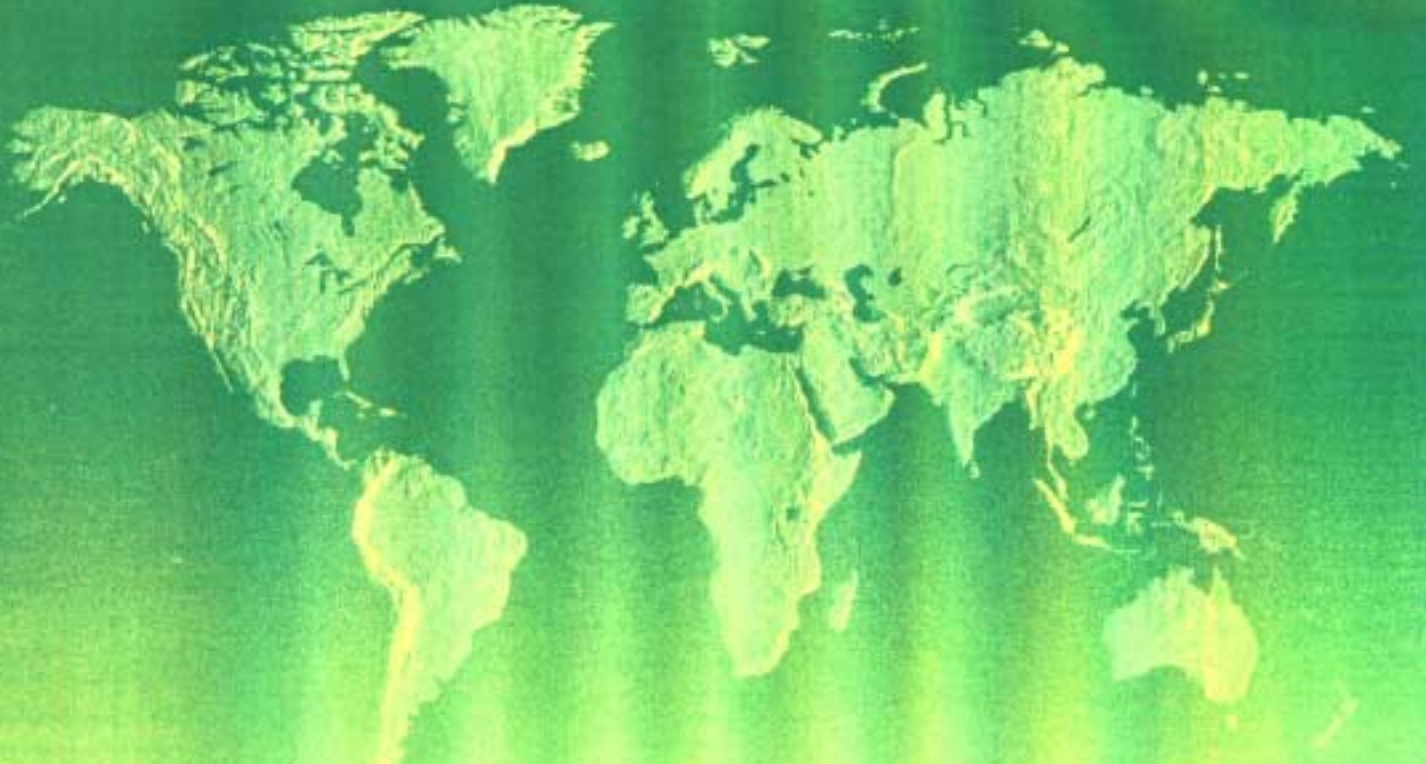


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The Use of Purchased Inputs by Communal Farmers in Zimbabwe

**Proceedings of a workshop
held at Harare, Zimbabwe**

1-2 March 1999

**Edited by Ann Gordon
and Andrew Goodland**



Natural
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Institute

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International
Development

**USE OF PURCHASED INPUTS BY COMMUNAL FARMERS IN
ZIMBABWE**

**Proceedings of a workshop organised by the Natural Resources Institute,
Holiday Inn, Harare, 1-2 March 1999**

Edited by Ann Gordon and Andrew Goodland

**Funded by the Crop Post-Harvest Research Programme
Department for International Development (UK)**

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Abbreviations list

ADC	Agribusiness Development Centre (Uganda)
ADMARC	Agricultural and Marketing Corporation (Malawi)
AFC	Agricultural Finance Corporation (Zimbabwe)
APIP	Agricultural Productivity and Investment Project (Malawi)
ASIP	Agricultural Sector Investment Project (Zimbabwe)
BAT	British American Tobacco
CADECOM	Catholic Development Commission (Malawi)
CCZ	Cotton Company of Zimbabwe
CDO	Cotton Development Organisation (Uganda)
CFU	Commercial Farmers' Union (Zimbabwe)
CMB	Cotton Marketing Board (Zimbabwe)
DR&SS	Department of Research and Specialist Services (Zimbabwe)
GDP	Gross Domestic Product
GMB	Grain Marketing Board (Zimbabwe)
GoZ	Government of Zimbabwe
ha	hectare
ITDG	Intermediate Technology Development Group
IMF	International Monetary Fund
kg	kilogram
LSCF	Large-scale commercial farmer (Zimbabwe)
MoAI	Ministry of Agriculture and Irrigation (Malawi)
MFRC	Malawi Rural Finance Company
NGO	Non governmental organisation
NRI	Natural Resources Institute
SACA	Small-holder credit agency (Malawi)
SADC	Southern Africa Development Conference
SSCF	Small-scale commercial farmer (Zimbabwe)
UGEA	Uganda Exporters and Ginners Association
UVAN	Uganda Vanilla Ltd
ZAPF	Zimbabwe Agriculture Policy Framework
ZFC	Zimbabwe Fertiliser Corporation
ZFU	Zimbabwe Farmers Union

Background

The Natural Resources Institute has been conducting preliminary research on experiences with private sector provision of credit to small-holders for production inputs¹. The initial research focused on the cotton sectors in Uganda and Zimbabwe, where input credit different systems are in operation. The intention is to distil key conditions from these experiences with a view to identifying potential applications in other sectors.

The research has highlighted a number of issues affecting the low use of purchased inputs by small-holder farmers. These can be categorised under four broad headings: affordability, physical access, awareness and commercial context. Access to credit influences affordability and can certainly play a role, but it is clear that other factors are equally important. Box 1 lists some of the issues which impinge on the use of purchased inputs.

Box 1: Issues affecting small-holder use of purchased inputs

AFFORDABILITY

- production economics
- cost – and cost components (eg transaction costs)
- unit size
- credit – and target beneficiaries (eg farmers or traders)
- role of subsidies

PHYSICAL ACCESS

- supply of seed (domestic or imported)
- availability of appropriate technology (varietal testing and development)
- timeliness
- trader and retailer networks

AWARENESS

- extension (decentralised extension services, NGOs)
- “demonstration effect”
- commercial promotion
- role of media

COMMERCIAL CONTEXT

- the extent to which farmers operate in the commercial sector
- farmer confidence in markets – and market instability
- commercial activity undermined by handouts?

¹ This work is funded by the Crop Post-Harvest Research Programme of the UK Department for International Development.

Purpose of workshop

The workshop in Zimbabwe provided a forum for discussion of these issues, and helped identify priorities for further work. The purpose of the workshop was fourfold:

- (a) to determine whether low use of purchased inputs is a constraint to increased production in Zimbabwe's communal sector;
- (b) to identify those situations (types farmer, crop, region) for which increased use of purchased inputs is a particularly high priority;
- (c) to identify possible new strategies to address these needs; and
- (d) to inform the development of proposals for further work.

Participants drew on practical and policy experience relating to the use of farm inputs in Zimbabwe – providing commercial, NGO, government and donor perspectives. A full list of participants is attached at Annex 1.

Overview of presentations

In his keynote address on the first evening, Emerson Zhou stressed the importance of increasing the use of purchased inputs in the communal sector. Seed and fertiliser are key inputs – without which farmers will see yields stagnate and then decline, as soil fertility falls. Prices are a key factor affecting input use. Whilst high prices are partly attributable to macro-economic conditions (particularly the falling value of the Zimbabwean dollar), the Zimbabwe Farmers Union believes that there may be scope to reduce prices through improved distribution systems. There is also scope to improve farmers' knowledge – focusing particularly on fertiliser application methods and levels.

The following day, presentations by Ann Gordon and Andrew Goodland provided background on the research and consultations carried out by NRI prior to the workshop. The experiences with small-holder input credit in Zimbabwe and Uganda provide some useful lessons, and highlight a range of mechanisms, suitable for different situations, to ensure repayment of input credit by small-holders. Low use of purchased inputs is a constraint on small-holder productivity in both countries – but small-holder farmers in Zimbabwe appear to make more use of purchased inputs than their counterparts in Uganda. Some are able to pay for these out of savings – and all benefit from more developed input distribution networks than currently exist in Uganda. Nonetheless, the input distribution networks in Zimbabwe are still regarded as extremely weak.

Peter Goko's talk focused on the policy context for purchased farm inputs. Agricultural policy in Zimbabwe is set out in the Agricultural Policy Framework, which has been developed through a consultative process with key stakeholders. The main policy objective is to transform smallholder agriculture into a fully commercial, sustainable farming system. Increased access to basic farm inputs and credit is considered fundamental to increased agricultural production, and clear roles have

been identified for government, private sector, donors and NGOs. This policy is to be implemented as part of the Zimbabwe Agricultural Investment Programme.

Nicholas Chakwera drew on his experience with the Agricultural Finance Corporation (AFC) to outline the potential services available to small-holders if more innovative approaches were adopted. There are few formal sources of credit for smallholders in Zimbabwe and this limits access to purchased inputs. Small-holder agriculture is considered high risk by financial institutions, which are unwilling to provide credit to smallholders in the absence of farm business plans, security (such as collateral) or credit guarantors. However, innovative approaches to credit delivery may help meet the financial requirements of small-holders. These include farm business management training for farmers and bank officers, 'stepped' credit, lending through farmer groups, and lending through financial intermediaries. In addition, there is considerable scope to increase savings mobilisation. The AFC has traditionally been an important source of credit for smallholders and has an extensive rural network, though in recent years it has reduced its portfolio considerably due to a shortage of funds. AFC has made an application to become an agricultural bank, and if this is successful, it will be able to attract savings as well.

Richard Mwanza's presentation focused on recent experience in Malawi to increase farmer access to purchased inputs. Use of purchased inputs in Malawi's small-holder sector is low because of low purchasing power and a weak input distribution network in rural areas. Market reforms implemented since 1994 have resulted in the liberalisation of agricultural input and output marketing, and the elimination of input subsidies. Small-holder farmers have very limited access to credit. Recent initiatives to boost small-holder production include: input credit schemes operated principally by NGOs; free distribution of small seed and fertiliser "starter packs"; small-holder seed multiplication schemes promoted by NGOs; and government and NGO involvement in the development and extension of low external input methods to improve soil fertility. Future initiatives must address mechanisms to permit access to inputs at reasonable cost by farmers who can afford to buy inputs; and sustainable credit mechanisms for those farmers with insufficient resources to make cash purchases.

Taswell Chivere drew on his experience with the Cotton Company of Zimbabwe (CCZ) to describe the evolution of the largest credit programme available to the communal sector in Zimbabwe. The CCZ scheme enrolled 55,000 communal farmers in 1998/99, with a total loan portfolio in excess of Z\$200 million or approximately US\$5.5 million¹. Repayment rates the previous year had been 98%. The input credit scheme was started in 1992/93. It was subsequently modified when the sector was privatised and CCZ no longer had monopoly purchase rights for seed cotton. Chivere stressed the importance of the costly start-up phase, the group-lending concept, farmer training, and rigorous adherence to loan repayment.

Tonneth Gazi provided a commercial perspective, by describing the strategy adopted by Agricura - an agro-chemical company which has deliberately targeted the communal sector in Zimbabwe. A strong technical department and depots throughout the country have helped Agricura link with retailers and farmers groups, working

¹ Based on the exchange rate pertaining in early March 1999.

through their own local co-ordinators, as well as NGOs, extension agents and other formal institutions serving the rural sector.

Golden Mahove described the AGENT programme operated by CARE Zimbabwe. The programme aims to improve the livelihoods of small-holders by improving agricultural productivity. It sets out to increase access to agricultural inputs by making them locally available at reasonable cost. This is achieved by working with selected local traders, who are trained in business management skills. These traders are linked to input suppliers, and a range of products are supplied to the traders on credit, for them to sell on to local farmers. The methodology of the programme has been refined over the past three years, with CARE's role becoming increasingly "hands-off". CARE currently provides training, mediates the supplier-trader relationship in the early stages, and guarantees the loans provided by the suppliers to the traders. Once traders have demonstrated their repayment reliability, they "graduate" from the programme and the loan guarantee is removed.

Conclusions and recommendations

The three working groups addressed:

- farmer-level constraints and strategies for increased use of purchased inputs
- input supplier roles, constraints and strategies
- roles and strategies for government, NGOs, unions and donors

Their conclusions are presented in Boxes 2-4 below.

Box 2: Farmer-level constraints and strategies for increased use of purchased inputs

CONSTRAINTS AND ISSUES AFFECTING FARMER USE OF PURCHASED INPUTS
<ol style="list-style-type: none"> 1. Cost of purchased inputs 2. Low purchasing power 3. Poor availability/accessibility 4. Lack of knowledge 5. Cultural attitudes (ancestral beliefs etc) 6. Risk of default on input credit 7. Production risk 8. Input packaging (labelling in English, and pack size too large) 9. Farming not regarded as commercial enterprise 10. Organic inputs used instead 11. Inconsistent quality and performance of inputs (and preferences/distrust of certain brands) 12. High cost of borrowing 13. Poor access to credit
STRATEGIES TO INCREASE USE OF PURCHASED INPUTS
<ol style="list-style-type: none"> 1. Bulk purchase by groups to obtain price discounts 2. Use credit, if available 3. Develop group-lending initiatives 4. Self-help initiatives to develop input sales network 5. Training and awareness campaigns – involving extension services and private companies 6. Diversification of enterprise – to provide broader resource base from which to fund inputs 7. Purchase from reputable suppliers

Box 3: Input supplier roles, constraints and strategies

INPUT SUPPLIER ROLES
<ol style="list-style-type: none">1. Market research2. Distribution to agents (to sell on to consumers) or direct to consumers3. Promotion (demonstrations, advertising, field days, shows, competitions)4. Production – appropriate product range + pack size, quality, timeliness5. Pricing – discounts, terms, and influence prices charged by agents6. Farmer training and extension (to include output marketing too)
CONSTRAINTS AFFECTING SUPPLY OF INPUTS
<ol style="list-style-type: none">1. Poor infrastructure (telecommunications, roads and warehousing) creating capacity/volume constraints2. Lack of finance (for supplier, agri-dealers and consumer) – and high interest rates3. High price of raw materials (especially imported components since Z\$ has fallen in value)4. High transport costs (because of poor infrastructure, and because of low volumes)5. Insufficient production capacity (particularly in peak period)6. Poor marketing7. Some aspects of marketing and pricing still controlled (inputs and outputs)
STRATEGIES TO INCREASE THE USE OF PURCHASED INPUTS
<ol style="list-style-type: none">1. Expand distribution by developing linkages with eg Cotton Company, NGOs, GMB, agents2. Provide farmer training (herbicides, methods, timing, choice, output marketing)3. Increase use of local raw materials4. Reduce transport costs by liaising with traders bringing goods out of rural areas5. Use large-scale commercial farmers as springboard agri-dealers6. Import more or increase production capacity7. Liaise with local agents to strengthen crop marketing (and hence demand for inputs)8. Be prepared to take on some risk by supplying agents on credit

Box 4: Roles and strategies for Government, NGOs, unions and donors

CONSTRAINTS
<ol style="list-style-type: none">1. Poor availability of inputs2. Lack of finance (high interest rate, and input costs increased by poor exchange rate)3. Weak infrastructure4. Inadequate resourcing of extension service5. Marketing problems (finance, interest rate, market information, market controls (eg maize))6. High costs of production for inputs, high prices7. Poor awareness and demand for services in communal sector
ROLES
Government
<ol style="list-style-type: none">1. Facilitate review of legislation, tariffs, duties, quantity restrictions2. Facilitate sector analysis and identify core functions; withdraw from other activities3. Regulate key functions (research, licensing, vet. services, and extension)4. Reduce intervention in the sector – eg handouts5. Stabilise the macro-economy
Donors, NGOs, Unions
<ol style="list-style-type: none">1. Assist in stabilising macro-economy (World Bank, IMF etc)2. Assist in policy implementation3. Underwrite the private sector schemes with seed money4. Support capacity-building in communal sector5. Facilitate appropriate training6. Facilitate greater role for private sector in extension
STRATEGIES
<ol style="list-style-type: none">1. Input manufacturing industry needs to be more innovative (increased competition is needed)2. Phased reduction of tariffs and other policy initiatives to create more conducive conditions3. Enhance rural growth points (provide title deeds, and infrastructure)4. Market reforms (especially for maize)5. Stabilise macro-economy6. Enhance farmer union services7. Develop stockists “across the fence” programme (commercial sector sells to communal sector)

The differing perspectives represented at the workshop resulted in wide-ranging discussion. Yet once the working group presentations had been made, in the final session it was possible to identify six recurrent themes which emerged as key issues:

- fertiliser costs and the economics of fertiliser application
- the need to enhance extension services
- the importance of the maize crop and issues affecting input use on maize
- macro-economic management and the “enabling” environment
- extending the successes with maize varieties to other sectors
- innovative partnerships to deliver services to the communal sector.

There was considerable debate on fertiliser costs and the economics of fertiliser application to different crops. Recent depreciation of the exchange rate, coupled with fertiliser shortages resulting from high demand because of good rains, had led to successive rises in the price of fertiliser. The extent to which these reflected real costs and “normal” profit was the subject of heated debate. The supply companies were also criticised for not being able to supply sufficient fertiliser (from domestic or external sources) during the three month period of peak demand. Questions were raised about the economics of fertiliser application given higher prices – particularly for crops marketed domestically, the price of which has been less affected by changes in the exchange rate. The cotton sector, by contrast, is a net exporter, and hence the benefits of depreciation (seen in a higher export price when expressed in Zimbabwean dollars) should outweigh the costs (seen in the higher price of imported inputs).

There was much discussion of the need to enhance extension services: make messages more appropriate to communal farmer conditions; provide Agritex with sufficient personnel and financial resources to service the communal sector more effectively; and transfer some activities to the private sector. In the large-scale commercial farming sector, and in selective areas (notably cotton, and input supply relating to cotton) there is already considerable commercial involvement in extension. It was suggested that this trend would continue – and Zimbabwe’s strong farmer unions could effectively “watchdog” this process to ensure that the advice given is impartial and appropriate.

Maize is an extremely important small-holder crop in those areas with sufficient rainfall. In the communal sector, yields tend to be low, and farmers’ first priority is to meet subsistence needs. Even areas of generally high rainfall are subject to periodic drought – and this increases the risk associated with higher-input higher-output strategies. In lower rainfall areas, or in areas of poor soil fertility, higher maize yields cannot be sustained even with the use of fertiliser. Input companies, however, are interested in promoting more intensive maize production such that the same output might be produced from a small area, and freed land diverted into cash crops (principally cotton). However, the state still plays a major role in maize marketing – setting prices, making purchases, and putting restrictions on international trade in maize. Many participants felt that this involvement inhibited the development of the sector, and argued for a diminished state role.

There was a consensus, however, that there is a strong role for the Government in macro-economic management. High inflation (an annual rate of 46% as of February

1999), high nominal interest rates (in the 50-55% range), and the recent steep depreciation of the Zimbabwean dollar (coupled with uncertainty over future levels) make borrowing, investment, carrying stocks and financial planning very problematic. The Government must also play an important role in creating an “enabling” environment – providing appropriate financial regulation and a legal framework for business development.

Seed is a critical input. The use of purchased seed and improved varieties dominates for the maize, even in the communal sector. Similarly, in the cotton sector farmers purchase seed each year – because of the nature of cotton production (ie the need for delinting) and the annual controlled release of new varieties. Yet it was felt that Zimbabwe’s strong capacity in plant-breeding offered unrealised potential to extend the success seen in the use of modern maize varieties, to other crops.

Finally, a somewhat surprising revelation, was the extent of interest in and experimentation with innovative partnerships to deliver services to the communal farming sector. Chivere’s presentation had focused debate on the scope to develop a cadre of “bankable” communal cotton farmers. However, many other pilot initiatives were under way or suggested, drawing on:

- linkages between input and output marketing
- pooling (or sub-contracting) transport, storage and rural retail facilities and strengthening rural distribution networks (able to deliver affordable products)
- extension mechanisms involving Agritex, NGOs, input supply companies, ZFU, crop purchase companies and large-scale commercial farmers
- expanding financial services, particularly savings mechanisms, available to the communal sector.

Where next?

All but one of the themes which emerged fall within the agriculture sector and relate directly to input use (fertiliser, seed, maize, extension and partnerships). However, there remain crucial unanswered questions and untested models. The need to better understand communal farmer needs, constraints and opportunities is not least among these – but there are important market distribution issues to address too.

The workshop participants signalled the way forward. The workshop highlighted considerable interest, amongst very different stakeholders, in better serving the needs of the communal sector – and in linking forces to find ways to do this effectively and sustainably. The concluding themes outline key needs, whilst the focus on partnerships points to potential means, albeit preceded by experimentation and pilot activity. Donor support will be needed to take this agenda forward, and NRI will seek to explore further development of these areas with partners in Zimbabwe.

Purchased input needs of communal farmers in Zimbabwe

by Emerson Zhou, Operations Director, Zimbabwe Farmers Union

Communal farmers in Zimbabwe face some considerable constraints in their farming operations. The first is low rainfall – which partly accounts for their risk averse attitude to the use of purchased inputs. Sandy soils and declining soil fertility are also an important constraint, which underlines the need for the fertiliser application. A third issue is poor infrastructure – especially roads. In combination, these three factors make it unsurprising that communal farmers in Zimbabwe make significantly lower use of purchased inputs than the large-scale commercial farmers.

Communal farmers, moreover, do not apply fertiliser at the recommended rates – so even when they do use inputs, they do not see a commensurate effect on yields. Yet such low application rates are not altogether illogical. In a good rainfall year, the farmer will see the benefit of fertiliser, but in a poor year s/he will not. So low application rates are part of a risk-averse strategy.

Fertiliser prices also play a role. Last season saw seven increases in the price of fertiliser in a seven month period. Fertiliser distribution is very centralised. Moreover 30-40% must be added to the ex-factory price to arrive at the price faced by farmers in rural areas. When there is a shortage, prices rise even more – and some of this is clearly speculative pricing on the part of traders.

Over the years, communal farmers have made increasing use of purchased seed and fertiliser. However, ZFU is now forecasting a decline in the use of fertiliser, and the methods and rates of application used by communal farmers are increasingly falling short of the recommendations. Under-application of pesticides is an additional problem – effectively the worst of all worlds: failing to control pests, whilst increasing exposure and hence resistance to pesticides.

Since Independence there has been increasing talk of re-orientation of research to focus on the problems faced by communal farmers. Despite this, many of the recommendations are the same as those made for the commercial sector. This is particularly true of input use, and appears to take little account of the particular conditions which apply in the communal sector.

So where do we go from here? ZFU is keen to see some risk-sharing by the fertiliser companies, and urges these corporations to consider cutting their margins, whilst farmers are having to do the same. After all, if the farmers go out of business, this will affect the fertiliser companies too. The former “rule of thumb” was that \$1 invested would yield a return of \$1.50 in agriculture – but this is no longer true, and some operations are even loss-making.

There may still be a role of public sector distribution in some areas. In Zimbabwe, an attempt was made to transfer input distribution entirely to the private sector – but some areas are poorly served, meaning that there is little competitive pressure on prices. Farmers in these areas might benefit from public and private sources of inputs. GMB, for instance, could play a role in input provision.

Credit is also important – and experience in Zimbabwe shows that input use by the communal sector has always increased when credit has been made available. This was the case in 1989/90 for instance. Cotton is another example of this: it is the only communal sector crop where there are high levels of both credit and input use.

Infrastructure – particularly improved roads and telecommunications – can also play a role in opening up markets for farmers, and ensuring greater competition and fairer prices.

To sum up, it is very important that the use of inputs in the communal sector should increase. The key inputs are seed and fertiliser – without which farmers will see yields stagnate and then decline, as soil fertility falls. Prices are a key factor affecting input use. Whilst high prices are partly attributable to macro-economic conditions (particularly the falling value of the Zimbabwean dollar), ZFU believes that there may be scope to reduce prices through improved distribution systems and less profiteering. There is also scope to improve farmers' knowledge – focusing particularly on application methods and levels.

Production credit for small-holders growing cotton: Zimbabwe case study

by **Andrew Goodland and Ann Gordon, Natural Resources Institute**

Introduction

Smallholder access to agricultural services (financial services, inputs, extension, output marketing) is recognised as a critical constraint to agricultural development in sub-Saharan Africa. This is especially the case for those countries which have dismantled or reformed public sector institutions which previously had service provision responsibilities. These parastatal organisations typically had monopolies on the provision of inputs and the marketing of agricultural produce. Their withdrawal has put the onus of service provision onto the private sector.

The agricultural supply response to market liberalisation in sub-Saharan Africa has been variable but often disappointing, particularly for food crops. In many areas, it appears that policy-makers overestimated the commercial response to market reform, taking insufficient account of the risk, information gaps and high transaction costs associated with small-holder marketing. This has left certain regions and crops poorly served by marketing networks and associated rural services.

Despite this, there are situations in which the private sector provides credit to small-holders - and there is increasing interest in partnership approaches involving the commercial sector, NGOs and government. NRI has been conducting research in Uganda and Zimbabwe, looking at experiences of commercial provision of credit to small-holder farmers for production inputs - with a view to identifying successful models with potential application to different situations. The initial research focused on the cotton sector in both countries.

Private sector cotton companies in Zimbabwe have taken initiatives to provide services to smallholder cotton farmers. By linking the provision of credit, input supply and extension advice to the marketing of seed cotton, the companies have contributed significantly to the recent increase in smallholder cotton production. Their approaches provide lessons for other smallholder sub-sectors and demonstrate the potential for private sector involvement in the provision of agricultural services, which have been threatened by fiscal tightening and state withdrawal associated with economic reform.

The cotton sector in Zimbabwe

During the past decade there has been a marked shift in the pattern of cotton production. Large-scale production, with high levels of inputs and mechanisation, has declined, whilst smallholder production has grown. Smallholders typically cultivate cotton on small unirrigated plots with high labour inputs. This increase in smallholder production (which by the 1996/1997 season accounted for 72 percent of a total of 273,000 tonnes of seed cotton harvested) can be attributed to a number of factors, including: the perception of cotton as a drought tolerant crop; renewed confidence in securing cash income for seed cotton; and improved production services. The total number of smallholder cotton producers had reached approximately 200,000 by 1998. (By contrast large-scale commercial farmers were using profits generated by cotton to invest in more lucrative irrigated crops - notably flowers and fresh produce for export).

Yields in the smallholder sector are much lower than those in the large scale farming sector, averaging 740 kg/ha in 1996/1997. Low yields are a result of a combination of factors, including: rainfed production; poor soils; limited access to inputs; and poor crop management.

Prior to 1994, the Cotton Marketing Board (CMB) had a monopoly on the purchase of seed cotton. Since then, the CMB has been privatised (although the Government have retained a 25% share) and has become the Cotton Company of Zimbabwe (subsequently referred to as 'Cottco'). Since 1994, anyone is allowed to purchase seed cotton, and by 1998 there were three cotton companies: Cottco, Cotpro, and Cargill.

Credit for smallholders:

Credit for smallholders increases access to inputs, and therefore has a role to play in increasing smallholder productivity. However, small-holder access to credit is limited, and in practice smallholders use their own savings, or depend on remittances from relatives to make cash purchases. In times of extreme need, farmers may forward sell their crop to traders, but these "green loans" are provided on terms which are very poor for the farmer.

The commercial financial sector has minimal involvement with smallholders due to the perceived high risks of rain-fed crop cultivation, and the inability of smallholders to meet banking requirements, including the provision of collateral. For these reasons there is a very low banking presence in rural areas. The Agricultural Finance Corporation is a parastatal institution set up specifically to provide credit to the agricultural sector. It has had a mixed history, and has not been able to provide financial services to smallholders on a sustainable basis. Subsidised credit was available to all smallholders during the 1980s, though the high default rate and cash flow constraints have forced AFC to become far more disciplined in their approach to smallholder lending. Consequently, since the late 1980s there has been a steady reduction in the number of clients and in the amount loaned and AFC now has a much smaller clientele, though more reliable. AFC now plan to become an agricultural development bank and were expecting the license to be granted in late 1998. This will enable AFC to mobilise savings. With their extensive network in rural areas, the Agricultural Bank of Zimbabwe, as it will be known, should be well placed to provide financial services to the agricultural sector.

Other sources of credit and financial services, such as non-governmental organisations, have not reached smallholders to any significant extent.

Private sector provision of credit:

The cotton companies have taken an active role in supplying services, including credit, to small holders. The reasons for this can be attributed to:

1. The increased share of production by smallholders has meant that all three cotton companies are dependent to some extent on securing a supply of seed cotton from these producers. They have therefore sought means to increase the supply from smallholders by providing production services (input supply, credit and extension).

2. Excess ginning capacity within the country has heightened competition between the cotton companies, which have sought means of securing access to seed cotton. One way of achieving this is to link the marketing of seed cotton to the provision of production services.
3. The general paucity of agricultural services available to smallholders from other sources, especially those in remoter areas, has left the cotton companies with little option than to become involved in production credit and input supply.

Two of the three cotton companies (Cottco and Cotpro) have provided services to smallholders through input credit schemes. Input credit schemes involve the provision of production inputs on credit to farmers by the cotton companies, which recover the loans by having exclusive purchase rights on seed cotton produced by those farmers. The challenges of providing input credit to smallholders are the same as for all credit activities:

1. Screening potential borrowers to assess their creditworthiness and likelihood of repayment;
2. Providing credit in the right form and at the right time;
3. Monitoring to ensure that the credit is used productively;
4. Ensuring repayment of the loan

Avoiding default is the principal aim of the creditor. Default can be due to the genuine inability of a borrower to repay or it can be strategic. 'Strategic default' occurs when the borrower defaults on a loan intentionally. This may occur when the borrower believes that repayment can be avoided without jeopardising future income or access to credit. 'Strategic default' can occur where there are multiple buyers and 'side-marketing' is possible. 'Side-marketing' refers to farmers taking credit from one buyer but avoiding repayment by selling to another. For example, prior to the full liberalisation of seed cotton marketing, this was not a problem as the CMB was the only buyer of seed cotton. However, with three cotton companies now competing in the market, each being supplied by farmers and marketing middlemen, the problem of side-marketing has emerged. Currently, two of the three cotton companies are operating credit schemes. The experiences of the three cotton companies are summarised below.

Cotton Company of Zimbabwe

The Cotton Company of Zimbabwe (Cottco) is the largest company in the cotton sector, accounting for around 70% of seed cotton purchases and processing. Cottco was formed from the privatisation of the Cotton Marketing Board (CMB) in 1994. Cottco's input credit scheme started in 1992/1993 season after the severe drought of 1992 and money was made available from the World Bank to finance the scheme.

The scheme uses a number of mechanisms to minimise default:

- Credit is extended in the form of physical inputs (seed, fertiliser and pesticide) to farmer groups. The whole group is penalised if one member defaults, so there is an incentive for peer policing to ensure repayment. Groups are self-selecting, though all new members have to be able to demonstrate that they have a good track record in cotton cultivation. The size of groups has declined during the lifetime of the scheme.

- Considerable effort is made to forge close relationships between the company and the participating smallholders. Local Cottco agents are in year-round contact with smallholders, and additional services are provided by the company, including extension advice.
- Monetary rewards are given to groups with high repayment rates. Defaulters are followed up quickly and assets, such as cattle, can be seized. A debt collector has been contracted for this purpose.

In 1998, 50,000 smallholders were in the scheme. The repayment rate for the 97/98 season was 98 percent. In addition to those smallholders in the input credit scheme, many other smallholders purchase inputs from Cottco. Farmers also benefit from technical advice, for instance a weekly radio broadcast for cotton growers. The scheme is becoming increasingly sophisticated. In an expansion of the scheme, Cottco has recently introduced individual cash loans to farmers with a good history who are achieving high production. Furthermore, the Cottco scheme is insured. The risks covered are: death; permanent disability; sickness; and general default. Participants in the scheme are automatically covered as soon as they draw inputs from the scheme.

Although the Cottco experience has been largely positive, at the outset it was dependent on soft loans from the World Bank (channeled via the Zimbabwean Government). Without access to these funds, the scheme would have had to charge significantly higher interest rates during its crucial start-up phase.

Cotpro

Cotpro's input scheme is similar to Cottco's, though on a smaller scale with 5,000 farmers in 1998. It too uses a group lending approach and incentives for high repayment rates. The company has developed a network of distribution/collection points in areas where the scheme operates, and employs a number of local agents to implement the scheme. The scheme has been very successful, with full recovery of loans (up to 1998). Cotpro plan to expand the scheme modestly (up to around 8,000 smallholders), believing that the administrative and logistical burden of a larger scheme would threaten its successful operation. Unlike Cottco, Cotpro has not benefited from international donor funds, and has instead used funds from a number of different sources, including internal company funds and loans from the Development Division of AFC. Interest rates charged to smallholders are higher than those charged by Cottco, but significantly lower than prevailing market rates.

Cargill

Cargill does not operate an input credit scheme, and has no plans to do so. Company officials regard input credit as unnecessary because their supply requirements can be met by large-scale producers and from smallholders which are outside the other companies' input credit schemes. In addition, Cargill staff wish to avoid the significant administrative burden they perceive from operating such a service. Instead of being offered credit, farmers can purchase inputs for the following season when they sell their seed cotton to Cargill, without any obligation to sell the next season's crop to Cargill. Such a system has the advantage of not indebting smallholders, who in the current economic climate (November 1998 year-on-year inflation was 35%, and market interest rates were over 40%) may be reluctant to take credit for fear of long term indebtedness. High inflation also makes advance purchase of inputs attractive to those farmers who can afford to do so.

Conclusions from input credit schemes in the cotton sector

The credit schemes of both Cotpro and Cottco appear to be successful in terms of repayment and both companies have been able to secure a significant proportion of their seed cotton requirements through their input credit schemes. The total number of smallholders currently benefiting from the schemes numbers approximately 55,000 - out of an estimated 200,000 small-holders producing cotton. In Zimbabwe, many farmers are clearly able to grow cotton without credit, since most farmers use their own resources to purchase inputs.

The challenges of offering credit have been met through a combination of strategies:

- Screening of potential borrowers is performed by the group members who realise that they stand to lose if an unreliable farmer joins their group. In addition, both Cotpro and Cottco employ local agents who have local knowledge and are therefore in a position to assess the credentials of loan applicants.
- Close monitoring of the farmers throughout the season and links with the extension services (Agritex) ensure that the smallholders are putting the inputs to good use, thereby increasing the chances of loan repayment.
- Tying in extension services with the input credit scheme serves both to increase the productivity of those inputs, and also helps to create a closer relationship between the company and the smallholder, and smallholder loyalty to the particular company supplying credit.
- Incentives are offered for good repayment, whilst defaulters are dealt with swiftly.
- Generally, a combination of instilling financial discipline and weeding out potential defaulters has created a reliable clientele.

Future of the schemes

Neither Cottco nor Cotpro charge market interest rates in their programmes. This casts doubt over the long term sustainability of the schemes. Furthermore, the schemes have been operating during a period of relatively good production conditions, and therefore the companies involved have not had to confront the problem of mass default from severe crop failure (as there was in the 1991/2 season). Severe droughts are a fairly regular occurrence in Zimbabwe and so it would seem that it is only a matter of time before this problem will need to be addressed. Rolling the debt over to the following year is one possible response, though this would require the companies to find additional funds. Nevertheless, Cottco were able to recover from poor loan repayment experienced in the first year following liberalisation - suggesting that there may be sufficient liquidity or access to loans to cover poor harvests.

Key conditions for the success of input credit schemes.

The success of the input credit schemes in the cotton sector raises the question of whether such an approach could be applicable to other agricultural sub-sectors. The experiences of the cotton sector in Zimbabwe, together with the findings from related research by the authors in Uganda, reveal a set of desirable conditions for input credit schemes.

1. Low degree of transferability of credit: if the credit can be used for a different purpose (for instance, cash is highly fungible), there is a chance that it will be put

to a non-productive use, increasing the risk of default. Providing credit in the form of inputs minimises this.

2. Lack of alternative uses for output: when the output can be disposed of in a number of ways (for example, household consumption, local marketing or household processing), this reduces the likelihood that it will be used to repay the loan. Cotton, and other non-consumable and export crops, have limited value to smallholders.
3. Mechanisms are available to ensure the recovery of credit, for instance the use of groups and other incentives to encourage repayment and discourage default.
4. The private sector has an incentive and means to provide credit: *incentives* from having a need or benefit to operate a scheme, for example to maintain the utilisation rates of fixed assets such as ginneries; *means* from having access to sufficient funds to operate the scheme.

Input credit and smallholders in Zimbabwe

Input credit has been tried in a number of agricultural sub-sectors in Zimbabwe, with mixed results (see Box 1).

Box 1: Smallholder crops and input credit: experiences and potential.

High value horticulture crops (including babycorn, paprika): Outgrower schemes have been used to produce high-value horticultural crops for export markets. Such schemes are elaborate input credit schemes, with far higher involvement of the company in crop cultivation. Production generally requires intensive use of inputs, including irrigation which is not available to most smallholders in Zimbabwe. For small plots, small-holders may use bucket irrigation - and some companies involve large numbers of small-holders, each growing very small volumes.

Maize: Household consumption and local marketing have thwarted the successful operation of input credit for maize production in the past. The Grain Marketing Board is now proposing to launch a new scheme modelled on the cotton sector. However state intervention in maize markets may dampen private sector incentives to participate in input credit.

Soyabean: despite interest in promoting smallholder production of soyabean, oil processors have no incentive to launch input credit schemes as they can secure sufficient supplies from the commercial sector, where soya is grown for animal feed.

Groundnut: one input credit scheme is operating. The company involved (Reapers) has overcome the potential problem of household consumption by developing close ties with smallholders. With close monitoring of smallholders, and by instilling a sense of loyalty to the company, the risk of default is minimised.

Sorghum: Chibuku Breweries used to offer input credit for red sorghum. However, this was discontinued because, being the only major buyer, the brewery saw no need to operate the scheme to assure its supplies. The company does still distribute seed from its depots. Little use is made of agro-chemicals in sorghum production.

Alternative approaches to increasing smallholder access to inputs.

The experiences of the cotton sector demonstrate that even though input credit schemes are available, the majority of small-holders (around 70 percent) purchase inputs with cash from retailers or cotton companies. Access to inputs has two elements: firstly that farmers have the means (cash or credit) to obtain the input; and secondly, that the inputs are available. The cotton schemes address both of these elements. Other schemes focus on the availability issue.

The non-governmental organisation, CARE, has a programme which guarantees short-term input loans made by distributors to rural retailers, who in turn sell the inputs to smallholders. The performance of the programme is very encouraging. In its first year (1996/97) about Z\$4 million worth of inputs were sold to farmers and 95 percent of repayments have been made on time.

A private company, Agricura, which manufactures and distributes agro-chemicals, has specifically targeted smallholders for its products. The chemicals are packaged in small quantities to suit smallholder production, and a network of agents, who are paid on commission, spread awareness of the company and organise field days for farmers to purchase inputs and receive guidance on their usage.

Conclusions

In the absence of alternative sources of agricultural services, the role played by the cotton companies in increasing access to inputs is significant, especially the input credit scheme of Cottco. Cottco is largest single source of credit for smallholders in Zimbabwe, even though it is not a financial institution. It has developed its own methodology for lending. Micro-finance institutions could learn from Cottco's approach, whilst Cottco might benefit from software developed by micro-finance institutions - to manage the scheme as it becomes increasingly sophisticated. Cottco have recently started to provide cash loans to individuals, thereby becoming more akin to a micro-finance institution.

In other sectors, theoretically there is potential for both input suppliers and output purchasers to be involved in input credit schemes. There are difficulties: unless input supply is explicitly linked to output marketing, recovery may be difficult. Input companies have therefore focussed their credit scheme efforts at the retailer/agent level (for instance CARE programme). Alternatively, input suppliers have sought to increase the availability of inputs to smallholders (see Agricura above), without providing credit. Output buyers (processors, exporters) have been more reluctant to be involved with credit schemes. The situation in Zimbabwe, with a sizeable large-scale commercial sector means that only in certain commodity sectors (such as cotton) is dependence on smallholder production critical, and therefore there is little incentive to launch input credit schemes. None of the large agro-processors have a need to embark on input credit schemes as they can access all their raw material from the commercial farming sector.

Financial discipline appears to be strengthening in Zimbabwe, and has certainly improved much over the past decade, as demonstrated by the improvement in performance of the AFC and Cottco schemes. Good financial discipline significantly

increases the chances of success of operating input credit schemes, and even raises the possibility of transferring the approach to commodities where side-marketing or household consumption is a real possibility (for instance for food crops).

Despite the success of the cotton input credit schemes, there is a question mark over their sustainability because of their dependence on below-market interest rates. There has been no experience of charging market rates - though it should not be assumed that the schemes could not operate at the higher rates. Of more concern are the general economic conditions in Zimbabwe at present. High inflation and interest rates do not encourage rural finance. Savings rates are currently negative (in real terms). High nominal interest rates discourage smallholders from taking credit: investment in assets is seen as preferable, where it is an option. Purchasing inputs at the time of sale of seed cotton may become more popular, though storage of inputs may pose some problems.

The cotton company schemes have clearly extended and expanded access to inputs, but credit is only part of the solution to increasing input use. Many small-holders in Zimbabwe are able to purchase inputs without credit - and the availability of inputs in rural areas is at least as important as credit.

Production credit for small-holders growing cotton: Uganda case study

by **Andrew Goodland and Ann Gordon, Natural Resources Institute**

Introduction

Smallholder access to credit is recognised as a critical constraint to agricultural development in sub-Saharan Africa. In the past, credit was sometimes provided by public sector institutions - typically parastatals with agricultural marketing monopolies, involved in input and output marketing, or state banks. In most countries in Africa, the parastatal marketing boards have now been replaced by private traders, whilst the state banks have been privatised or forced to reform and tighten their operations. This puts the onus of service provision onto the private sector.

The agricultural supply response to market liberalisation in sub-Saharan Africa has been extremely variable and often disappointing - particularly for food crops. In many areas, it appears that policy-makers overestimated the commercial response to market reform, taking insufficient account of the risk, information gaps and high transaction costs associated with small-holder marketing. This has left certain regions and crops poorly served by marketing networks and associated rural services.

Despite this, there are situations in which the private sector provides credit to small-holders - and there is increasing interest in partnership approaches involving the commercial sector, NGOs and government. NRI has been conducting research in Uganda and Zimbabwe, looking at experiences of commercial provision of credit to small-holder farmers for production inputs - with a view to identifying successful models with potential application to different situations. The initial research focused on the cotton sector in both countries.

The cotton sector in Uganda

Uganda's cotton crop is grown entirely by small-holders. Cotton is typically grown in rotation with food crops. Yields are low (approximately 300 kg/hectare): although pesticides are used, there is negligible use of fertiliser. Production is also constrained by draft animal shortages in some of the northern and eastern parts of Uganda, where cattle rustling was a problem in the early 90s. The Cotton Development Organisation is responsible for the purification and dressing of seed, which farmers now purchase.

There has been considerable institutional change in the cotton sector. Cotton production peaked in 1969/70 at nearly 470,000 bales of lint. However, after 1972/73 production declined dramatically. A Government order issued in 1964 had required the ginneries to be taken over by the co-operative unions. Gradually chronic management and financial problems arose, which together with the poor prices set by the Government, undermined farmer confidence in the crop. By 1987/88, production had fallen to just 12,000 bales. In 1993, however, the Government commenced a programme of cotton sector liberalisation. The ginneries are once more privately-run, and cotton production has started to increase again. Production this season (1998/99) is expected to be around 150,000 bales. However, small-holder access to and use of inputs is still a major issue.

Credit for small-holders growing cotton

Prior to liberalisation, cotton small-holders received inputs (seed and pesticide) on credit from the state, which were distributed through the co-operatives. This system of input delivery created a dependency on the state, and led small-holders to believe that they were receiving inputs free of charge, though in actual fact they were paying through lower farmgate prices. With the dismantling of the system, there has been concern that small-holders would be unable to access production inputs. This concern is most acute among the ginnery owners who have invested in ginnery modernisation/rehabilitation, and are dependent upon the small-holder sector for the provision of raw material for their ginneries.

Private non-financial sector initiatives to provide credit to cotton smallholders

North Bukedi Cotton Company.

The North Bukedi Cotton Company is one of the largest ginners in the country with an annual demand for 15,000 tonnes of seed cotton. The reluctance and/or inability of smallholders to pay for inputs during the 1996/7 season prompted North Bukedi to consider alternative input delivery arrangements, and as a result inputs (seed and pesticides) were provided on credit. During the 1997/8 season, some 78,000 smallholders across eastern Uganda received seed and pesticide on credit and under signed agreements to sell their produce to North Bukedi. North Bukedi also provided extension advice to participating farmers.

The results of this were very disappointing, with a very low recovery rate, and the scheme has been discontinued. Small-holders failed to honour the agreements they had with North Bukedi. The system broke down due to two main factors:

- the price offered by North Bukedi for seed cotton was lowered so that the company could recover their outlay for inputs; other ginneries were able to offer higher prices and purchase from farmers in the scheme; and
- the weather in 1997/8 was extraordinary (due to the effects of El Nino) and particularly detrimental to cotton production, with a drought during the planting season and heavy rains during harvesting; the Ugandan crop, originally forecast to be 150,000 - 200,000 bales of lint, was in fact closer to 30,000 tonnes.

Lessons from the North Bukedi experience:

1. Agreements struck between the company and smallholders were virtually impossible to enforce. Attempts to recover loans through the seizure of assets (such as bicycles) created hostility and bitterness, and proved unworkable.
2. Screening and monitoring borrowers, and enforcing repayment, becomes increasingly expensive and problematic the larger the scale of operation. Effective administration of a scheme involving 78,000 smallholders is problematic.
3. As long as there are other buyers in the market who are able to offer higher prices, such interventions are prone to failure (in the absence of enforceable agreements).

Uganda Ginners and Exporters Association (UGEA)

The bad experiences of North Bukedi (and Lonrho, which operated a forward buying scheme) during the 1997/8 season resulted in heavy losses. Other ginners and

exporters also had poor years, in part due to the low harvest. The approach to private sector provision of inputs clearly was not working, due primarily to the difficulty of enforcing repayment in a competitive market.

The response has been the establishment of the Uganda Ginners and Exporters Association (UGEA), which has been registered as a limited company. All ginners and cotton exporters are members of the association. Working closely together, the Cotton Development Organisation and the UGEA have developed and implemented a new scheme aimed at providing inputs to small-holders. The distribution of the inputs is being co-ordinated by the CDO in collaboration with the Ministry of Agriculture, Animal Industry and Fisheries.

When field work was by conducted the authors in the second half of 1998, there was considerable optimism about the scheme, which appeared to be working well, despite some initial problems. The size of the harvest, and the ability to sustain and increase output in subsequent years will be the real test of this approach. The following appear to be particularly critical to the scheme's success:

1. timely distribution of inputs on a large-scale requires a sophisticated distribution system; there were some delays in distribution in 1998, but since these were not too severe, the harvest may not have suffered greatly; and
2. input costs are recouped through a levy payable on volume of cotton ginned; to minimise levy avoidance, independent monitors have been placed at each ginnery, and border officials and local spinners briefed on the potential problem of illegal sales, although it is not yet clear whether these measures are adequate.

In addition there are three issues which have implications for the sustainability of the scheme:

- a large potential problem relates to how the scheme has been set up. Inputs are provided on credit, but the repayment is based on volume of output, rather than volume of input. The result is that the smallholders have no incentive to use the inputs prudently. For example, a smallholder may take enough pesticide to treat 10 hectares, but only treat one hectare, and find an alternative use for the remaining pesticide (used on other crops or sold). The individual farmer is not penalised for this, as the repayment is made via a flat rate deduction on the price of seed cotton, irrespective of how much input was used. Whilst extension advice and monitoring may reduce such abuses, it is unlikely that this will eliminate the problem altogether.
- the scheme is vulnerable to covariate risk, for instance if climatic conditions led to widespread crop failure and consequent mass default by the ginneries.
- the long-term financial sustainability of the scheme is difficult to assess as currently the interest rates obtained on the input loan are below commercial market interest rates, and the loan is guaranteed by the Ugandan Government. Moreover, the logistical support provided by the Cotton Development Organisation is presently provided free of charge.

Alternative sources of credit for cotton smallholders

In addition to the private non-financial sector, there are several potential sources of credit for cotton farmers:

1. from initiatives/interventions taken by the public sector to target credit to cotton farmers
2. from initiatives taken by the public sector to target credit at smallholders in general
3. from the formal commercial banking and financial sector
4. from the semi-formal micro-finance sector, including NGOs
5. from the informal sector.

Although there are several pilot schemes underway currently, and considerable interest in innovative ways to increase small-holder access to credit, none of these alternative sources provide a sustainable, reliable and widespread source of credit for smallholder activities at the present time. As a consequence, the private sector cotton ginneries have had to play a leading role in supplying credit.

Experience with input credit in other sectors

Tobacco: BAT operate a sophisticated and successful input credit scheme in a competitive market. For 1998, BAT has entered into agreements with 48,000 smallholders who cultivate tobacco on an average of 0.3 hectares.

Key lessons:

- Guaranteed prices announced before start of the season
- Law to safeguard farmers and company
- Trust between the company and smallholders built up over time
- Distribution system ensuring timely delivery of inputs and payment for produce.
- Strong extension support

Vanilla: A company called UVAN Ltd works with a vanilla growers association, and has successfully operated a input credit scheme. The basis for the success of this scheme is the close relationship and trust between the company and the association. With respect to the credit system, the transaction costs of screening and monitoring are lowered by their transfer to the association, which has the incentive to ensure that loans are repaid so as not to jeopardise the relationship with (and income from) UVAN.

Experiences of ADC:

ADC has had mixed experiences with outgrower/input credit schemes. The most common problem is the presence of multi-marketing channels. When there is more than one marketing channel, growers can often avoid loan repayment by selling their crop to another buyer - leading to the collapse of the schemes. However, ADC is currently involved in a number of innovative input schemes, which appear to have met with more success.

Small-holder access to credit - some lessons

The case study of the cotton sector of Uganda and the insights gained from other sectors can be used to identify the characteristics of an agricultural commodity system which potentially lends itself to private non-financial sector provision of credit.

1. Low degree of transferability of credit.

If repayment is to be collected at the time of crop purchase, it is important that the credit supplied must be put to the right use – i.e. for the production of the crop in question. To a certain extent, this can be achieved by providing the credit in kind, i.e., actually providing the input (for example seed, pesticides). Providing cash carries a large risk of being diverted for other expenditures.

2. Lack of alternative uses for output.

If the output has any value other than to the processor or trader providing the credit, then there is a risk that not all of the produce will be available for purchase by the credit provider. This is particularly relevant for food crops which can be consumed at the household level or sold in food markets. In this scenario, the household is 'free-riding' on the inputs supplied by the lender, and the lender therefore cannot capture the full benefit of the inputs.

3. Mechanisms exist to ensure recovery of the credit

Strategic default or side marketing – when the smallholder decides to sell to a buyer other than the lender – is a common problem in implementing such credit schemes. Three options are available to avoid this:

Enforcing repayment. Recovery of loans can be enforced where agreements made between a private sector lender and the smallholder borrower are legally binding and taking legal action against defaulters is possible. Collateral can be used to secure loans, and may be seized.

Creating incentives for repayment. If the borrower has a strong incentive to repay the loan, strategic default is less likely. The most common incentive to the smallholder will be the maintenance of a working relationship with the lender. If smallholders recognise the benefit of entering into an agreement with a specific private actor, then they have an incentive not to jeopardise the future benefits of maintaining that relationship.

Removing the option of strategic default. Strategic default can only happen when there is more than one buyer in the market. Where there is a geographic monopoly, non-fungibility of inputs, and a lack of alternate uses for the output, then the potential exists for a credit scheme. However, especially after economic liberalisation, this is rarely the case. Unless a monopoly can be mimicked by cooperation between buyers, strategic default is likely. This has been the approach in the cotton sector with the formation of the UGEA effectively removing the possibility of escaping repayment of the loan.

4. Private sector has incentive and means to provide credit.

The private sector will only take the initiative to develop a smallholder credit scheme if there is a benefit in doing so. Certainly, if capital investments have been made (for instance in processing facilities) there is a strong incentive. This is the case for processors (for example in the cotton and tobacco sectors).

Sufficient liquidity is a pre-requisite: access to funds to make loans to smallholders. Larger, international companies have an advantage here, as they do not have to rely on domestic sources of financing, though if they did approach the banking sector for loans, they are more likely to secure loans than smaller traders and processors.

The above four conditions appear to be essential for the success of private non-financial sector provision of credit. In addition however, there is also a set of facilitating conditions which may enhance the potential success of this approach.

Monitoring systems and extension services

Efficient and effective use of the inputs provided will increase the chances of sufficient production to pay off the loan. Appropriate use of inputs can be ensured through extension advice and monitoring of smallholders.

Lowering transaction costs.

The transaction costs associated with the operation of an input credit scheme include the costs of screening smallholders, distributing inputs, monitoring the use of inputs, and collecting the harvest. These costs are ultimately passed down to smallholders via lower prices for their output, and if they can be reduced then theoretically smallholders stand to increase their incomes (though this will depend on their bargaining power), and therefore their incentive to participate in such a scheme. Farmer groups and associations may have an important role in this respect, as they can take on responsibilities for screening, distribution, monitoring and bulking up, and provide a contact point for group extension activities.

Potential applications to other sectors in Uganda

Food crops. A wide variety of food crops are grown in Uganda, including maize, beans, sorghum, millet, rice, cassava, bananas (matooke), sweet potato, groundnuts and Irish potato. These are crops which are produced for household production and traded in local markets. Production is low input, with a heavy reliance on household labour. If processed, much of this is done at household level. Some of these commodities may be exported to regional markets, for example maize and beans.

Theoretically, traders could provide inputs, especially improved seed, on credit in return for access to the crop for marketing. Similarly, input suppliers could provide inputs on credit - particularly if this were directly linked to output marketing, or linked indirectly through an arrangement with output purchasers. However there is very little evidence of this happening.

Food crops do not appear to be good candidates for private non-financial sector credit.

- Food crops can be consumed in the household, or traded locally, so there is a significant risk for the trader of not recovering the crop/loan.
- There are many potential buyers, increasing the likelihood of strategic default.
- Traders, especially small-scale local traders, who have the advantage of local information and monitoring, may not have access to finance, given the reluctance of the commercial banking sector to lend to the agricultural sector.
- Input usage is low – hence demand for credit may also be low.

Traditional export crops

Coffee: Yields could be improved by replacing old trees or increasing the use of agro-chemicals. Credit may have a role to play in any programmes to increase productivity. The largest potential constraint to the involvement of processors and exporters would appear to be the fierce competition and large number of buyers, though as has been seen in the cotton sector, such constraints can be overcome. There is evidence of advance buying of coffee – local agents are contracted by coffee processors and exporters to make advance purchases of coffee from smallholders. The money provided from the exporters and processors, via the local agents, could in theory be channelled to purchasing inputs and to pay for labour for harvesting.

Tea: Tea production consists of large and small estates, complemented by smallholder outgrowers with land areas averaging less than 10 hectares. There are no significant alternative uses for the tea crop, and this is clearly important in the potential success of input credit schemes. Multiple buyers in the market is a potential problem: there is evidence that some of the estate factories have purchased from outgrowers to improve their capacity utilisation.

High value export crops: Recently, a number of high value crops (for example chillies, vanilla, ginger, roses) have emerged as potentially profitable smallholder crops. There is considerable potential for outgrower schemes for these crops. Both smallholders and the companies involved stand to benefit from the schemes and therefore have incentives to make the schemes work.

Edible Oils: Vegetable oils in Uganda have traditionally been derived from groundnut, sesame, cottonseed, shea and more recently from sunflower and soya bean. There are also plans to introduce oil palm. Some oilseeds may offer potential for private provision of credit. Groundnuts are traditionally used as a valuable whole food, and their cost precludes significant use in oil extraction in Uganda. Similarly, sesame is used as a food crop. For both groundnuts and sesame, the problem of the diversion of the crop to household consumption is likely to rule them out as potential crops for input credit.

Sunflower may have more potential as a candidate for input credit, and farmer interest in sunflower has increased with the introduction of small-scale processing options and high oil yielding seed. Oil palm may also be a suitable candidate for credit - particularly as there is no tradition in Uganda of household-level processing or direct food-use of the fruit.

Conclusions

Market liberalisation and the provision of credit.

The use of purchased inputs by smallholders remains low in Uganda. Smallholders, who were previously dependent upon inefficient state systems for the provision of inputs, are now increasingly dependent upon the private sector. Credit has an important role to play in increasing access to inputs. The commercial banking sector may eventually provide loans for agriculture, and small holders – but this will take time. Likewise for the semi-formal micro-finance sector: in time they may return to the agricultural sector, but it is currently regarded as high risk. Legislative support to recognise the semi-formal micro-finance institutions may help, plus the sharing of

experiences. The removal of marketing monopolies and the introduction of competition place considerable strain on the operation of input supply-output marketing linkages, by greatly increasing the scope for strategic default by farmers. However, these problems can be overcome (see cotton and tobacco).

Private non-financial sector credit versus alternative sources of credit.

The private non-financial sector has taken the lead in the provision of inputs in several sectors. Clearly though, this approach is not appropriate to all commodity systems, and the study has attempted to identify some key conditions that need to be in place for such an approach to work. Alternative sources of credit, notably the commercial banking sector and semi-formal micro-finance institutions, are currently reluctant to lend for agricultural activities, though there are several initiatives underway to try and overcome this. However, these schemes are medium to long term programmes. Hopefully, they will lead to the creation of viable and sustainable delivery systems which will be applicable to the whole of the rural economy, not just specific commodities.

However, the private input credit schemes do have potential for the short term at least, and it may be possible to identify other sectors where the private non-financial sector approach could work. Private provision of credit, linked to output marketing, may in fact offer considerable advantages over alternative sources:

- It is the interest of the lender to ensure that good quality inputs are used, and that these inputs are used so as to maximise their effectiveness. Credit may therefore be linked to monitoring and extension services (for example see tobacco and vanilla above) which serve to increase productivity and hence incomes for smallholders. These income-enhancing services are generally not available from alternative sources of credit.
- It is also in the interest of the lenders to deliver inputs on time; commercial bank loan application and disbursement procedures are often time-consuming and therefore risk late provision of inputs.

However, it is also important that non-financial institutions benefit from the experiences of the financial institutions. When non-financial entities get involved with credit provision, they need to be aware of the risks and risk-avoidance mechanisms. If not, then they could incur significant losses (as did both Lonrho and the North Bukedi Cotton Company during the 97/98 season).

The input credit schemes reviewed here have considerable potential in several commodity systems in Uganda, though these are exclusively for non-food crops. The schemes both increase availability of and access to inputs. They offer scope for wider application because:

- they can operate in a competitive market.
- incentives exist to provide inputs on credit to smallholders and for smallholders to use those inputs efficiently.

Screening, monitoring and enforcement issues are addressed using mechanisms which are effective and minimise transaction costs.

Credit provision for small-holder farmers: lessons from Uganda and Zimbabwe

by Andrew Goodland and Ann Gordon, Natural Resources Institute

Introduction.

The agricultural supply response to market liberalisation in Africa has been extremely variable, but often disappointing – particularly for food crops. For some crops and regions, it seems that policy-makers over-estimated commercial willingness to become involved in the marketing of small-holder production. Perceived risk, poor information and high transaction costs have contributed to an often weak commercial presence in the more marginal or remote areas. Yet the parastatals that formerly provided output and input marketing services, sometimes with a credit component, have been largely dismantled. This leaves a critical gap in the provision of agricultural marketing and associated rural services.

Smallholder access to agricultural services (financial services, inputs, extension, output marketing) is recognised as a critical factor in achieving productivity gains. State withdrawal puts the onus on the commercial sector to provide these services – and there is particular interest in partnership approaches which build on the competences of commercial, non-governmental and public players.

NRI has been conducting preliminary research on the conditions necessary for private provision of credit to small-holders. The initial research has focused on differing experiences from the cotton sectors in Uganda and Zimbabwe – where private cotton companies are involved in small-holder credit programmes – with a view to identifying other sectors or situations where these models could be applied.

Uganda and Zimbabwe have both recently been through periods of market liberalisation. Private companies in the cotton sectors of both countries have taken initiatives to provide agricultural services to cotton smallholders. The approaches taken in each country are markedly different, despite similarities in the problems faced. However, in both cases there are considerable grounds for optimism, with smallholder cotton production increasing, in part because of the credit schemes. Input credit schemes involve the provision of production inputs on credit to farmers by companies, which recover the loans by having exclusive purchase rights to the produce of those farmers. The schemes in both countries are still in their infancy, and questions remain over their sustainability, though they provide many lessons for the successful operation of input credit schemes in cotton and other sub-sectors.

Cotton sector development in Uganda and Zimbabwe

There are some parallels between the development of the cotton sub-sectors in Uganda and Zimbabwe, but also differences that help to explain the characteristics of the input credits schemes.

Similarities:

- Both Uganda and Zimbabwe have a long history of cotton production.

- Both countries have recently liberalised their cotton sectors. Prior to 1994, state parastatals held monopolies on the marketing of seed cotton. Market liberalisation has resulted in competitive purchasing markets.
- The market and state reforms have led to changes in local availability of inputs (seed, fertilisers and pesticides) for small-holders
- The small-holder sectors of both economies are poorly served by financial institutions (commercial banking sector, non-governmental organisations, parastatals), and there is little access to credit for small-holder crop production.
- The cotton sectors of both countries have received considerable support in recent years to regenerate the industries. In Zimbabwe, severe drought in 1992 had disastrous consequences for the whole agricultural sector. In Uganda, years of inefficient management of the cotton sector had dramatically reduced output and smallholder interest in growing the crop. In both cases, World Bank funds have been allocated to the cotton sector to aid recovery.

Differences:

- The structure of the agricultural sectors is different in the two countries. Zimbabwe has a significant large-scale commercial farming sector, accounting for about 1/3 of national cotton production in 1998.
- The agricultural sector in Zimbabwe is more developed than in Uganda, with good infrastructure, a well developed agro-processing sector, and relatively high input usage. However, some of these services are geared towards the large-scale commercial sector, which has far higher productivity than the smallholder sector.
- Uganda has a large number of cotton ginners (over 30), ranging from small operations with a single ginny, to larger international companies with networks of modern gineries. In Zimbabwe there are only three ginning companies, and the sector is dominated by the privatised Cotton Company of Zimbabwe. Given that Zimbabwe's production is also much higher than Uganda's, the structure of the ginning sector is considerably more concentrated in Zimbabwe.
- In Zimbabwe, small-holder cotton production increased in importance throughout the 80s, whereas recovery has begun in the mid-90s in Uganda.
- Zimbabwe is a significantly higher income country than Uganda, and commercial services are more developed in almost all sectors.

Different approaches to input credit

In both countries private companies have developed input credit schemes. The incentives to operate input credit schemes are similar in both countries: all companies are dependent to some extent on seed cotton from smallholders to maintain ginny utilisation rates; excess capacity in the ginning sector gives companies an added reason to seek ways to secure access to smallholder seed cotton; and, the general paucity of production services for smallholders threatens seed cotton production.

The input credit schemes have evolved differently, so that for the 1998/1999 season the schemes in the two countries have significantly contrasting approaches. The universal problem with input credit schemes is defaulting farmers, especially those who intentionally sell to an alternative buyer to escape repayment of their loan (known as 'side-marketing').

Uganda:

The withdrawal of the state from the distribution of cottonseed for planting was recognised by ginners as seriously jeopardising seed cotton production, and therefore threatening the ginning sector. The initial reaction of one of the larger ginneries was to launch an ill-fated input credit scheme. The scheme proved disastrous as the majority of smallholders defaulted on their loans, due to a combination of side marketing and a poor harvest (on account of El Nino-related weather effects). Farmers disregarded the agreement they had entered into with the cotton company and sold to other ginners offering higher prices. The cotton company making the loans found it impossible to enforce the purchase agreements, and attempts to seize assets proved unworkable.

In order to remove the possibility of side-marketing, the Uganda Ginners and Exporters Association (UGEA) has been formed, with compulsory membership of all cotton ginners. For the 1998/1999 season the UGEA has financed the input credit scheme from a Bank of Uganda loan. In developing and operating the input credit scheme, a critical role has been played by the Cotton Development Organisation (CDO), a parastatal formed when the sector was liberalised, to provide co-ordination and regulatory services. The CDO has coordinated the distribution of cottonseed and pesticides. Smallholders are free to sell their seed cotton to any ginner. The ginners are responsible for loan repayment, and these costs are met through a levy payable against volumes of cotton ginned by each ginner. (Volumes are assessed by independent monitors assigned to each ginnery). Average (not individual) input costs will be factored into the price paid to farmers. The problem of side-marketing has therefore been overcome by removing the option of selling to alternative buyers: all ginners are members of the UGEA so it is impossible for a farmer taking credit to sell to buyers outside of the scheme. Levy avoidance by individual ginners has been reduced by the presence of monitors, and dialogue with border officials and spinning factories, where ginners may try to make illegal sales.

Zimbabwe:

Unlike Uganda, there has been no cooperation between the three ginning companies in Zimbabwe. Out of the three companies, two operate input credit schemes (the Cotton Company of Zimbabwe (Cottco), and Cotpro). Both companies have a similar approach for overcoming the problem of side-marketing:

- All borrowers belong to groups of cotton smallholders. Default by one member of the group brings retribution to the whole group, which may be subsequently excluded from the scheme. This increases incentives to repay.
- Groups performing well receive cash rewards.
- If defaulting occurs, the companies act swiftly and come down heavily on defaulters, seizing assets when necessary.
- Local agents of the cotton companies are in year-round contact with smallholders, building closer relationships and a sense of loyalty to the company.
- Additional services are provided in addition to the input credit. Extension advice may be provided, and the Cotton Company has recently introduced cash loans. Again, these additional benefits of 'belonging' to a company help to strengthen relationships and loyalty.

Judging performance of input credit schemes

Schemes in both countries are still in their infancy. In Uganda, the performance of the UGEA scheme cannot be fully judged as its first season of operation has yet to be completed.

Judgement criteria	Countries	
	Zimbabwe	Uganda
Repayment	Cottco: 1997/1998 season repayment rate: 98% Cotpro: 1997/1998 season repayment rate: 100%	First season of operation yet to be completed
<i>Coverage</i>	For 1998/1999 season: Cottco: 48,000 smallholders Cotpro: 5,000 smallholders This represents about 25% of smallholder cotton farmers – generally farming on communal or resettled land (small plots, unirrigated, and typically on marginal land).	For 1998/1999 season. Cottonseed distributed to around 300,000 smallholder farmers, typically farming on small unirrigated plots. The scheme is intended to reach all cotton farmers (except those enrolled in a separate organic scheme)
<i>Efficient use of inputs</i>	Although no data are available, inputs are likely to be used efficiently. <ul style="list-style-type: none"> • Input use is closely monitored and extension advice is provided. • Farmers pay for inputs so have good reason to use them wisely • Inputs are supplied at cost price (cheaper than local market prices due to bulk buying by cotton companies and no retail margin). 	Again, no data are available. However, inputs are provided on credit, but the cost deducted uniformly from farmgate prices – regardless of the volume of inputs supplied to individual farmers. This weakens the incentive to use inputs efficiently. Combating this, monitoring and extension advice is provided.
<i>Subsidies</i>	Cottco: funds for the input credit scheme have come from the World Bank at below market interest rates. Cotpro: partly reliant on low interest Agric Finance Corporation loans	UGEA uses donor funds loaned at below market interest rates – and the loan is guaranteed by the Govt. CDO do not charge for the logistics support provided (Govt donor funds used for this)
<i>Contribution to cotton sector development</i>	Small-holder credit contributes to increased production – but significant numbers of producers do not use it	Production credit almost certainly a critical component in cotton sector recovery
<i>Wider development impacts</i>	Potential to expand financial services available to cotton farmers (eg savings schemes) – with wider development impacts Group approach helps build community-level capacities	Whilst cotton production may increase farmer incomes, the present input scheme does not contribute to wider farmer benefits relating to eg., group capacity-building and financial discipline

Why have the schemes evolved differently?

In Uganda the ginnery decided that co-operation was needed to overcome the problem of side-marketing. Credit schemes implemented prior to this co-operation met with spectacular failure. In Zimbabwe, co-operation between the cotton companies has not proved essential. Instead, a set of other mechanisms has been developed for the successful operation of the schemes.

The development of the credit schemes has been affected by various factors:

- The Cottco scheme in Zimbabwe started prior to liberalisation, when the parastatal (Cottco's predecessor) still operated a crop purchase monopoly. Farmers participated in the scheme for two years before liberalisation, and this may have contributed to the successful continuation of the scheme when new companies entered the market. (There were initial problems with default immediately after liberalisation, but Cottco moved quickly to tighten up procedures).
- Financial discipline appears to be stronger in rural Zimbabwe, with farmers increasingly recognising the obligation to repay loans. Asset seizure in Zimbabwe has the desired effect of forcing people to repay, whilst in Uganda it has caused outrage and soured relationships between ginners and farmers. In Uganda, there has perhaps been more recent experience and expectation of loan amnesties, and weak follow-up by NGOs and state lenders (whose credit programmes ran at a loss). In addition, it was politically difficult to enforce loan repayment given that the poor harvest was largely attributable to extreme weather conditions.
- The use of groups in Zimbabwe has been beneficial to the input credit schemes. In Uganda there appears to be general scepticism towards groups, possibly due to bad experiences in the past. The capacity to run and facilitate such groups is almost certainly weaker in Uganda at the present time.
- The Zimbabwe schemes involve many incentives for good performance. Perhaps the greatest incentive is the opportunity to remain in the input credit schemes, which implies that they recognise the benefit of access to inputs. In Uganda, farmers rarely use fertilisers, and even pesticide use in cotton cultivation is not universal. They may perceive less benefit from participation in input credit schemes – hence the short run response of (effectively) compulsory participation (ie input charges are factored into seed cotton prices, regardless of participation).

Co-operation between ginners in Uganda may be possible because of the fairly level playing field they face. In Zimbabwe, Cottco effectively has a head start over the other ginners – and stands to gain little from sharing information with the others (though, of course, the latecomers would benefit from the information Cottco has on the credit and production records of individual farmers).

Moreover the UGEA mechanism in Uganda may be appropriate there because it is less demanding of skills and experience in providing services to small-holders. A group approach, for instance, would call for rapid learning on the part of the ginning companies, and co-operation with the stretched public and NGO services available in rural areas to facilitate and train groups. The relatively recent history of loan amnesties and opportunities for strategic default (intentional default, unlikely to jeopardise future income or access to services) would almost certainly exacerbate loan repayment. The UGEA mechanism could therefore be viewed as an imperfect pragmatic response to an immediate need to provide inputs to farmers, without which there would be little cotton production, and the newly rehabilitated ginneries would be uneconomic.

Although co-operation can be used to combat side-marketing, it also has some drawbacks. Cooperation dampens incentives for the individual ginners to provide additional services to farmers, for instance extension advice, as farmers have no commitment to sell to a specific ginner. However, it may be possible for the ginners

to provide cotton extension services collectively – and in so doing, realise certain economies of scale too. However, ginners do stand to benefit from creating close relationships with growers, and although there is no evidence of it yet, theoretically ginners could compete on additional service provision as well as on price.

Lessons from these experiences

The input credit schemes in both countries have led to increases in cotton production. There has been a steady increase in smallholder seed cotton production in Zimbabwe during the period the schemes have been operating, whilst in Uganda estimates for this year's harvest are significantly higher than in recent years. Although repayment figures are not yet available from Uganda, the scheme has reached large numbers of farmers. In Zimbabwe, the Cotton Company is the largest provider of credit to smallholders - far larger than the parastatal Agricultural Finance Corporation.

The success of the schemes suggests that it may be beneficial to explore potential applications in other countries or commodity sectors. It is useful then to summarise the conditions that are conducive to the development of input credit schemes in which repayment is linked to output marketing.

Incentives

Companies providing credit will recognise the risks and costs involved. These will vary depending on the production and market conditions pertaining to individual crops, and other factors relating to company presence in rural areas, the development of other rural services and capacities, and farmer experience of other credit schemes. Companies will have an incentive to provide credit if the benefits outweigh the costs. Examples may include situations where:

- the trade is particularly profitable, making it worthwhile to assure supply sources and bear some risk (high value horticultural exports, for instance)
- there is a need to assure supplies to maintain plant utilisation at economic levels (cotton ginneries, for example)
- more assured supplies will help reduce other risks or costs faced by the buyer (by increasing market share, for instance)
- farmers have no other means by which to produce the desired crop

Farmers participating in such schemes risk indebtedness or asset seizure, and will be locked into sales agreements. Their willingness to participate will be partly dependent on:

- a clear understanding of the potential benefits of participation
- the desirability of securing market access
- inability to acquire necessary inputs from other sources or by other means
- the package of benefits on offer (for instance, inputs, transport, extension)
- the terms on which production credit is offered (input and output prices, and interest rate)
- the associated transaction costs (for instance, time spent travelling or in meetings, filling out forms) and skills required (eg., book-keeping)

Unfortunately farmers may also be willing to participate if they perceive potential for strategic default. The onus is on the provider to anticipate situations in which this might arise (for instance, where a crop can be consumed on-farm or marketed locally), to put the necessary mechanisms in place to avoid it (see below), and to make sure that farmers are aware that strategic default will not be possible.

Means

Companies operating input credit schemes need access to funds to finance the schemes. Operation of large-scale input credit schemes requires a considerable outlay over several months or a year (or even longer with perennial crops or livestock). Commercial banking sectors in both Uganda and Zimbabwe are reluctant to provide financing for small-holder agricultural activity (though there are some promising pilot projects developing more robust methodologies for lending to small-holders). In the cotton sectors in both countries, use has been made of international donor funds, but this avenue may not be available to smaller private companies (unless they co-operate, as has happened in Uganda). Larger companies may be able to use their own funds.

Mechanisms

The experience in cotton demonstrates the variety of mechanisms that may be used to operate and strengthen input credit schemes which link repayment to crop purchase:

- co-operation between buyers
- group lending
- close monitoring
- extension services
- developing good company-farmer relations
- offering incentives for repayment
- strict treatment of defaulters (asset seizure, legal action, group penalties)
- lending "in-kind" to reduce diversion of inputs to other uses
- policing potential "leakages" (crops being sold across borders for instance, or inputs being sold in local markets)

The appropriate mix of mechanisms depends on the characteristics of the commodity sub-sector (for instance, the alternative outlets or uses for the output), the level of financial discipline of small-holders, and the presence of supporting institutions (such as a central co-ordinating authority, extension services, and experienced facilitators of farmer groups).

Clearly applications to other sectors and country situations would require careful appraisal, but the experiences in the cotton sectors in Zimbabwe and Uganda provide some very useful pointers on enabling conditions and approaches appropriate to particular circumstances.

Policy Approaches to increasing access to inputs

By Peter Goko, Senior Agricultural Economist, Ministry of Lands and Agriculture, Zimbabwe

1. Introduction

The smallholder farming sector in Zimbabwe consists of the communal, resettlement, small-scale commercial and peri-urban plot-holders. Currently, there are more than one million smallholder farmers scattered throughout the country and their production capacity is limited by land size and availability.

1.1 Characteristics of Smallholder farming in Zimbabwe

Labour availability. The smallholder household consists of an average of three to four persons while working members of the household represent the equivalent of two persons. An average family provides family labour that is generally sufficient except during weeding and harvesting periods. About 50 percent of the households hire labour in Natural Regions II and III. Labour hiring is prevalent in production of cotton, tobacco and paprika.

Farm size. Farm sizes differ by farming sector and by natural regions. However the average in the communal area is 18 hectares of which 3 - 5 hectares are arable; 58 hectares in the Resettlement Schemes with 3 - 5 hectares arable; and 162 hectares of which 10 - 40 hectares arable in the small-scale commercial sector.

Cropping pattern. Virtually all households in the smallholder sector practise dryland farming and food self-sufficiency decreases from Natural Regions II to V. Irrigated agriculture has been possible due to government provision of water supplies, although it still remains acutely inadequate.

Crop choice. Crop choices tend to differ by natural region, by farming sector and by farming technology. However, staple crop maize is grown across all sectors and natural regions. Principal crops grown include maize, cotton, sorghum, millets, cowpeas, bambara nut, melons, castor beans, paprika, and vegetables. Where irrigation water is available, sugarbeans, groundnuts, vegetables and green mealies are grown.

Input Use. Input use varies by farming sector and natural region, however seed and fertilisers are the most common inputs used. Improved seed varieties and chemical fertilisers are used in maize, cotton and tobacco production, and credit is usually required to purchase such inputs. Pesticides are mainly used in the case for cotton and tobacco.

Farming technology. For those with access to draught animals, land preparation for cropping involves ploughing with oxen or donkeys, and quite often cows. Planting is usually done by hand. For those without draught power, ploughing is done by hand, using hoes. There is limited tractor hiring in the smallholder sector. Almost all farmers use certified maize and the majority use own farm retained seed for sunflower, sorghum, groundnuts and millet.

Productivity levels. There is very low productivity in the smallholder sector. Quite often the yields are below the potential production capacity of the areas. However, those farmers who use fertiliser and improved seed usually get higher yields.

Infrastructure. The road network in most smallholder sectors is “V” shaped implying that there is limited intra-communication between adjacent small-holder sectors without linking with the urban sector. However, the general infrastructure is relatively adequate for meaningful trade to take place despite the need for improvement.

Research and Extension Services. The smallholder sector is well serviced by the two Government institutions involved in research and extension, i.e Agritex and Department of Research and Specialist Services (DR & SS). Extension services are also provided by NGOs and other private sector organisations.

1.2 Challenges facing agriculture in Zimbabwe

The major challenges facing Zimbabwean agriculture include rural poverty, household food and nutrition insecurity, environmental degradation, budgetary limitations, loss of human capital, land tenure, lack of affordable finance, poor infrastructure and access to markets, inadequate traction for the smallholder sector, declining soil fertility, endemic droughts, poor access to information, and uncertainties and changes brought about by the economic reform programme.

1.2.1 Rural Poverty

Smallholder areas have few economic opportunities due to low agricultural production and poor infrastructure. Most farmers are resource poor and cannot afford to purchase the necessary inputs to increase production. The low level of agricultural development and non-agricultural activities result in few alternative forms of employment and income generation in the smallholder sector.

1.2.2 Food and Nutrition Insecurity

Zimbabwe is generally self-sufficient in food at national level. However, at household level, there is food insecurity. It is evident that poverty is the main cause of hunger and food shortage, and this is worsened by drought. The average daily calorie supply of Zimbabwe of 2132 is very low.

1.2.3 Environmental Degradation

With more than 70 percent of the smallholder farmers on land mostly of poor marginal potential, population densities have long exceeded the land's carrying capacity, resulting in serious land degradation.

1.2.4 Budgetary Limitations

The deteriorating budgetary position has led to a serious decline in operational budgets for research, extension, veterinary services and credit for farmers. Investment in physical and social infrastructure has been affected, particularly in the smallholder sector where major investments are still needed in irrigation and roads.

1.2.5 Human Capital

Most experienced staff have moved to the private sector because of generally unattractive salaries and conditions of service in the public sector. Thus, the public sector has largely failed to deliver the services particularly to the smallholder sector.

1.2.6 Land Tenure

Fast population growth in communal and resettlement areas has resulted in over-exploitation of land and breakdown in security of tenure.

1.2.7 Finance for farmers

The current tight monetary policy and high interest rates have become a serious constraint to farm development in Zimbabwe over the last few years. Finance for farmers has largely been non-existent and smallholders are now very dependent on informal finance for their credit needs.

1.2.8 Marketing, Poor Infrastructure and Transportation

While the marketing of agricultural products has been deregulated, most smallholder farmers still face major problems of access to both local and international markets, as well as poor availability of inputs. Also, smallholder areas are generally distant from urban markets, poor access roads and inadequate transport result in high marketing costs, and delays in the acquisition of inputs.

1.2.9 Draught Power

More than half of the smallholder farmers do not have access to draught animals and they have to hire from the few who have. Generally, there are few mechanised alternatives.

1.2.10 Soil Fertility

Most of the soils in the smallholder sector are infertile – a problem which is compounded by over-utilisation. This has led to unsustainable production levels. Fertiliser use is very low and use of organic manure is diminishing because of the decline in livestock numbers.

1.2.11 Drought

Zimbabwe is prone to drought. Droughts have occurred periodically over the last few years. The impact of drought is usually felt in the poor performance of the whole economy.

1.2.12 Access to Information

Before the introduction of the economic reforms, information was easily available. There is now less information available to producers – making it difficult to make informed decisions.

2. Government Policy on Agriculture

2.1 Zimbabwe Agriculture Policy Framework 1995-2020

The Government's agricultural policy objectives are enshrined in the Zimbabwe Agricultural Policy Framework : 1995-2020 (ZAPF) document which was approved by Government and published in March 1996. The ZAPF document gives the vision of the agricultural sector in Zimbabwe to the year 2020, which is to eradicate poverty, hunger, malnutrition and unemployment through the development of the full potential of Zimbabwe's agriculture. This sectoral vision is in line with the national Vision 2020, whose objectives include: sustainable economic growth and competitiveness, elimination of poverty and unemployment, technical change, equal opportunities for all, empowerment of women and other disadvantaged groups, sustainable utilisation and management of natural resources and the environment, adequate social services and infrastructure, good governance, and political stability in Zimbabwe.

The ZAPF document, prepared with the full participation of all stakeholders in agriculture, is a framework within which all stakeholders can plan their work to generate more comprehensive and orderly agricultural growth. The ZAPF is the vision of the Ministry of Lands and Agriculture and provides a guide for the Ministry's strategic planning. The policy framework is built on four basic pillars which are:

- (a) the transformation of smallholder agriculture into a fully commercial farming system;
- (b) an average increase in total agricultural output each year that is significantly larger than the increase in population;
- (c) the full development of physical and social infrastructure in all the rural areas throughout the country; and
- (d) the development of fully sustainable farming systems throughout the country to reverse current environmental degradation and soil erosion.

The ZAPF recognises the constraints facing smallholder farmers regarding access to, and effective use of, key farm inputs to increase total farm production of all major crops. Thus, yield increases are of particular importance in the smallholder sector. Average yields are low relative to potential: 1.07 tonnes per hectare of maize; 0.45 tonnes per hectare of sorghum; 0.42 tonnes per hectare of groundnuts and sunflower; and 0.68 tonnes per hectare of cotton.

2.2 Agricultural Credit

The development of rural finance has been characterised by the channeling of credit to a small proportion of farming households and limited means to mobilise savings. As the formal sector does not provide adequate financial services to the rural sector, the informal sector has risen to fill the gap. In the process of Zimbabwe's economic development, the two financial sectors, formal and informal, have grown side by side. While there are strengths in the existing formal lending systems including the extensive outreach infrastructure (from Agricultural Finance Corporation), Government guarantee of loans, government support programmes and a stronger donor support, these have largely failed to meet the needs of the farmers. Thus, the unavailability of credit facilities has contributed to low input use in the smallholder sector resulting in low productivity.

In light of the inadequate provision of credit services to the smallholder farmers, Government's policy thrust for the rural financial sector will be:-

- (i) to ensure that adequate credit facilities are available for input supply;
- (ii) to provide financial support to smallholders which is a crucial goal for the foreseeable future and a requirement for the transformation of the smallholder sector; and
- (iii) to encourage investment in the rural areas by the private sector to complement the efforts by Government.

Government recognises the constraints within which the financial services are operating, i.e. a tight monetary policy which the Reserve Bank of Zimbabwe has been implementing due to the persistence of high inflation. The monetary policy is aimed at controlling money supply at a level below nominal GDP in order to control inflation. Thus, instruments such as interest rate control, credit, establishment of a liquidity requirement as well as obligatory reserves, have been employed. Also, the current structures, systems and procedures of commercial finance institutions do not lend themselves to viable rural banking. Most smallholder farmers do not have collateral since they do not have title to their land - which prejudices them in loan applications.

Future Strategies

The future of rural finance for farmers, at least in the foreseeable future, will require the continued availability of public sector funding for the smallholder farming sector. Specifically the strategies will include:

- Continuation and creation of special funding mechanisms for agricultural development
- Greater participation of commercial banks in agricultural finance
- Promote and strengthen the group lending approach to smallholder farmers
- Facilitate offshore funding.
- Develop mechanisms for disaster management
- Promote savings in the rural areas

2.3 Agricultural Seed

In Zimbabwe, there are more than five seed houses that produce certified agricultural seed for all crops grown in the country. The competition in the seed industry is high especially on hybrid maize, the only crop for which the entire area of is planted with improved seed. On the other hand, very little of the area under groundnuts, sunflower, sorghum and millets is grown with improved seed.

The major seed problem now faced by farmers is to identify appropriate varieties that are suitable to their environment. The current seed distribution network does not reach most of the smallholder farmers because of high transport costs associated with the dispersed market and "double-handling" (rural seed producers deliver to the Harare-based seed houses, who in turn deliver back to farmers after processing).

The Government recognises that the seed industry has changed quite considerably in recent times. Private research and breeding have expanded with half a dozen other seed houses involved in seed production and marketing. The introduction of multinational companies has helped to increase competition in the local seed industry and with the backing by a potentially strong research and extension base comprising DR & SS, Cotton Research Institute, Agricultural Research Trust, the University and other institutions, this has resulted in improved seed varieties on the market. Yet access to these new varieties by the majority of the smallholder farmers has largely remained inadequate.

The major objective of the seed policy is to facilitate the growth of the industry to allow greater production and distribution of seed for all crops grown. Specific objectives include the need to:

- (i) ensure availability of seed for distribution to farmers; and
- (ii) achieve greater participation of smallholder farmers in production and distribution.

Strategies

These include

- a review of the tripartite and bipartite agreements to make available all government bred materials to appropriate companies
- a requirement that all seed houses hold about 20 percent as strategic reserves of staple crops
- promulgation of legislation to minimise the marketing of low performance varieties
- making available materials coming from International Research Centres to all seed houses through the National Agricultural Research System, and
- encouraging production of seed for sorghum, millets, oilseeds, beans and other crops.

2.4 Fertiliser

Fertiliser is a major agricultural input whose effect on hybrid seed varieties is significantly positive. In Zimbabwe, which is the only other major producer of fertilizer in SADC after South Africa, fertilizer production is largely by two companies who also do the marketing. The country is normally self sufficient in the range of fertilizer products required by farmers, a policy put in a place as a result of the imposition of sanctions to the then Rhodesian Government in 1965. The policy of self-sufficiency in fertilizer production has paid dividends through the guaranteeing of self-sufficiency and exports of agricultural commodities, except for nitrogen.

The Zimbabwe fertilizer industry produces a range of 13 compound (NPK) and single nutrient fertilizer. The ratios of the compound fertilizers are based on the recommendations of the Fertilizer Advisory Committee. The concentration of plant nutrients in any compound fertilizer is limited by the raw materials used in its manufacture. Currently, all compound fertilizers sold in Zimbabwe are formulated using locally produced ammonium nitrate as the principal source of nitrogen and locally produced single and triple superphosphates as the sources of phosphates. Imported muriate of potash supplies the potash content.

Fertilizer consumption in Zimbabwe, though there is no pattern really, has largely depended on a number of variables, chief among them being:-

- (i) Climatic conditions
- (ii) Fertilizer availability
- (iii) Availability of credit to farmers
- (iv) Fertilizer prices
- (v) Output prices and
- (vi) Efficiency of the fertilizer distribution systems.

All the fertilizer consumed in Zimbabwe is produced in Harare which makes the fertilizer very expensive by the time it reaches farmers in remote areas, because of transport costs. This contributes to low fertilizer consumption by smallholder farmers. Smallholder farmers currently consume about a quarter of all the fertilizer used in Zimbabwe, up from 8 percent before independence in 1980. Nearly 90 percent of that fertilizer is used on maize alone, 1 percent on tobacco and 6 percent on cotton but generally smallholder farmers use less than 20 percent of recommended rates as opposed to 156 percent in the commercial sector. The low utilisation by smallholder farmers is attributed to a number of factors including:-

- relatively high fertiliser prices faced by small-holders buying from retail outlets. The roads in the smallholder sector are mostly gravel and often in poor condition. As a result, few commercial transporters are willing to service these areas leading to reliance on public transport such as buses, which are costly and preclude bulk purchases

- relatively unstable climatic environment, which increases production risk. The majority of the smallholder farmers reside in natural regions that are generally dry, making risky to apply fertilisers.

The Government policy objective on fertilizer, particularly in the smallholder sector, is to increase use quite considerably in the foreseeable future, to achieve sustainable agricultural production. The Government also acknowledges the need for the fertilizer industry to :-

- (i) refurbish their plants in order to increase production, cut costs and be competitive with imports;
- (ii) expand and service the smallholder sector more efficiently through direct sales;
- (iii) break the monopolistic structure and facilitate other more decentralised players;
- (iv) diversify fertilizer formulation in order to meet the needs of a diverse market.

The smallholder farmers themselves are encouraged to set up their own fertiliser warehouses at strategic distribution points.

2.5 Agricultural Chemicals

The Zimbabwe agricultural chemical industry is well developed and its infrastructure was established nearly 40 years ago. Today, there are more than 450 registered products being used in Zimbabwe, broadly categorised as crop or animal health products. In terms of usage, crops consume most of the agro-chemicals. Tobacco and cotton consume nearly 58 percent of the total crop chemicals, followed by maize.

Government recognises the important role played by agro-chemicals in increasing agricultural productivity. However, these chemicals are generally expensive which limits their use in the smallholder sector, thus impacting negatively on productivity. There is a lot of improper use of the agro-chemicals which may have adverse effects on both the environment and the user, and in some instances may result in pests developing resistance.

Government policy objectives are to ensure that farmers have access to agricultural chemicals appropriate to their needs, and that these are manufactured, distributed and used in accordance with high standards of safety. Distribution and marketing strategies should take account of the need to develop the retail network in rural areas. Small and medium private entrepreneurs should be active.

2.6 Farm mechanisation (Draught power)

Agricultural mechanisation can be defined as the improvement of farm labour productivity through use of agricultural machinery, implements and tools. Mechanisation, thus, is a production input intended to achieve, amongst other things, the following:

- (a) reduction of drudgery in farming activities;
- (b) improvement of timeliness of farming operations;
- (c) accomplishment of tasks that are difficult to perform without mechanical aids;
- (d) reduced crop losses;
- (e) increased production capacity;
- (f) improvement of quality of work; and improved productivity and profitability.

The main objective of mechanisation policy is therefore to ensure the availability and use of appropriate mechanisation leading to the adoption of systems which are cost effective, efficient and sustainable. This can be achieved through access to timely and viable agricultural mechanisation inputs and the provision of sustainable technologies.

The following mechanisation problems are common in the farming community especially the smallholder sector:-

- (i) Inadequate sources of farm draught power: the smallholder farming sector largely depends on animal draught power for 90 percent of their tillage operations. There is a severe shortage and uneven distribution of draught animals, which limits the productivity of these farmers.
- (ii) The present infrastructure in the small-scale farming sector is not adequate for the support of mechanically powered technologies, particularly tractors and their equipment. Appropriate tractor repair and maintenance facilities are not available in communal areas, resulting in a poor state of repair of most of the few privately owned tractors.
- (iii) A deficit currently exists in human skills required to support mechanisation development.
- (iv) Inappropriate technology: some implements used in communal areas do not match the draught animal power which results in either over working or under utilising the animals involved.
- (v) There is serious financial difficulty in the smallholder sectors for farmers to purchase machinery for use on their small land holdings. In addition, the land is highly unproductive making farming in this sector a non-profit making venture.
- (vi) Over the years, Government has been providing tillage services to the smallholder farmers at very low charges but has not managed to meet the demand by farmers. Private sector participation has not been forthcoming because they would not compete with Government rates since they offer commercial charge rates.

Future mechanisation strategy include researching into mechanisation systems that are suitable for various sectors of agriculture in Zimbabwe. Contract tillage services on a commercial basis will be especially promoted.

3. The Agricultural Sector Investment Programme

The policies and broad strategies spelt out in the ZAPF document will be operationalised through the Agricultural Sector Investment Programme (ASIP). The broad aim of ASIP is to maximise the efficiency and benefits of investment in the whole agricultural sector by making more effective use of donor funds and national resources in a manner that will build local capacity and sustainable programmes as opposed to creating a dependency syndrome.

Like the ZAPF, ASIP is being built upon the emerging consensus on priority issues, constraints and the complementary roles of the public and private sectors, within the economic reform environment. It is envisaged that ASIP will continue to be driven by stakeholders and will be on-going, reviewed and adjusted as part of the wider national Public Sector Investment Programme. Since the adoption of ZAPF, stakeholders have agreed to pursue credit and input supply systems, in the manner summarised in the table below.

SUMMARY OF THE ROLES OF THE DIFFERENT STAKEHOLDERS AND THE INVESTMENT AREAS: RURAL CREDIT AND INPUT SUPPLY

Rural Credit

KEY AREAS FOR INVESTMENT	Funds to lend to farmers	Farmer Education to improve credit culture	Improving Network Infrastructure for accessing credit: physical location. - lending procedures; - interest rates - information
ROLE OF GOVERNMENT	Create conducive environment for investment in farmer credit. Guarantee off-shore lending for financing farmer credit schemes	Undertake farmer education through government departments e.g. AGRITEX	Provide incentive for investigating in rural areas Revise policy Reduce interest rates
ROLE OF DONORS	Assist Government in sourcing cheap money-finance	Channel loan funds through the informal sector. Fund the development of training programmes and materials	- - Provide funds to decentralise infrastructure, improve communication network
ROLE OF PRIVATE SECTOR	Borrow money for onward lending	Sponsor training in financial management	Banks should - decentralise physical location simplify application procedures make loan application procedures transparent
ROLE OF NGOs	Provide seed money for farmer managed revolving funds	Improve farmer awareness on the advantages of borrowing	Provide information on: sources of credit interest rates debt servicing
AREAS OF JOINT PARTICIPATION	Donors and Government to work together in sourcing cheap money	Training	

Input Supply

KEY AREAS FOR INVESTMENT	Increase number of input suppliers so as to increase supplies and reduces prices	Improve access and use of inputs in the rural areas	Quality control of inputs
ROLE OF GOVERNMENT	Deregulate control to improve quantity available. Provide incentives to encourage entry into the input supply business	Improve transport infrastructure Encourage input stockists and distribution outlets in the rural areas.	Enforce legislation/regulations Improve Farmer awareness
ROLE OF DONORS	- Provide loans for investment in the inputs industry directly to the private sector.	Provide funds for transport infrastructure	Provide resources for farmer training
ROLE OF PRIVATE SECTOR	- Invest in the business of inputs manufacture	Input suppliers to allow longer repayment periods to allow rural stockists to store bulk supplies.	Train farmers on use
ROLE OF NGOs		Assist communities in the : Setting up revolving fund for inputs Establishment of distribution warehouses Construction of warehouses for stocking inputs and produce	Farmer training Lobby for legislation on quality
AREAS OF JOINT PARTICIPATION	- GOZ and Donors in sourcing cheap money for investment in inputs business	- GOZ and Donors in infrastructure set-up	Training

The challenges of providing credit to small-holder farmers and strategies towards overcoming them

by Nicholas Chakwera, Senior Technical Resource Officer, Agricultural Finance Corporation, Zimbabwe

Financial services, especially credit, are beyond the reach of most smallholder farmers. This is a key constraint to the transformation of communal farmers into business entrepreneurs, and it limits their expansion into the market economy.

Limited access to credit affects the technology and productivity of communal farmers. The communal farmer's production system is typically low input-low output, with very limited investment in equipment and working capital. Inputs are expensive and the farmer's requirement small – so the communal sector has little influence over the supply of inputs. As a result of the limited use of inputs, smallholder agriculture tends to be labour intensive and small-scale, with a principal aim of achieving household food security.

Financial institutions normally set out certain lending requirements:

- (1) the credit must be used for the purpose indicated – and that the need is genuine
- (2) the investment is viable, and will generate sufficient income to service the debt
- (3) some form of security is available (usually land or fixed property)
- (4) a guarantor may provide security (guarantors could be credit guarantee companies, a sister enterprise, a farmers association, or Government)
- (5) the borrower indicates his/her commitment by contributing some capital
- (6) the borrower can demonstrate appropriate knowledge and expertise.

Smallholders lack business planning skills and keep no records of past performance, and therefore are unable to present viable investment plans to financial institutions. Nor do they have land or property which can be used as collateral, or access to credit guarantees. Small-holders often do not understand the regulatory and macro-economic context, and find bank procedures cumbersome and complicated. Consequently, despite smallholder willingness to create wealth and take risks, formal credit is not available.

Progressive liberalisation of the Zimbabwean economy commenced in 1990. Inflation and nominal interest rates have been high², and this was compounded by the severe drought in 1992. There is little scope to reduce interest rates – given that the banks themselves must borrow at high rates, and must also cover administrative costs and the risk of bad debt. The tight monetary policy being implemented by the Treasury must be complemented by tight fiscal policy if interest rates are to return to lower levels.

² As of February 1999, inflation is 46% per annum, and commercial bank lending rates typically exceed 50%.

This context makes lending prospects for the communal sector particularly difficult. Smallholder portfolios are very costly for financial institutions, with widely dispersed customers demanding numerous small loans. Very small amounts are deposited; administrative costs are high; and there is a significant risk of default. Banks lending rules and regulations tend to exclude smallholders. There is a need for innovative credit delivery systems to service the smallholder sector. Demand for financial services from the smallholder sector is high, with a large clientele and a savings potential, but financial institutions prefer lower risk investments.

However, there are several options for increasing the availability of smallholder credit. These generally involve reducing the risks for financiers.

(1) Education and training.

Farmers require: basic financial and planning skills; improved agronomy and husbandry techniques; and produce marketing opportunities. Loan officers require skills in appraising smallholder business projects, and need to change negative attitudes towards smallholder agriculture.

(2) Stepped Credit

In order to minimise risk to financiers in the absence of information on the credit-worthiness of borrowers, credit can be 'stepped'. Good repayment performance on small initial loans, leads to access to larger loans once previous loans have been fully repaid. One problem with this approach is that the first loan tends to be too small for a productive investment, and may therefore be difficult to repay.

(3) Group Approach

Loans are provided to groups rather than individuals. Joint liability for loans reduces the lender's risk. Administrative costs are also reduced by providing a few larger loans rather than many smaller loans. Group members need to be in the same locality and have similar investment interests.

(4) Linkage models

In linkage models, financial institutions lend to smallholder groups via intermediaries. The intermediary works closely with the groups and monitors their activities on a regular basis. The intermediary collects loan applications from the groups and submits these to the financial institution. Loan dispersal and recovery is also made through the intermediary. The advantage of this system is the local knowledge and presence of the intermediary. If groups perform well, they can graduate and deal directly with the financial institution.

(5) Savings mobilisation

This is an essential component of rural finance. Savings help to generate resources for financial institutions to on-lend, and can be used as part-security for loans.

(6) Risk management

Risk management by both farmer and banker can be improved – on the one hand by the measures indicated here, but also by progressive diversification and acquisition of medium-term assets by farmers (such as livestock).

During the 1980s the AFC was encouraged to expand its outreach to the communal sector using credit guarantees by the Government for all loans. The number of loans granted to smallholders reached a peak of 93,961 in 1986. However, during the 1990s, when the credit guarantees were withdrawn, the number of loans declined dramatically, to only 3,733 in 1998 (see Table 1). The AFC have also made loans available to rural traders. The conditions for these are outlined in Box 1.

Table 1: Small-holder sector loans made by the AFC 1983-1998

YEAR ENDED MARCH	LOANS GRANTED	
	NUMBER	VALUE (Z\$m)
1983	46019	19.200
1984	72962	42.100
1985	88463	51.400
1986	93961	58.900
1987	91094	78.200
1988	82644	65.200
1989	65841	52.500
1990	49883	43.800
1991	35609	34.700
1992	34378	47.030
1993	20973	56.530
1994	17844	83.789
1995	13190	114.800
1996	12733	116.870
1997	20724	200.479
1997#	5601	120.942
1998*	3733	106.969

Source: Agricultural & Economic Review, 1998

Board Papers, various years.

April-December 1997

* Calendar Year

Box 1: Finance for rural traders – AFC loan conditions

- a) Persons applying for assistance under the scheme should be located at growth points, rural services centres or within a rural farming area.
- b) There should be a full time business person established at the centre or if part time, with a competent manager resident at the centre.
- c) There should be a warehouse facility which fulfills chemical storage requirements in terms of safety and effectiveness.
- d) The applicant or his manager should possess adequate trading experience/management capability or proof of training.
- e) The applicant must have a bank account.
- f) The project should be viable with adequate repayment capacity.
- g) Short term loans are available for for the purchase of seasonal cropping inputs, stockfeeds, hardware, operating costs, packing materials, building materials, small farm machinery and equipment.
- h) Medium term loans finance the purchase the purchase of motor vehicles, farm machinery, irrigation equipment or fishing rigs. The term is up to five years.
- i) Long term loans are provided for the construction of warehouses, alterations and expansion of existing facilities, and purchase of haulage trucks. The maximum term shall be seven years.
- j) Land is considered as prime security although alternative form can be considered.

The Agricultural Finance Corporation (AFC) has submitted an application to become “Agribank”, which will enable it to mobilise savings. Agribank, if approved, will:

- give priority to farming programmes
- refine and expand its portfolio
- marshal financial resources, and
- increase and improve lending to farmers.

Although the operational details are still subject to review, Government has been requested to:

- set up a pool fund specifically for small-holder farmers, and
- mobilise donor resources.

If approved, Agribank will offer:

- ordinary savings accounts

- loan-linked individual or group savings accounts
- resource mobilisation
- loans for working capital or development finance.

The Agribank network will include: seven provincial offices; sixteen district offices; more than forty small bank office offering savings and loan facilities.

To conclude, the development of micro-finance services for small-holders will require a change of attitude within financial institutions, and recognition of the importance and potential of the small-holder sector. More institutional effort is required to achieve this and to develop innovative approaches to credit delivery. The Government also has a role to play in mobilising resources, setting up a pool fund, increasing its agricultural extension budget, and offering incentives for small-holder credit.

Constraints and strategies for increasing small-holder access to farm inputs: a case study on small-holder farmers in Malawi

by Richard Mwanza, Concern Universal, Malawi

INTRODUCTION

Malawi is a small land-locked country with a total area of approximately 119,100 square kilometres, of which 24,200 square kilometres is lake surface. Of the total land surface area only 43,400 square kilometres is described as arable. The current population of Malawi, which is estimated at approximately 12 million (1998), has been growing at an annual rate of 3.5%. Malawi has the highest population densities in Africa with 89 inhabitants per square kilometre of land surface, and 170 inhabitants per square kilometre of arable land. This puts pressure on the arable land.

Agriculture is the population backbone of the Malawian economy, supporting about 85% of the population and accounting for 35% of GDP and 90% of foreign exchange earnings (1991). Exports primarily consist of tobacco (45% of total export revenue in 1989), tea (13%), sugar (9%), and coffee (2%). Maize is the dominant crop and staple food and occupies about 80% of cultivated land. Most of the maize consists of low yielding local varieties. Other important crops include groundnuts, cassava, beans, cotton, rice, sorghum, and some tree crops. The dominance of maize, coupled with an acute shortage and low levels of fertiliser use, has resulted in excessive extraction of nutrients from the soil, causing a decline in fertility.

Malawi's agriculture is characterised by small-holders and estates. The smallholder sector accounts for 25% of GDP, 75% of agricultural GDP and 90% of agricultural labour. The estate sector contributes about 9% GDP, 25% agricultural GDP and 10% of agricultural labour. The small-holder sector comprises 1.8 million farming families operating under customary tenure on 1.75 million hectares and producing about 80% of food production (mostly subsistence) and 10% of exports. About 55% of smallholder farming families cultivate less than 1.0 ha, 31% between 1 ha and 2 ha, and 14% above 2 ha.

The estate sector comprises about 18,000 farms, occupying about 19% of the cultivated area. Average estate size is 42 ha, but only 24% of estate land is cultivated. The sector produces main flue cured and burley tobacco (about 40% of estate cropped area) and maize (34%). Other crops grown by estates include tea, coffee, sugar and tree nuts. The estates, unlike smallholders, have easier access to farm input loans and have security of tenure which motivates high levels of investment.

The main constraint to increasing smallholder agricultural productivity in Malawi is inaccessibility of farm inputs, particularly fertiliser and seeds, affecting most smallholder farmers. This paper therefore outlines the factors affecting farm input accessibility, current initiatives to increase smallholder access to farm inputs in Malawi, and suggested strategies for increased access to farm inputs.

CONSTRAINTS ON SMALL-HOLDER ACCES TO PURCHASED FARM INPUTS (SEED AND FERTILISERS) IN MALAWI

Small-holder farmers' access to purchased inputs is constrained by lack of purchasing power and unavailability of some of the farm inputs. There are several other factors which contribute to poor access to farm inputs but the two major ones in Malawi have been policy changes and poor credit systems.

Policies

The period between 1965 and 1994 witnessed an evolution of small-holder agricultural policies in Malawi. In 1964 prices of important inputs such as fertilisers, hybrid maize seeds and insecticides were heavily subsidised for small-holder farmers. The intention was to boost production and hence achieve self-sufficiency in food. There was also a deliberate policy to encourage farmers to grow hybrids, especially maize, and indeed, several maize hybrids have been released. Extension was largely centralised and assumed a top-down approach.

These policy directions were supported by the following initiatives:

- the formation (in 1978) of a parastatal company – National Seed Company of Malawi (NSCM) to produce and distribute seed to farmers
- the establishment (in 1976) of the seed services unit within the Department of Agricultural Research to be responsible for seed quality control (seed certification and testing)
- the involvement of the Agricultural and Marketing Corporation (ADMARC), a parastatal organisation, in seed and fertiliser marketing and distribution.

All these efforts resulted in increased adoption of good quality maize seed and tobacco. Despite the success in providing good quality seeds for the two crops, the supply of seed for the majority of crops such as groundnuts, beans, soyabeans, sorghum, cassava, rice, millet, fruits and vegetables remains a serious problem. A small-holder seed programme was initiated within the Ministry of Agriculture and Irrigation (MoAI) but still the quality of seed production is low. Consequently the majority of farmers still rely on their own local and unimproved crop varieties which are low-yielding.

In 1994, the agricultural sector was subject to new policies: liberalisation of marketing of both agricultural inputs and commodities; and the removal of subsidies on farm inputs. These policies allowed the participation of other organisations, including NGOs, in the marketing and distribution of farm inputs. These efforts however have further increased the price of farm inputs and made their accessibility to small-holder farmers even more difficult than before.

Credit programmes

Before 1992 the Smallholder Credit Agency (SACA) managed a system which promoted the adoption and use of subsidised maize hybrid seeds and fertilisers. The system had a high repayment rate in the initial years but later collapsed principally because of:

- expansion the system beyond its management capacity
- political changes reduced repayment discipline and the scope to use coercion

This reduced the number of borrowers from 388,000 in 1992 to 45,000 in 1993 and finally the SACA collapsed in 1994. Malawi Rural Finance Company (MRFC) is not interested, however, in lending to SACA defaulters.

CURRENT INITIATIVES TO INCREASE ACCESS TO FARM INPUTS BY SMALLHOLDERS IN MALAWI

There are several initiatives promoted by both Government and NGOs to increase smallholder access to farm inputs.

Farm Input Credits

The Government of Malawi and the European Union are currently supporting national credit activities on seed and fertiliser under the Agricultural Productivity and Investment Project (APIP). This project aims to increase household food security through the use of purchased inputs. The project is implemented by NGOs, including Concern Universal, Evangelical Lutheran Development Programme, Catholic Development Commission (CADECOM), and private companies, such as Farmers Financing Company.

Several NGOs also provide farm inputs, particularly grain legume seed on loan (in kind) to small-holders. These NGOs include Concern Universal, Self Help Development International, Churches Action in Relief and Development, Christian Service Committee and Action Aid.

Starter Pack Initiatives

This is a new government initiative to support all smallholder farmers in Malawi with free small packs of farm inputs comprising mainly seed and fertiliser. The aim is to increase food security at household level through increased access to farm inputs.

Small-holder Seed Multiplication Programmes

The Government of Malawi, through the Maize Productivity Task Force, initiated small-holder seed multiplication programmes. The idea is to make available several types of seeds at an affordable price to small-holders.

NGOs such as Concern Universal and action Aid are supporting farmers in seed multiplication of grain legumes, roots and tubers and fruits.

Soil Fertility Improvement Techniques

There are several initiatives promoted by both government and NGOs in soil fertility improvement. These include agroforestry and organic farming. The idea is to promote long term sustainable agricultural development. These initiatives recognise the fact that most smallholders cannot afford to purchase farm inputs.

SUGGESTED STRATEGIES TO INCREASE SMALLHOLDER ACCESS TO PURCHASED FARM INPUTS

The suggested strategies reflect the differing financial status of smallholders i.e farmers with readily available cash and farmers without cash to purchase inputs.

Farmers with readily available cash

These farmers need access to outlets which supply farm inputs. Strategies for this group include:

- institutional linkages with marketing organisations to establish input selling points close to the farmers
- encouraging these marketing institutions to stock inputs which are in high demand by farmers – Concern Universal is currently working with some of the input suppliers mainly in vegetable production
- developing farmers groups/associations which can pool resources to purchase inputs in bulk.

Resource poor farmers with no immediate cash

These farmers are difficult to deal with because they do not have immediate cash. In many cases they do not have resources apart from land, which could be used as collateral for farm input credit. The main strategy for these farmers would be to provide support for farm input credit – the main focus should be the development of a credit system which would promote high credit repayment as a guarantee for credit success. Concern Universal is implementing in-kind small-holder credit activities for grain legume seed and cash activities for maize hybrid seeds and fertiliser

The Cotton Company of Zimbabwe Ltd: the cotton inputs credit scheme

by Taswell Chivere, Inputs Manager, The Cotton Company of Zimbabwe Ltd.

Cottco provides inputs to cotton farmers on a cash basis, for those who have sufficient resources, and via an input credit scheme. The input credit scheme was established as a result of a World Bank-funded cotton sub-sector study in 1991. At this time, the Cotton Company's (Cottco's) predecessor, the Cotton Marketing Board (CMB) was still a parastatal. Cotton was recognised as a very important small-holder crop, and the cost and availability of inputs were important constraints on small-holder production.

The World Bank-funded study recommended that CMB assist small-holders to access inputs (to be "more dynamic and innovative" in ensuring farmer access to inputs) and that it provide an extension service. The scheme commenced in 1992/93 – initially with funds provided from the World Bank to the Zimbabwean Government, which CMB was able to use as a revolving funds. The objectives of the input scheme were to:

- (1) stimulate cotton production
- (2) provide inputs at reasonable cost on credit
- (3) establish a distribution network for inputs, and
- (4) provide small-holder training in cotton production

The package Cottco offered farmers comprised: credit, extension and marketing. It worked closely with Agritex to train farmers. The credit scheme, however, proved to be a learning experience for the CMB and its successor Cottco. Key lessons relate to:

- (1) preparedness to pay for a sometimes lengthy or costly development phase – an investment that commercial companies may be reluctant to make;
- (2) the importance of the group concept – getting the size right (large enough to exploit economies of scale, without expanding to include potential defaulters – the minimum group size permitted is five), building on existing groups where possible and taking time to strengthen group capacity; and group dynamics (particularly the importance of willing participants, and explicitly lending to individuals and rewarding individual performance, whilst the group remains responsible for repayment);
- (3) farmer training - the need for it to be appropriate and effective, and the benefit of using farmer-to-farmer dissemination and providing demonstrations;
- (4) repayment – setting target yields (and disallowing participation in the scheme if these are not achieved), paying fair prices (including a late season bonus when world market prices for the crop are known), building trust and maintaining credibility with the farmers, provision of transport to collect the cotton crop, and provision of other facilities (such as input stores and sales points in the production areas).

Liberalisation of the cotton sector provided an additional challenge for Cottco. When all cotton was purchased by the CMB it was relatively easy for CMB to capture input loan repayments from farmers when they sold their crop. However, the entry of other ginners (Cotpro in 1994/95 and Cargill in 1995/96) provided potential for side-selling. Some farmers seized the opportunity for the best of both worlds: taking inputs from Cottco, but selling their crop to another company, without repaying the input loan.

Table 1 charts the effect on Cottco's credit scheme. In the first two years of the credit scheme, CMB had a monopoly on cotton purchases. It started out cautiously and achieved high repayment rates in 1992/93. The scheme was expanded the following year and repayment rates fell to 92% (which is nonetheless still impressive for a small-holder credit scheme, in its infancy). The scheme was expanded again the following year – but this time, with Cotpro having entered the market, repayment rates were hit badly, and fell to 79%. Cottco was forced to tighten up its operations – and the following year managed a further significant expansion, whilst improving on repayment rates (88% in the 1995/96), despite the entry of a third cotton company (Cargill). Performance and participation levels (numbers and size of loan portfolio) were similar in 1996/97. However, aiming for higher repayment rates, Cottco reduced the number of farmers in the scheme in 1997/98 and 1998/99. Farmer participation fell dramatically from 81,000 to 48,000, whilst loan recovery increased from 89% to 98%.

Table 1: Cottco's input credit scheme – participation and recovery

Year	No of individual farmers receiving loans	Amount loaned ZS	Recovery rate
1992/93	20,000	21.5 million	98%
1993/94	42,000	57.3 million	92%
1994/95	65,000	69.0 million	79%
1995/96	86,426	174.0 million	88%
1996/97	81,000	197.0 million	89%
1997/98	48,000	163.0 million	98%
1998/99	55,000	204.0 million	na

Cottco has gained considerable experience in lending to the communal sector – and the scheme now includes some 6,000 farmers who are dependable borrowers, whose participation presents minimal risk and cost to Cottco. The challenge now facing Cottco is to find ways to boost communal sector production further, whilst maintaining high repayment rates.

Private input suppliers working with the communal sector in Zimbabwe

by **Tonneth Gazi, Sales Manager, Agricura, Zimbabwe**

Introduction

Agriculture dominates the Zimbabwean economy despite the fact that its contribution to the Gross Domestic Produce (GDP) is less than 20% (15% in 1997). Almost 75% of the population (12 million) depends on agriculture as a source of income. It accounted for between 40% to 46% of the export earnings between 1995 and 1997.

In Zimbabwe, the natural growing season is generally confined to the rainy months. The season lasts from mid-October to April. It is critical for farmers to acquire their agricultural inputs before the season starts.

Zimbabwe's farming sectors

The agriculture sector in Zimbabwe is divided into three distinct sub-sectors: large-scale commercial farms; communal farming areas (including resettlement areas); and small -scale commercial farms.

1. Large Scale Commercial Farms are located mainly in natural regions I, II and III, where there are about 5,100 farmers on 11 million hectares on the land. Farmer numbers have been falling because of the land redistribution programme.
2. Communal Farms occupy about 18 million hectares, mainly in natural regions IV and V. There are about 1 million households on 16 million hectares.
3. There are about 52,000 households on 3.3 million hectares of resettlement land. With the second phase of resettlement, more households are expected to be resettled on the land being acquired by the Government. The Government buys land from Large Scale Commercial farming areas, and resettles farmers from communal areas.
4. There are about 9,000 Small Scale Commercial farmers on 1.2 million hectares.

Historically the Large Scale Commercial farms were reserved for whites while Communal Lands and Small Scale Commercial farms were for blacks. The resettlement areas were introduced after independence in 1980 to redistribute land.

Before independence, agricultural policies were focused more on Large Scale Commercial farms, which were fewer. After independence, the thrust one of affirmative action for Communal Farmers by supporting them and resettling them in high potential zones.

Crop production

Zimbabwe produces a variety of crops in its different sectors and zones. In terms of value (market share) the three main crops, in order of importance, are tobacco, cotton, and maize. In terms of strategic importance, maize comes first as it is the staple food. Tables 1 and 2 show the importance of selected crops to the different farming sectors.

Table 1: Market share of different farming sectors for major crops (1997)

Crop	Sector				Total
	L.S.C.F	S.S.C.F	Communal	Resettlement	
Maize	28%	3%	57%	12%	100%
Cotton	22%	3%	67%	8%	100%
Tobacco	96%	-	1%	3%	100%
Groundnuts	2%	6%	83%	9%	100%
Coffee	100%	-	-	-	100%
Soya Beans	98%	-	2%	-	100%

Table 2: 1998/99 Cropping season forecasts in communal areas

Crop	Area (ha)	Yield (t/ha)	Production in tonnes
Maize	1 016 762	1.39	1 412 060
Cotton	217 166	0.90	196 116
Burley tobacco	2 957	1.01	2 992

Financial institutions serving the small-scale sector

The Agricultural Finance Corporation (AFC) is the only financial institute providing loans to small holders. In the last three years the following amounts have been disbursed to the Small Scale sector to purchase inputs:

Z\$120 million in 1996

Z\$115 million in 1997

Z\$106 million in 1998

Financial services available to the small-scale sector have declined because:

1. the Government would like parastatals to be self-supporting (which partly explains the AFC's proposal to take on commercial banking activities, as "Agribank");
2. to curb the high default rate in the small holder sector, AFC had to introduce a policy of lending only to non-defaulters since 1996, resulting in the decline in loans granted;
3. high interest rates in 1998 have further deterred small-holder borrowers.

Commercial companies financing the small-holder sector

The Cotton Company of Zimbabwe is one of the major players in the Cotton Industry. Its core business is to buy cotton from producers. It has over 32 depots throughout the cotton growing areas, where farmers deliver their produce, and minimise transport costs. In order to increase productivity in the small holder sector, the Cotton Company has introduced the input credit scheme. Farmers in the small-scale sector are required to form groups of 10 members so that they can be supplied with inputs. Farmers are required to pay the loans at the end of the season and to market their

cotton through Cotton Company depots. Good performers are promoted to “Gold Class” members. Roughly 6,000 farmers in this category borrow cash (rather than inputs in-kind) – and it is intended that loans to this group will be taken over by a commercial bank, with which the Cotton Company is running a pilot scheme currently.

Cotpro is another ginning company. It has followed the Cotton Company’s lead in developing a small-holder input credit scheme. It appears that many farmers prefer to sell their produce to buyers who are assisting with inputs. The competition has increased – forcing the cotton companies to adopt new approaches or risk losing market share.

Role of private input companies in the supply of inputs to the small-holder sector

Major players in the supply of inputs to the small holders in Zimbabwe are as follows:-

1. Agricura (Pvt) Ltd.
2. Windmill (fertiliser and crop chemicals constitute major activity)
3. ZFC (fertiliser and crop chemical constitute major activity)

Agricura is the largest crop chemical company in Zimbabwe. Its major activities are formulation and distribution of Animal Health products, Home and Garden products, and crop chemicals. Products are marketed to all sectors in Zimbabwe and exported to other countries in Southern Africa. The box below lists its strengths in input supply.

Input supply company strengths: Agricura’s experience

1. Depots throughout the Country.
2. Strong Technical Department.
3. Product distribution network – Retailers/stockists.
4. Wide range of chemicals i.e. crop chemicals, Animal Health products and Home and Garden.
5. Group system for the small holder sector – supported by co-ordinators.

Reaching the small-holder sector through agencies and community leaders

There are a number of opportunities for input companies to collaborate with other agencies working in the rural sector, to improve outreach. Such agencies include:

- Agritex and Veterinary Extension Workers
- Agricultural Finance Corporation
- Co-operatives
- NGOs eg World Vision, Christian Care, Citizen Network, Lutheran World Federation, and
- The Cotton Company and Cotpro.

Small-holders can also be contacted through community leaders (local chiefs, political figures such as councillors, school heads, group chair-person for e.g. AFC loans or extension groups, and women's groups).

Key issues affecting small-holder use of purchased inputs

1. Education – illiteracy.
2. Infrastructure not in place – roads, telephones, finance.
3. Lack of distribution outlets to supply inputs.
4. Government extension services inadequate. Resources or manpower inadequate.
5. Draught power – not available on time.
6. Local beliefs or spirit mediums not accepting new technology.
7. NGO's giving financial assistance to small holders and co-ops without enough capacity-building. Money is misused, with negligible effect on production.
8. Financial institutions' recovery methods are poor and defaulters increase.

Situations and circumstances which facilitate increased use of purchased inputs by small-holder farmers

1. Discussion groups.
2. Field days and demonstrations covered by local and national papers.
3. Government and Commercial companies to sponsor training e.g. sending farmers to Cotton Research Institute for Pest Scouting Courses.
4. Recovery of bad debts should be left to financiers and the state should not interfere. Repayment rate would improve and more funds would be made available.
5. NGO's should liaise with commercial companies on the supply of inputs to farmers. Cash should not be given to farmers but in the form of inputs.
6. Processing of products e.g. ginning, spinning, oil extraction should be done at local level to enhance productions, creation of employment and economic growth. Cotton buyers in Zimbabwe are improving on this. Prices to producers will improve and will increase productivity.
7. Instructions on the product usage should be written in local languages.
8. Competitions on the safe use of chemicals should be encouraged at primary school level – these are future farmers e.g. Agricultural Chemical Industry Association in Zimbabwe have sponsored students at universities.
9. Group buying, Group responsibility for debts – need for personnel to co-ordinate activity of Group members. Selection of right people at district level is key.

Strategies to increase the use of purchased inputs

1. The road network system should be improved in the Communal sector especially in areas where there is production. If farmers produce and are able to market their products this will motivate them.
2. Traditional leaders and political leaders should be involved in new ventures.
3. Women's Groups should be encouraged. Women accept new concepts faster than their counterparts.
4. Minimum tillage should be encouraged where there is draught power shortage – encourage use of herbicides.
5. Tillage units supplied by the state and NGO are reasonably priced on a per hectare basis. These should be encouraged and will improve productivity.

6. Commercial companies should improve their distribution network, to ensure timely availability of the right-priced, right products, in the right pack sizes.
7. A guarantee facility to be made available to farmers by the state and NGOs for the supply of inputs. Commercial companies want security for credits offered. NGOs can provide grants to agri-dealers who stock inputs.
8. Public sector to reduce interest rates to encourage investment.

In Zimbabwe the standard of living for the small holder farmers has improved. Commercial companies have improved on distribution network of agri-inputs. They have Technical Sales Representatives who are based at major agricultural centres who provide back up services for products marketed.

The CARE Zimbabwe Agent Programme

by Golden Mahove, Project Manager, CARE Agent Programme, Zimbabwe

CARE Zimbabwe has initiated a programme intended to increase the productivity of smallholder agriculture by improving access to purchased inputs. The stimulus for the programme was the recognition of the low input-low output nature of smallholder farming. Despite the prevalence of infertile sandy soils, smallholders currently use only 8 percent of recommended fertiliser levels for maize cultivation, which results in extremely low yields in comparison with the commercial sector (see Table 1 and Figure 1). The Economic Structural Adjustment Programme has also reduced government funded agricultural services accessible to the communal sector. The cycle is self-perpetuating: low yields generate low incomes, putting purchased inputs even further out of reach.

Table 1: Fertiliser use and maize yield by farming sector

Farming sector	Market share	Fertiliser use kg/ha	Recommended use	% of recommended use	Maize yield t/ha
Large-scale commercial	81%	858	550	156%	5-8
Small-scale commercial	2%	108	550	20%	2-3
Small-holder communal	17%	15-45	550	8%	0.5-1.5

The AGENT Programme was launched in 1995 in Masvingo. The aim of the programme is to improve the livelihoods of smallholder farmers through increased land productivity and hence increased incomes. The objectives are:

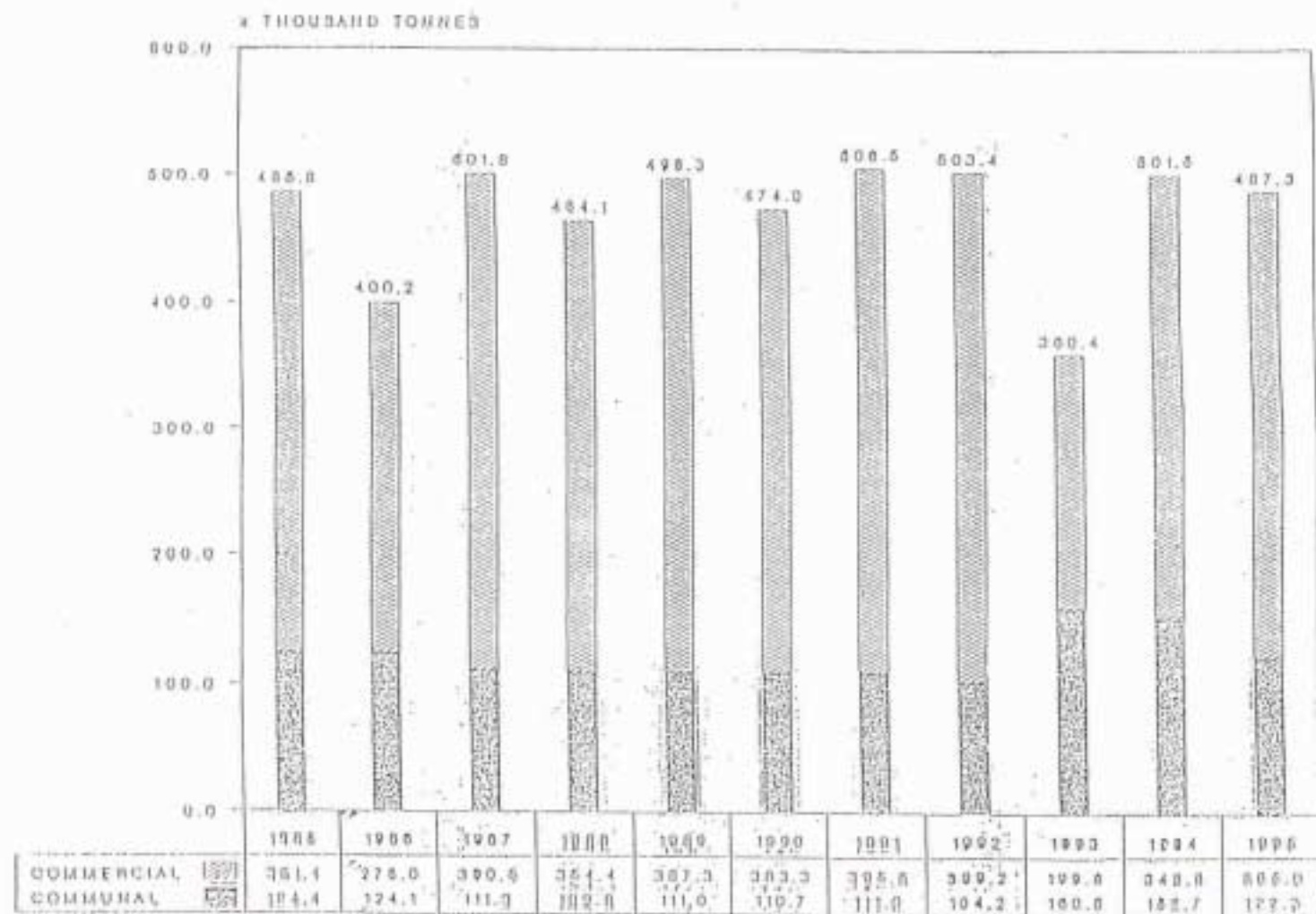
- to establish a network of viable agri-business entrepreneurs based in farming communities
- to improve access and lower the price of inputs
- to encourage greater use of inputs
- to provide information on agri-inputs and markets
- to encourage the use of environmentally friendly chemicals; and
- to socio-economically empower small-holder farmers through expanded services (including access to other products including food, crop processing, and credit).

Under the programme, the entrepreneurs retail a range of agricultural inputs at relatively low cost, and provide information on correct input use. Although an economic programme, the AGENT programme is intended to have positive social impacts too.

The starting point for the programme was the identification of reliable and trustworthy local entrepreneurs who could provide input retailing services to rural

Figure 1

FERTILIZER CONSUMPTION BY FARM SECTOR ZIMBABWE 1985 TO 1995



Fertilizer Trade Fertilizers
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Commercial - Large scale Commercial Farm Sector, Exports
and Urban Gardens.

Communal - Communal Small Holder, Small Scale Commercial
Resettlement Areas

communities. These agents were selected in close consultation with local communities and local Agritex field staff. In order to demonstrate their commitment, cash security was required from all participating agents. The selected agents received training in basic business management skills.

The next stage of the programme was to develop an appropriate input delivery system, and this was achieved with further involvement of the private sector. During the lifetime of the programme, the input delivery methodology has been developed and refined. Initially, when the programme was still in its pilot phase (1995-1997), CARE received inputs on credit from regional wholesalers. CARE then lent these inputs to the local agents, for them to sell to farmers. The cash from these sales was used to repay CARE, which in turn repaid the wholesalers. However, the sustainability of this approach was questionable, as the wholesalers and the agents were not in direct contact.

The 1998/99 season saw the programme being implemented country-wide with a new methodology. Input suppliers, wholesalers and agents now deal with each other directly. Credit is still extended to the agents, but rather than providing credit through CARE, the credit is now provided directly to the agents and the loans are guaranteed by CARE. An increased number of products are available under the programme: fertilisers, seeds, crop chemicals, stock feeds, veterinary supplies, farm implements and spare parts, cement, building sheets and some other building supplies. Figure 2 outlines the different delivery models developed by the project.

The AGENT programme puts a strong emphasis on sustainability. Once agents have demonstrated to the suppliers their repayment reliability, the agents "graduate" and CARE withdraws the credit guarantee. Agents should be able to graduate after one year in the programme.

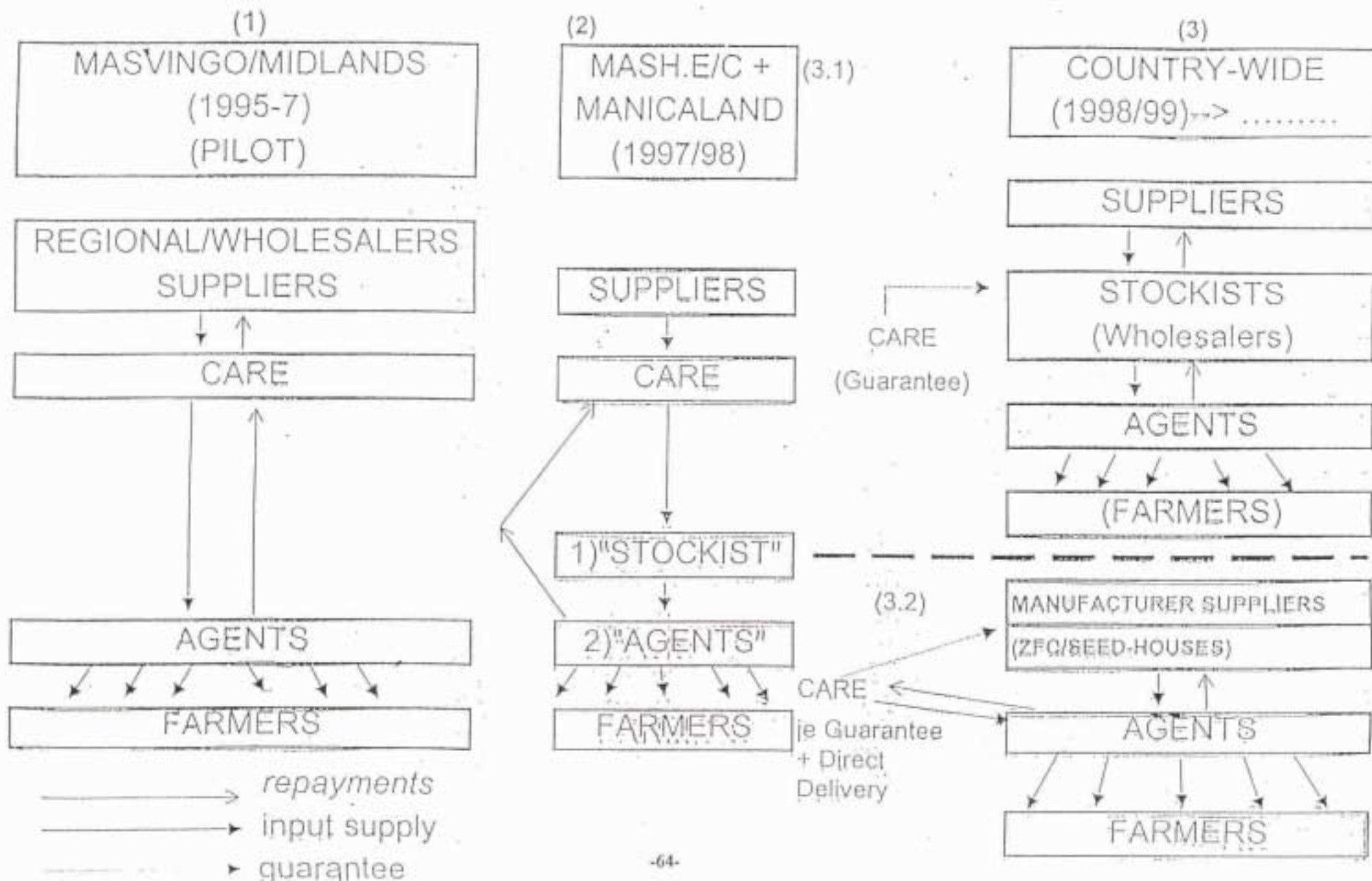
The key factors for the success and sustainability of the programme are:

1. careful selection of agents, emphasising business experience, credit worthiness and entrepreneurship;
2. supplier confidence in the agents - this relationship is critical; suppliers prefer to work with agents who can move larger quantities of inputs, and repay loans on time; the extension of credit from suppliers to agents may depend on the amount of contact between the two;
3. monitoring plays an important role in ensuring repayments are made, though those which require the least monitoring tend to have the best working relationships with the suppliers;
4. the cash security required of participating agents is important to screen out those agents who may not be serious or committed to the programme.

CARE sees potential to extend the benefits of the programme to more farmers and farming communities by expanding agent activities into: output marketing; food sales (maize meal, fish, small grains); other products (eg mosquito nets); and output processing.

Figure 2

CARE AGENT/DELIVERY MODELS



Annex 1: List of participants

Nicholas Chakwera, AFC, Zimbabwe
Cosmas Chidawanyika, World Bank, Zimbabwe
Grace Chimonyo, Seedco, Zimbabwe
Taswell Chivere, The Cotton Company, Zimbabwe
Tonneth Gazi, Agricura, Zimbabwe
Ian Gibson, CFU, Zimbabwe
Peter Goko, Ministry of Lands and Agriculture, Zimbabwe
Andrew Goodland, NRI
Ann Gordon, NRI
Silvester Hwenha, ITDG, Zimbabwe
Rob Jarvis, the Cotton Company Zimbabwe
Cosmas Kamba, Grain Marketing Board, Zimbabwe
Stewart Kwaramba, ZFC Ltd, Zimbabwe
Gordon Lind, Horticultural Promotion Council, Zimbabwe
Golden Mahove, CARE, Zimbabwe
Joanne Mhunduru, DR&SS, Zimbabwe
Clyton Moyo, Agritex, Zimbabwe
Langton Mukwereza, Zimbabwe
Richard Mwanze, Concern Universal, Malawi
Darias Sanyatwe, Agritex, Zimbabwe
Charles Songore, Windmill (pvt) Ltd, Zimbabwe
Emerson Zhou, Zimbabwe Farmers Union



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