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**Small-holder credit in Zimbabwe:
roles of farmers, government and
the private sector**

**Report of field work conducted in Zimbabwe during
October and November 1998**

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ABBREVIATIONS

AFC	Agricultural Finance Corporation
CMB	Cotton Marketing Board
Cottco	Cotton Company of Zimbabwe
DANIDA	Danish International Development Agency
IFAD	International Fund for Agricultural Development
GMB	Grain Marketing Board
MFI	Micro-finance institution
NACSCUZ	National Association of Co-operative Savings and Credit Unions of Zimbabwe
NGO	Non-Governmental Organisation
NRI	Natural Resources Institute
SEDCO	Small Enterprises Development Corporation
SHDF	Self Help Development Foundation
ZFU	Zimbabwe Farmers Union
ZWFT	Zimbabwe Women's Finance Trust

SUMMARY

Private sector cotton companies in Zimbabwe have taken initiatives to provide services to small-holder 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 small-holder cotton production. Their approaches provide lessons for other small-holder crop sectors and demonstrate the potential for private sector involvement in the provision of agricultural services.

The Cotton Company of Zimbabwe (Cottco) has become the largest lender to small-holders in Zimbabwe, both in terms of total amount lent per annum and the number of borrowers. Repayment rates had reached 98 percent by 1998. It has achieved this by developing a sophisticated lending methodology since the inception of the input credit scheme in 1993. This approach includes: group liability for loans; developing close relationships between the company and the small-holders; providing extension advice in addition to the input credit; and, giving cash incentives for good repayment performance. The scheme has been a success despite the competitive market for seed cotton, with two new entrants in the market vying for small-holder seed cotton. Despite some early problems with competing companies, which were able to offer better terms for purchasing seed cotton, the Cottco scheme has survived, partly due to strict treatment of defaulters. Meanwhile, one of the competing companies, Cotpro, has initiated a similar input credit scheme.

The experiences in the cotton sector highlight the need to improve smallholder access to inputs to increase productivity. Providing credit is only part of the solution, and in fact many smallholders can afford to purchase inputs without credit. Local availability of inputs is equally important. The cotton companies and some of the input suppliers are seeking to extend the availability of inputs in rural areas. In addition, CARE operate a credit scheme for local input suppliers.

There is wide awareness of input credit schemes in Zimbabwe and there have been several experiences outside the cotton sector, including maize and groundnuts, and outgrower schemes for high-value horticultural products. Experiences have been mixed. The chances of success are enhanced when a number of key conditions are met:

- low fungibility of credit (such that credit cannot easily be used for a different purpose – providing credit in-kind helps reduce fungibility)
- few opportunities to divert the output from the creditor (a condition which is particularly pertinent for food crops, which can be consumed or marketed locally)
- mechanisms are in place to enforce repayment, and
- the private sector has the means and incentive to operate a credit scheme.

PROJECT BACKGROUND.

The agricultural supply response to market liberalisation in sub-Saharan 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. For many small-holders, 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 constraint to agricultural development in sub-Saharan Africa. State withdrawal puts the onus on the commercial sector to provide these services. In wishing to facilitate a greater commercial role in the provision of rural services, development agencies are particularly interested in partnership approaches, which build on the competences of commercial, non-governmental and public players.

The research reported here was conducted as part of project whose purpose is to examine credit delivery models, where the commercial sector has been willing to provide credit to small-holders for production inputs. Such schemes usually link credit repayment to crop purchase. The initial research comprised a review of credit delivery schemes in the cotton sectors of Uganda and Zimbabwe, where private sector companies have taken the lead in providing credit to cotton small-holders. The intention is to identify key conditions for success, such that the models (or an adaptation) may be applied to other crops or situations. Stakeholder workshops are to be held in both countries in early 1999, to review the research results, and identify additional applications and priorities for further work on input supply and credit.

THE ZIMBABWE STUDY

This report documents the findings of desk research and fieldwork conducted in Zimbabwe. The purpose of the author's three week visit during October/November 1998 was to review the current situation in the cotton sector, documenting the recent history in the provision of credit to smallholders. This required a brief overview of the cotton sector in Zimbabwe, and an understanding of rural finance, in particular of small-holder access to credit. The initiatives taken by the private cotton companies provide a vital source of credit and other services for small-scale cotton growers¹. The NRI research has permitted the identification of key issues relating to their operation and sustainability. These lessons may shed some light on appropriate and/or necessary conditions for private sector involvement in the provision of credit to smallholders. Full Terms of Reference are attached at Annex II.

¹ The agricultural sector in Zimbabwe is principally divided between large-scale commercial farmers, and small-scale *communal* farmers (who largely farm the former *tribal* lands).

THE COTTON SECTOR IN ZIMBABWE

Production:

Cotton production has a long history in Zimbabwe, dating back to the beginning of the century. It has traditionally been a crop grown by large-scale commercial farmers, though since Independence in 1980 there has been a marked shift towards small-holder farms. In 1979/80, out of a total area of 90,000 hectares under cotton, only 15,000 (17%) was farmed by the communal sector. By 1996/97, 267,000 out of a total of 313,000 hectares of cotton was cultivated by smallholders - 85% of the total acreage (The Agricultural Sector of Zimbabwe Statistical Bulletin 1998). In 1992, it was estimated that 100,000 smallholders were growing cotton. (Kennedy and Hone, quoted in Gordon 1997). Currently, some 200,000 smallholders are estimated to grow cotton, although there are no reliable statistics on this (Chakayuka, Cotton Company of Zimbabwe, personal communication)².

During the 1990s the shift away from large-scale commercial production of cotton has become even more marked, halving between 1990 and 1998. The decrease in commercial production is associated with a corresponding decrease in overall average yields. Yields achieved by commercial farmers are much higher than those in the communal sector. In 1996/7, communal farmer seed cotton yields averaged 740 kg/ha, whilst commercial sector yields were 1,756 kg/ha. However, yields vary considerably in both sectors, and it is not unheard of for smallholders to achieve yields in excess of 2000 kg/ha (Chakayuka, pers. comm.). The differences between yields can be partly accounted for by the use of different production techniques: large-scale commercial farmers use irrigated lands and have high levels of purchased inputs. Interestingly, both smallholder and commercial farmer yields have remained more or less constant for the past twenty years, despite the introduction of higher-yielding varieties, though there is evidence that soils have been exhausted through over-cropping.

Typically, smallholders grow cotton in conjunction with maize, the main food crop, though not necessarily in rotation. Cotton is considered the main source of income for the majority of smallholders growing the crop (87% of smallholders identified cotton as their major income source in the survey of Mudhara, 1995). The increase in smallholder cultivation of cotton over the past decade is due partly to the perception of cotton as a drought tolerant crop, which makes it favourable to rain-fed producers (only a small proportion of smallholders have access to irrigation). Even the lower returns to cotton production in recent years due to a drop in the world market price have not apparently dissuaded smallholders from cotton production, though this has contributed to commercial farmers seeking alternative land uses³. Communal farmers have fewer options due to their limited access to inputs and irrigated land. They have continued to plant cotton, actually increasing the total area under cotton.

² The Zimbabwe Farmers Union estimates that up to 300,000 smallholders may be producing cotton.

³ Commercial farmers have re-invested cotton profits in more lucrative production, such as high value horticulture. Large-scale cotton producers face higher labour costs than communal farmers - and this has also contributed to the commercial sector's shift away from cotton.

Cotton production in Zimbabwe is associated with relatively high use of physical inputs (compared with Uganda, for instance, where fertiliser is rarely used in cotton production). Planting seed is supplied by the Seed Division of the Cotton Company of Zimbabwe, which has exclusive rights to the development and multiplication of cottonseed – though varietal decisions are taken annually by a committee with wider representation. Fertiliser use is common even amongst smallholders. A basal fertiliser is applied at planting and also possibly after germination, whilst top-dressing fertilisers (typically ammonium nitrate or urea) are applied at the flowering stage. In addition, pesticides are applied during the growing season. Access to purchased inputs is therefore critical for smallholders. There is evidence that credit for inputs is important for smallholder production of cotton. Another 1995 survey found that 77.7% of smallholders use credit for cotton production (Mudhara *et al.*, 1995), and farmer interviews conducted in 1997 on Gokwe North (Gordon, 1997) indicated that planted areas was dependent on credit for inputs.

As well as requiring purchased physical inputs, cotton cultivation is also labour-intensive. Weeding must be carried out when necessary, which could be up to four times per season. Weeding in the smallholder sector is done by hand, normally by women. In addition, the crop is hand-picked.

Institutional development in the cotton sector.

Prior to 1994, the Cotton Marketing Board (CMB) had a monopoly on the purchase of seed cotton. However, the cotton sector has been liberalised. The CMB has been privatised (although the Government has retained a 25% shareholding) and has become the Cotton Company of Zimbabwe (subsequently referred to as "Cottco"). In 1994, cotton purchase was liberalised and anyone is now allowed to purchase seed cotton. Currently there are three cotton processors: Cottco, Cotpro, and Cargill. Their total ginning capacity in 1998 is estimated to be around 400,000 tonnes of seed cotton. It is presently under-utilised: the production of seed cotton in 1997/8 was estimated at 275,000 tonnes.

The cotton companies have taken an active role in supplying services to small holders (see below). 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 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 small-holders from other sources, especially those in remoter areas, has left cotton companies with little option than to become involved in production credit and input supply.

ACCESS TO CREDIT FOR COTTON SMALLHOLDERS

Financial services available in rural areas

Commercial banking sector

The commercial banking sector in Zimbabwe provides few financial services to smallholders. Some savings facilities are available, but little or no credit. The reasons for are as follows:

- banks have few branches in rural areas, making the screening and monitoring of smallholders difficult and expensive, which increases the risk of default
- rain-fed agriculture is perceived as an inherently risky activity, and the possibility of crop failure and loan default is high
- transaction costs of dealing with small-holders are high due to the small loan size required and high administrative costs
- small-holders have little to offer in way of collateral - for instance communal and resettlement lands have no titles
- small-holders generally do not have business plans, which are a requirement for most commercial bank lending operations - the banks are used to doing business with large- scale commercial farmers, and have similar requirements and expectations of small-holders.

Agricultural Finance Corporation

Since Independence in 1980, the most important formal source of credit for communal farmers has been the Agricultural Finance Corporation (AFC). The AFC received loans from Government at below market rates and on-lent to small-holders for short-term seasonal working capital, medium-term loans for machinery, and long-term credit for farm purchase. Interest rates for small-holder loans were therefore subsidised and below prevailing market rates. The programme expanded during the 1980s and peaked in 1986 when over 95,000 smallholders received loans. The AFC is not legally permitted to take savings and is therefore wholly dependent upon external financing. With the Government guaranteeing the loans, the incentives for recovering loans were dampened, and repayment rates were generally low. The expansion of the scheme led to an increasing administrative burden. To improve repayment rates, a 'stop-order' system was operated, whereby the repayment of loans was deducted when farmers delivered produce to parastatal marketing boards, which at the time had marketing monopolies.

However, repayment remained low as farmers took out loans in different names and marketed their produce through friends and family, thereby avoiding repayment. In 1989, in an effort to combat high administrative costs and low repayment rates, group lending was introduced with groups taking joint liability for loans. However, inexperience in group formation and group lending methodologies, coupled with the perception among

small-holders that AFC loans were government money and therefore 'free', led to default rates for groups which were even higher than those of individual borrowers.

During the 1990s, pressures have increased on AFC. The severe drought in 1992 led to mass default. Furthermore, since 1994 the government guarantees have not materialised as public spending has been squeezed, despite pledges made by Government to continue to guarantee AFC loans.

The high default rate and cash flow constraints have forced AFC to become far more disciplined in their approach to small-holder lending. Nobody in arrears is eligible for further credit, and much greater efforts are being made to recover loans, for instance by seizing the assets of defaulters. Consequently, since the late 1980s there has been a steady reduction in the number of AFC clients and in the amount loaned. Loans are still provided both to groups and to individuals. The AFC now has a much smaller clientele, though more reliable. AFC is still able to offer lower interest rates than are available from commercial sources, due to concessional financing from a number of sources, including IFAD and DANIDA.

AFC has aspirations to becoming an agricultural development bank, and the license for this was expected to be issued before the end of 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, will be well placed to provide financial services to the agricultural sector. Seven branches nationwide are supported by approximately 25 district offices. In addition, 55 small bank offices are planned in remoter rural areas.

Other sources of financial services

In addition to the AFC, there are a number of other institutions which have an involvement in providing rural financial services.

Post Office Savings Bank

The post office has a wide network of branches, numbering around 500, scattered across the country. Savings facilities are offered through the post office, though are not available from all branches. No credit facilities are available.

Small Enterprises Development Corporation (SEDCO)

SEDCO is a publicly owned corporation (though there are plans to privatise it). SEDCO offers loans for micro-enterprises, medium scale commercial enterprise and industrial enterprises, the majority of which are in rural areas. It does not cater for small-holders.

Self Help Development Foundation (SHDF)

This is an NGO involved in establishing savings clubs. In 1998 there were around 12,000 savings clubs nationwide, with 10,000 affiliated to SHDF. 93% of total membership are women, and 80% reside in rural areas (Rukovo *et al*, 1998). The SHDF has a credit programme for savings clubs with a good history. However, the credit programme is small: only 389 loans worth Z\$402,000 were disbursed from June 1995 - June 1997.

Zimbabwe Women's Finance Trust (ZWFT)

This is an NGO encouraging savings and providing credit to women. ZWFT operates a group based lending system. The majority of enterprises financed by ZWFT are petty traders - crop production accounts for only 2% of the enterprises.

National Association of Co-operative Savings and Credit Unions of Zimbabwe (NACSCUZ)

NACSCUZ is an umbrella organisation of savings and credit co-operatives which are registered under the Co-operative Societies Act. NACSCUZ provides training and audit services. The Act allows the co-operatives to mobilise savings from members and lend to members. To date, ten of the Savings and Credit Cooperatives have established village banks.

Private non-financial sector provision of credit in the cotton sector

The main focus of this study is to explore the approaches taken by the cotton companies in providing input credit to smallholders. The challenges of providing credit to smallholders are multiple:

1. screening potential borrowers to assess their creditworthiness and likelihood for 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

Although all of these factors are important for a successful credit scheme, experience shows that the most critical aspect is to ensure the repayment of the loan. In a competitive market, this requires that the potential problem of 'strategic default' is addressed. 'Strategic default' occurs when a borrower defaults on a loan intentionally. This may occur when the borrower believes that default will not jeopardise 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 in the market. However, with three cotton companies now competing in the market, and farmers able to sell directly to the cotton companies or marketing middlemen, the problem of side-marketing has emerged. Currently, two of the three cotton companies are operating credit schemes. The experiences of all three companies are described 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. The company was quoted on the Zimbabwe Stock Exchange in 1997.

The Cottco input credit scheme started in 1992/1993 season, before the sector was liberalised. During 1991 and 1992, Zimbabwe experienced severe drought, and the Government, with donor assistance, was seeking ways to promote the recovery of the agricultural sector. The CMB, as it was then, approached the Government with a scheme to establish a revolving fund to finance an input credit scheme in which farmers could receive seed, fertiliser and pesticides on credit, the repayment being made at the point of sale of seed cotton. Support came from the World Bank, which provided a loan through

Government, which was released over a number of years. By 1996, over Z\$90 million had been loaned for the input credit scheme, together with additional loans to support the industry.

At the outset of the scheme, small-scale farmers were asked to form groups of cotton growers (minimum size 50). The rationale behind forming groups was twofold. Firstly, it facilitated the dissemination of information, including extension advice. Secondly, and most importantly, it created joint liability for the input credit. With all members of a group standing to lose out if one member defaulted, there is a strong incentive for peer policing. Since the scheme was initiated, it has been found that groups of 50 or more are too large to manage. Group leaders were encouraging unworthy farmers to join groups in order to make up the numbers, and this was proving costly with high default rates. By 1998, therefore, the required size of groups had been reduced to a minimum of 5 and maximum of 25 members.

Once groups had been formed and a chairman selected, groups approached CMB/Cottco to register. Registration takes place after an assessment of the group has been made. A database is kept of all cotton growers. This was established prior to liberalisation, and is now used by Cottco to screen communal farmers who wish to participate in the input credit scheme. This assessment is based on records which are kept on individual farmers, noting the quantity of cotton produced in each year. If the records showed that farmers were reliable producers, a credit limit for each individual within the group was calculated based on 60% of their average production of the previous three years, multiplied by the producer price of the previous season. In practice, the system has some flexibility - for instance a farmer without previous experience of cotton growing can be included in the scheme if the other members of the group are willing to support the new member.

Cottonseed comes from the Seed Division of Cottco, and chemicals are purchased by Cottco in bulk from local companies. Distribution and administration costs are added to this to reach a price for the inputs. Inputs are provided in three tranches during the growing season. The first tranche consists of seed and basal fertiliser. When cotton planting is completed, Cottco, with assistance from both Agritex (the extension service) and the Zimbabwe Farmers Union (ZFU) monitor the progress of the crop. Then, depending upon advice from these crop specialists, the second tranche is released. The second tranche includes pesticides, and if necessary, top-dressing fertiliser. If the estimated harvest is poor, due to weather conditions, the quantities and timing of tranche dispersal will be changed to maximise output whilst minimising risk. The third tranche consists of top-dressing fertiliser.

These inputs are distributed from depots around the country. Typically, a group leader will collect the inputs from the depot, hiring transportation if necessary. It is the responsibility of the group leader to ensure that the members of the group receive their input entitlement. The group leaders have an important role to play in the functioning of the scheme. They are the main contact point between the company and the farmers. They are rewarded for their work by incentives for good performance. Group repayment of above 95% is rewarded by bonuses (up to 3% of the value of the loan if 100% is

achieved). This is paid to the group leaders, who distribute it amongst the members at their discretion.

All cotton produced by smallholders must be sold to Cottco (i.e. not just enough to cover the repayment of the input credit). Although this is difficult to control, small-holders who engage in side-marketing will be penalised in the following season, as their credit limit will be determined by the amount of seed cotton sold to Cottco. Again, monitoring by the local Cottco agents and the group leaders will minimise side-marketing.

When the scheme was started, there was little difficulty in recovering the loan as Cottco was the sole buyer in the market. However, the introduction of competition threatened the viability of the scheme, as strategic default through side-marketing became an option for smallholders. To combat this several steps were taken to ensure repayment:

- in the event of default, assets (for instance cattle) can be seized from defaulters by a sub-contracted debt collector
- further loan dispersals to the group are halted (though in practice if the group achieves a 95% repayment rate it can continue in the scheme, with the outstanding debt rolled over to the following season⁴)
- monetary incentives are offered to groups with a 95% or better repayment rate.

These tactics appear to be working, with repayment of 96% in the 97/98 season.

The rapid expansion of the scheme during its early years (from 1992/93 – 1994/95) brought with it problems of effective management, and led to an increasing default rate. This was compounded by the entry of competitors into the market which were able to purchase seed cotton from farmers participating in the input credit scheme.

The scheme peaked in numbers in 1995/6 season when 86,426 farmers took input credits. For the coming season (1998/99), 48,000 smallholders will participate in the credit scheme, and approximately Z\$120 million will be advanced to them. (It is worth noting that Cottco also runs a credit input scheme for large-scale commercial farmers, who benefit from the lower interest rates than exist in the commercial banking sector. The large-scale farmers make more use of purchased inputs, and this is reflected in this year's forecast that a further Z\$120 will be advanced to only 200 large-scale commercial farmers. The inputs provided for the smallholders are used much more productively than those used by commercial farmers. Approximately 70% of seed cotton is expected to come from the smallholder sector in the 1998/1999 season).

In addition to those small-holders on the input credit scheme, many other small-holders purchase inputs from Cottco. All farmers benefit from technical advice, for instance a

⁴ Cottco have a policy of never writing off debt, even if the crop fails completely. In such an instance the debt will be rolled over, or special provisions made for the repayment of the loan in coming seasons.

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 levels: those producing at least 20 bales of seed cotton. Furthermore, the Cottco scheme is insured. The risks covered are: death; permanent disability; sickness; and general default. Every participant in the scheme is automatically covered as soon as he/she draws inputs from the scheme.

To operate the input credit scheme, Cottco employs 26 loan officers. Loan officers are encouraged to maximise the amount of time that they spend in the field. Farmer contact is considered crucial for maintaining good relations between the company and the farmers, and to be able to respond to specific needs of farmer groups.

Although the Cottco experience has been largely positive, it is a subsidised credit scheme, and dependent upon soft loans from the World Bank. Without access to these funds, the scheme would have to charge significantly higher rates to remain self-financing.

Cotpro Ltd

Cotpro entered the cotton market in Zimbabwe in 1995, initially in the south east of the country, a relatively isolated cotton production area. Cotpro's initial clients were large-scale commercial farmers. From 1996, small-scale communal farmers were brought into the scheme as Cotpro moved into the Chinhoyi district. Small cotton markets have been established in rural areas not serviced by Cottco. The scheme operated by Cotpro is similar to Cottco's in many respects, though it operates on a much smaller scale.

In 1998, Cotpro have 40 cotton 'markets', which both distribute inputs and receive seed cotton from smallholders. Roughly 2500 farmers are organised into 180 groups. Both cash and physical inputs are provided on credit. To implement the scheme, Cotpro employ a number of local agents who work closely with group leaders to screen and monitor group members. The system is heavily dependent on local information. Care has been taken to employ local staff who have good knowledge of local communities. As with the Cottco scheme, inputs are provided in a number of tranches.

The two main threats to the scheme are considered to be the risk of crop failure and the potential for side-marketing. To overcome side-marketing, a system of incentives has been established: agents and group leaders receive bonuses if groups achieve a 95% or better recovery rate.

The scheme is financed partly from the company's own resources, and partly from a special facility from the Development Section of AFC, and from commercial banks. In order to provide a competitive service, the interest rates are cross-subsidised from other operations of the company. The effective rate is approximately 29-30%, compared with

approximately 25-26% from Cottco⁵. Cash credits are mainly reserved for larger scale farmers.

A new 'state of the art' ginnery is being constructed in Chinhoyi, which will have a ginning capacity of 40,000 tonnes of seed cotton, a high proportion of which is planned to be supplied from the smallholder sector.

Cotpro would appreciate the opportunity to share information concerning farmers' creditworthiness with other cotton companies, but as yet no progress has been made with this, despite approaches to Cottco. (Cottco presumably has much better information than the other companies – with its long-established records and database). It is possible that some of the farmers on the Cotpro scheme are previous defaulters from Cottco, and therefore excluded from the Cottco scheme. These farmers would potentially be a risk for Cotpro, which would benefit from having information on their creditworthiness. Having said this, the repayment rate of Cotpro is very high.

Cotpro ambitions for the input credit scheme are fairly modest. It is aiming to have a maximum of 8000 farmers - conscious that the larger the scheme, the greater the difficulty of monitoring smallholders, and risk of failure.

Cargill Zimbabwe (Pvt) Ltd

Cargill entered the cotton market in Zimbabwe in 1995. It does not operate a credit scheme and has no intention of doing so. This is due in part to the extra burden and administration of operating an input credit scheme. In addition, there is resistance within the company to operating credit schemes when volatile economic conditions exist, such as in Zimbabwe, where as of October 1998, annual inflation was running at 34% and the cost of capital was approximately 40%. Cargill argue that the interest rate it would have to charge to make an input credit scheme viable would be so high as to dissuade smallholders, and potentially cause longer term indebtedness.

Cargill is dependent upon the small-holder sector for around 75% of its seed cotton purchases. It has in the past bought from cotton farmers within the Cottco input credit scheme. It has done this not by offering higher prices but by paying farmers on the same day as the seed cotton is delivered. In the 1998 buying season Cottco also began to provide smallholders with spot payments, thereby lessening the possibility of Cargill purchasing from these farmers.

As an alternative to credit, Cargill has started a programme whereby farmers are given the option of purchasing inputs (fertiliser and pesticide) when they sell their crop. As inflation is so high, farmers stand to benefit significantly from purchasing inputs and storing them for six months. Farmers taking this option are under no obligation to sell their next season's seed cotton to Cargill. Cargill are confident, that given a level playing

⁵ It is difficult to estimate a precise interest rate for the Cotpro and Cottco input credit schemes. Both charge a flat rate, irrespective of how long the loan is taken out for. For example, a farmer receiving inputs in October and repaying in April, will repay the same amount as a farmer receiving inputs in October and repaying in August – the interest rate is therefore lower for the latter.

field, that they can offer higher prices than their competitors due to lower ginning costs. Plans have been made to expand this system by bringing in local agricultural input dealers.

Role of Agritex in cotton input credit schemes

Agritex has an important role to play in the cotton input credit schemes. Working alongside the agents of the cotton companies, they provide extension advice which increases the productivity of the inputs. It also helps to alert the cotton companies as to the state of the crop and pesticide/fertilizer requirements.

Agritex has close ties with all three cotton companies. Information has been provided by all three companies on the services that they are offering to smallholders, so that Agritex field officers are able to provide advice on the different input schemes.

Agritex has a much higher presence in the cotton growing districts than do any of the cotton companies. The Commercial Cotton Growers Association finances Agritex field officers to train at the Cotton Training Centre.

Cotton farmers' perceptions

Cotton farmers from Bindura district, approximately 100km north east of Harare, were interviewed to draw out their experiences of the credit schemes. The interviewees included a Cottco group leader, Cottco group members, and farmers growing cotton but not on an input credit scheme.

- Farmers showed a general reluctance to take credit from any source. Some of those farmers not on the scheme had little interest in taking credit from a cotton company. The reason for this was a fear of being indebted. This demonstrates that farmers are aware that loans must be repaid: a significant advance from the AFC experiences of the late 1980s which blames its high default rate on 'financial indiscipline.'
- Approximately half of the farmers interviewed did not have any need for credit and were able to finance the purchase of inputs from their own resources. These farmers however were benefiting from the availability of inputs from Cottco. This suggests that credit is not a universal constraint to smallholders in the cotton sector. The physical availability of inputs is also an important element in increasing access to purchased inputs.
- One farmer who had grown cotton regularly and achieved good yields, said he was excluded from joining a group, due to personal difficulties with the group leader in his community. This raises a possible disadvantage of the group approach, as reliable cotton growers may be excluded from joining the input scheme due to non-economic factors.
- All the cotton farmers interviewed claimed to market their cotton exclusively to Cottco, although some had been approached by Cargill, who offered a slightly better price. Loyalty to Cottco was expressed, and there appeared to be a close working

relationship between Cottco and the farmers (although the interviewee responses may have been influenced by the presence of Cottco staff). Farmers were apparently suspicious of Cargill, and did not wish to jeopardise their relationship with Cottco.

- There was a lack of understanding of the finer points of the input scheme. For instance, none of the farmers interviewed were aware of the cost of the credit, which casts some doubt on the concerns of Cottco and Cotpro to compete over interest rates.
- There was general satisfaction with the scheme operated by Cottco and several farmers expressed an interest in expanding their cotton production.

Conclusions from input credit schemes in the cotton sector

1. The principal concern of the cotton companies is to secure sufficient throughput for their ginneries, and all three companies are significantly dependent upon the smallholder sector. Cottco and Cotpro have launched input credit schemes to ensure access to smallholder seed cotton.
2. 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.
3. The total number of smallholders currently benefiting from the schemes numbers approximately 55,000. This shows that there is considerable potential for farmers to grow cotton even without credit – and it appears that many farmers use their own resources to purchase inputs. This also supports Cargill's view that provision of credit is not essential to assure supplies of seed cotton from smallholders.
4. The potential problem of side marketing has been addressed 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 therefore are in a position to assess the credentials of loan applicants.
 - Close monitoring of the farmers throughout the season and links with 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 schemes serves both to increase the productivity of those inputs, and also helps to create a closer relationship between the company and the smallholder, and loyalty of smallholders to the particular company supplying credit.

- In the event of default, Cottco has come down hard on defaulters, seizing assets to ensure recovery of loans.
 - Generally, a combination of instilling financial discipline and weeding out potential defaulters has created a reliable clientele.
5. Neither Cottco nor Cotpro charge market interest rates in their programmes. This casts doubt over the long term sustainability of the schemes.
 6. The group mechanism has been put to maximum effect. There are several advantages:
 - group screening of applicants;
 - economies of scale in input and output marketing;
 - facilitation of monitoring;
 - joint liability for loan recovery; and
 - facilitating extension provision and coverage.
 7. Incentives are used to encourage good performance of cotton producer groups.
 8. All three companies have taken steps to make inputs available to smallholders, whether provided on credit or made available for cash purchase. The companies buy inputs in bulk and can therefore supply inputs at a discounted rate.

Future of the schemes:

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 1991/92 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.

IMPLICATIONS FOR OTHER SECTORS

Key conditions

The experiences of the cotton sector have implications for the operation of such schemes in other sectors in Zimbabwe. The corresponding field work conducted in Uganda led to the identification of key conditions which are either essential or desirable for the operation of private non-financial sector credit schemes (Goodland, 1998). These are:

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 non-productive use, increasing the risk of default;
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), the lower the likelihood that it will be used to repay the loan;
3. mechanisms to ensure the recovery of credit; and
4. private sector has incentive and means to provide credit.

The cotton sector input schemes described above demonstrate all these four conditions. Providing credit in the form of physical inputs (seed, fertiliser and pesticides) reduces the chance of it being put to other uses (though there is a chance that both the fertiliser and pesticide are applied to other crops). Seed cotton cannot be processed at the household level, nor is it edible (without industrial processing), so it is of little value to anyone other than ginneries. A number of innovative mechanisms are in place to ensure repayment (for example group liabilities, close monitoring, and cash incentives). Finally, the cotton companies clearly have a strong incentive to access smallholder seed cotton production so as to ensure adequate throughput for their ginneries. They also have access to funds to finance the credit schemes.

Using the findings from Uganda, combined with the experiences from the cotton sector in Zimbabwe, it is possible to assess the credit potential in other small-holder commodity sectors.

Other experience of input credit schemes in Zimbabwe

There has been much experience in Zimbabwe with input credit schemes, operated by both the private and public sectors. Recently attention has been given to outgrower schemes, particularly with high value horticultural export commodities (for example work by NRI/Plunkett Foundation, (Stringfellow *et al*, 1997)). Outgrower schemes are an extension of input credit schemes. These schemes provide a more comprehensive approach to linking smallholders to export companies and processors. They typically include the provision of inputs on credit, but also a complete package of production services, possibly including tillage, spraying and harvesting. The smallholder provides land and labour in return for a full service package. In these schemes, the high cost of the service provided by the company involved can be justified by the high value of the final product.

In Zimbabwe, a range of horticultural export crops are grown in outgrower schemes, including baby corn, flowers and mangetout beans. The care needed in producing a high quality product is labour-intensive, and the export companies began supplementing their supplies from small-holders because the large farms could not supply a quality product in sufficient volumes. On the large farms these crops would be grown under irrigation, but

on the small plots managed by the communal farmers it is possible to grow them with 'bucket irrigation'.

Non-irrigated Small-holder crops

Maize

Maize is the staple food crop in Zimbabwe, and it is grown by virtually all smallholders, both for household consumption and domestic marketing. There has been experience of input credit for maize. A German-funded irrigation scheme included a maize component (along with citrus and horticultural products). Inputs, including ploughing, were provided by the management company of the irrigation scheme. Marketing companies were identified for the different crops (The Grain Marketing Board for maize) and loans for inputs were intended to be recovered at the point of sale. Although there was some success with the horticultural products, the maize scheme had very poor results, and a recovery rate of less than 20%. This was attributed to maize being consumed in the household or traded locally, and general poor crop management by the small-holders.

Despite the poor experiences with maize, the GMB is currently planning to introduce a input credit scheme for maize based on the Cottco scheme. The Government is trying to boost maize production to reduce the dependence on imported maize. The potential problems of the maize scheme are:

1. diversion of crop to household consumption or local marketing
2. state control of maize prices may dissuade private companies from entering the maize market.

The alternative uses for maize (household consumption and local marketing) may make it difficult to operate an input credit scheme. Very close monitoring of the producers would be required and a variety of mechanisms for ensuring repayment. The cost of operating such a scheme is likely to be high, and very possibly uneconomic (given the low price for maize flour and the availability of alternative sources of maize from regional markets).

Soyabean

This is being promoted as a potential small-holder crop, though currently it is grown almost exclusively in the commercial sector. The interest in soyabean is partly due to high prices being paid, and partly due to the suitability of soils in some parts of the country: Magumje and Guriuve areas have medium to heavy soils, suited to soyabean cultivation. In the commercial sector, high yields are achieved with irrigated production systems.

The main buyers of soyabean are Olivine and National Foods. Neither company have expressed an interest in input credit schemes for soyabean. The main reason for this is that they can satisfy their requirements from the commercial sector. If the incentive were there, for instance if commercial production dropped as happened in the cotton sector, then the companies may have to reconsider. In this event, there might be potential for input credit – particularly as there is no tradition of growing soyabean is for household consumption in Zimbabwe.

Groundnut:

Reapers, a private shelling plant, has recently launched an input credit scheme for groundnuts. For the past three years it has been providing seed on credit to small-holders. It also provides extension services for its growers. Currently, there are 4,000 to 5,000 small-holders in the scheme. These are formed into groups of 100 or more. The chairmen of these groups have an important role, organising their members for meetings with the company, and the distribution of planting seed and collection of the groundnuts. Reapers employs around 20 extension workers to operate the scheme in the field. Agritex also provides support and extension advice. Compared to the input credit schemes of the cotton companies, the Reapers system is relatively simple. It claims to have a high repayment rate, which they put down to a culture of loyalty between the company and the small-holders on the scheme.

The Oilseeds Council of Zimbabwe regard groundnuts as having considerable potential as a cash crop for small-holders, more so than other edible oil crops. Reasons given for this were:

- it is already established as a smallholder crop
- it is a rain-fed crop
- farmers can use their own open-pollinated seed (though Reapers distribute seed of the variety it wishes to process)
- it requires little attention (for instance as compared to cotton which may require weeding four times per season)
- it is drought tolerant so even in bad years there will be a harvest
- it can be used as a food crop, and
- the purchased input requirements are relatively low.

The potential to use groundnuts as a food crop diminishes its suitability as a commodity for input credit schemes. However, despite this problem, the experience of Reapers has been positive.

Red sorghum

This is a crop that is used by the local beer brewing industry. Chibuku Breweries is the only brewery producing this beer, which is sold only to the domestic market. Half of the red sorghum (approximately 10,000 tonnes out of a total of 20,000) is purchased from communal farmers. An input credit scheme used to operate, though this has been discontinued. Seed for the sorghum is distributed at the company depots. The company does not see the need for an input scheme: the use of agro-chemicals for the cultivation of sorghum is relatively light, and farmers are able to make cash purchases of planting seed.

Input supply

Review of the non-irrigated small-holder crops suggests that the more widespread application of input credit schemes may be limited, or at least problematic as in the case of maize. However, the need for inputs in small-holder production is significant, and access to inputs is a critical factor for increasing small-holder productivity.

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 depends on farmers having the means (cash or credit) to obtain the input, and secondly, that the inputs are available. The further the distance that a farmer has to travel to obtain inputs, the higher the cost. The supply of inputs to small-holders appears fairly competitive. For instance, both ZFC and Windmill (both fertilizer distributors) have produced cotton packs – packages of necessary inputs in relatively small quantities targeted specifically at small-holders.

CARE Agent Programme

CARE has launched a programme aimed at increasing the availability of inputs at the local level. It is a credit programme targeted at local input suppliers (agents), typically small-scale village level retailers. These agents are identified, initially by nomination from the communities themselves, and candidates are reviewed by local government agencies (e.g. Agritex). Training is provided to selected agents in input handling, marketing, finance, book-keeping. The trained agents then make input orders to CARE which negotiates prices and terms with regional suppliers. Agents are allowed an inventory of up to Z\$30,000. CARE consolidates the orders and arranges bulk purchases and delivery of the inputs. CARE bears the risk for 30-60 day credits provided to the agents, who repay CARE as they sell the inputs to farmers. Continual monitoring of stocks is carried out. The hope is that after two years of good performance, agents will be able to graduate and deal directly with the suppliers.

Current performance of the programme is very encouraging. In its first year (1996/97) about Z\$4 million worth of inputs were sold to farmers. 95 percent of payments have been made on time. Although CARE were unable to provide estimates of the number of small-holders who have benefited from the programme, it is likely that it is significant. Several benefits accrue to small-holders: inputs are now cheaper to purchase, partly due to lower transportation costs and partly due to the bulk purchases made by CARE; and agents advise on the appropriate choice and use of inputs.

Agricura

Agricura is a private company producing and distributing agro-chemicals, primarily pesticides. Agricura recognises the demand from smallholders and has tailored its operations to cater to their needs. A fairly sophisticated programme has been developed to reach smallholders. Twenty-three depots are located around the country, and at each are based a number of Agricura representatives. Each of these representatives manages a number of coordinators ('runners') who are responsible for mobilising smallholders into groups. Agricura recognises that dealing directly with individual smallholders is too

costly, considering the small quantities of agro-chemicals demanded. The runners take orders and organise group field days, when the representative will deliver the products. The representatives have some knowledge concerning the use of the chemicals and provide extension advice. Runners get paid on a commission basis. The pesticides are packaged in small quantities to suit smallholders.

In addition to this operation, Agricura also supplies Cottco, which tenders each year for the supply of pesticides. Competition for this large tender is intense.

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 the largest single source of credit for small-holders in Zimbabwe, even though it is not a financial institution. It has developed its own methodology for lending (from which MFIs could learn), but it could also benefit from experiences of micro-finance institutions in Zimbabwe and internationally (for example in the development of appropriate software to manage the scheme as it becomes increasingly sophisticated). Cottco has recently started to provide cash loans to individuals, and this too makes it more akin with 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 (see CARE programme above). Alternatively, input suppliers have sought to increase the availability of inputs to small-holders (see Agricura above). Output buyers (processors, exporters) have been more reluctant to be involved with credit schemes. The situation in Zimbabwe, with a sizeable large-scale commercial farming sector, means that only in certain commodity sectors (such as cotton) is there any dependence on small-holder production, and therefore there is little incentive to launch input credit schemes tailored to this 'market'. None of the large agro-processors (Olivine, National Foods) 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 (such as food crops).
- Despite the success and apparent sustainability of the cotton input credit schemes, they nonetheless depend to some extent on funds available on concessionary terms. It is not clear whether they could be operated at higher interest rates, but it must be

assumed that the take-up would be less. The present macro-economic situation also gives rise to concern. High inflation is not conducive to the operation of credit schemes, and savings rates are currently negative (in real terms). High interest rates dissuade small-holders from taking credit; investment in assets is seen as a better option. Purchasing inputs at the time of sale of seed cotton may become more popular, though storage of inputs may pose some problems (space, handling, and health risks). It might be possible for the cotton companies to store inputs for small-holders, but this would add to costs and farmers may be reluctant to make advance purchases if they do not take possession of the input at the same time.

- The role of groups is very significant in Zimbabwe, and a key determinant of success for the cotton input credit schemes.
- Despite the success of the cotton company schemes in increasing access to inputs, it is clear that credit is only part of the solution to increasing input use. The availability of inputs in rural areas is equally important. Many smallholders in Zimbabwe appear to have the capacity to purchase inputs without credit.

ANNEX I: Contact list:

Mr S. G. Kwaramba	Sales Manager, Zimbabwe Fertiliser Company
Mr. Langton Mukwereza	Chief Agriculture Specialist, Agritex
Mr. Ken Wilson	Managing Director, Agricura
Mr. Steven Chipika	Technology Policy Adviser, Intermediate Technology Development Group (ITDG)
Mr. John Lwande	CARE Zimbabwe
Mr. Rob Jarvis	General Manager – Seed Division, Cottco
Mr. Joseph Zizhou	Loans and extension officer, Bindura cotton depot, Cottco
Mr. Phillippe Lehrmann	Managing Director, Cargill Zimbabwe (Pvt) Ltd
Mr. Barry Fisher	Chief Executive, Cotpro Ltd
Mr. Taswell Chivere	Inputs Manager, Cottco
Mr. Thomas Yuba	Horticultural Promotion Council
Mr. George Hutchenson	Oilseeds Council
Ms. Chinindi Tsitsi	Reapers (groundnut processors)
Mr. Cuthbert Chamboko	Silveira House
Mr. Kidia	Financial Director, Olivine Industries (Pvt) Ltd
Mr. Borerwe	National Breweries Ltd
Ms. Trinity Mafu	Production Manager, United Refineries Ltd
Mr. Alain Kerrec	EU Structural Adjustment Support Programme & STABEX
Mr. S. T. Heri	Chief Executive, Horticultural Promotion Council
Mr. Oscar Chimanzi	Zimbabwe Farmers Union
Mr. John Hansell	Department for International Development, Harare
Mr. Roland Murengwa	Chibuku Breweries
Mr. Sylvester Tsikisayi	Zimbabwe Farmers Union
Mr. Kamba	Marketing Manager, Grain Marketing Board
Mr. D. Mfote	Ministry of Agriculture
Mr. Cuthbert Chakunyuka	Operations Director, Cottco
Mr. Nicholas Chakwera	Senior Technical Services Officer, Agricultural Finance Corporation
Ms. Nan Chalmers	Zeneca
Mr. Brian Schlacter	Olivine Industries (Pvt) Ltd
Ms. Joanne Mhunduru	NRI Crop Post Harvest Research Programme coordinator
Mr Isiah Nyamadzawo	Haramba farmers group leader, Cottco input credit scheme, Bindura district
Mr. Felix Katsande	Cotton farmer, Chevakadzi
Mr. John Chimukoko	Cotton farmer, Madziwa
Mr. Abel Chiwara	Cotton farmer, Madziwa

ANNEX II

TERMS OF REFERENCE

Cotton sector

1. Document the process which has taken place with the provision of cotton sector credit (starting with the parastatal operation without a credit programme, the introduction of scheme, liberalisation of the sector with entry of competitors, and resulting pressure on and adaptation of the scheme).
2. Document the current situation with access to credit for cotton small-holders? Who provides it? Scale (no of farmers, type of farmer)? Repayment and sustainability? Are there problems? – how are these being addressed?
3. How do the various parties involved see the present and future role of credit schemes (3 cotton companies, farmers, other stakeholders)?
4. What lessons can be learned for cotton and for other sectors?

Other sectors

6. Identify other sectors with input credit potential, based on the results of field work in Zimbabwe and Uganda.

Workshop preparation

7. Provisionally identify key people able to contribute different perspectives and experience to a constructive debate at the proposed March workshop.
8. Give consideration to possible venues, cost and logistical arrangements for the organisation of a 1-2 day workshop.

Miscellaneous

9. Meet with John Hansell (DFID NR adviser Harare) to brief him on the project.

Reporting

10. The report should cover the three main areas highlighted above –and the first two to form the basis of discussion papers for the workshop.

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