
FOOD SECURITY RESEARCH PROJECT

**LOCAL AND REGIONAL FOOD AID
PROCUREMENT IN ZAMBIA**

by

Steven Haggblade and David Tschirley

(A Study for USAID's Office of Food for Peace)

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Comments and questions should be directed to the In-Country Coordinator, Food Security Research Project, 86 Provident Street, Fairview, Lusaka: tel. 234539; fax 234559; email: fsrp@coppernet.zm

FOOD SECURITY RESEARCH PROJECT TEAM MEMBERS

The Zambia FSRP field research team is comprised of Antony Chapoto, Jones Govereh, Misheck Nyembe, Stephen Kabwe, and Michael Weber. MSU-based researchers in the Food Security Research Project include Thomas Jayne, David Tschirley, Cynthia Donovan, Steven Haggblade, Zhiying Xu, and Nicole Mason.

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ACRONYMS

| | |
|---------|--|
| AFC | Agricultural Consultative Forum |
| AMIC | Agricultural Market Information Centre |
| CRS | Catholic Relief Services |
| CSAFE | Consortium for Southern Africa Food Emergency |
| CSB | Corn Soya Blends |
| FFP | Food For Peace |
| FAO | Food and Agriculture Organization |
| FAOSTAT | FAO Statistical Database |
| FRA | Food Reserve Agency |
| GMO | Genetically Modified Organism |
| HACP | Hazard Analysis and Critical Control Procedures |
| HEPS | High Energy Protein Supplements |
| LRP | Local and Regional Procurement |
| MACO | Ministry of Agriculture and Cooperatives |
| MSU | Michigan State University |
| MSB | Maize-soya Blend |
| NEWU | National Emergency Warning Unit |
| NGO | Non Governmental Organization |
| OECD | Organization for Economic Co-operation and Development |
| RSA | Republic of South Africa |
| SAFEX | South African Futures EXchange |
| USAID | United States Agency for International Development |
| WFP | World Food Programme |
| WRS | Warehouse Receipts Scheme |
| WTO | World Trade Organization |
| ZNFU | Zambia National Farmers' Union |

EXECUTIVE SUMMARY

By law, US food aid relies on commodity procurement in the US. A powerful political coalition of US farm groups, shippers and relief agencies vigorously supports these in-kind food aid donation.

As an alternative, local procurement of food aid, in Africa, has attracted growing interest because of its potential to reduce landed costs and speed delivery times. For this reason, many food aid donors, other than the US, have switched to local and regional procurement of food aid commodities.

This paper reviews experience with local and regional food aid procurement in Zambia. The study focuses primarily on experience of the World Food Programme (WFP), the agency with the most extensive experience conducting local and regional procurement in Africa.

WFP's experience suggests that local or regional procurement of food aid offers significant savings, in both commodity costs and delivery times. On average, maize procured in Africa costs 30% to 50% less than white maize imported from the US and arrives 1 to 2 months faster than commodity imports from the US.

1. OBJECTIVES

1.1. Background

Since its inception in 1954, the U.S. Food for Peace (FFP) program has mandated donation of U.S. grown commodities, rather than sending cash or buying food overseas. A powerful political coalition of U.S. farm groups, shippers and relief agencies vigorously supports these in-kind food aid donations.

Yet recently, local procurement of food aid in Africa has attracted growing interest, for two principal reasons. First, local procurement may, in many instances, prove cheaper than shipping domestically grown commodities from the United States. Ugandan grain traders, for example, estimate that in 2003 United States Agency for International Development (USAID) spent \$447 per ton delivering U.S.-grown maize to Uganda during a surplus year when they could have procured comparable maize locally for less than half that amount, at \$180 per ton. As former USAID Administrator, Andrew Natsions has said, “If you can get more food aid for the money, why not do it?” USAID staff estimate that if one-fourth of current Food for Peace were procured locally, the cost savings would enable the purchase of additional food commodities sufficient to save an extra 50,000 lives per year (Wall Street Journal October 26, 2005).

Secondly, in-kind food aid has become a political sticking point under the current Doha Round of World Trade Organization (WTO) negotiations. European and developing countries complain that U.S. food aid shipments constitute dumping of subsidized surplus commodities (Clay and Riley 2005). African farmer and traders note that food aid imports displace commercial trade and dampen prices and therefore farmer production incentives. Local procurement of food aid would do the opposite, stimulating African farm production.

1.2. Objectives

This paper aims to assess experience with local and regional procurement in Zambia. It contributes to a broader overall effort that includes two comparative field studies¹, a review of existing studies on local and regional procurement (LRP) in Africa, and an Africa-wide analysis of World Food Programme (WFP) procurement actions since 2001. Because the WFP has the longest and largest experience with local procurement in Africa, this study focuses primarily on their procurement experience. Smaller scale efforts by a range of Non Governmental Organizations (NGO’s) involved in food aid programs provide additional evidence as well as a point of comparison.

By reviewing local procurement experience over the past five years, this paper aims to achieve the following objectives:

- critically assess LRP practices to date, identifying positive and negative effects on food aid operations and on local production and marketing systems;
- develop operational guidelines for future use by FFP in deciding whether, under what conditions, and how to engage in LRP; and
- provide FFP with an analytical basis for its dialogue with Congress on whether USAID should be allowed to engage in LRP.

¹ The other field study took place in Kenya.

1.3. Methods

This review has sought quantitative as well as qualitative input from a variety of donors, traders and other private sector actors. Where possible, the paper quantifies prices and quantities in relation to prevailing market conditions domestically and with reference to the cost of regional imports.

Through a series of field interviews, the study has aimed to gain insights into local procurement procedures and how they work in practice. Qualitative input from private sectors suppliers, as well as donor procurement staff, aim to elicit their observations as to the strengths and weaknesses of alternative forms of local procurement as well as suggestions for USAID, should they elect to engage in local procurement.

A complete list of persons visited as well as supplementary data are included in annex to this main report.

2. ZAMBIA'S MAIZE MARKETING SYSTEM

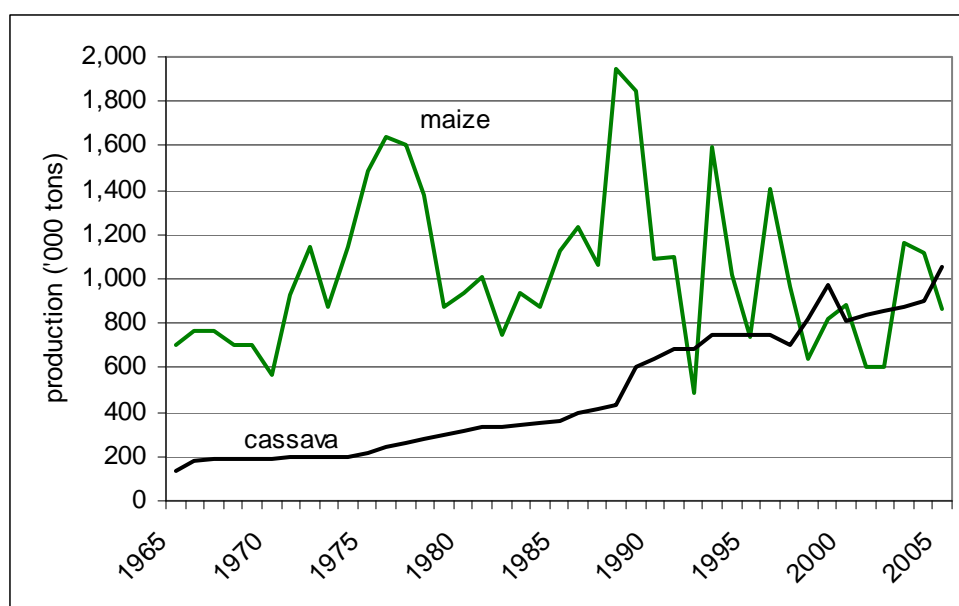
Maize production in Zambia has trended downwards since liberalization and the withdrawal of maize subsidies in the early 1990's (Figure 1). Around this declining trend, production varies substantially from year to year. Although production figures are subject to some degree of uncertainty, estimates typically range from as low as 600,000 tons in drought years to nearly 1,200,000 tons in good seasons (Table 1). During the 2005/6 season, official estimates put maize production at roughly 850,000 tons. Large commercial producers account for 250,000 tons while small-scale farmers produce the remaining 600,000 tons (Figure 2).

Consumption data are even more sketchy than production figures, with national maize requirements estimated to range between 900,000 and 1,200,000 tons. The higher figure comes from food balance sheet computations by the National Emergency Warning Unit (NEWU) in the Ministry of Agriculture and Cooperatives. Their computations assume that 70% of minimum calorie requirements must come from maize and other staple foods. The lower figure, produced by the Zambia National Farmers' Union (ZNFU), leads to lower estimated import requirements.

During low-rainfall years, smallholder production fluctuates substantially while commercial farm production remains roughly constant. This leads to wide swings in subsistence production (Figure 2, Channel 1) as well as in smallholder marketing's (Figure 2, Channel 2), which range between 20% and 30% of smallholder production but remain highly concentrated among the top 10% of smallholder maize growers.

Commercial imports and food aid increase in deficit years, partially offsetting the production shortfalls. Total consumption probably ranges between about 1 million tons in low-rainfall years and 1.2 million tons in good seasons. Exports plus consumer substitution for other foods moderate these roughly 20% swings in annual maize consumption.

Figure 1. Trends in Production of Food Staples in Zambia



Source: FAOSTAT.

Table 1. Zambian Production and Trade in Food Staples, 2001 to 2005

| | 2001 | 2002 | 2003 | 2004 | 2005 | average |
|-------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|
| Staple food production | | | | | | |
| maize | 601,606 | 602,000 | 1,161,000 | 1,113,916 | 866,187 | 868,942 |
| cassava | 835,686 | 856,124 | 876,562 | 897,000 | 1,056,000 | 904,274 |
| wheat | 80,000 | 75,000 | 135,000 | 135,000 | 136,800 | 112,360 |
| sweet potatoes | 80,000 | 75,000 | 135,000 | 135,000 | 135,000 | 112,000 |
| millet | 37,615 | 38,000 | 35,000 | 35,000 | 35,000 | 36,123 |
| sorghum | 16,800 | 16,000 | 20,000 | 19,000 | 19,000 | 18,160 |
| Irish potatoes | 11,000 | 11,000 | 11,000 | 11,000 | 11,000 | 11,000 |
| rice | 7,686 | 7,920 | 7,920 | 7,920 | 7,920 | 7,873 |
| total cereal equivalents* | 1,021,713 | 1,021,557 | 1,665,689 | 1,623,736 | 1,425,507 | 1,351,640 |
| Imports | | | | | | |
| maize | 10,334 | 269,101 | 160,954 | 6,223 | 50,000 | 99,322 |
| cassava | 0 | 0 | 0 | 0 | 0 | 0 |
| wheat | 81,609 | 73,978 | 47,611 | 40,020 | 40,000 | 56,644 |
| sweet potatoes | 4 | 6 | 13 | 4 | 0 | 5 |
| millet | 9 | 0 | 0 | 0 | 0 | 2 |
| sorghum | 54 | 3,172 | 27 | 4,040 | 0 | 1,459 |
| Irish potatoes | 4,829 | 5,634 | 406 | 2,518 | 0 | 2,677 |
| rice | 13,629 | 20,710 | 17,407 | 14,192 | 0 | 13,188 |
| total cereal equivalents* | 107,085 | 368,653 | 226,125 | 65,232 | 0 | 153,419 |
| Exports | | | | | | |
| maize | 11,726 | 4,885 | 629 | 103,245 | 10,000 | 26,097 |
| cassava | 0 | 0 | 0 | 0 | 0 | 0 |
| wheat | 0 | 0 | 0 | 26 | 0 | 5 |
| sweet potatoes | 0 | 0 | 0 | 0 | 0 | 0 |
| millet | 0 | 0 | 0 | 0 | 0 | 0 |
| sorghum | 5 | 280 | 447 | 50 | 0 | 156 |
| Irish potatoes | 4 | 239 | 239 | 6 | 0 | 98 |
| rice | 126 | 181 | 181 | 148 | 0 | 127 |
| total cereal equivalents* | 11,858 | 5,417 | 1,328 | 103,470 | 0 | 24,415 |

* Roots and tubers dry weight taken at 30% of fresh weight.

Source: FAOSTAT and Zambia crop forecast survey.

Interventions by Zambia's Food Reserve Agency (FRA) have grown in importance over the past four seasons (Table 2). Local purchases of maize amounted to nearly 70,000 tons in 2005 while imports exceeded 40,000 tons. They likewise exceeded their planned 2,000 tons of cassava and suspended purchases after roughly 2,700 tons.

With 110,000 tons of maize traded during the past season (from local purchases and imports), FRA may have surpassed National Milling as the largest single maize purchaser in the market. FRA's overall impact on the domestic maize market, however, remains uncertain. Given that government controls maize imports through a system of permits, it is not clear that FRA's actions have increased national food supplies. Even in low-production years such as 2005/6, the FRA imported 44,000 tons while probably squeezing out an equivalent volume of private sector imports through their claims on import permits. Because FRA imported late in the year, when import parity prices ranged between \$250 and \$350 per ton, and then sold stock to millers at \$210, millers had incentives to import as little as possible on their own. Instead, they preferred to buy from FRA at a price \$40 to \$140 per ton below the import parity price (Mwanaumo et al. 2005).

Food aid donors, like private traders and the FRA, likewise import food, primarily in deficit years. Since the 2002 drought, many food aid distribution programs have remained active, even in good harvest years, as part of a series of post-drought recovery and vulnerable group feeding programs. In 2005, food aid agencies imported roughly 70,000 tons of maize.

Figure 2. Alternative Maize Marketing Channels in Zambia, 2005/6

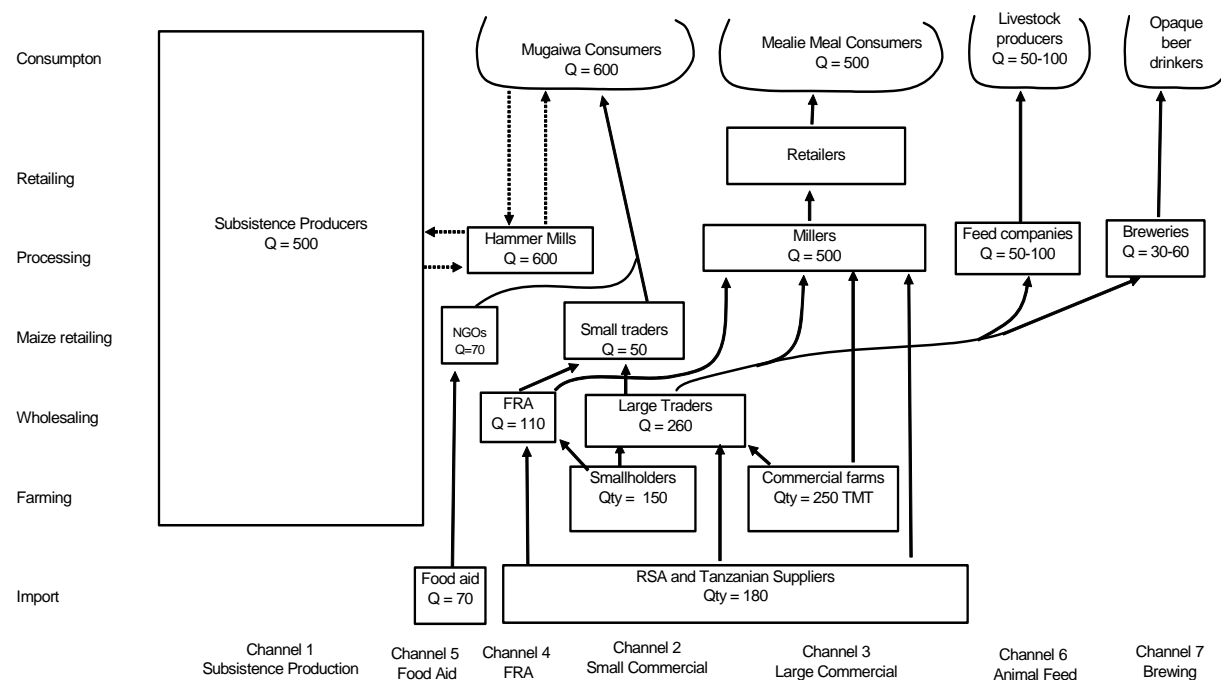


Table 2. WFP and FRA Purchases as a Share of Market Total

| | 2001 | 2002 | 2003 | 2004 | 2005 |
|--|---------|---------|-----------|-----------|---------|
| Production | 601,606 | 602,000 | 1,161,000 | 1,113,916 | 866,187 |
| Marketed volume | 320,321 | 355,600 | 523,300 | 509,175 | 390,000 |
| Imports | | | | | |
| commercial | 10,334 | 269,101 | 160,954 | 6,223 | 50,000 |
| food aid | 57,412 | 73,575 | 44,999 | 20,000 | 70,000 |
| Total marketed volume (including commercial imports) | 330,655 | 624,701 | 684,254 | 515,398 | 440,000 |
| Food Reserve Agency purchases | | | | | |
| tons | 0 | 319 | 5,911 | 13,996 | 69,839 |
| as % production | 0% | 0% | 1% | 1% | 8% |
| as % marketed domestic production | 0% | 0% | 1% | 3% | 18% |
| WFP Purchases | | | | | |
| tons | 21,399 | 3,545 | 55,788 | 80,328 | 49,609 |
| as % production | 4% | 1% | 5% | 7% | 6% |
| as % marketed domestic production | 7% | 1% | 11% | 16% | 13% |

Source: WFP, FRA, FSRP.

3. LOCAL AND REGIONAL FOOD AID PROCUREMENT

3.1. World Food Programme

3.1.1. Commodities

Recognizing Zambia's potential as a surplus maize producer in good rainfall years, the World Food Programme has begun procuring significant quantities of maize, particularly during good harvest years. During the past five years, Zambia has been the number five food aid supplier to WFP in the Africa region (Tables 3, 4 and 5). Maize and maize meal account for roughly 80% of the value of local procurement, while high protein foods such as the maize-soya blend (MSB) of high-energy protein supplements (HEPS) and pulses account for the remainder (Table 6).

Table 3. Top Ten African Suppliers to World Food Programme Procurement, 2001-2005

| Purchase Country | Purchase values over all commodities ('000 USD) | | | | | total |
|------------------|---|---------|---------|---------|---------|----------|
| | 2001 | 2002 | 2003 | 2004 | 2005 | |
| South Africa | 11,700 | 51,123 | 51,500 | 17,723 | 56,863 | 188,910 |
| Ethiopia | 12,754 | 14,179 | 16,740 | 24,356 | 42,126 | 110,155 |
| Uganda | 7,921 | 9,007 | 25,580 | 26,518 | 39,331 | 108,357 |
| Tanzania | 7,524 | 9,902 | 12,555 | 9,460 | 22,129 | 61,570 |
| Zambia | 4,216 | 3,809 | 11,499 | 17,736 | 13,584 | 50,844 |
| Sudan | 5,103 | 2,895 | 5,873 | 20,765 | 7,434 | 42,069 |
| Kenya | 4,000 | 10,243 | 7,077 | 12,660 | 4,248 | 38,228 |
| Malawi | 3,589 | 2,155 | 4,468 | 5,579 | 9,826 | 25,618 |
| Lesotho | 353 | 1,879 | 1,140 | 8,154 | 3,498 | 15,025 |
| Mozambique | 2334.73 | 3162.78 | 3151.71 | 3847.79 | 2248.84 | 14745.85 |

Source: WFP

Table 4. Sources of Zambia Food Aid Sourced by WFP from within Africa, 2001-2005

| Purchase Country | Recipient Country | Value ('000 USD) | Purchase Country Share |
|------------------|-------------------|------------------|------------------------|
| Zambia | Zambia | 32,835 | 0.53 |
| South Africa | Zambia | 19,956 | 0.32 |
| Tanzania | Zambia | 8,120 | 0.13 |
| Malawi | Zambia | 1,156 | 0.02 |
| Ethiopia | Zambia | 292 | 0.00 |
| total | | 62,359 | 1.00 |

Source: WFP

Table 5. WFP Food Aid Commodities Procured in Zambia, 2001-2005

| Purchase Country | Product | Purchase values ('000 USD) | | | | | | Product Share |
|------------------|-------------------------|----------------------------|------|------|-------|------|---------|---------------|
| | | 2001 | 2002 | 2003 | 2004 | 2005 | 2001-05 | |
| Zambia | MAIZE | 2264 | 0 | 9104 | 14026 | 9360 | 34754 | 0.68 |
| Zambia | MAIZE MEAL | 1010 | 871 | 175 | 1973 | 1356 | 5385 | 0.11 |
| Zambia | HIGH ENERGY SUPPLEMENTS | 863 | 1218 | 289 | 644 | 2018 | 5032 | 0.1 |
| Zambia | CORN-SOYA BLD (CSB) | 0 | 165 | 1932 | 1032 | 599 | 3728 | 0.07 |
| Zambia | LIKUNI PHALA | 75 | 1556 | 0 | 0 | 0 | 1631 | 0.03 |
| Zambia | BEANS | 0 | 0 | 0 | 0 | 111 | 111 | 0 |
| Zambia | SUGAR | 4 | 0 | 0 | 61 | 45 | 110 | 0 |
| Zambia | PEAS | 0 | 0 | 0 | 0 | 96 | 96 | 0 |

Source: WFP

Table 6. How much Cheaper is Local and Regional Procurement?

| USA import price vs | 2001 | 2002 | 2003 | 2004 | 2005 |
|----------------------------------|------|------|------|------|------|
| Lusaka into-mill price | | | | | |
| annual average | 1.82 | 1.05 | 1.32 | 1.56 | 1.40 |
| Jan-Mar | 2.27 | 0.77 | 0.83 | 1.25 | 1.46 |
| Apr-June | 1.51 | 1.25 | 1.28 | 1.62 | 1.44 |
| July-Sept | 1.78 | 1.13 | 1.74 | 1.84 | 1.47 |
| Oct-Dec | 1.24 | 1.05 | 1.43 | 1.55 | 1.23 |
| South Africa import price | | | | | |
| annual average | 1.18 | 0.94 | 1.15 | 0.98 | 1.20 |
| Jan-Mar | 1.23 | 0.93 | 1.13 | 0.90 | 1.26 |
| Apr-June | 1.24 | 0.90 | 1.26 | 1.00 | 1.29 |
| July-Sept | 1.16 | 0.99 | 1.17 | 1.01 | 1.22 |
| Oct-Dec | 1.09 | 0.93 | 1.05 | 1.00 | 1.04 |

3.1.2. Procurement Procedures

World Food Programme procures most of its commodities by tender, although in select, special cases they engage in direct negotiation. Logistics staff have developed standard product specifications, in consultation with WFP headquarters in Rome and with local traders. Traders note that WFP has instituted the same maize standards as those utilized under Zambia's new warehouse receipts scheme (WRS) and that this common standard serves to help promote commercial trade credit through collateralized stocks. Traders who work with the warehouse receipts system indicate that WFP's adoption of these same standards has contributed positively to expanding the reach of that system more widely.

WFP procurement specifications typically differ from standard trade contracts in several ways. First of all, WFP establishes its procurement price through tender and only rarely reverts to direct negotiation as the trade most commonly does. Bids are sealed and opened in private, by a WFP procurement committee. They do not publicize the identity of the winning bidder. Nor does WFP reveal the contract price on the grounds that this would facilitate collusion. Nonetheless, most traders indicate they can easily discover who the winning bidder is within a couple of days. The price paid, however, generally remains subject to

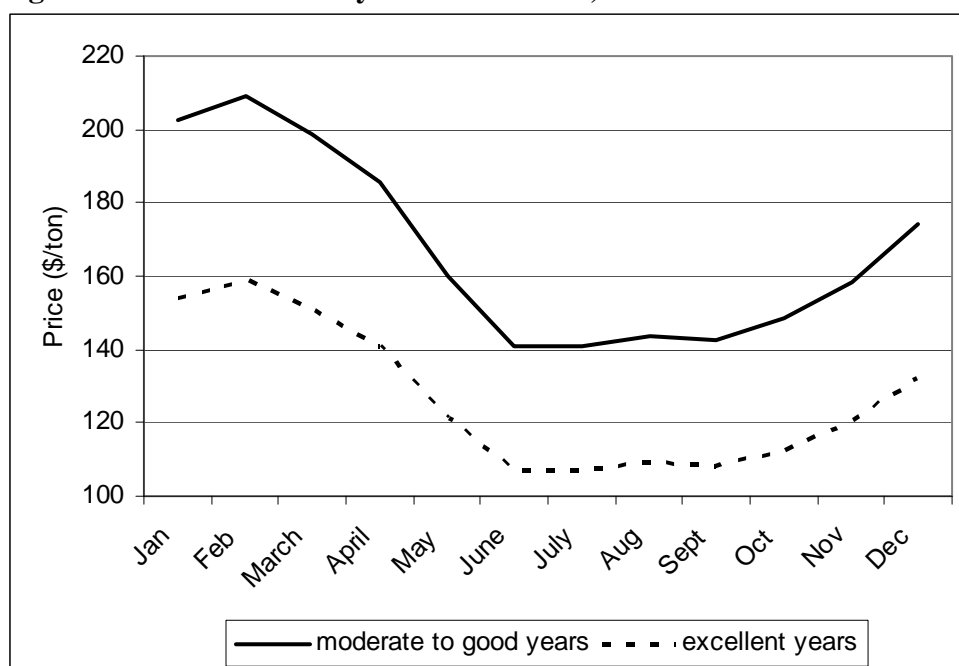
some uncertainty. Traders find this mildly inconvenient but believe they can peg the range closely enough based on their knowledge of current market conditions. Secondly, WFP requires that suppliers repackage goods in WFP- designated, specially printed bags. Third, their procedures mandate pre-shipment inspection of stocks by certified inspectors. The private trade, in contrast, works largely on trust. Fourth, WFP requires that a 5% bid bond be posted for each transaction as a guarantee against delivery, while the private trade requires none. WFP likewise requires minimum contracts of 300 tons as well as stock inspection prior contract award. In all, these requirements impose additional costs on suppliers. Traders estimate these extra handling, packaging and financial costs amount to between \$12-\$15 per ton.

3.1.3. Tracking Market Prices

Local WFP procurement officers track both import parity prices and domestic wholesale prices for maize. In monitoring local prices, they rely on the weekly into-mill price series reported by CHC Commodities as part of their agreement to help support the newly established Zambia Agricultural Commodity Agency which, in turn, has been established to support development of Zambia’s warehouse receipts system. Traders report that the CHC series offers the best means of tracking actual transaction prices for large-scale transactions, though the data usually are published with a one to two week lag. WFP relies on this price series as an indicator of the fairness of the bid prices.

The Agricultural Market Information Centre (AMIC) at the Ministry of Agriculture and Cooperatives (MACO) likewise reports weekly wholesale prices. Their series, collected weekly from Soweto market wholesalers, track the CHC series but typically lie below those reported by CHC. Because the Soweto sales are primarily small lots of less certain quality than the mill gate trade, Soweto prices are generally about 15% lower than those reported by CHC. Many traders are not aware of the AMIC price series. Those that are indicate that it does not track the mill gate prices as well as CHC. The AMIC series, likewise, is made public with a slightly longer lag.

Figure 3. Price Seasonality of White Maize, Lusaka 1994 to 2005



Source: AMIC. Harvest years defined as in Table 8.

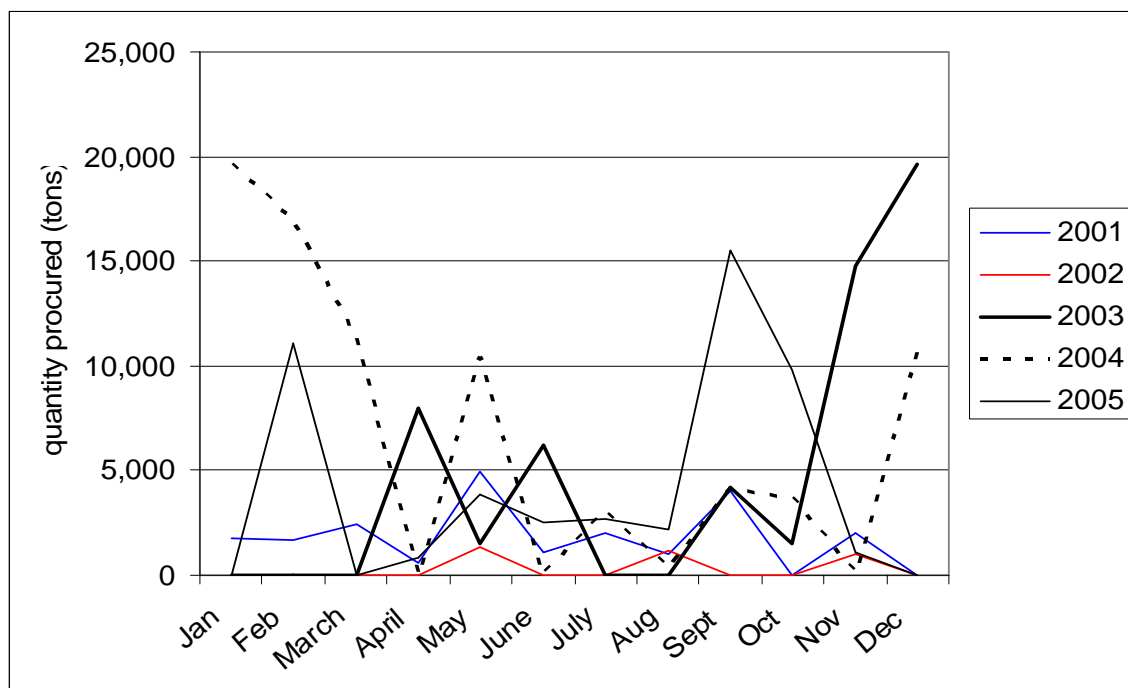
Since the CHC series has only been available since July 2005, the AMIC price series offers the only means available of tracking wholesale price seasonality over long periods of time. These data, reported in Figure 3, indicate considerable seasonal swings in domestic prices. From peak to trough, Lusaka wholesale prices increase by over 50% from the post-harvest lows in June and July to the lean season peaks in December, January, and February.

3.1.4. In what Years Does it Make Sense to Procure Locally or Regionally?

In years of bumper harvest, such as 2006, when local prices are low, Zambia becomes attractive as a low-cost supplier of maize for local and regional food aid needs (Table 8). Even in moderate and low production years, Zambia may be a competitive supplier, particularly if other countries in the region are hard hit. In January and February of 2004, for example, Lusaka suppliers won a series of regional tenders to supply maize, including 10,000 tons delivered to Lusaka and 7,000 delivered to Harare (Figure 4).

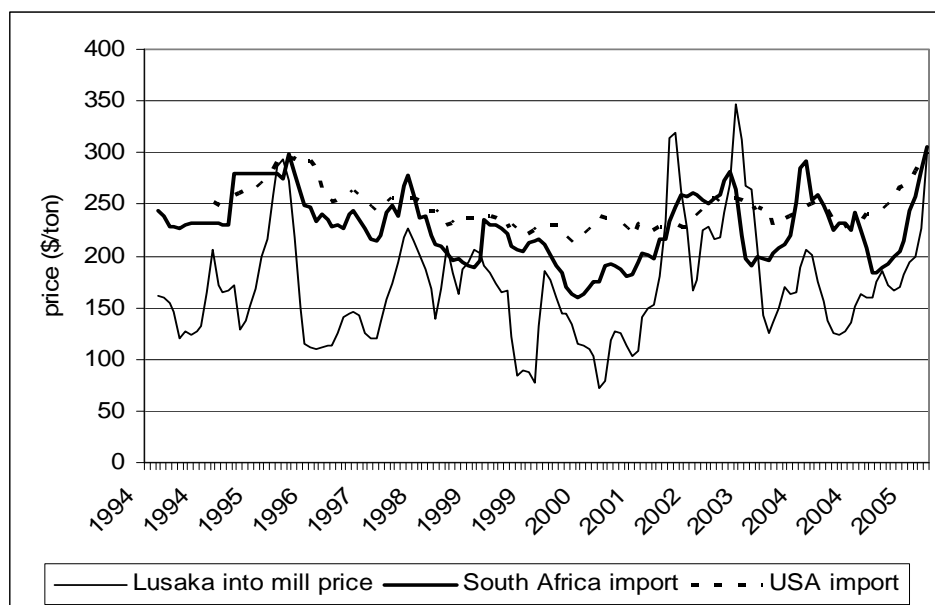
Most years, in fact, local or regional procurement will generate significant cost savings over import from overseas. In four of the last five years, when the Zambian maize harvest was in its normal range, local procurement would have enabled cost savings of between 30% and 80% compared to importing from the U.S.A. (Table 7). During the 2002/3 marketing season, however, at the end of Zambia's second successive bad harvest, when domestic prices averaged \$244 per ton and reached a peak of \$350 per ton in January of 2003, import from overseas proved cheaper during the January to March lean season (Figure 5). Delivery times, however, are longer when procuring from overseas. Where local and regional procurement requires six to twelve weeks, overseas procurement may require lead times of as long as four to five months.

Figure 4. Seasonality of WFP Purchases in Zambia



Source: WFP.

Figure 5. Import Parity Prices



Source: AMIC and SAFEX.

Table 7. Historical Maize Production and Price Movements in Zambia

| Year | Harvest | Production tons | Price* | |
|------------------------|------------------|--------------------|--------|----------|
| | | | \$/ton | % change |
| 1994 | good | 1,020,749 | \$150 | |
| 1995 | moderate | 737,835 | \$208 | |
| 1996 | excellent | 1,409,485 | \$127 | |
| 1997 | moderate | 960,188 | \$173 | |
| 1998 | bad | 638,134 | \$183 | |
| 1999 | moderate | 822,056 | \$135 | |
| 2000 | moderate | 881,555 | \$116 | |
| 2001 | bad | 601,606 | \$192 | |
| 2002 | bad | 602,000 | \$244 | |
| 2003 | good | 1,161,000 | \$169 | |
| 2004 | good | 1,113,916 | \$150 | |
| 2005 | moderate | 866,187 | \$236 | |
| Averages, 1994 to 2005 | | | | |
| | excellent | 1,409,485 | \$127 | -27% |
| | good | 1,098,555 | \$156 | -10% |
| | moderate | 853,564 | \$174 | 0% |
| | bad | 613,913 | \$206 | 19% |
| baseline | good to moderate | 945,436 | \$167 | |

* Lusaka into-mill price for the marketing year, May - April.

Source: MACO, FAOSTAT, AMIC.

Table 8. Local Procurement of HEPS from January 2005 through June 2006

| Month | Procurement Price (\$/ton) | | | Quantities Procured | |
|-----------|----------------------------|-------|---------|---------------------|-------|
| | WFP | NGO | NGO/WFP | WFP | NGO |
| 2005-Jan | | | | | |
| 2005-Feb | | | | | |
| 2005-Mar | 379 | | | 1,485 | |
| 2005-Apr | | | | | |
| 2005-May | | | | | |
| 2005-June | | | | | |
| 2005-July | | | | | |
| 2005-Aug | 375 | | | | |
| 2005-Sept | 363 | | | 1,000 | |
| 2005-Oct | 377 | 517 | 1.37 | 788 | 42 |
| 2005-Nov | 385 | 478 * | 1.24 | 613 | 1,100 |
| 2005-Dec | | 478 | | | |
| 2006-Jan | | 478 | | | |
| 2006-Feb | | 478 | | | |
| 2006-Mar | 424 | 478 | 1.13 | 857 | |
| 2006-Apr | 434 | 478 | 1.10 | 520 | |
| 2006-May | 374 | 478 | 1.28 | 584 | |
| 2006-June | 349 | 368 | 1.05 | 506 | 70 |

* Note that this represents a 6-month purchase covering deliveries from November 2005 through May 2006.

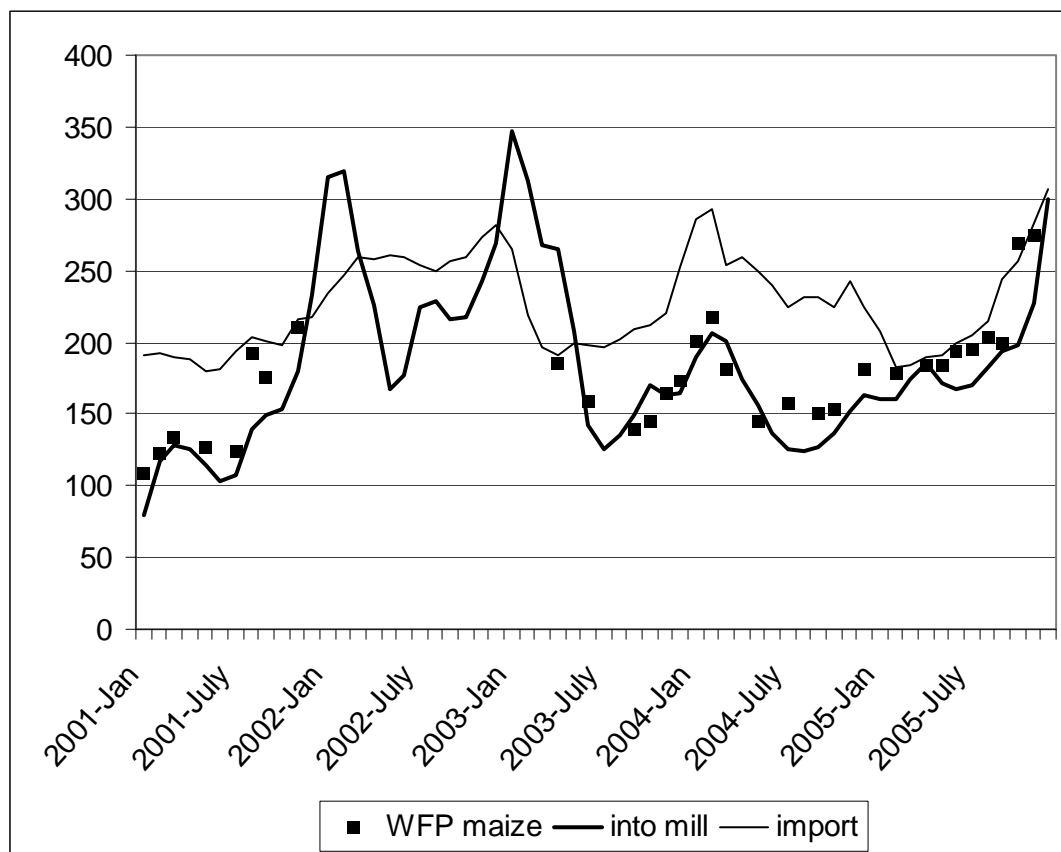
When domestic prices bump up near import parity, WFP opens their tenders to regional procurement. This sometimes requires shifts in procurement sources, as domestic prices rise up to import levels. In August and September of 2001, for example, as domestic prices spiked up towards import parity, WFP closed down local procurement in favor of imports from other countries in the region supplemented by international imports (Figure 6).

3.1.5. When during the Year to Procure

Ideally, procurement would take place when prices are low in June, July, and August. However, given the time required to conduct vulnerability assessments, determine desired food aid imports and launch appeals, funds for cash purchase are often unavailable until late in the calendar year when prices have risen considerably. WFP procurement officers are well aware of the benefits of procuring early when prices are low. But since cash funds are rarely available early in the marketing season, they are often forced to procure later in the season, nearer to distribution time, when cash pledges become available from the various donors. Late delivery of cash explains the substantial quantities procured during the lean season of 2003/4 (Figure 4). Note also that this was a good harvest year in Zambia, and the bulk of this maize was regionally procured for shipment to Zimbabwe.

To avoid paying higher prices in 2005, the local WFP office borrowed funds from the newly created Advance Financing Facility which enabled them to purchase in September and October when prices had not yet reached their seasonal peak (Figure 6). In general, early commitment of funds, or some regular borrowing system against forthcoming pledges, would result in considerable cost savings under local procurement. Average seasonal price movements suggest that procurement in August and September, as opposed to December and January, would result in savings of roughly 25% net of carrying costs. Thus, at any financial carrying cost under 25% for four months (August/September to December/January), early local procurement would save costs.

Figure 6. World Food Programme Procurement Prices for Maize in Zambia



Source: WFP and AMIC.

3.1.6. Prices Paid

In general, WFP procedures result in purchase prices that closely track the domestic market price (Figure 6). On average, WFP prices lie at market levels, sometimes even slightly below. Given that WFP bid requirements impose additional costs of \$10-\$15 per ton on suppliers, these data suggest that the WFP tendering system has proven highly effective in containing costs and in predicting forthcoming market price roughly four weeks early, between the interval when bids are submitted and contracts are delivered.

Comparison of WFP and market prices reveal two instances of above market procurement price, one in August of 2001 and the other in October 2005. Both occurred in production shortfall clears when domestic prices were moving rapidly upwards towards import parity. In late 2001, WFP stopped local procurement as the price hit import parity and reverted to regional procurement. In October 2005, the spike in the Lusaka maize price occurred at a time when maize imports had stalled due to the introduction of new phytosanitary inspection requirements and traders were uncertain how quickly the impasse would be resolved. Discussions with winning and losing bidders suggests that traders genuinely did not know exactly where market prices would land during this period of uncertainty. As in 2001, WFP pulled out of the local market as prices moved up towards import parity. After procuring nearly 10,000 tons in October 2005, purchases fell to 1,000 tons in November and stopped altogether as prices continued to climb up towards import parity in December.

3.1.7. Participation in the WFP Tenders

WFP tender procedures require a minimum of three bids. In Zambia, WFP maize tenders routinely attract many more than the minimum. In a typical tender during 2005, WFP logistics staff indicate that they receive between 10 and 15 bid submissions from among their two dozen short-listed suppliers. Indeed, the traders interviewed indicated that they have lost more WFP tenders than they have won.

The distribution of winning awards suggests broad competition in the maize and maize meal procurement, though less so with HEPS. During 2005, WFP issued 26 separate tenders for maize and meal, and they awarded contracts to 12 different suppliers. Thus, no single supplier dominated the proceedings. The sizes ranged considerably, with two suppliers landing around 15,000 tons of WFP contracts, and the smallest supplying 800 tons. Most of the remaining suppliers furnished in the range of 2,000 to 4,000 tons.

The HEPS market appears more restricted. Out of four tenders, two winners emerged. One earned a single contract worth \$190,000, the other three orders were worth a total of \$2.3 million. Given initial investment costs of \$500,000 to \$1 million, the entry costs into the HEPS and corn-soya blend (CSB) business are significantly steeper than in the maize trade. Likewise, the commercial HEPS market is much smaller and hence the number of suppliers is more restricted.

3.1.8. Impact on Maize Markets

In years of large-scale local procurement, such as 2004 when WFP procured over 80,000 tons locally, their purchases accounted for about 7% of domestic maize production and roughly 16% of marketed sales (including imports). In 2002, when production was much lower, WFP procured only 3,500 tons locally amounting to roughly 1% of both national production and of marketed volumes (which in that year included large-scale imports). In the moderate drought year of 2005, WFP procured about 50,000 tons of maize products, amounting to 6% of national production and 11% of total marketed sales (Table 2).

What impact do these procurement volumes have on market price? In deficit years such as 2002 and 2005, the local market pegs prices to import parity. This would be true whether WFP procured domestically or not. For this reason, it seems doubtful that WFP procurement influences domestic prices. Indeed, about 30% of their 2005 local purchases came from FRA stocks, supplied both to WFP and to millers at \$210 per ton, considerably below the prevailing market price.

In surplus years, such as 2006, local purchase for regional export or for local distribution programs will boost market price. Private sector exports and FRA purchases to build up long-term reserves will provide exactly the same upward lift to market prices. These purchases and regional exports can play an important role in maintaining farmer production incentives during surplus years. Without export outlets, domestic prices fall and reduce farmer incentives to plant in the coming season. This lays Zambia open to boom and bust cycles if lower plantings coincide with poor weather in the coming season, leading to soaring prices and reversion to imports. Regional trade offers an important outlet for moderating these price swings and encouraging sustained production by Zambian farmers. Our rough projections for the 2006/7 marketing year suggest that 100,000 tons of purchase – by WFP,

FRA or private sector exporters – would raise wholesale maize prices by \$10 to \$15 per ton, to an average of about \$120 per ton in the post-harvest period and an annual average price of slightly over \$140 per ton (Haggblade 2005).

None of the private traders interviewed for this study complained about WFP interventions in Zambian maize markets. On the contrary, some traders suggested that the appearance of a large player like WFP provided welcome competition to the market price leadership of National Milling. Most indicated that WFP played a useful role in expanding domestic markets and in offering an alternative market outlet.

WFP's regional procurement program currently plays a significant role in expanding regional maize markets and demonstrating Zambia's prospects for agricultural growth as a regional maize supplier. Given government reluctance to release maize surpluses, even in a good harvest year, and given government's general mistrust of private traders' motives, WFP's regional procurement currently plays an important honest broker's role in helping to encourage the expansion of regional maize trade.

3.1.9. Impact on HEPS Markets

Here, WFP and the other donors seem to play a crucial role in market development. Because the commercial market is small, few food processors have been prepared to invest the \$500 thousand to \$1 million required for milling equipment, extruders, conveyers and Hazard Analysis and Critical Control Procedures (HAACP) in the absence of a secure donor market. In Zambia, most traders believe that the HEPS market is secure. Given the high prevalence of HIV/AIDS, many government, donor, and church groups have begun purchasing HEPS for distribution to affected families. Even if WFP were to pull out of this market, the two local suppliers express confidence that the HIV/AIDS feeding programs would continue.

In the case of HEPS, international import is rarely a viable alternative to local procurement. In Zambia, genetically modified organism-free (GMO) certification is difficult to obtain from U.S. suppliers of CSBs. This effectively confines distribution in Zambia to locally or regionally procured HEPS from certified non-GMO maize. Moreover, previous studies have documented that costs savings of local procurement compared to in-kind food aid are largest for processed foods HEPS (Clay and Riley 2005).

In the purely commercial cereal market, inspection of local supermarket shelves reveals half a dozen different suppliers commercial breakfast cereals made of blended maize, soya, and sugar. Local HEPS suppliers expressed interest in commercial product development of competing products, although they worry that product development and marketing costs could be substantial. So, for the moment, they continue to rely mainly on the food aid market.

3.2. Local Procurement by NGOs

Because of current U.S. government requirements that food aid commodities be procured from U.S. production, many non-governmental organizations (NGOs) have limited experience with local or regional food aid procurement. While they have developed elaborate distribution networks for in-kind food aid they receive, procurement experience remains limited to small orders using primarily their own resources or non-U.S. Government funds. As a result, quantities of maize products procured locally by NGOs remain small. While

WFP procured over 50,000 tons of maize and maize products in 2005, the three major U.S.-sponsored NGOs – World Vision, Catholic Relief Services (CRS), and CARE – together purchased less than 1,000 tons.

The one exception to this pattern is the HEPS market, where NGOs do procure locally. Local procurement makes sense for HEPS because of difficulty in ensuring non-GMO compliance from U.S. sources and because the product's six-month shelf life coupled with long delivery times from the U.S. pose a higher risk of spoilage than with cereals. In 2005, the same three NGOs procured over 1,000 tons of HEPS, while WFP procured about five times that amount.

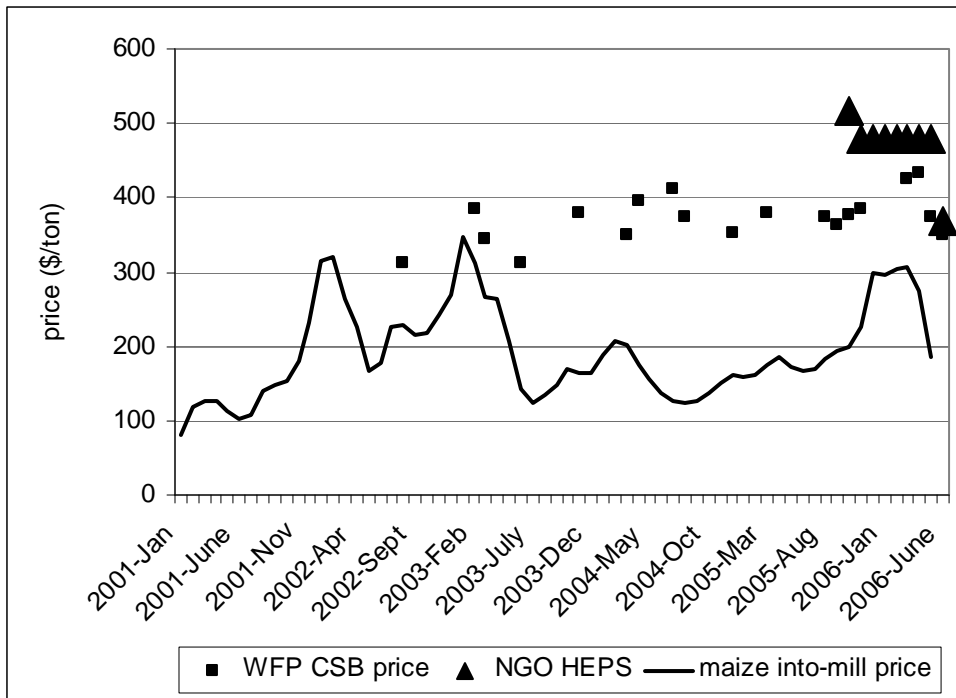
Given their greater emphasis on distribution, NGOs who do procure locally typically assign their intermittent procurement responsibilities either to logistics or office procurement staff. For most, this represents a part-time job, spliced onto other mainstream activities. Some NGOs have begun consolidating these functions. Under the USAID Consortium for Southern Africa Food Emergency (CSAFE) program, for example, World Vision handles commodity logistics (primarily internal distribution) for the other consortium members, CARE and CRS, who in turn take leadership in other facets of program management.

Though the volumes procured locally are small, most NGOs follow broadly similar procurement policies. For all the smallest procurements, procedures require a tender with a minimum of three bids. After a local review, headquarters must review the recommended bids to ensure that pricing is not excessive. With HEPS, the NGOs, like WFP, require testing of all contracts to ensure product compliance with tender specifications. As with WFP, time required ranges from 4 to 6 weeks for local purchases.

Because of limited experience with local procurement by NGOs, price comparisons remain few in number. Nonetheless, the limited available evidence from 2005 and 2006 suggests that NGOs paid higher prices than WFP (Figure 7 on the following page). Depending on the time of year, the NGOs paid prices ranging from 5% to 35% higher than WFP. These higher prices result, at least in part, because of the generally lower quantities procured by NGOs, the intermittent timing of their purchases, and the absence of regional procurement offices such as those used by WFP as a bargaining tool for keeping local prices low.

Subjective assessments from the private sector typically rate WFP procurement as more business-like than that undertaken by the NGOs. The private businesses and traders interviewed generally expressed concerns about the efficacy of NGO procurement operations, while at the same time acknowledging what they considered to be the more commercially professional performance of the WFP procurement system.

Figure 7. Procurement Prices for High Energy Protein Supplements (HEPS)



Source: Table 8.

4. CONCLUSIONS

4.1. Potential Gains

WFP's experience suggests that local procurement can yield several potentially significant gains to USAID when compared with the alternative of shipping commodities from the U.S.A. On average, maize procured locally or regionally costs 30% to 50% less than white maize imported from the U.S.A., depending on the year (Table 7 on p. 10).

And delivery times, roughly six weeks for local procurement and eight to twelve weeks for regional purchase, are far shorter than the 4 to 5 month delivery times required for product delivery from the U.S. Thus, local and regional procurement offers significant gains through cost reduction and improved timeliness.

In addition, local and regional purchases play a potentially significant role in maintaining farmer production incentives during surplus years, by increasing market demand. Regional procurement helps to expand regional maize markets and serves to demonstrate Zambia's prospects as a regional maize supplier. Given government reluctance to release maize surpluses, even in a good harvest year, and given government's general mistrust of private traders' motives, donor regional procurement programs can play an important honest broker's role in helping to encourage the expansion of regional maize trade.

Given these considerable cost savings coupled with the potential stimulus to local production and regional trade, we recommend that USAID consider moving gradually to a food aid delivery system that relies on local and regional procurement.

4.2. Potential Costs

From a management point of view, local and regional procurement would require significant investment in new administrative capacity and procurement procedures. It would require the recruitment of full-time staff specialized in commodity procurement as well as investment in market monitoring capacity at the local, regional, and international level.

To be cost-effective, local procurement requires a capacity to procure regionally, in order to keep competition strong and prevent collusion by local traders. Both WFP staff and traders have emphasized how the threat of regional procurement has helped to keep actual local procurement prices low. Therefore, a local procurement program in Zambia would require parallel establishment of a regional procurement operation in Johannesburg.

4.3. Management Options

4.3.1. Who Should Handle Procurement?

To achieve these gains, USAID could follow one of three possible local procurement models.

Option 1. The WFP model. USAID could establish a local logistics unit to procure by tender, in essentially the same way as WFP currently does. Alternatively, they could simply contract with the existing WFP logistics unit to provide this service.

Option 2. NGO procurement. The larger NGO's such as CARE International, Save the Children, and World Vision all have some small scale experience with local procurement; USAID could simply scale up procurement volumes through these existing logistics groups.

Option 3. Vouchers. A minimalist option would be to distribute cash or vouchers to vulnerable households and let them procure maize or other acceptable commodities through normal private sector supply channels. This would involve local procurement by private sector traders from farmers and subsequent delivery through the existing private sector distribution system (Figure 2 on p. 5).

In initial phases of local procurement, we recommend that that USAID contract with WFP to handle local food aid procurement through the existing WFP procurement system. They have the longest experience and the deepest staffing, with procurement staff operating both in Johannesburg and in Lusaka. They have invested over many years in developing the procedures, information systems and business relationships necessary for working successfully in a difficult market environment. Available evidence suggests that they purchase at lower cost than the NGO offices. If USAID preferred to keep procurement activities in-house, it might be possible to depute USAID staff to WFP for several years to learn their local and regional procurement procedures. At a later stage, the decision could be made on whether or not to retain consolidated or separate procurement operations.

Over the medium run, we would encourage USAID to investigate Option 3, that of delivering purchasing power (vouchers or cash) to vulnerable households and then letting the private sector handle food delivery through their normal channels. Oxfam's recent experiences with cash transfers offer some valuable lessons and merit detailed review. These cash or voucher delivery programs will undoubtedly work better in some regions and for certain categories of vulnerable groups than for others. Therefore, efforts in this direction would need to be based on a careful review of available experience and evidence.

4.3.2. When to Procure

Timing of procurement clearly matters. One major lesson emerging from this review is that, where funding is available early in the season, food aid agencies could ensure significant commodity cost savings. To the extent that USAID can predict needs well in advance, they can procure commodities in June, July and August when local and regional prices are lowest. Through forward contracting on the South African Futures Exchange (SAFEX) or purchase of warehouse receipts locally, savings would normally be on the order of \$40 per ton, increasing savings over U.S. import even more.

4.4. The Bottom Line

In sum, we believe that local or regional procurement of food aid offers significant savings, both in reducing commodity costs and speeding delivery times. We recommend that USAID consider LRP, initially through the existing WFP procurement system while at the same reviewing more carefully the feasibility of voucher or cash transfer programs to beneficiaries.

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Haggblade, Steven. 2006. *Maize Price Projections for the 2006/7 Marketing Season*. Food Security Research Project Policy Brief No. 13. Lusaka, Zambia: Michigan State University. <http://www.aec.msu.edu/agecon/fs2/zambia/index.htm>

Wall Street Journal. 2005. October 26.

ANNEX A. LIST OF PERSONS INTERVIEWED

Private Sector Suppliers

Mohamed Salim Dawoodjee, High Protein Foods
Chris Hawke, CHC Commodities and Zambia Agricultural Marketing Corporation
George Liacopoulos, Zdenakie Ltd
Al Noor Manji, Quality Commodities
Ross McLeod, Amagrain Ltd
John Samaras, Olympic Milling
A.Q. Zafar, Quality Commodities

Local NGOs

Teddy Kabunda and Douglas Mwasi, CARE International
David Banda, Sushantra Biswas and John Service, CRS
Manuel Januario and Danny Chiwele, World Vision

USAID

Carl Henn
Jan Nijhoff
Dann Griffiths

World Food Programme

Simon Dradri
Mary Ellen McGroarty
David Stevenson

ANNEX B. SUPPLEMENTARY TABLES

Annex Table B.1. WFP Procurement Operations in Sub-Saharan Africa, 2001-2005

| Purchase Country | Purchase values over all commodities ('000 USD) | | | | | |
|--------------------------|---|--------|--------|--------|--------|---------|
| | 2001 | 2002 | 2003 | 2004 | 2005 | total |
| South Africa | 11,700 | 51,123 | 51,500 | 17,723 | 56,863 | 188,910 |
| Ethiopia | 12,754 | 14,179 | 16,740 | 24,356 | 42,126 | 110,155 |
| Uganda | 7,921 | 9,007 | 25,580 | 26,518 | 39,331 | 108,357 |
| Tanzania | 7,524 | 9,902 | 12,555 | 9,460 | 22,129 | 61,570 |
| Zambia | 4,216 | 3,809 | 11,499 | 17,736 | 13,584 | 50,844 |
| Sudan | 5,103 | 2,895 | 5,873 | 20,765 | 7,434 | 42,069 |
| Kenya | 4,000 | 10,243 | 7,077 | 12,660 | 4,248 | 38,228 |
| Malawi | 3,589 | 2,155 | 4,468 | 5,579 | 9,826 | 25,618 |
| Lesotho | 353 | 1,879 | 1,140 | 8,154 | 3,498 | 15,025 |
| Mozambique | 2,335 | 3,163 | 3,152 | 3,848 | 2,249 | 14,746 |
| Niger | 4,019 | 2,545 | 1,102 | 3,702 | 216 | 11,584 |
| Burkina Faso | 973 | 1,577 | 2,699 | 4,441 | 1,772 | 11,463 |
| Mali | 1,129 | 1,685 | 532 | 2,988 | 3,234 | 9,568 |
| Cameroon | 1,503 | 1,831 | 2,040 | 3,410 | 558 | 9,341 |
| Senegal | 476 | 1,111 | 1,203 | 2,895 | 2,556 | 8,241 |
| Cote-d'Ivoire | 0 | 994 | 1,631 | 3,237 | 1,116 | 6,978 |
| Zimbabwe | 6 | 59 | 2,511 | 2,836 | 1,482 | 6,895 |
| Rwanda | 215 | 585 | 1,089 | 918 | 2,766 | 5,573 |
| Nigeria | 0 | 0 | 0 | 882 | 4,427 | 5,309 |
| Congo-D.R.(Kin) | 176 | 92 | 816 | 257 | 2,916 | 4,257 |
| Angola | 1,677 | 853 | 598 | 89 | 106 | 3,322 |
| Chad | 955 | 493 | 963 | 869 | | 3,279 |
| Namibia | 265 | 29 | 168 | 1,034 | 410 | 1,907 |
| Benin | 150 | 38 | 653 | 0 | 362 | 1,203 |
| Swaziland | 0 | 0 | 0 | 555 | 583 | 1,138 |
| Ghana | 30 | 107 | 68 | 303 | 519 | 1,027 |
| Congo (Braz) | 0 | 0 | 0 | 670 | | 670 |
| Burundi | 0 | 0 | 0 | 413 | | 413 |
| Botswana | 0 | 386 | 0 | 0 | | 386 |
| Central African Republic | 0 | 1 | 19 | 202 | 98 | 319 |
| Egypt | 264 | 0 | 0 | 0 | | 264 |
| Gambia | 70 | 0 | 0 | 52 | | 121 |
| Eritrea | 80 | 0 | 0 | 0 | | 80 |
| Mauritania | 5 | 2 | 2 | 0 | | 9 |
| Somalia | 0 | 0 | 0 | 4 | | 4 |

Source: WFP.

Table B.2. Commodities Procured by WFP in Southern Africa, 2001-2005

| Purchase Country | Product | Purchase values ('000 USD) | | | | | | Product Share |
|------------------|-------------------------|----------------------------|--------|--------|--------|--------|---------|---------------|
| | | 2001 | 2002 | 2003 | 2004 | 2005 | 2001-05 | |
| South Africa | MAIZE | 5,747 | 41,268 | 38,860 | 9,840 | 44,143 | 139,858 | 0.74 |
| South Africa | CORN-SOYA BLD (CSB) | 2,345 | 4,888 | 9,851 | 3,503 | 8,249 | 28,836 | 0.15 |
| South Africa | MAIZE MEAL | 2,208 | 2,159 | 2,568 | 4,116 | 4,455 | 15,506 | 0.08 |
| South Africa | LIKUNI PHALA | 780 | 1,733 | 0 | 0 | 0 | 2,513 | 0.01 |
| South Africa | BEANS | 381 | 520 | 0 | 0 | 0 | 901 | 0 |
| South Africa | VEGETABLE OIL | 80 | 270 | 149 | 240 | 6 | 745 | 0 |
| South Africa | SUGAR | 28 | 117 | 70 | 24 | 9 | 248 | 0 |
| South Africa | IODISED SALT | 131 | 56 | 2 | 0 | 0 | 189 | 0 |
| South Africa | NUTS | 0 | 98 | 0 | 0 | 0 | 98 | 0 |
| South Africa | YELLOW SPLIT PEAS | 0 | 12 | 0 | 0 | 0 | 12 | 0 |
| Tanzania | MAIZE | 5,606 | 7,818 | 9,396 | 7,741 | 17,073 | 47,634 | 0.77 |
| Tanzania | BEANS | 1,789 | 1,352 | 2,467 | 1,333 | 2,278 | 9,219 | 0.15 |
| Tanzania | MAIZE MEAL | 0 | 438 | 472 | 255 | 2,558 | 3,723 | 0.06 |
| Tanzania | IODISED SALT | 129 | 184 | 140 | 132 | 80 | 665 | 0.01 |
| Tanzania | SORGHUM / MILLET | 0 | 68 | 80 | 0 | 0 | 148 | 0 |
| Tanzania | PEAS | 0 | 0 | 0 | 0 | 139 | 139 | 0 |
| Tanzania | SUGAR | 0 | 41 | 0 | 0 | 0 | 41 | 0 |
| Zambia | MAIZE | 2,264 | 0 | 9,104 | 14,026 | 9,360 | 34,754 | 0.68 |
| Zambia | MAIZE MEAL | 1,010 | 871 | 175 | 1,973 | 1,356 | 5,385 | 0.11 |
| Zambia | HIGH ENERGY SUPPLEMENTS | 863 | 1,218 | 289 | 644 | 2,018 | 5,032 | 0.1 |
| Zambia | CORN-SOYA BLD (CSB) | 0 | 165 | 1,932 | 1,032 | 599 | 3,728 | 0.07 |
| Zambia | LIKUNI PHALA | 75 | 1,556 | 0 | 0 | 0 | 1,631 | 0.03 |
| Zambia | BEANS | 0 | 0 | 0 | 0 | 111 | 111 | 0 |
| Zambia | SUGAR | 4 | 0 | 0 | 61 | 45 | 110 | 0 |
| Zambia | PEAS | 0 | 0 | 0 | 0 | 96 | 96 | 0 |
| Malawi | CORN-SOYA BLD (CSB) | 0 | 0 | 1,970 | 2,931 | 3,290 | 8,191 | 0.32 |
| Malawi | MAIZE | 1,837 | 495 | 1,833 | 208 | 3,287 | 7,660 | 0.3 |
| Malawi | PEAS | 0 | 765 | 290 | 1,218 | 2,377 | 4,650 | 0.18 |
| Malawi | LIKUNI PHALA | 552 | 591 | 0 | 0 | 630 | 1,773 | 0.07 |
| Malawi | MAIZE MEAL | 646 | 0 | 262 | 559 | 214 | 1,681 | 0.07 |
| Malawi | BEANS | 509 | 304 | 0 | 657 | 0 | 1,470 | 0.06 |
| Malawi | SUGAR | 45 | 0 | 112 | 7 | 28 | 192 | 0.01 |
| Mozambique | MAIZE | 2,158 | 2,396 | 2,482 | 3,812 | 1,553 | 12,401 | 0.84 |
| Mozambique | SUGAR | 0 | 193 | 223 | 26 | 159 | 601 | 0.04 |
| Mozambique | MAIZE MEAL | 0 | 536 | 0 | 0 | 0 | 536 | 0.04 |
| Mozambique | PEAS | 0 | 0 | 391 | 0 | 122 | 513 | 0.03 |
| Mozambique | VEGETABLE OIL | 0 | 0 | 0 | 0 | 404 | 404 | 0.03 |
| Mozambique | BEANS | 177 | 38 | 0 | 0 | 0 | 215 | 0.01 |
| Mozambique | RICE | 0 | 0 | 54 | 0 | 0 | 54 | 0 |
| Mozambique | IODISED SALT | 0 | 0 | 1 | 10 | 11 | 22 | 0 |

Source: WFP

Table B.3. Destination of Food AID Procured by WFP in RSA, total over 2001-2005

| Purchase Country | Recipient Country | Value ('000 USD) | Recipient Country Share |
|------------------|--------------------------|------------------|-------------------------|
| South Africa | Zimbabwe | 84,547 | 0.45 |
| South Africa | Zambia | 19,956 | 0.11 |
| South Africa | Mozambique | 16,646 | 0.09 |
| South Africa | Angola | 12,644 | 0.07 |
| South Africa | Tanzania | 10,210 | 0.05 |
| South Africa | Malawi | 9,141 | 0.05 |
| South Africa | Sudan | 5,572 | 0.03 |
| South Africa | Congo-D.R.(Kin) | 5,343 | 0.03 |
| South Africa | Lesotho | 4,794 | 0.03 |
| South Africa | Namibia | 2,918 | 0.02 |
| South Africa | Swaziland | 2,894 | 0.02 |
| South Africa | Kenya | 2,346 | 0.01 |
| South Africa | Ethiopia | 1,780 | 0.01 |
| South Africa | Eritrea | 1,563 | 0.01 |
| South Africa | Somalia | 1,554 | 0.01 |
| South Africa | Mali | 1,465 | 0.01 |
| South Africa | Chad | 1,353 | 0.01 |
| South Africa | Swaziland - OP | 683 | 0.00 |
| South Africa | Cameroon | 510 | 0.00 |
| South Africa | Cote-d'Ivoire | 485 | 0.00 |
| South Africa | São Tomé & Prin | 393 | 0.00 |
| South Africa | Benin | 382 | 0.00 |
| South Africa | Ghana | 371 | 0.00 |
| South Africa | Guinea-Bissau | 280 | 0.00 |
| South Africa | Sierra Leone | 272 | 0.00 |
| South Africa | Central African Republic | 259 | 0.00 |
| South Africa | Burundi | 224 | 0.00 |
| South Africa | Burkina Faso | 158 | 0.00 |
| South Africa | Cape Verde | 135 | 0.00 |
| South Africa | Guinea | 29 | 0.00 |
| South Africa | Congo (Braz) | 4 | 0.00 |

Source: WFP

Table B.4. Destination of Africa-Procured WFP Food Aid from non-RSA Suppliers, 2001-2005

| Purchase Country | Recipient Country | Value ('000 USD) | Recipient Country Share |
|------------------|-------------------|------------------|-------------------------|
| Ethiopia | Ethiopia | 101,434 | 0.92 |
| Ethiopia | Sudan | 1,893 | 0.02 |
| Ethiopia | Tanzania | 1,819 | 0.02 |
| Ethiopia | Zimbabwe | 1,591 | 0.01 |
| Ethiopia | Burundi | 693 | 0.01 |
| Ethiopia | Kenya | 626 | 0.01 |
| Ethiopia | Rwanda | 529 | 0.00 |
| Ethiopia | Angola | 391 | 0.00 |
| Ethiopia | Zambia | 292 | 0.00 |
| Ethiopia | Congo-D.R.(Kin) | 278 | 0.00 |
| Ethiopia | Sierra Leone | 160 | 0.00 |
| Ethiopia | Mozambique | 119 | 0.00 |
| Ethiopia | Chad | 115 | 0.00 |
| Ethiopia | Namibia | 81 | 0.00 |
| Ethiopia | Senegal | 53 | 0.00 |
| Ethiopia | Malawi | 42 | 0.00 |
| Ethiopia | Swaziland | 40 | 0.00 |
| Uganda | Uganda | 70,862 | 0.65 |
| Uganda | Burundi | 16,024 | 0.15 |
| Uganda | Congo-D.R.(Kin) | 11,423 | 0.11 |
| Uganda | Rwanda | 8,056 | 0.07 |
| Uganda | Tanzania | 1,353 | 0.01 |
| Uganda | Somalia | 604 | 0.01 |
| Uganda | Kenya | 34 | 0.00 |
| Tanzania | Tanzania | 34,078 | 0.55 |
| Tanzania | Burundi | 8,714 | 0.14 |
| Tanzania | Zambia | 8,120 | 0.13 |
| Tanzania | Rwanda | 3,134 | 0.05 |
| Tanzania | Malawi | 3,075 | 0.05 |
| Tanzania | Congo-D.R.(Kin) | 2,603 | 0.04 |
| Tanzania | Uganda | 1,716 | 0.03 |
| Tanzania | Mozambique | 129 | 0.00 |
| Zambia | Zambia | 32,835 | 0.65 |
| Zambia | Zimbabwe | 11,367 | 0.22 |
| Zambia | Malawi | 3,306 | 0.07 |
| Zambia | Tanzania | 1,533 | 0.03 |
| Zambia | Congo-D.R.(Kin) | 1,405 | 0.03 |
| Zambia | Angola | 373 | 0.01 |
| Zambia | Namibia | 26 | 0.00 |
| Sudan | Sudan | 42,069 | 1.00 |
| Kenya | Kenya | 29,139 | 0.76 |
| Kenya | Somalia | 2,542 | 0.07 |
| Kenya | Sudan | 2,467 | 0.06 |
| Kenya | Burundi | 1,312 | 0.03 |
| Kenya | Uganda | 666 | 0.02 |
| Kenya | Congo-D.R.(Kin) | 615 | 0.02 |
| Kenya | Zimbabwe | 520 | 0.01 |
| Kenya | Malawi | 459 | 0.01 |
| Kenya | Rwanda | 336 | 0.01 |
| Kenya | Mozambique | 172 | 0.00 |
| Malawi | Malawi | 18,958 | 0.74 |
| Malawi | Zimbabwe | 1,861 | 0.07 |
| Malawi | Burundi | 1,721 | 0.07 |
| Malawi | Zambia | 1,156 | 0.05 |
| Malawi | Mozambique | 1,073 | 0.04 |
| Malawi | Rwanda | 364 | 0.01 |
| Malawi | Swaziland | 279 | 0.01 |
| Malawi | Congo-D.R.(Kin) | 205 | 0.01 |
| Lesotho | Lesotho | 15,025 | 1.00 |
| Mozambique | Mozambique | 11,926 | 0.81 |
| Mozambique | Malawi | 2,820 | 0.19 |

Source: WFP

Table B.5. World Food Programme Monthly Purchases in Zambia, 2001-2005

| year | month | maize | | | maize meal | | | total maize plus maize meal | | |
|------|-------|----------|-----------|-------|------------|-----------|-------|-----------------------------|-----------|-------|
| | | quantity | value | price | quantity | value | price | quantity | value | price |
| 2001 | 1 | 1,744 | 190,096 | 109 | 0 | 0 | 0 | 1,744 | 190,096 | 109 |
| 2001 | 2 | 725 | 88,813 | 123 | 915 | 120,438 | 132 | 1,640 | 209,251 | 128 |
| 2001 | 3 | 2,081 | 278,854 | 134 | 316 | 65,096 | 206 | 2,397 | 343,950 | 143 |
| 2001 | 4 | 0 | 0 | 0 | 565 | 98,988 | 175 | 565 | 98,988 | 175 |
| 2001 | 5 | 3,165 | 400,917 | 127 | 1,774 | 277,373 | 156 | 4,939 | 678,290 | 137 |
| 2001 | 6 | 0 | 0 | 0 | 1,090 | 129,745 | 119 | 1,090 | 129,745 | 119 |
| 2001 | 7 | 2,000 | 248,000 | 124 | 0 | 0 | 0 | 2,000 | 248,000 | 124 |
| 2001 | 8 | 980 | 188,160 | 192 | 0 | 0 | 0 | 980 | 188,160 | 192 |
| 2001 | 9 | 2,528 | 443,417 | 175 | 1,488 | 317,922 | 214 | 4,016 | 761,339 | 190 |
| 2001 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2001 | 11 | 2,028 | 425,880 | 210 | 0 | 0 | 0 | 2,028 | 425,880 | 210 |
| 2001 | 12 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2002 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2002 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2002 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2002 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2002 | 5 | 0 | 0 | 0 | 1,345 | 306,300 | 228 | 1,345 | 306,300 | 228 |
| 2002 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2002 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2002 | 8 | 0 | 0 | 0 | 1,200 | 302,400 | 252 | 1,200 | 302,400 | 252 |
| 2002 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2002 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2002 | 11 | 0 | 0 | 0 | 1,000 | 262,000 | 262 | 1,000 | 262,000 | 262 |
| 2002 | 12 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2003 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2003 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2003 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2003 | 4 | 7,963 | 1,476,185 | 185 | 0 | 0 | 0 | 7,963 | 1,476,185 | 185 |
| 2003 | 5 | 0 | 0 | 0 | 1,510 | 175,160 | 116 | 1,510 | 175,160 | 116 |
| 2003 | 6 | 6,181 | 984,881 | 159 | 0 | 0 | 0 | 6,181 | 984,881 | 159 |
| 2003 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2003 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2003 | 9 | 4,182 | 585,480 | 140 | 0 | 0 | 0 | 4,182 | 585,480 | 140 |
| 2003 | 10 | 1,500 | 217,200 | 145 | 0 | 0 | 0 | 1,500 | 217,200 | 145 |
| 2003 | 11 | 14,784 | 2,438,926 | 165 | 0 | 0 | 0 | 14,784 | 2,438,926 | 165 |
| 2003 | 12 | 19,668 | 3,400,983 | 173 | 0 | 0 | 0 | 19,668 | 3,400,983 | 173 |
| 2004 | 1 | 14,593 | 2,935,918 | 201 | 5,000 | 1,193,725 | 239 | 19,593 | 4,129,643 | 211 |
| 2004 | 2 | 16,918 | 3,677,413 | 217 | 0 | 0 | 0 | 16,918 | 3,677,413 | 217 |
| 2004 | 3 | 11,334 | 2,057,625 | 182 | 0 | 0 | 0 | 11,334 | 2,057,625 | 182 |
| 2004 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2004 | 5 | 8,307 | 1,894,956 | 228 | 2,134 | 520,841 | 244 | 10,441 | 2,415,797 | 231 |
| 2004 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2004 | 7 | 2,160 | 341,280 | 158 | 900 | 145,800 | 162 | 3,060 | 487,080 | 159 |
| 2004 | 8 | 283 | 50,940 | 180 | 83 | 30,005 | 362 | 366 | 80,945 | 221 |
| 2004 | 9 | 3,687 | 553,249 | 150 | 414 | 62,100 | 150 | 4,101 | 615,349 | 150 |
| 2004 | 10 | 3,678 | 562,676 | 153 | 0 | 0 | 0 | 3,678 | 562,676 | 153 |
| 2004 | 11 | 0 | 0 | 0 | 96 | 20,928 | 218 | 96 | 20,928 | 218 |
| 2004 | 12 | 10,741 | 1,951,700 | 182 | 0 | 0 | 0 | 10,741 | 1,951,700 | 182 |
| 2005 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2005 | 2 | 7,219 | 1,289,958 | 179 | 3,850 | 975,825 | 253 | 11,069 | 2,265,783 | 205 |
| 2005 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2005 | 4 | 870 | 228,258 | 262 | 0 | 0 | 0 | 870 | 228,258 | 262 |
| 2005 | 5 | 3,770 | 695,058 | 184 | 130 | 25,805 | 199 | 3,900 | 720,863 | 185 |
| 2005 | 6 | 2,484 | 480,759 | 194 | 0 | 0 | 0 | 2,484 | 480,759 | 194 |
| 2005 | 7 | 2,713 | 527,679 | 195 | 0 | 0 | 0 | 2,713 | 527,679 | 195 |
| 2005 | 8 | 2,140 | 435,731 | 204 | 0 | 0 | 0 | 2,140 | 435,731 | 204 |
| 2005 | 9 | 14,378 | 2,875,600 | 200 | 1,140 | 245,100 | 215 | 15,518 | 3,120,700 | 201 |
| 2005 | 10 | 9,850 | 2,647,590 | 269 | 0 | 0 | 0 | 9,850 | 2,647,590 | 269 |
| 2005 | 11 | 653 | 179,202 | 274 | 413 | 109,239 | 265 | 1,066 | 288,440 | 271 |
| 2005 | 12 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |