

Cost effectiveness of seed fairs relative to direct relief distribution in Zimbabwe

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Abstract

Seed fairs were being promoted in Zimbabwe as an alternative seed distribution approach to sustain local input markets. Using data from ICRISAT monitoring surveys of 2005/06 and records maintained by non-governmental organizations, the study reveals that seed fairs were more cost effective in distributing local seed compared to direct distribution of imported seed. In order to supply one household with a seed pack, it will cost an agency US\$5.18 through seed fair compared to US\$8.22 through direct seed distribution. Vouchers redeemable in retail shops are proposed as an incentive for local shops stock and distribute agricultural inputs.

Key words: Seed fair, voucher, relief input distribution, cost effectiveness

Introduction

Background

Agricultural input assistance by government, donors and non-governmental organizations (NGOs) has been a common response to natural disasters and the recent economic decline in Zimbabwe. The relief assistance provides farmers with basic seed and tools that will hasten the process of producing their own food and at times the smallholder farmers are able to produce surplus to generate extra income from crop sales. This relief intervention allows farmers who have recently suffered production losses to re-establish their cropping operations (Remington et al., 2002). Seed aid has been supported by Bramel (2003) as a more long-term and effective intervention than short-term food aid. Since 2000, Zimbabwe has experienced severe economic challenges, leading to humanitarian organizations focusing development assistance toward agricultural relief input support, a strategy for sustainable alleviation of hunger and extreme poverty for smallholder farmers.

Emergency seed projects are based on the assumption that farmers affected by disaster have no seed and these projects aim to provide farmers with some seed to plant in the forthcoming season. Past research, however, has challenged this assumption and studies undertaken in Southern Sudan, Somalia (Longley et al., 2002), southern Africa (Friis-Hansen and

Rohrbach, 1993), Rwanda (Sperling, 1996), and Sierra Leone (Longley and Richard, 1998) have shown that not all farmers lose their seed, and even if they do seed is often locally available through grain markets or from farmers in neighbouring areas. Assessments of what seed is later planted reveal a multiplicity of seed sources, including stocks saved despite the worst disasters (Friis-Hansen and Rohrbach, 1993; Rohrbach et al., 2004). Most development practitioners wrongly assume that disaster-stricken communities consume all their seed stocks. Consequently, relief organisations traditionally intervene by directly distributing large volumes of seed varieties which are imported. The inherent problems with this methodology are that poor quality seed may be distributed, farmers are not given choice of crops and varieties, and the latter may not be necessarily well adapted to the local conditions. Seed fairs and other voucher-based systems offer relief organisations an alternative relief seed distribution strategy that empowers farmers not only to choose but also to share and promote the available local biodiversity. Local farmer systems are robust and resilient and offer a wide range of locally adapted crops and varieties.

Seed fairs generally take the form of temporary markets organized by NGOs as a means of promoting the trade of seed between farm households and seed sellers (CRS, ICRISAT and ODI, 2002). Originally, these were promoted as a means to increase sharing of a wide range of traditional crop varieties or to promote agro-biodiversity (Rohrbach and Mazvimavi, 2006). Farmers who had lost access to traditional varieties or crops could obtain seed from their neighbours. The advantage of the seed fair was to increase the transparency of this market, where both seed sellers and buyers could mix, share information and trade their seed (Leonardo José (ed.) 2003). The major constraint in implementing seed fairs has been the determination of seed supply at the household or local level. An assessment done by Catholic Relief Services (CRS) and Community Technology Development Trust (CTDT) for their planned seed voucher and fairs in 2002/03 showed that farmers were reluctant to report on home-saved seed or availability of seed from other local farmers (CRS, 2003). According to Longley (2006) vouchers are designed to address problems of access rather than availability of seed in contrast to free seed distribution which assumes lack of seed in the local community. Vouchers tend to be used in situations where cash might be preferred but is neither possible nor appropriate, or when an intervention aims to promote a particular commodity in the market (Harvey, 2005; Longley, 2006). In Zimbabwe, because of the political and economic crisis of the last decade, resulting in a world record hyper-inflation, it has been difficult to operate on a stable currency for cash transfer programs.

Problem statement

The seed fair model was first introduced into Zimbabwe in 2002 and interest in this strategy has grown amidst the annual implementation of humanitarian assistance programs. Since then, more than 36,000 farmers have received vouchers to purchase seed at the seed fairs. Seed fairs are based on a number of assumptions: (a) seed fairs offer farmers greater choice of seed to replenish their stocks; (b) the choice of local varieties improve crop biodiversity; (c) more income remains within the rural community, stimulating an expansion of seed production; and (d) the seed fair strategy is more cost effective than direct seed handouts. Vouchers were provided to vulnerable households allowing the purchase of whatever seeds were of interest and at individually negotiated prices.

Despite their popularity in the humanitarian spheres in Zimbabwe, little is known about their cost effectiveness in distributing relief seed particularly in relation to direct distribution. This paper seeks to contribute to this knowledge gap by addressing this pertinent issue.

Methodology

This study is based on monitoring survey data collected by the International Crops Research for the Semi-Arid Tropics (ICRISAT) during the implementation of seed fairs by different NGOs in 2005/06 season. These monitoring surveys which were carried out in September to October allowed for the observation of the actual seed fair processes (Table 1). Semi-structured interviews were conducted with a cross section of seed fair participants, including NGO representatives, farmers buying and selling seed, agro-dealers, and community leaders. The data collected from monitoring seed distribution included: quantities of seed available and sold at each seed fairs differentiated by variety and seller, the prices of seed at the seed fair and the prevailing market prices. Seed fair records kept by implementing NGO were also collected including the number of seed fairs or direct distributions in a district as well as number of beneficiary households at each distribution point.

To make comparison of costs, labour and material requirements for each mode of distribution we relied on records from NGOs pertaining to quantities and type of seed provided or voucher value per household. A breakdown of costs and labour requirements for each approach and time required from planning to implementation were standardised based on field observations from the monitoring exercise. The costs of importing seed were based on

data obtained from an agent tasked to import seed for all relief programs in the country in the 2005/06 season. Each NGO would then incur costs from transporting from the agent's warehouse to their own storage place.

[Insert Table 1 here]

For the eight NGOs monitored cost data was collected for both seed fairs and direct distribution because these NGOs implemented both methods and hence the basis of the comparison. Averages figures from the eight NGOs were used to come up with the data used in the final analysis of costs of the two methods. The final costs per district were primarily a projection of data obtained from the actual sites visited.

Results

Impact of seed fairs on crop choice

Number of seed sellers at seed fairs. NGO staff distributed vouchers to vulnerable households. The vouchers were used to buy seed from registered seed sellers who comprised of local farmers, agro-dealers and in some instances seed companies as shown in Table 2. Although the seed fairs encouraged local farmers to sell their seed (usually cleaned grain), NGOs also invited agro-dealers and seed companies to participate at seed fairs to increase biodiversity. The number of local seed sellers appears to have been partly related to the level of rainfall in the targeted area. In high rainfall areas, there were more local farmers selling seed at the seed fairs compared to low rainfall areas. Farmers in high rainfall areas usually produce surplus grain and can afford to sale some at the seed fairs. The number of local sellers at each seed fair was also clearly influenced by the sensitization strategies employed by the NGOs. Some NGOs restricted sale of certain seed types, which they presumed not critical for food security, for example sunflower and sesame. Local seed sellers commonly sold local landraces of groundnuts, bambaranuts, cowpeas, pearl millet, finger millet and sorghum

[Insert Table 2 here]

Seed companies and agro-dealers commonly sold improved varieties of maize, sorghum and groundnuts at the seed fairs. Companies commonly argued their participation in the seed fairs were not profitable because of high transport costs and low seed sales. In fact, most seed

companies preferred selling most of their stocks to larger NGO and government tender for free seed distribution programs, where they could earn more money. Most NGOs sought the participation of particular agro-dealers who would assure the availability of a minimum supply of maize seed. Several NGOs negotiated specific agreements with these traders before the seed fair, and maintained close communication about the levels of maize seed stocks needed at each fair in order to redeem the available vouchers. While the NGOs did not restrict the participation of multiple agro-dealers, the numbers participating in any given seed fair were small.

Diversity of crop varieties offered at seed fairs. The standard relief strategy is to provide farmers with seed of two to four crops with which to re-establish their crop production after a drought. These include one or two cereal grains and a legume crop. According to Rohrbach *et al.* (2004) most handouts in Zimbabwe included maize and sorghum or pearl millet, groundnut, cowpea or beans. According to Table 3, seed fairs implemented in 2005/06 season undoubtedly offered farmers more choice than direct distribution. Seed fairs commonly offered six or more different seed crops and multiple varieties of each crop thereby promoting agro-biodiversity and choice. Across all districts visited, farmers showed a greater preference to acquire maize seed (both OPV and hybrid) using vouchers at the seed fairs. Most beneficiaries used the bulk of the voucher value to purchase maize and the rest to purchase small grains (pearl millet, finger millet and sorghum) or legumes (groundnuts, bambaranuts and cowpeas). This is rational as farmers indicated that they can at least afford to acquire other seed types from local farmers. Direct distribution offered farmers few crop choices. The dominant crops offered through direct seed distribution were maize, white sorghum, groundnuts and cowpeas. In Gutu, Murehwa and Chipinge districts, only maize was provided through direct distribution, thereby compromising choice. The number of crops distributed to recipient households through direct distribution was mainly determined by the NGO budgets.

[Insert Table 3 here]

The quantities of seed delivered to vulnerable households through relief programs varied across districts and implementing agencies. The budget of the project, the targeted number of beneficiaries and source of seed determined the quantity of seed each household will receive through direct distribution whereas for seed fairs this was also a function of seed prices and the voucher values. Imported seed was more expensive than commercial seed sourced locally and this would reduce the quantities to be distributed to each household. In most cases, beneficiaries obtained a minimum of 10kg maize, 2kg each of groundnuts and cowpeas through the two distribution systems.

Are seed fairs a more cost effective option for relief distribution?

The main objective of seed relief programs is to get the largest quantity of seed to the largest number of vulnerable households within a limited budget. Some NGOs argue that seed fairs are more expensive than direct seed distribution because of the additional costs of organizing and implementing the markets, resulting in fewer farmers benefiting from the available relief funds. The following analysis of the cost effectiveness of alternative seed delivery system is based on a case study of two NGOs using both seed fairs and direct distribution.

The analysis of costs is based on a program to provide each of 1700 households in one district with a package of seed inputs comprising 5 kg of hybrid maize seed, 2 kg of sorghum seed, and 2 kg of groundnut seed. This package represents a common sort of seed pack used by a number of NGOs in Zimbabwe for direct seed distribution. The number of households was estimated as the average number of beneficiary households for a single NGO in any district. This information was based on the number of distribution points used by an individual NGO and the beneficiary households at any individual distribution point in a district. The distribution sites are located 250km away from the NGO head office. The distance to the head office was calculated as the cumulative distance since there a number of distribution points in any one district. Five possible sources of seed are considered; a) the local farm community for seed fairs, b) local agro-dealers at seed fairs, c) local commercial seed company agents at seed fairs, d) local commercial seed companies for direct distribution, and e) imported seed for direct distribution.

Labour requirements. Labour requirements to distribute seed to vulnerable communities significantly differed by each method used by NGOs. The main activities, which require labour, are seed assessment, beneficiary sensitisation, and the actual implementation of seed distribution (Table 4).The labour requirements and time taken to carry out the activities were almost similar across all the eight NGOs and figures with the highest frequency were adopted as the standard. It is assumed that the staff skill required for each system of distribution is the same because it is the same NGO personnel who carried out activities associated with seed distribution. The travel costs cited in Table 4 are a product of the number of trips required for these operations.

[Insert Table 4 here]

Seed assessment involved checking the general availability of local seed and estimating community seed requirements. The labour requirement for both seed fairs and direct distribution are the same and estimated at eight labour days or two persons for four days.

Beneficiary sensitisation involved informing the community about the relief programmes being planned. This mainly consists of targeting and registration of beneficiaries. More time is required for seed fairs as beneficiaries have to be taught, explained more on the processes especially the use of vouchers at a seed fair and the need for seed delivery from local sellers. The total labour requirements for seed fairs are approximately double what are required for direct distribution.

During the actual implementation of the seed fair, labour requirement is generally high. Seed fair activities consist of initial weighing of seed and seller registration, price negotiations and drafting a price list, verification of registered beneficiaries and issuing of vouchers, final weighing of seed for reconciliation of purchases and payment of sellers. In addition, there is more NGO staff attending. Direct distribution involves primarily issuing inputs, signing registration of beneficiaries. In most cases local leaders assist in the verification of registered beneficiaries and issuing out of input packages. Seed fairs are approximately five times more labour intensive to implement than direct seed distribution. Based on organisation and implementation costs alone, seed fairs are 2.5 times more expensive to operate than direct distribution system.

Materials required. The materials required for these input programs include, printing of vouchers, stationery, scales and promotional materials (Table 5). Vouchers are only required in seed fairs and scales which are used for weighing seed brought by local farmers. Seed distributed through direct distribution method is generally brought in as a weighted package per farmer and does not normally require weighing and re-packaging. More stationery, posters and other promotional materials are required for advertising during the seed fairs. According to Table 5 an NGO has to spend a total of US\$410 compared to US\$100 in material costs in order to distribute 8,500 kg of maize seed, 3,400 kg of sorghum seed and 3,400 kg of groundnut seed to the 1700-targeted vulnerable households. The materials needed for seed fairs are likely to cost approximately four times more than the materials needed for direct distribution programs.

[Insert Table 5 here]

Input acquisition Costs. The cost of seed depends on whether this was imported, bought from commercial seed companies, or locally grown seed delivered by farmers at seed fairs.

While recognizing that farmers at seed fairs may choose any configuration of seed, for comparison purposes, a standard “pack” was assumed to include 5 kg of hybrid maize seed, 2 kg of sorghum seed, and 2 kg of groundnut seed. This approximately corresponds with the value of vouchers distributed. The costs of imported seed (US\$14.46/pack) were far more expensive than any other option (Table 6). In comparison, packs of seed obtained from the local community were the cheapest option at US\$3.97/pack.

[Insert Table 6 here]

The cost of buying seed through agro-dealers was more expensive (US\$9.60/pack) than the costs of buying seed directly from the national seed companies (US\$7.78/pack). This is because agro-dealers sought higher prices in order to offset their transport costs, accommodation costs and the risks of ending up with unsold inventories. The analysis indicates that if seed companies provided seed, either through direct distribution or through the seed fairs, the cost would be the same. However, as noted above, seed companies were reluctant to service most seed fairs because of the uncertainty of sales and the higher profitability of selling larger lots in response to NGO tenders. By inference, the more relevant comparison is between agro-dealer sales at the fairs versus seed company deliveries for direct distribution.

Cost analysis. The most expensive component of these comparative budgets is the cost of seed. This largely determines the overall costs of each program. The most cost effective means to provide the designated seed pack to the 1700 targeted households is through seed fairs (at US\$5.18 per household whereby all seed is provided by local farmers (Table 7), and compared to the most expensive distribution method, delivering imported inputs through direct distribution (at US\$14.85 per household) . The high costs of imported seed, and added logistical expenses involved in finding this seed, obtaining appropriate clearances, shipping and handling, push the value of imported seed to almost twice the cost of local commercial seed.

[Insert Table 7 here]

Based on the case study data, the cheapest means to distribute seed to needy households appears to be the option of using seed fairs to redistribute stocks from surplus to deficit households. This is almost 40 percent cheaper than the next best alternative of direct distribution of commercially supplied seed. However, this assumes that all of the seed needed is locally available.

If NGOs and donors want commercial seed to be distributed, the most cost effective means to accomplish this is through direct distribution of stocks obtained from seed companies. The reliance on local agro-dealers to provide this seed through seed fairs is relatively expensive. An alternative choice would be to provide some seed (for example maize) through commercial channels and the rest of the seed (for example sorghum, pearl millet, groundnut, and cowpea) through a fair. This has the advantage of strengthening commercial sales channels while also supporting local markets.

However, the analysis of cost effectiveness must be complemented with an assessment of additional costs and benefits that are more difficult to quantify. There is little doubt but that direct distribution undermines the development of rural retail markets. Seed companies seek to sell most of their stocks in larger lots to each NGO. This contributes to a reduction of flows through national wholesale and retail distribution channels. Rural retailers have little incentive to stock seed if this may be handed out for free in neighbouring communities.

Impact of seed fairs on village and commercial seed markets

Seed fair prices. In order to entice traders and farmers to bring enough seed to the seed fair, NGOs usually set seed prices at levels that were slightly higher than local prices. This was a difficult trade-off. The price for white sorghum seed at the seed fair was commonly three times higher than local village prices. Also the groundnut prices at the fair were about double the local village prices (Figure 1). Unexpectedly, even the costs of hybrid maize seed were higher in many seed fairs than in nearby retail shops. Some argue that the intervention of NGOs with vouchers redeemable at specially organized seed fairs is actually monetizing local seed transactions.

[Insert Figure 1 here]

Village seed markets. Traditionally, farmers short of seed will obtain it from their neighbours. This may be purchased in cash or through barter trade. However, many of these transactions take the form of gifts. Farm households with surplus seed retain an obligation to support neighbours in need. This obligation may be reciprocated at a future date. NGOs or government relief programs play a leading role in providing sorghum and millet seed, but for these crops, more were willing to admit they had retained seed stocks and transactions between neighbouring households were common. The intervention of NGOs with vouchers redeemable at seed fairs may be undermining this set of community obligations and markets. Farmers with surplus seed are being encouraged to wait for the seed fairs with the hope of

obtaining better prices. In effect, a social obligation is being monetized. This development may weaken social safety nets.

Commercial seed markets. Larger relief programs undoubtedly undermine commercial seed markets. Seed companies hold back stocks in the pursuit of tenders to supply relief programs. Much smaller quantities of seed then flow through wholesale and retail trade channels. Rural retailers question the profitability of stocking agricultural inputs if these will be handed out for free by NGOs. Most retailers either avoid stocking seed or cannot obtain commercial stocks until late in the planting season. Though seed companies are encouraged to sell seed at the fairs, few take advantage of these markets. This partly reflects uncertainty about their operation, but it also highlights a preference for dealing with large tenders. Companies argue they do not want to get caught up in bringing seed to fairs that remain unsold. They seek sales guarantees from the NGOs and exclusive supply contracts. Many of the commercial traders who most appeared in Zimbabwe's 2005/06 season seed fairs were individuals who entered to make a quick dollar. According to Mazvimavi et al. (2006) most of these traders had a limited idea of what they were selling.

Opportunities for the future

The seed fair and voucher model represents an improvement on direct seed handouts, insofar as this improves the choice of relief seed on offer. Recipients are more likely to plant the seed varieties they choose. Many questions remain, however, about the broader impacts of these programs on household food security and developments of national seed markets.

Access to new varieties. Drought relief programs in Southern Africa have enabled farmers to gain access to new seed varieties of food crops. Most seed companies remain uncertain about the commercial prospects of seeds for any crops other than maize. Commercial production of sorghum, pearl millet, groundnut, and cowpea and bean seed is principally for the relief market. Yet tenders favour cheaper, undifferentiated seed and seed fairs do little to change this. In fact, many companies simply assume the seed of secondary crops will be derived from village markets. Most commercial traders in Zimbabwe did not bother to sell anything other than maize seed.

The subsidy inherent in relief seed distribution should be used more effectively to provide farmers with better access to new varieties of a wider range of seed crops. This must be a more deliberate component of these programs. Companies need to be encouraged to produce

and supply these seeds. Farmers need more information about the possible advantages of new varieties.

Reduce market distortions. Seed fairs threaten the operation of informal village markets while pursuing greater market transparency. Allowing buyers and sellers to set their own prices for seed transactions may offset these threats. This process can be facilitated if fairs are run for multiple days as this will allow traders to bring in more supplies if seed runs short and reduces the tendency to raise prices in order to dispose off all vouchers. The seed prices at the seed fairs should only attract a premium of about a quarter or a third of the local grain prices. If these prices are allowed to skyrocket in response to the availability of large donor funds, the local market could severely be distorted resulting in unsustainable prices once the donors have withdrawn. To reduce the distortion of seed fairs on commercial trade, vouchers should also be redeemable at local retail shops.

Demand versus supply constraints. Relief seed programs have historically been implemented on the assumption that farmers consume their own seed in the event of drought. The relative success of seed fairs contradicts this assumption and supports evidence by Friis-Hansen and Rohrbach (1993) who noted that seed supply constraints following drought have been broadly overestimated. The greatest seed losses tend to occur among legumes with low multiplication ratios and poor storage traits. Seeds for crops such as sorghum and pearl millet, with high multiplication ratios and better storage characteristics (at least for some varieties) are less likely to be lost.

Conclusion

Seed fairs have advantages enhancing farmer choice of different varieties. Unlike direct distribution where the seed types, quantity and varieties are already determined by the NGO, farmers have greater choice to select seed types they prefer at seed fairs. Local seed sellers are encouraged to bring a wide range of seed crops, including traditional varieties. During seed fairs it is also vital to have the participation of agro-dealers bringing in commercially produced seed types that might be difficult to access locally. The participation of agro-dealers at seed fairs should be encouraged, as these are likely to continue selling seed in future years. Farmers at the seed fair should remain with an option to purchase both local seed types, and improved seed from commercial companies. The seed prices at the seed fairs should not inflate local grain prices as this will be counterproductive to the welfare of the society. The pricing system should only attract a premium based on local grain quality. Seed fairs are a

more cost-effective relief input delivery system, particularly for the provision of local seed types. In Zimbabwe seed fairs and direct distribution seem to be complementary rather than conflicting, as commercial seed can be viably distributed directly and complemented with seed fairs for local seed. Options like vouchers redeemable in retail shops should also be tried as they give incentives to retailers to stock and distribute agricultural inputs. If relief inputs flow through commercial wholesale and retail trade channels these markets are more likely to be strengthened.

Acknowledgements

We gratefully acknowledge the willingness of the interviewed farm households to participate in the survey and the research assistants who worked tirelessly to collect the data. The authors would like to thank the journal's anonymous referees for their helpful comments on an earlier version of this article. The perspectives and insights presented here are those of the authors and do not reflect those of any organization.

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TABLES

Table 1. Seed fair sites, NGOs involved and number of households monitored by ICRISAT during implementation and post planting period, 2005/06 Cropping seasons

Description	Count
Number of districts visited	15
Number of NGOs covered	8
Seed fair sites visited during implementation	26
Number of households interviewed during post planting surveys	363

Table 2. Number of seed sellers at selected seed fair sites, 2005/06 cropping season

Region	District	Sites visited	Number of voucher beneficiaries	Local farmers	Agro dealers	Seed companies
High Rainfall	Gutu	2	541	93	6	0
	Murehwa	2	600	17	3	0
	Mutoko	2	600	16	2	0
	Nyanga	2	800	39	1	3
	Total	8	2541	165	12	3
Low Rainfall	Chipinge	2	500	20	8	2
	Chiredzi	2	600	28	2	0
	Chivi	1	1000	15	10	3
	Tsholotsho	2	630	17	2	0
	Total	7	2730	80	22	5

Table 3 Number of crops accessed by recipients at seed fairs and direct distribution, 2005/06 cropping season

Region	District	Seed fairs	Direct distribution
High Rainfall (HR)	Gutu	7	1
	Murehwa	9	1
	Mutoko	6	2
	Nyanga	9	4
Low Rainfall (LR)	Chipinge	6	1
	Chiredzi	8	4
	Chivi	4	6
	Tsholotsho	7	4

Table 4. Labour requirements and travel costs for distributing seed pack to 1700 households

Item		Unit costs US\$	Seed fairs		Direct Distribution	
			Quantity	Value in US\$	Quantity	Value in US\$
Labour	Seed Assessment	25 /labour day	8	200	8	200
	Sensitisation	25 /labour day	8	200	4	100
	Implementation	25 /labour day	40	1000	8	200
	Total Labour Costs			1400		500
Travel		0.25/km	1000	250	600	150
Total costs				1650		650

Table 5. Costs of materials for distributing seed packs to 1700 households

Item	Cost for seed fairs in US\$	Cost for direct distribution in US\$
Printing of vouchers	170	0
Stationery	100	50
Hiring scales	40	0
Advertising and promotional	100	50
Total	410	100

Table 6. Costs of seed packs by source

Item	Units	Seed Fair	Direct Distribution
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			Local Community	Local Agro dealer	Local Commercial	Local Commercial	Imported
Seed Prices per Unit	Maize	ZW\$/kg	30 000	36 000	28 000	28 000	81 250
	Sorghum	ZW\$/kg	9 000	35 000	26 000	26 000	43 750
	Groundnut	ZW\$/kg	40 000	93 000	80 000	80 000	93 750
Cost of Input Pack	Maize	ZW\$/5kg	150 000	180 000	140 000	140 000	406 000
	Sorghum	ZW\$/2kg	18 000	70 000	52 000	52 000	87 500
	Groundnut	ZW\$/2kg	80 000	186 000	160 000	160 000	187 500
	Total	ZW\$/Pack US\$/Pack ^a	248 000 3.97	600 000 9.60	486 000 7.78	486 000 7.78	900000 14.46
Cost of 1 700 packs		US\$	6 746	16 320	13 219	13 219	24 480

^a US\$1 = ZW\$62 500

Table 7. Total costs of distributing seed packs to 1700 households (US\$), 2005/06 cropping season

Item	Seed Fair			Direct Distribution	
	Local Community	Local Agro dealer	Local Commercial	Local Commercial	Imported
Labour	1400	1400	1400	500	500
Travel	250	250	250	150	150
Materials	410	410	410	100	100
Seed (Incl. S & H) ^a	6 746	16 320	13 219	13 219	24 480
Total	8 806	18 380	15 279	13 969	25 230
Cost/Household	5.18	10.81	8.99	8.22	14.85

^a Including shipping and handling

FIGURES

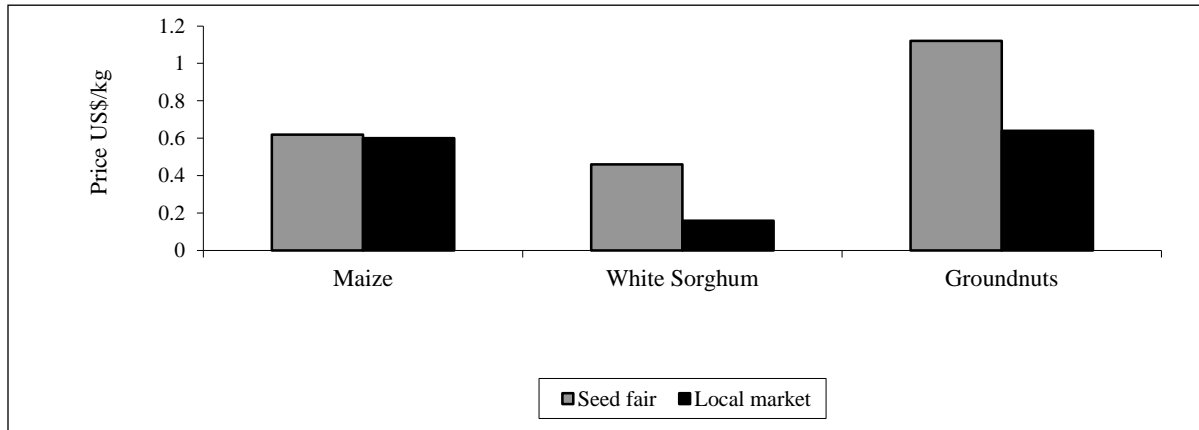


Figure 1. Prices of maize, white sorghum and groundnut seed in fairs versus informal community markets, December 2005