- Account to the Area Development Committee for distribution of coupons
- Identify eligible beneficiaries
- Ensure proper use of fertilisers by farmers
- Maintain records of fertiliser purchases
- Report irregular procedures to the Area Development Committee
- Retain unused and counterfoil coupons

Source: Dorward, A., et al., 2007, *Evaluation of the 2006/7 Agricultural Input Supply Programme, Malawi*.

Undertaken for the Ministry of Agriculture and Food Security. Imperial College London, Wadonda Consult, Michigan State University, Overseas Development Institute.

In 2005/2006, just under half of all subsidised fertiliser was supplied by the private sector with the balance imported by SFFRFM.⁴⁶ In contrast, distribution of subsidised fertiliser and seed was handled exclusively by ADMARC and SFFRFM. But serious concerns about the impact of the subsidy programme on the private sector prompted the government to allow more partnerships with private companies in subsequent years.

In 2006/2007, seven established private input dealers were licensed to accept vouchers. The wholesale cost of 50kg of fertiliser was fixed by the government at MK950 for voucher-holders. Retailers were reimbursed the remainder of the commercial price, which varied slightly depending on where vouchers had been redeemed. Prices in remote areas were higher due to added transport costs.

In the market for seed, selected private companies were permitted to supply seed for the 2006/2007 programme. The value of the seed voucher was fixed at MK400, prompting companies to package quantities of seed to the same value.⁴⁷ Holders of seed vouchers were able to redeem them without an additional cash payment.

DFID's buyback guarantee

In order to encourage the government to allow greater private sector involvement in the procurement and retail of fertiliser, DFID negotiated and provided financial support for a buy-back facility by Stanbic Bank. Stanbic agreed to buy all unsold fertiliser stocks from the government at the end of the season; the government undertook to buy back these stocks at the same price for the next season.⁴⁸

This buyback arrangement allowed more private sector participation. It encouraged the government to allow private retailers to supply their own fertiliser by removing the financial burden on the state if the government was left with large unsold stocks at the end of the season. DFID also funded monitoring of the technical quality of seed and fertiliser stocks, to allay government concerns about the quality of privately supplied seed and fertiliser.

In the event, the total fertiliser distributed under the programme exceeded the budgeted amount. Hence, the government was left with so little unsold stock that it was able to finance the facility itself.⁴⁹

Voucher design

Vouchers should combine security features with ease of use. They should state clearly the product and value for which they can be redeemed, and withstand repeated checking and filing as vouchers change hands – from voucher agency, to farmer, to retailer, and back to voucher agency.

WORKING PRINCIPLE ***Vouchers are administratively cumbersome, but good design can help.***

In 2005/2006, Malawi's input subsidy programme relied on only one voucher design. Vouchers that were allocated to provide fertiliser for maize could be used to purchase tobacco fertiliser, or vice versa. In 2006/2007, this problem was remedied by the introduction of colour-coded vouchers for different types of input.

Vouchers were printed in triplicate, with a different shading for each sheet. Farmers were issued with the original voucher, to be redeemed, and a duplicate copy to be retained as a record. Each coupon had a unique serial number and security features.

Some private retailers argued that printing coupons in triplicate increased the chance of fraud. In a busy retail environment, it was impossible to verify which serial numbers already had been redeemed. In cases where a duplicate is redeemed in error, the Logistics Unit will not approve a second payment. The retailer bears the cost of the additional fertiliser. Private companies also complained that poor quality and design of vouchers made them more difficult to administer.*⁵⁰

*Victoria Keelan of Yara noted that very thin voucher paper slowed administration process because it meant that handling the vouchers required extra care. Bachir Sama of RAB Processors said some duplicate copies had mistakenly been accepted in outlets due to poor design.

Voucher allocation and eligibility

The criteria for eligibility should be set at the decision making stage, and correspond to the objectives of the subsidy. Criteria might include plot size, crop varieties, size of household, number of dependents, or household income. The agency responsible for allocating the vouchers must then determine the practical conditions for eligibility.

Effective training and communications are vital for administrative personnel to understand the aims of the programme, and apply the eligibility criteria to meet those objectives.

WORKING PRINCIPLE ***The choice of recipients must correspond to the objectives of the subsidy. The agency responsible for voucher allocation should not re-interpret these aims through its choice of beneficiaries.***

In 2005/2006, the Ministry of Agriculture constructed a “matrix” for the regional distribution of vouchers. According to the Ministry of Agriculture, the matrix allocated coupons to districts, or Extension Planning Areas (EPA), according to the cultivated area of each crop. Voucher allocations per hectare and per maize grower in the north of the country were higher than in the centre and the south – in part due to a supplementary allocation of coupons.⁵¹

In the second year of the subsidy, the same matrix was adjusted in an effort to be more equitable across regions. Three million coupons were budgeted for, and allocated on the basis of this modified matrix. However, a supplementary allocation of coupons again contributed to regional imbalances. The allocation of vouchers in 2006/2007 still varied widely between districts.⁵²

In the first two years of the programme, committees dominated by Traditional Authorities were tasked with allocating the vouchers between

villages. The identification of beneficiary households was undertaken by the Village Development Committees. The role of Traditional Authorities has been reduced in the 2007/2008 programme, in an attempt to increase transparency.

In theory, Malawi's subsidy aims to increase national maize production by targeting the productive poor. In practice, the aims of the programme and criteria for eligibility to receive vouchers have been unclear.

The broad guidelines for voucher allocation state that beneficiaries should be unable to afford unsubsidised fertiliser but should be physically able to make good use of subsidised fertiliser.⁵³ But operational definitions of eligibility, and the number of vouchers to which beneficiaries were entitled, were elastic.

In some areas, beneficiaries were required to demonstrate sufficient funds to redeem the vouchers; in others, a family member in formal employment disqualified the household. The overall proportion of beneficiaries, and the number of vouchers allocated per household, varied from one area to another.⁵⁴

In 2006/2007, written instructions were distributed to the different committees involved in the allocation process. These explained the rules for eligibility and distribution of vouchers, but procedures remained inconsistent.⁵⁵

Redemption of vouchers

The design of the procedures by which the beneficiary exchanges a voucher for fertiliser, and the retailer exchanges the voucher for payment, is critical. Voucher redemption is complicated and time-consuming. If the private sector is to participate readily in a programme, the retailer should be paid swiftly upon presentation of the voucher to the competent agency.

WORKING PRINCIPLE ***Retailers must be able to redeem vouchers rapidly for private sector involvement to be sustained.***

In 2005/2006, the face value of a voucher for 50kg of maize fertiliser was MK950, and for 50kg of tobacco fertiliser, MK1,450. In 2006/2007, the vouchers were harmonised to a single value for all beneficiaries, whether maize or tobacco farmers. The change was intended to deter farmers from applying maize fertiliser to the tobacco crop.

The serial number on a voucher identifies the district in which it was allocated, and where it can be redeemed by retailers. Retailers can only accept vouchers for their district. All retailers must issue a cash receipt for their fertiliser or seed, and attach a duplicate of the cash receipt to the voucher.

The retailer then sends the vouchers, with receipts, to their district office which issues an invoice and sends all paperwork to the Logistics Unit. The Logistics Unit checks the paperwork and approves payment by the Ministry of Finance.

In the case of fertiliser sold by SFFRFM and ADMARC, this process was reversed. Instead of requesting payment from the ministry of finance, the parastatals had to reimburse the ministry for supplies of fertiliser purchased directly by the government. They were still required to submit vouchers and invoices to the Logistics Unit, but had little incentive to send paperwork and payment in a timely manner.⁵⁶

In the case of seed vouchers, each with a fixed value, the method of redemption was very different. The value of a fertiliser voucher varies by location, according to transport costs. But the value of a seed voucher was fixed at MK400, equivalent in effect to a MK400 discount on whatever quantity of seed a farmer chose to buy.

Seed suppliers opted to package seed into bags worth MK400, reflecting concerns that farmers might otherwise give priority to buying fertiliser.⁵⁷ Voucher holders purchased either 3kg of OPV (standard) maize seed, or 2kg of hybrid (improved) maize seed, without having to make any cash payment. Packaging in these quantities created the impression that the voucher was a 100% subsidy on a fixed amount of seed.

Only certified seed suppliers could redeem seed vouchers. Retailers passed vouchers back to suppliers; consequently, the suppliers received most of the MK400 subsidy but paid a small commission to the retailers.⁵⁸ In order to receive payment, suppliers sent vouchers and invoices to the Logistics Unit.

Communications

An effective communications campaign should target both rural communities and personnel tasked with implementation. It should cover a number of key areas:

- Objectives and cost of the programme
- Criteria for eligibility
- Number of vouchers available, nationally and locally
- Value of the vouchers
- Security features, penalties for theft and corruption
- The practical processes of voucher allocation and redemption
- How to make most efficient use of the allocated inputs.

Eligibility is a cause of tensions and rivalry. These can be mitigated by explaining the aims of the programme and the criteria for eligibility to beneficiaries and non-beneficiaries alike. The larger community can benefit from education on the national objectives of the campaign and how to make best use of agricultural inputs.

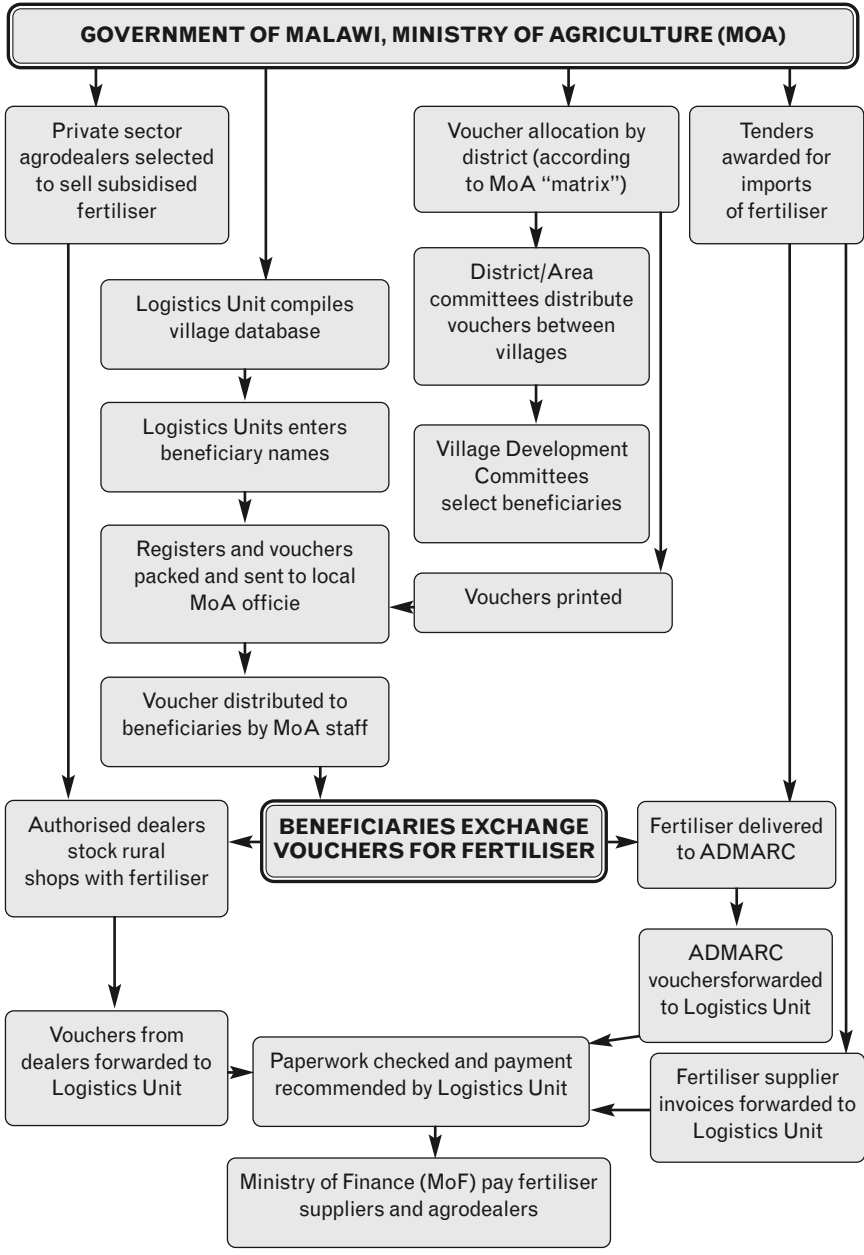
Loss of vouchers through theft and corruption can be reduced by a communications campaign that emphasises penalties for abuse. Detection of malpractice is more likely among communities who understand the farmers' entitlements – and the cost to the government as a proportion of the national budget. Practical explanations of how vouchers will be distributed and redeemed will contribute to the smooth running of the programme.

WORKING PRINCIPLE ***A nationwide programme needs national and local campaigns, so that farmers understand why some households are entitled to vouchers – and others not.***

The UNDP funded a consultant to advise the Department of Agricultural Extension services on an information, education and communications programme (IEC).⁵⁹ The campaign promoted a new maize planting method, using leaflets, radio programmes and touring film shows.

The main objective was to equip farming communities with knowledge and skills in maize production and storage techniques. The campaign emphasised methods to achieve household self-sufficiency in food, but few of these activities directly addressed issues related to the fertiliser subsidy.⁶⁰

AISP, Key Processes



5. Recommendations

The successes of the Malawian input subsidy programme demonstrate that subsidies for smallholder agriculture can be effective. Higher yields, lower prices at market, and higher salaries for farm labour have all been achieved during the first two years of the subsidy – in dauntingly difficult circumstances. Malawi suffers from myriad constraints in running a nationwide voucher scheme, yet the achievements have been considerable.

Malawi's experience rekindles hope that subsidies can play a role in fostering pro-poor agricultural development in Africa, without lapsing into the failed mechanisms that inspired the misjudged structural adjustment programmes of the 1980s.

The evolving design of the programme demonstrates a willingness to engage with the private sector that should improve the efficiency and sustainability of the subsidy. The changing rhetoric of the Malawian government is in part a consequence of some gentle persuasion from donors, notably Britain's DFID.

Malawi is not in a position to dismantle the parastatal organisations which, despite their inadequacies, play an important social function in agricultural communities, especially in remote areas. But involving the private sector as a partner in agricultural policy will have long-term benefits for smallholders, the wider economy, and government coffers.

The subsidy programme is not without failings. A number of design and implementation flaws should be addressed to consolidate the progress to date. Budget restraints require authorities in Malawi to ensure that investment in the programme is well spent, and that the costs should not deter spending on other development imperatives.

Targeting

Malawi's subsidy programme aims to increase the use of fertiliser by smallholders, rather than to make fertiliser cheaper for farmers who already use it. This objective has not yet been achieved. In both 2005/2006 and 2006/2007, commercial sales of fertiliser were lower than their pre-AISP level. This implies that some voucher allocations had merely replaced existing commercial sales, rather than generating new demand for fertiliser.

Displacement of commercial sales poses a threat to Malawi's private sector. Agro-dealers reported a sharp drop in sales with the introduction of the programme in 2005, leading to the closure of a number of retail outlets. In the following year, closer cooperation between the government and private sector prompted a recovery among companies which participated in the 2006/2007 programme. But sales remained very low for retailers who were not authorised to accept vouchers.

"If you have a hat, you're not poor"*

Better targeting and earlier allocation of vouchers would help to achieve the objective of increasing aggregate use of fertiliser. Malawi's programme was designed to target poor smallholders with the physical capacity, in terms of land and labour, to make efficient use of subsidised fertiliser. In practice, those entrusted with the distribution of the coupons have exercised discretion over the allocation of vouchers.

In the first year of AISP, the criteria for eligibility were wide enough to allow substantial interpretation by the Village Development Committees. Despite reforms in the second year, the objectives and criteria of the programme remained unclear. The number of farmers who fell into the "eligible" category was far greater than the number of coupons provided. The selection of beneficiaries became complex and fraught.

Policy makers have emphasised the imperative of allocating vouchers to poor farmers; but among rural populations where almost everyone is poor, it has proved difficult to identify the most deserving. The problem has been compounded by an ineffective communications strategy, which created an impression that all smallholders were eligible.

More effective targeting requires:

- Clearly defined and limited eligibility.
- Effective communication of eligibility criteria to those tasked with allocating vouchers.
- Effective communication of the aims of the programme, and the process of selection, to smallholders.
- A clearly defined and limited role for traditional authorities.
- A system of pre-registration of beneficiaries.

Some measures to improve voucher allocation were introduced in 2007/2008. Agricultural extension workers and students were employed, respectively, to select and register programme beneficiaries. The role of the traditional authorities was restricted.

These measures were intended to increase transparency and encourage forward planning by smallholders. In particular, it was hoped that the poorest farmers, who were not eligible for the subsidy, would plan contingencies; these include public works programmes, under which fertiliser could be exchanged in return for participation in community projects.

Fixed value vouchers

Malawi's fertiliser vouchers guarantee the retail price of fertiliser at market for beneficiaries, rather than providing them with a fixed discount. The government is under constant political pressure from Malawians to maintain this price, even as the commercial price of fertiliser rises. Consequently, the government has increased the value of the vouchers each year.

In 2005/2006 tobacco vouchers entitled their holders to buy tobacco fertiliser at MK1,400, but in 2006/2007 beneficiary farmers could purchase tobacco fertiliser for MK950, the same price as maize fertiliser. In 2007/2008, voucher holders could purchase both types of fertiliser for MK900.

Since 2005, the programme has become gradually more expensive for the government. Tighter control of costs, and a gradual reduction in the financial burden on the state, would be preferable in the long-term. One mechanism to achieve this would be to give the vouchers a fixed face value.

Fixed value vouchers provide for a gradual reduction in the cost of the subsidy over time. If the voucher is a discount against market value, increases in the commercial price are carried by the farmer rather than the government. For example, if the voucher reduces the stated price of a bag of fertiliser by MK3,000, the cost to the government is always MK3,000 per voucher. But if a voucher guarantees a market price of MK950, the government budget for the subsidy becomes hostage to fluctuations in the world fertiliser market.

Fixed price vouchers would allow the government to control and predict programme costs. In future, the government could maintain the face value of the vouchers, in effect allowing inflation to reduce their

real value. This mechanism provides for a gradual exit from the programme, at whatever point that becomes viable.

An exit from the programme is not yet feasible, but the possibilities for an exit strategy should not be ignored. If AISP succeeds in providing a more stable environment for farms in the longer term, the government may wish to review the spending priorities of the ministry of agriculture.

“DFID is not encouraging the government to think of an exit strategy yet. If you mention an exit strategy to Malawians they laugh at you.”*

Further, fixed value vouchers allow the programme to respond flexibly to its successes and failures. Fixed value vouchers would enable the government to widen or restrict the subsidy by providing a smaller discount to fewer people – or vice versa. The government could encourage agricultural diversification by offering more variety and flexibility across a range of subsidised agricultural inputs.

Without such incentives, a subsidy concentrated solely on maize fertiliser has the inadvertent consequence of exacerbating farmers’ dependency on the maize harvest. The deflationary effect of good harvests on the market price of maize while desirable for consumers, also limits the rewards available to farmers.

* Bernabe Sanchez Naffziger, economist, DFID. Interview with Aoiffe O’Brien, July 2007.

Timing

Fewer delays would make the programme more effective. In 2006/2007, late delivery of fertilisers to SFFRFM depots frustrated distribution in Malawi's three main regions. Late delivery of vouchers and fertiliser interferes with smallholders' planning, and can jeopardise the effectiveness of fertiliser if it is applied late in the season.

The government must speed up delivery, so that all activities related to the programme begin sooner. Both vouchers and fertiliser must be ready and available in good time for farmers to purchase seeds and basal dressing ahead of the rainy season in November and December.

Timing is, to a certain extent, a political problem. The budget session takes place in July but ratification of the budget by parliament can take weeks. This has proved particularly arduous under President Bingu wa Mutharika, due to embittered relations between his minority government and the opposition. In 2007, political disputes stalled discussion of the budget, which was not passed until September.

Delayed budgets can have serious consequences for the implementation of the subsidy programme. Importing fertiliser to Malawi takes approximately three months. Although some planning can take place within government before the budget is finalised, fertiliser stocks cannot be purchased before the budget has been approved.

Malawi's agricultural season begins in October, and planting of seed must take place before the rainy season at the end of the year. The rains generally begin in the south in November, and extend to the north by December. If the budget is not passed until September, timely delivery of fertiliser becomes extremely difficult.

Planning ahead

In the long term, a subsidy programme must be pursued simultaneously with other measures to improve infrastructure, technology, financial services. Parallel programmes can enhance the subsidy programme and are essential to tackle the underlying problems of food insecurity in Malawi; specifically, fast growth in population and a lack of economic diversification.

Malawi's population continues to grow, while smallholder plots are for the most part too small to be subdivided effectively between future generations. Non-farming activities must be encouraged in addition to activities that improve farming itself.

Malawians would benefit from a more considered appraisal of the long-term sustainability of farm subsidies. The government has created an impression that the programme is likely to remain its primary strategy for promoting food security, for the foreseeable future. But there has been no detailed assessment of the budgetary implications, nor of the financial capacity of the state to sustain the programme given the prospect of rising costs. The discipline of such an assessment would entail closer scrutiny of the long-term objectives of policy.

Policy makers should issue a clear and specific commitment for the medium term, and encourage smallholders to plan accordingly. Any sudden exit from the programme would jeopardise national food security – an unacceptable humanitarian risk and, for the government, political suicide. But deliberation of an exit strategy would encourage some fine-tuning of the voucher mechanism, and highlight the case for attributing a fixed value to vouchers.

Political stability

The subsidy programme is highly politicised. Fertiliser is at least as important to Malawians as, for example, the National Health Service or social security is to politics in Britain or France. Unlike Europe, however, no established institution exists in Malawi with responsibility for agricultural subsidies. Such institutions provide a degree of protection from political brinkmanship and opportunist attacks. Instead, the more successful Malawi's policy, the more vulnerable it becomes to the whims of politicians.

Members of the government and opposition routinely trade insults over the programme. The opposition has accused the government of manipulating the coupon system to channel benefits to its supporters. In turn, the government has accused opponents of stealing coupons and attempting to provoke a crisis by buying fertiliser in bulk or diverting it to neighbouring countries. Such accusations, whether or not they are true, raise doubts about the political viability of the programme.

In the interests of securing a national consensus around the subsidy programme, the government should resist the temptation to resort to headline grabbing or populist measures to win support. For example, in 2007 President Bingu wa Mutharika surprised observers by pledging an increase in the value of the voucher – apparently ignoring the cost implications for his government. Similarly, opposition parties should be wary of exploiting the programme merely to undermine or attack the legitimacy of the government.

Critics should target genuine areas of weakness, in the spirit of improving the situation for smallholders. In Malawi's culture of fierce one-upmanship among political leaders, a spirit of pragmatism will remain elusive for as long as the subsidy programme is seen as a legitimate target for sabotage.

6. Conclusion

An expanding population and declining soil fertility have trapped Malawians in a vicious cycle of poverty and dependence on subsistence farming. For more than thirty years, since the dismantling of universal agricultural subsidies under founding president Hastings Banda, Malawians have suffered the consequences of inconsistent and unpredictable policies.

The agricultural strategies of successive governments have veered between the total elimination of subsidies in the mid-1980s, and again in the mid-1990s, to the hasty reinstatement of subsidies during successive food crises. Moves to liberalise Malawi's agricultural markets were interspersed with attempts to introduce more effective, targeted subsidies. In this confused policy environment, the only constant has been uncertainty for smallholder farmers with little prospect of earning a livelihood elsewhere.

Malawi's foreign donors must accept some responsibility for past failures. The imperatives of Structural Adjustment Policies, favoured by multilateral lenders, recognised the inadequacy of an old order of state-controlled agriculture in sub-Saharan Africa; but insistence on market-based reform largely ignored the risks to vulnerable rural populations.

More recent emphasis on pro-poor growth strategies and poverty reduction has not yet supplanted the prescriptive attitudes of past decades, but effective collaboration between the government and Britain's DFID heralds the prospect of new and more fluid thinking in the realm of agricultural policy.

About two thirds of Africa's population depend for survival on the agricultural economy. Malawi's Agricultural Input Subsidy Programme provides a compelling example of a home-grown mechanism to facilitate greater use of seed, fertiliser and other inputs.

Much more will be required from African governments and policy-makers to make a meaningful impact on poverty. Education, infrastructure and the integration of regional economies are priorities, but Malawi's agricultural subsidy is an important step towards addressing the deprivations of subsistence agriculture.

This achievement is not yet secure. Recent evidence in Malawi points to an increase in the number of farmers cultivating maize, despite low market prices – an unintended consequence of incentives implicit in the subsidy programme. The increasing burden on government finances, combined with widespread and stubborn dependence on the maize crop, could yet undo recent gains. But with judicious international support, foundations are in place to construct a more flexible system of subsidised agricultural inputs in Malawi – with the capacity to adapt and adjust to the consequences of its own success.

An important precedent has been set for Africa, with clear benefits for the rural poor. If sustained, the policy has potential to establish a stable economic base for smallholder farmers.

Appendix: List of Acronyms

ADC	Area Development Committee
ADMARC	Agricultural Development and Marketing Corporation
AISP	Agricultural Input Subsidy Programme
APIP	Agricultural Productivity Investment Programme
ASAC	Agriculture Sector Adjustment Credit
DCC	District Development Committee
DFID	Department for International Development
DPP	Democratic Progressive Party
EPA	Extension Planning Area
ETIP	Extended Targeted Inputs Programme
GDP	Gross Domestic Product
IEC	Information, Education and Communications Programme
MCP	Malawi Congress Party
MK	Malawi Kwacha
NPK	Nitrogen, phosphorous, potassium
SA	Structural Adjustment
SACA	Smallholder Agriculture Credit Administration
SFFRFM	Smallholder Farmers Fertiliser Revolving Fund of Malawi
TIP	Targeted Inputs Programme
UDF	United Democratic Front
UNDP	United Nations Development Programme
USAID	United States Agency for International Development
VDC	Village Development Committee
WFP	World Food Programme

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