

AGRICULTURAL POLICY ANALYSIS PROJECT, PHASE III

Under contract to the Agency for International Development, Bureau for Global Programs, Field Support & Research,
Economic Growth Directorate, Office of Agriculture & Food Security 151/57195

Prime Contractor: Abt Associates Inc., Project Office: 4800 Montgomery Lane, Suite 606, Bethesda, MD 20814 • Telephone (301) 913-0500
Fax (301) 652-3839 • Internet: apap3@abtassoc.com

ANALYSIS OF POLICY OPTIONS AND IMPACTS FOR PHASE II OF THE AGRICULTURAL SECTOR ASSISTANCE PROGRAM IN MALAWI

APRIL 1994

APAP III
Technical Report
No. 1001

Prepared for

Agricultural Policy Analysis Project, Phase III (APAP II)

USAID Contract No. LAG-4201-Q-00-3061-00

Authors: Scott Simons, Development Alternatives Inc.
Basil Longy, Development Alternatives, Inc.
Alan Mauer, Development Alternatives, Inc.
Valerie Vantrese, Abt Associates Inc.
Galvin Olney, Agricultural Cooperatives Development International

**ANALYSIS OF POLICY OPTIONS AND IMPACTS FOR
PHASE II OF THE
AGRICULTURAL SECTOR ASSISTANCE PROGRAM
IN MALAWI**

**Prepared under the Agricultural Policy Analysis Project
for USAID/Malawi**

Scott Simons, Development Alternatives, Inc.

Basil Longy, Development Alternatives, Inc.

Alan Maurer, Development Alternatives, Inc.

Valerie Vantreese, Abt Associates, Inc.

Gavin Olney, Agricultural Cooperatives Development International

April 14, 1994

TABLE OF CONTENTS

LIST OF TABLES	iv
LIST OF FIGURES	iv
LIST OF ACRONYMS	v
EXECUTIVE SUMMARY	vii
1. ALTERNATIVE POLICY SCENARIOS FOR MALAWI TOBACCO	1
1.1 UPDATE ON THE MALAWI TOBACCO MARKET	2
1.1.1 Tobacco Market Update	2
1.1.2 Intermediate Buyer Program	3
1.1.3 U.S. Dollar Scheme	4
1.1.4 Input Credit Constraints	5
1.2 BURLEY TOBACCO—THE PRESENT SYSTEM	7
1.2.1 Burley Subsector Characteristics	7
1.2.2 Institutions	8
1.2.3 Quota System Procedures	10
1.3 BURLEY POLICY OPTION 1—IMPROVED QUOTA SYSTEM	13
1.3.1 Allocations to Existing Quota Holders	14
1.3.2 Efficiency Modifications	15
1.3.3 Allocation to New Entrants	16
1.3.4 Additional Measures	17
1.3.5 Impact of Policy Option 1	17
1.3.6 Actions	19
1.4 BURLEY POLICY OPTION 2—TRADING AND/OR AUCTIONING QUOTAS	19
1.4.1 Quotas as Marketable Assets	20
1.4.2 Policy Measures—Owner-Assigned Tradable Quota	21
1.4.3 Features of Tradable Quota	23
1.4.4 Impact of Policy Option 2—Tradable Quotas	24
1.4.6 Actions	25
1.5 BURLEY POLICY OPTION 3—COMPLETE LIBERALIZATION	26
1.5.1 What Would Liberalization Bring?	27
1.5.2 Impact of Complete Liberalization	29
1.5.3 Policy Measures	33
1.5.4 Actions	35
1.6 PHASED LIBERALIZATION	36
1.7 DARK-FIRE AND SUN-AIR TOBACCO POLICY ALTERNATIVES	37
1.7.1 Current Production Characteristics	38
1.7.2 Grower Access to Auction Floors	38
1.7.3 The Role of ADMARC	39
1.7.4 Poverty Alleviation	41
1.7.5 Market Impacts	42
1.7.6 Diversification in the Tobacco Sector	43

1.8	ORIENTAL TOBACCO POLICY ALTERNATIVES	44
1.8.1	Current Production Characteristics	44
1.8.2	Direct Sales to Buyers	45
1.8.3	Poverty Alleviation	46
1.8.4	Market Impacts	47
1.8.5	Diversification in the Tobacco Sector	48
2.	INCREASED PRIVATE SECTOR PARTICIPATION IN AGRICULTURAL MARKETING	49
2.1	THE STRATEGIC GRAIN RESERVE	49
2.2	MAIZE SEED SUBSIDY	51
2.3	ACCELERATED RELEASE OF HYV CROP SEEDS	53
2.4	CONSUMER MAIZE SUBSIDY	55
2.5	FERTILIZER SUBSIDY—REMOVAL OF SUBSIDY	64
2.6	CONSTRAINTS TO FURTHER PRIVATE SECTOR PARTICIPATION IN MARKETING AGRICULTURAL OUTPUTS AND INPUTS	65
2.6.1	Regulatory Policies	65
2.6.2	External Marketing	65
2.6.3	Transport	66
2.6.4	Credit	68
2.6.5	Storage	70
3.	AGRICULTURAL DIVERSIFICATION IN MALAWI	71
3.1	INTRODUCTION	71
3.2	THE STRATEGY OF DIVERSIFICATION	73
3.3	POLICY CONSTRAINTS AND RECOMMENDATIONS	76
3.3.1	Licensing	76
3.3.2	Duties and Taxes	83
3.3.3	Land Leases	85
3.3.4	ADMARC: The Government's Role in Agricultural Trade	88
3.3.5	Air Transport	90
3.4	PROACTIVE PROGRAMS AND POLICY INITIATIVES	91
3.4.1	Level One Actions	93
3.4.2	Level Two Actions	94
3.5	DIVERSIFICATION COMMODITIES, ACTIVITIES AND PARTICIPANTS	94
3.5.1	Commodities	94
3.5.2	Export Market	97
3.5.3	Domestic Market	98
3.5.4	Agroprocessing	98
4.	ASAP II THEMES AND TARGETS	99
4.1	ASAP Goal and Purpose	99
4.2	ASAP THEMES	100
4.2.1	Theme No. 1: Production and Marketing of Crops	100

4.2.2	Theme No. 2: Efficiency of Input Delivery	101
4.2.3	Theme No. 3: Equity in the Agricultural Sector	102
4.2.4	Theme No. 4: Crop Diversification	102
4.2.5	Policy Measures for Implementing ASAP Themes	104
4.2.6	Inter-linking Nature of Themes for Phase II Policy Measures	104
4.2.7	Alternative Structures for the ASAP II Policy Matrix	105
4.2.8	Proposed Policy Matrix	106
4.3	ASAP II TARGETS	109
4.3.1	Experience with Implementing Targeting Covenants	110
4.3.2	Costs to Direct Targeting	111
4.3.3	Indirect Targeting—The Regional Approach	112
4.3.4	Targeting and Quota Liberalization	113
4.3.5	Targeting Recommendations	114

**ASAP II: INTERVIEW LIST
REFERENCES**

LIST OF TABLES

TABLE 1.1: PROJECTED QUOTA BENEFICIARIES, 1994-1998	16
TABLE 2.1: PRODUCER PRICES FOR MAIZE (ADMARC)	56
TABLE 2.2: MALAWI: PRODUCER PRICE FOR MAIZE (1993) COMPARED TO BORDER PRICES	58
TABLE 2.3: ADMARC'S MARKETING COSTS 1993/94 FOR PURCHASES OF 376,243kg	60
TABLE 2.4: MALAWI: ADMARC MAIZE SUBSIDY, 1980-1988	61
TABLE 2.5: FREIGHT TRAFFIC BY TYPE OF TRANSPORT, VOLUME, AND INCREASE 1992-93	68
TABLE 3.1: PARTICIPANTS IN AGRICULTURAL DIVERSIFICATION	74
TABLE 3.2: ACTS THAT AFFECT AGRICULTURAL DIVERSIFICATION IN MALAWI	77
TABLE 3.3: INDICATIVE DIVERSIFICATION COMMODITIES: KEY CHARACTERISTICS, MARKET PROSPECTS AND LIKELY PARTICIPANTS	96

LIST OF FIGURES

FIGURE 2.1: WEEKLY MAIZE PRICES (FEB 93 - FEB 94)	62
FIGURE 3.1: GROUNDNUT AREA AND PRODUCTION, 1982/83 - 93/94	89

LIST OF ACRONYMS

ACDI	Agricultural Cooperatives Development International
ADD	Agricultural Development Division
ADMARC	Agricultural Development and Marketing Corporation
AHL	Auction Holdings Limited
AMS	Amsterdam
ASAC	Agriculture Sector Assistance Credit
ASAP	Agricultural Sector Assistance Program
ASM	Agricultural Sector Memo
CPI	Consumer Price Index
DEMATT	Development of Malawian Traders Trust
EPZ	Export Processing Zones
FA	Field Assistance
FAO	United Nations Food and Agricultural Organization
FHA	Farmers' Home Assistant
GDP	Gross Domestic Product
GOM	Government of Malawi
HIID	Harvard Institute for International Development
HYV	High-yield Variety
IB	Intermediate Buyers
IBP	Intermediate Buyer Program
IFAD	International Fund for Agricultural Development
INDEBANK	Investment and Development Bank of Malawi
LGW	London
LLW	Lilongwe
MIFA	Malawi Investment Promotion Agency
MK	Malawi kwacha
MOA	Ministry of Agriculture
MRFC	Malawi Rural Finance Corporation
MUSCCO	Malawi Union of Savings and Credit Cooperatives, Ltd.
NSCM	National Seed Corporation of Malawi
NDDF	Northern Division Dark Fired
NGO	Non-governmental Organization
RDP	Rural Development Project
RTC	Road Traffic Commissioner
SACA	Smallholder Agricultural Credit Administration
SDDF	Southern Division Dark Fired
SEDOM	Small Enterprise Development Organization of Malawi
SFFRF	Smallholder Farmers' Fertilizer Revolving Fund
SGR	Strategic Grain Reserve
TAMA	Tobacco Association of Malawi
TCC	Tobacco Control Commission

TEAM	Tobacco Exporters Association of Malawi
TRIM	Tobacco Research Institute of Malawi
UNDP	United Nations Development Program
UNICEF	United Nations International Children's Education Fund
USAID	United States Agency for International Development
USD	United States Dollar
VRC	Variety Release Committee
WB	World Bank
WFP	World Food Program

EXECUTIVE SUMMARY

PART ONE: ALTERNATIVE POLICY SCENARIOS FOR MALAWI TOBACCO

The U.S. Agency for International Development (USAID) and the Government of Malawi (GOM) are currently reviewing options for further liberalization of Malawi's tobacco sector. In particular, approaches for enhanced smallholder production and increased grower access to alternative marketing channels are under consideration. There is evidence that smallholder production of tobacco is, in key respects, more efficient than production by some estates and that the Malawi economy could benefit substantially from transferring some production capacity from the estate to the smallholder sub-sector. Further, tobacco seems to offer the best current option for increasing smallholder income levels, specifically resource-deficient smallholders. Tobacco production is well within smallholder management capabilities and it offers high returns to their scarce land.

At present, access to burley tobacco production is controlled through administratively allocated production quotas. Reform of the present quota system is needed, though there is yet little consensus amongst the parties concerned (whose interests in the issues diverge significantly) as to how radical this reform should be. Three options considered in this report are: complete liberalization, adoption of a tradable quota system, and modification of the current quota system. Reforms are needed in the marketing systems for dark-fire and oriental tobacco, too. Direct access to the auction floor is considered for dark-fire and direct sales between growers and buyers are considered for oriental. In each case, these proposed changes would establish alternative marketing channels to the Agricultural Development and Marketing Corporation (ADMARC).

UPDATE ON THE MALAWI TOBACCO MARKET

Several significant changes have occurred recently affecting Malawi tobacco. An update on these events sets the stage for assessment of tobacco policy options.

Tobacco Market Update: Nearly all (99 percent) of Malawi's tobacco production is exported accounting for approximately 30 percent of Malawi's GDP and 75 percent of export earnings. However since 1991, world tobacco production has increased 12 percent, resulting in increased stock levels and depressed world prices. On the demand side, world cigarette consumption is expected to continue to increase for the next decade as purchasing power grows in many middle-income and developing countries. In the long run, however, world demand is expected to fall.

Tobacco prices in Malawi have fluctuated greatly in recent years in response to both a global tobacco glut and domestic market conditions. Prices for burley tobacco, which accounts for about 73 percent of Malawi tobacco, fell by 25 percent in 1993. As a result of the low prices, combined with severely tightened input credits and poor weather conditions, the 1993-94 burley crop is estimated to be around 80 million kg, down 20 percent from the previous year. Unlike burley prices, prices for Malawi's dark-fire crop which accounts for 6 percent of

production, rose considerably in 1993. However, large fluctuations in both quantity and prices of dark-fire tobacco in recent years threaten the stability of marketing relationships with buyers.

Intermediate Buyer Program: The creation of the Intermediate Buyer Program (IBP) for the 1994 marketing year is a potentially important new market channel available to burley tobacco growers. In recent years, smallholder burley producers were permitted to sell either directly on the auction floor via burley clubs, or to sell through ADMARC. However, in mid-March, MOA created the IBP which licenses entities (initially estates) to purchase burley and market directly on the auction floor. Some of the advantages of the IBP include: allowing smallholder burley producers another marketing choice; presenting marketing alternatives for weaker smallholder clubs; increasing the opportunity for an efficient marketing system to develop; taking advantages of economies of scale in transporting, grading, and baling tobacco; utilizing excess fixed asset capacity within the estate sector. Initial response to the new program has been encouraging so far.

U.S. Dollar Scheme: Upon implementing a new floating exchange rate regime in spring 1994, the Malawi kwacha (MK) declined in value from approximately 4.3 MK/US\$ to 6.6 MK/US\$. This makes Malawi tobacco more price competitive on the world market but many inputs used in tobacco are imported and thus more expensive. To assure that benefits to devaluation are transferred on to producers, the Reserve Bank of Malawi is requiring that tobacco auction prices be quoted in U.S. dollars and that all growers (smallholders and estate producers alike) be paid in U.S. dollars.

Input Credit Constraints: The Malawi tobacco sector currently faces severe financial constraints arising from shortages in input credits. Tobacco growers typically receive credit through the Smallholder Agricultural Credit Administration (SACA) or through private commercial lenders (as in the case of estate producers). Loan repayment rates of both smallholders and estates have been extremely low in recent years making many growers ineligible for receiving further credit. As a result, growers have curtailed expenditures on current input costs and capitalization projects (including basic maintenance on existing structures). In the short term, inadequate levels of inputs, particularly fertilizer, constrain both the quality and the quantity of tobacco production. Lack of long-term credit inhibits investment in new infrastructure and technological capacity.

Burley Tobacco—The Present System

Burley tobacco production has grown quite rapidly. In 1988, 46 million kg of burley was sold on the auction floor and sales reached approximately 103 million kg in 1993. However, due to inadequate credit access, resulting in significant input constraints, and lack of sufficient rainfall in many parts of the country, burley production is expected to fall to 80 million kg (possibly less) in the 1994 marketing year, at least 20 percent below what the market can clear.

Historically, burley tobacco production in Malawi has been a privilege reserved for estate growers through a quota system. However, beginning in 1991, smallholder farmers were

authorized to produce a limited amount of tobacco. There have been changes within the estate sector too as many new small estates have been formed. Recent figures suggest that at least half of estates are, in social and economic origin as well as size, indistinguishable from the customary land farmers from whose ranks they have "graduated." Marketing of "illegal" production through registered estate quota holders also blurs the estate/smallholder distinctions in the burley sector. In 1993, an estimate of "illegal" growing was put at 20 million kgs, i.e. 20 percent of production. This suggests that some 20-50,000 smallholders may be involved at the margin. A large unknown before smallholders participated in burley production was whether smallholders would be able to attain quality standards sufficient to maintain Malawi's quality reputation. Data on burley sales indicate that smallholders have, in fact, been able to produce and market tobacco meeting these standards.

"Quotas" in the present system comprise at least the following elements: registration process, seed forms, smallholder individual quota certificates, the license, licensed weight, uplift, delivery quotas, and penalties. These elements are described in detail in the report. It is widely recognized in Malawi that the current quota system suffers under numerous inefficiencies. The quota problems—such as paperwork requirements, time delays, and opportunities for corruption—to name just a few, entail large explicit and implicit costs. Another characteristic of current quotas is that the overall level of quota has little relation to actual production. Many growers produce only 50-60 percent of their quota allotment. However, since many growers continue to honor the license, it would be wrong to conclude from this that the system is completely ineffective.

Burley Policy Option 1—Improved Quota System

Even if Malawi stays with a quota system for burley, change is needed. The Ministry of Agriculture (MOA) could continue efforts to improve the operation of the present system, but this is unlikely to succeed, given the increasing administrative complexity of the problem. There are too many levels at which decisions must be made, too many growers, and too many others eager to be admitted. One solution is for quotas to be issued electronically, on the basis of Auction Holding's computer records of growers' actual performance. Most of the cumbersome (and ineffective) administration would be rendered unnecessary, with significant cost savings and efficiency gains within MOA. All existing quota holders would be awarded quota based on historical records of the volume they have sold and prices they received. For existing license holders, the registration process would be unnecessary and could be discarded. Only new applicants need go through registration.

The case for returning the responsibility for quota administration to the Tobacco Control Commission (TCC) is strong. It is a statutory body under MOA's control, with the explicit mandate of performing this function. It also has close institutional links with the various interests which make up the industry and are represented on its board. Not least, its offices are physically at the center of the industry.

To improve efficiency within the quota system, a formula could be devised which penalized inefficient producers. The details would need considerable thought but the following performance criteria could be taken into account:

- Volume: success in meeting quota;
- Price: success in producing quality;
- Rejection rates: success in handling and presentation;
- Adherence to delivery regulations.

Poor performers on this index would lose quota and good performers would be rewarded with a quota increase. This gives both clubs and estates some incentive for efficiency improvements. Given the extremely limited impact of these commitments on the population, it might be argued that most new entrant quotas should go to new smallholder clubs. Increases in total quota levels could also be directed principally to new smallholder entrants.

Burley Policy Option 2—Trading and/or Auctioning Quotas

Short of eliminating the production quota altogether, a system of tradable quotas may enhance efficiency through improved resource allocation. Efficiency gains arise from the buyer's "willingness to pay" for rights. Because a restrictive quota is a scarce commodity, producers would bid the price up over time to reflect the value of the production rights that come with the quota. The most efficient producers would be able, and thus willing, to pay more for the quota.

This describes the long-term efficient allocation of tradable quotas. In the short term, allocation may be determined more by the current assets of bidders than by the revenue-generating potential of tobacco production. This may not only continue efficiency distortions of the present allocation system, but aggravate distortions with further concentration of quota holding based on wealth and access to credit.

Many variations of tradable quota systems are conceivable and there are many models worldwide to choose from. This report provides an illustrative list of components for consideration when devising a tradable quota system. Components include: (1) computer registration of all burley quotas with information about the quota holder; (2) computer registration sites throughout the country; (3) registration of sales or leases and computerization of data; (4) possible constraints on sales—such as land base of buyer or limits to concentration or geographic transfer; (5) non-price terms of sales included in contracts and registrations; (6) transactions summaries freely available; (7) delivery volumes and quality should be recorded; and (8) possible government intervention to distribute quota to target groups.

The initial assignee of quota need not be the producer at all. Indeed ownership creates a range of problems—distorted land values and barriers to new entrants are the greatest—requiring all sorts of corrective action. An annual auction of marketing quota which regularly re-distributes the whole pool may provide the most efficient solution in terms of

resource allocation. Since the process would be repeated annually, losers in the early rounds would not be excluded from a second chance. Though annual quotas are theoretically superior features in terms of economic efficiency, they are much more demanding in terms of market development.

One aspect of tradable quotas is that poor quota recipients could benefit even if they do not produce tobacco, by selling their quotas or leasing them out on an annual basis. In effect, the tradable quota system could serve as a method of transferring cash from tobacco growers to poor quota recipients. If sufficient restrictions to market power were imposed, the system could have a positive impact on poverty alleviation. On the other hand, if permanent quotas are sold, smallholders may be effectively shut out of future production.

Burley Policy Option 3—Complete Liberalization

First, a definition: liberalization means the removal of all checks on who is permitted to grow burley and how much they may grow, leaving the market to determine which producers remain in production. From an economic standpoint, artificial constraints on production result in market distortions, including inefficient input allocation, distorted volumes produced and distorted prices received. In a competitive environment with adequate market information and a functioning marketing system, lifting of production constraints can lead to a more efficiently performing sector. However, the Malawi tobacco market does not exist in a purely competitive environment. Though Malawi is not a "price maker" in the world market, with its large market share it is not a pure "price taker" either. The reality lies somewhere in between.

Projecting what liberalization would bring depends largely on what the supply response would be to lifting production controls. A large and rapid supply response might dramatically decrease world leaf prices and could seriously weaken Malawi's estate sector financially. On the other hand, the supply response may be moderate and succeed in greatly increasing participation and earnings among smallholders and efficient producers. A hypothetical example gives some sense of the potential magnitudes involved: with full liberalization, all 1.8 million Malawian smallholder farm families would be eligible to produce burley tobacco. If just one-quarter of newly eligible smallholders grow tobacco and they chose to produce on just one-quarter hectare each and using low input packages they produced just 150 kg of tobacco each, output by new growers would come to almost 68 million kg of burley. Estates and current smallholder producers may also increase burley production. Assuming a 25 percent increase from an 80 million kg base could lead to 100 million kg from existing producers. Thus, total Malawi burley tobacco production could reach 168 million kg, more than double this year's expected output, which could have a sharply negative impact on prices.

How likely is a large supply response to liberalization? There are strong arguments both for and against expecting a large response. The widespread technical capacity to produce tobacco and the perception of the profitability create a large pool of potential new producers. Further, most of the smaller estate growers, who account for 82 percent of growers and 45 percent of sales, produce at quota limits and might respond strongly to liberalization. Prices in

auctioning the 1994 burley crop are expected to be high which should add to the incentive along with plans to pay growers in U.S. dollars this year. On the other hand, this potential is mitigated by the absence of credit—and thus fertilizer—and by how deeply the disappointments of 1993 have affected perceived profitability. Further, many of the potential new producers may already be producing illegally and marketing through estate quotas.

The impact of "gloomy scenario" large supply response could be severe. Complete liberalization could result in: (1) increased farm income in the short term which could dramatically fall as world tobacco prices became depressed; (2) the collapse of a significant portion of the estate sector so that less tobacco revenues would be available to fund diversification efforts; and (3) smallholders faced with insufficient food supplies after diverting maize land to tobacco then suffering low prices or low yields due to nematode infestations. Should the supply response be moderate though, access to tobacco profits would be more widely and freely distributed and Malawi would gain from large administrative cost savings.

Though world tobacco demand is highly inelastic in any one year, as a low-cost efficient producer, Malawi could increase market share in the long term as high cost producers (primarily the United States and European Community) reduced production. Domestic tobacco infrastructure would have to develop at the same time to market this tobacco at reasonable cost. For example, more satellite depots would be necessary for Auction Holdings along with mechanization of the auction floor. Larger minimum delivery quantities may be needed with more farmers producing greater quantities, too.

Phased Liberalization

If risks of full liberalization are considered too high, moving to a liberalized burley market in more gradual phases would be an attractive alternative. Quotas could be raised each year for several years until they are no longer binding. In the meantime, the quota cap provides some margin of safety against the gloomy scenario of a large and devastating supply response. Interim measures would be taken to prepare the market for liberalization and to reduce inefficiencies in the interim period. Quota system improvements proposed under the first option could be adopted immediately. Also, the intermediate buyer program could be expanded rapidly. Decisions regarding the rate of quota increments and the speed of liberalization could be based on observations of tobacco market response to these interim measures.

Dark-fire and Sun-air Tobacco Policy Alternatives

The Malawi tobacco buying industry estimates that 10 million kg could easily be sold off the auction floor and that there is room for 12 million kg at slightly reduced prices. However, dark-fire tobacco production in Malawi has fallen from 24 million kg in 1991 to 11 million kg in 1992 and to 3.8 million kg last year. Traditionally, dark-fire production has taken place among the smallholder growers who produce between 30 and 90 percent of total dark-fire output. Estates produce the remaining 10 to 20 percent of dark-fire tobacco. There are

approximately 70,000 smallholder dark-fire growers accounting for nearly two-thirds of all smallholder tobacco producers.

ADMARC has the exclusive marketing authority to sell smallholder dark-fire tobacco. It is estimated that dark-fire growers currently receive only 40 percent of the auction floor price from ADMARC. Essentially, ADMARC skims the top off the floor price and the residual is given back to the farmer to cover input costs and to provide a reasonable rate of return. If growers were offered alternative market channels for their tobacco, they could obtain higher prices and would have incentives to increase production. Alternative channels would include direct selling by growers on the auction floor, selling through ADMARC, or selling to intermediate buyers.

The number of dark-fire producers could dramatically expand if grower returns increased with direct access to the floor. To prevent overwhelming auction floor capacities and to achieve economies of scale in bringing the crop to the floor, dark-fire growers would have to form clubs similar to burley clubs.

In addition to marketing, ADMARC's support role for dark-fire producers at times includes providing transportation, storage, credit, and a minimum auction floor reserve price. If these functions were not provided by ADMARC, the dark-fire clubs, intermediate buyers, or smallholders themselves would be required to cover these costs. Potential gains for smallholders from direct marketing of dark-fire tobacco are enormous. Assuming ADMARC's input to marketing could be covered by smallholders for 2 kwacha per kg, given an additional 7.6 million kwacha could have been returned to the growers (3.8 million kg at 2 kwacha per kg at last year quantity and price). If the crop expanded to the 10 million kg, the gains could increase to 20 million kwacha.

Even with direct access to the floor for growers, ADMARC could continue to play an important role as a parallel marketing channel providing marketing services to smallholders. If ADMARC is to compete in marketing, though, it must be given increased price flexibility and released from buying prices set by the National Pricing Committee.

Oriental Tobacco Policy Alternatives

Malawi does not have a quality advantage with oriental tobacco, thus it must compete on the basis of price. Oriental tobacco production in Malawi has historically been quite small, typically around 500 thousand kg annually. Last year's oriental exports totaled only 194.6 thousand kg, down from 332.5 thousand kg in 1992. Compared with other tobacco types, oriental tobacco can be grown on marginal land. It is frequently grown in Malawi in drought stricken areas which have limited alternative uses. Production and curing of oriental tobacco is different than that of other tobacco types. The oriental tobacco plant is quite small in stature and comprised of many small leaves which must be painstakingly strung together to cure. Due to the high labor requirements, oriental is grown in very small plots. In the 1993-94 crop year, 7,106 farm families were registered for oriental production. Three resident tobacco buyers have

"staked claim" in each of three regions of Malawi and have invested to develop oriental grower schemes with smallholders. ADMARC serves an exclusive intermediary between the growers and the buyers for which it receives a payment.

Significant operating losses have forced all oriental buyers to take a hard look at the market to re-evaluate production and marketing arrangements. The substantial loss can be attributed to two possible sources; high overhead costs and ADMARC's marketing payments and interventionist pricing policies. If buyers were permitted to direct contract with growers, significant savings might be realized. ADMARC may be eliminated from the marketing chain, or they could continue providing marketing services on a non-exclusive basis. It is not entirely clear from the cost data available whether or not the removal of ADMARC from the marketing chain would increase grower margins. It depends on whether growers, buyers, or other intermediaries could provide marketing services for less. If this is the case, more profits could be distributed to growers and buyers stimulating greater buyer investment, grower participation, and smallholder incomes.

Part Two: Increased Private Sector Participation in Agricultural Marketing

The scope of private sector marketing activities is relatively small in Malawi. This is due to both the overall thinness of agricultural marketing and the predominant role played by ADMARC, the parastatal trading corporation. Developing private agricultural trading would serve to both provide more market outlets for smallholder farmers and create competition in the trading sector. This in turn would be reflected in farmgate prices. There are a number of ways in which government policies have inhibited private agricultural trading in the past. The report reviews experience and offers recommendations in the following areas: private supply of grain to the strategic grain reserve, eliminating maize seed subsidies, accelerating release of high yield variety crop seeds, reducing output price distortions such as implicit consumer maize subsidies, and eliminating fertilizer subsidies. Some of the more general constraints to increased participation are also examined and policy recommendations provided.

The Strategic Grain Reserve

ADMARC, as the agency charged by the Government of Malawi with the management of the Strategic Grain Reserve (SGR), has hitherto used its network of markets and depots throughout the country to purchase maize for the replenishment of, and sales from, the SGR. These operations can represent the buying and selling of between about 60,000 and 180,000 tons of maize each year. Though ADMARC is charged with management, the operations of replenishing and drawing from the SGR could be spun off to private sector traders through public tendering. In order to ensure that quality standards are respected, the standards shall have to be made widely known, incorporated into letters of contract between the selected suppliers and the Government of Malawi, and enforced by ADMARC as manager of the SGR.

In order to avoid the excessive amount of administrative work and accounting involved if too many suppliers were to be contracted, a minimum lot of five tons could be imposed.

Similarly, to increase the opportunity of the smaller scale traders being involved, a maximum of, say 50 or 100 tons could be applied. In spite of their higher producer prices it is expected that because of their lower overheads, the private traders would be able to supply grain to the silos at a lower total cost to Government than that previously claimed by ADMARC. With the realistic assumptions that average margins for grain suppliers would be in the region of 5 tambala/kg and the average delivery price would be MK 0.56/kg, then average producer price could rise to be MK 0.51/kg compared to MK 0.43/kg in 1993. This would be an increase of almost 19 percent. Again assuming an average delivery volume of 30 tons for the purchase of a total of 60,000 tons for the SGR as many as 2000 private traders could be involved in the operations.

Maize Seed Subsidy

A maize seed study prepared for the USAID Mission by Ashok Chakravarti of ACV Consultants (Pvt) Ltd. was discussed in a meeting of the ASAP Seed Sub-Committee representing both government and the private sector on March 25, 1994. The principal results of this study were endorsed by the meeting and the action plan adopted. Currently the subsidy on the new hard endosperm flint hybrids MH17 and MH18 which are the most popular hybrids is at 9 percent. If credit is available to smallholders, their total credit purchases of certified maize seed can be expected to be in the region of 6,000 tons annually. The savings to government of the removal of the subsidy would therefore be of the order of MK 2.4 million. If ADMARC's marketing costs are added too, savings would be of the order of MK 3.34 million. The impact on most farmers would be modest, most probably the seed proportion of total variable production costs would rise from 14 percent to 15 percent. The Action Plan endorsed by the ASAP Seed Sub-committee includes elimination of the seed subsidy along with terminating the exclusive seed marketing agreement between ADMARC and the National Seed Company of Malawi.

Accelerated Release of HYV Crop Seeds

Release of new seed varieties in Malawi typically encounters lengthy delays amounting to several years. This imposes large costs of lost potential output and discourages introduction of new varieties. The ASAP Seeds Sub-Committee endorsed a number of recommendations for streamlining procedures for the release of seed varieties proposed in Mr. Chakravarti's study, including: (1) the Variety Release Committee (VRC) will have a one year time limit for deciding on new varieties; (2) new seed regulations will be transparent and consistent with liberalization; (3) small quantities of seed (except maize and tobacco) can be imported with a phyto-sanitary certificate bypassing the VRC; (4) preliminary release mechanism will be extended; (5) domestic production of seeds will be encouraged; (6) data will be accepted from seed testing laboratories accredited by the International Seed Testing Association; (7) names of maize and tobacco varieties which have been approved by the VRC will be gazetted annually; and (8) serious consideration be given to limiting the Variety Release Committee procedures to only maize and tobacco.

Consumer Maize Subsidy

ADMARC is GOM's agent for the implementing stabilization policies. ADMARC buys and sells maize at fixed prices set by Government (the National Price Review Committee) on the recommendation of the MOA. Artificially low producer prices tax the farmer in order to maintain low consumer prices—an implicit consumer subsidy. Low producer prices in turn discourage production. To measure the subsidy, producer prices were compared with export and import parity prices to evaluate their freedom from distortion in Malawi. Import parity prices for maize are MK 1057 and MK 1129 for Zimbabwe and Zambia, respectively, calculated using the fixed rate of exchange which was in place just before the new system of foreign exchange auctioning was instituted. Export parity price "exports" to the WFP in Malawi using the same rate of exchange are MK 615. The differences between these prices and the producer price for the 1993/1994 crop are MK 627, MK 699, and MK 185 respectively, per ton. These differences are much greater if the grain cost is calculated in kwachas using the current rate of exchange.

There also appears to be an explicit subsidy on consumer maize in Malawi. ADMARC's direct marketing costs amount to 15.67 tambala/kg (MK 156.7 per ton) in 1993/94 which is 36 percent of the producer price of 46 tambala/kg. These marketing costs are well within the 21.8 tambala/kg (MK 218 per ton) which the government had allowed as a margin between the producer and the consumer prices. Though ADMARC's general administrative overheads must be added as a cost too, one would not expect overheads to exceed the MK 58 per ton which the margin leaves unaccounted for. Note, though that in their internal accounting, ADMARC in fact allocates MK 140 per ton to maize as overhead costs for marketing, depot costs, and miscellaneous overheads—more than twice the unaccounted for margin. By this accounting ADMARC loses MK 70 per ton sold.

In addition to the consumer subsidy, policies of pan-territorial and pan-seasonal pricing over a wide network of markets and depots undercuts any incentive for private traders to engage in marketing in distant areas or to engage in storage for profit.

Fertilizer Subsidy—Removal of Subsidy

The government has already adopted a policy for the progressive removal of fertilizer subsidies. Present inventory levels are high as a result of low usage during the 1993/1994 crop year following the break-down of the credit system, and inventory levels are still rising. It is likely that the SFFRF will soon be holding the equivalent of more than two years of present effective economic demand. The large stocks obviate the need for further fertilizer imports for some time and provide a fortunate opportunity for trying to increase private sector participation in fertilizer distribution. Supplies of fertilizer should be made available at the SFFRF warehouse to all dealers/suppliers wishing to purchase it at import parity prices—discounted by storage costs and losses.

In conformity with the policy of liberalizing input marketing already accepted by government, there seems no reason for the SFFRF to be still involved in the importation and

distribution of fertilizers. The role of the SFFRF could be reduced to management of the buffer stock, as recommended in the recent study conducted by the team from the Harvard Institute for International Development. Further, the size of the buffer stock could probably be reduced now that the risks of supply disruption have diminished.

Constraints to Further Private Sector Participation in Marketing Agricultural Outputs and Inputs

Regulatory Policies: Trading in agricultural produce in Malawi is still governed officially by the terms of the Smallholder Agricultural Produce (Marketing) Regulations, 1987. These regulations, place the following restrictions on trading: prohibit non-Malawians from trading in agricultural produce; prevent farmgate purchases; limit days, hours, and places of trade; provide for price fixing for certain commodities; and make the use of assized scales obligatory. Though the Ministry of Justice indicated they would revoke the regulations, more than a year has elapsed without any apparent progress in the matter. It is recommended that publication of the relevant Government Notice be made without further delay.

Transport: Obtaining a full permit to operate as a transporter is also a problem. It may take up to four months to obtain the permit since it is granted after application and a public hearing before the Road Traffic Commissioner and a team of Assessors. Further, according to the Chief Transport Planning Officer, it is ministerial policy not to grant permits to Asians for domestic transport operations. Though there is no legal backing for this policy nor written policy statement to this effect, the informal policy is effective in precluding Asians from most domestic transport activities.

Small domestic agricultural traders also face discriminatory customs tariffs vis-à-vis large internationally oriented trade. Vehicles under 2.75 ton gross weight pay import duties of 20 percent and a 10 percent surcharge. Vehicles under 10 tons pay just a 10 percent import duty. And vehicles over 10 tons are free of both duty and surcharge. It is recommended that duties and surcharges be standardized in the trucking sector.

Storage: Storage, as a constraint to agricultural marketing is often bound up with the question of access to capital. Storage facilities are expensive to build or buy, especially when starting trading. Additional space could be obtained through leasing instead. As ADMARC scales back operations vis-à-vis the private sector, their underutilized space could be made available to private traders and the lease earnings could help offset high ADMARC overheads. ADMARC should actively seek out potential leasees and come to mutually profitable arrangements to meet both their needs.

Part Three: Agricultural Diversification in Malawi

The idea of diversifying Malawian agriculture is not a new one. Some large estates have been experimenting for as long as 30 years with alternative crops and agroprocessing schemes. It has also been an element of government and international donor policy for many years. Yet

results thus far have been unimpressive. If agricultural diversification in Malawi is to be effective, it must be given the same importance as the traditional crops it is attempting to replace; that is, the same amount of credit, technical assistance, marketing, etc., must be expended upon it. The challenge is to accomplish that end without inhibiting the ability of tobacco and maize to generate income.

The current lack of a clearly-defined set of policies and strategy in Malawi is an important constraint to agricultural diversification. Neither producers nor traders nor processors can be sure the government will not intervene in their commerce on an ad hoc basis. Their apprehension is legitimate in Malawi, as evidenced by the recent restrictions placed on the trading of groundnuts. The elements of the strategy should include: (1) definition of the government's role in the diversification process; (2) removal of policy constraints; (3) proactive incentive programs and removal of non-policy constraints; and (4) identification of diversification commodities, activities and participants. Since ASAP II focuses principally on policy reform, this report emphasizes policy constraints to diversification and recommendations for addressing the constraints. The key areas of constraints are: licensing, duties and taxes, land leases, air leases, and the roles of ADMARC and the government in agricultural trade. Specific constraints within these areas are described along with specific policy recommendations.

Licensing

Constraint: Exclusion of certain groups from trading in rural areas of Malawi. Domestic markets are thin due at least in part to a dearth of traders and entrepreneurs in the rural areas of Malawi. The exclusion of a very accomplished group of traders, the Asians, has removed an important set of buyers of smallholders' produce from the market, buyers who generally paid higher prices than did ADMARC. Currently, an individual must be licensed in each Agricultural Development Division (ADD) to purchase agricultural commodities and the licensing requirement is widely used to exclude Asians, mulattos, and even Malawians from other regions from engaging in legitimate business within an ADD. We recommend a single national license replace the local licensing with a transparent application procedure that expressly forbids refusal due to race, nationality, gender or other irrelevant characteristics. Further, a monitoring system could be set up to receive, record and disseminate information about complaints lodged against traders. If unfair trading practices are being used—a justification commonly leveled against Asians—those practices should be dealt with directly, rather than on the basis of race.

Constraint: Exclusion of certain groups from transporting goods in rural areas of Malawi. According to an official in the Transportation Ministry, it is a government policy, though unwritten, not to give transport permits to Asians, who have traditionally been the most active traders in rural Malawi. This exclusion is a constraint to agricultural diversification insofar as it inhibits the monetization of the rural economy and the establishment of flows of goods to and from villages. We recommend removing the exclusion of Asians, allowing any legal resident of Malawi to obtain a permit for the transport of goods, and a transport permit system that is rapid and transparent where approvals conform to written and publicized criteria.

Constraint: The prohibition on carrying passengers on freight vehicles creates barriers to the transporting of agricultural goods. The current freight market for small transporters in rural Malawi is extremely thin. "Matola", the carrying of passengers on freight vehicles, is often the only backhaul opportunity. We recommend removing the ban on matola to allow the carrying of passengers on freight vehicles.

Constraint: Government licensing requirements on the export or import of certain categories of agricultural products distorts their production and trade, increasing the risk and uncertainty of production and trade. There are 13 categories of restricted agricultural exports and 11 categories of restricted imports. Further, ADMARC, which competes with private traders, has the authority to approve export and import applications. In the case of groundnuts, ADMARC intervened to restrict exports after many private traders had invested in grower schemes and in purchasing output. This results in major losses to traders. There is now a natural reluctance to invest again in developing export crop markets. We recommend removing the export or import licensing requirement from agricultural commodities (with the possible exception of maize) and addressing food security concerns in a regional, rather than purely national, context.

Constraint: The lengthiness of the Variety Release Committee's approval process for the importing of seeds of internationally known varieties is a constraint to the introduction and proliferation of new crops into Malawi, and thus to agricultural diversification. The approval process involves growing one crop on MOA test farm plots to verify its aptness for Malawian agroclimatic conditions, and then another cycle on a local farm to ascertain the most appropriate local technology. With some varieties, the process can take as long as 5 years. We recommend allowing all seed (except maize and tobacco) tested by reputable international organizations such as the ISTA to enter Malawi for personal use or supervised contract growing programs (including large scale ones requiring more than 90 kg of seed) with only the usual phytosanitary certificate. Seed packages must, however, be labelled as to variety, purity and germination rate, and bear the importing (or repacking) person's name and address.

Duties and Taxes

Constraint: The system of duty drawbacks on imports by exporters creates a cash flow problem, especially serious for small and new firms. The requirement that product export documentation support drawback claims creates lengthy waits for claimants, as Customs and Excise must do all computation and coordination by hand and the process involves complex calculations of conversion rates from inputs to outputs and percentages of product not acceptable for export. Some claimants reported waiting almost a year. The 30 percent annual interest rate on money tied up in duties effectively removes the value of the drawback as an incentive: even if the drawback is 100 percent, if it takes a year to receive (the effective duty is the cost of the interest, 30 percent). We recommend establishment instead of a system replacing drawbacks with exemptions and the approval system with a system of penalties to discourage diverting imports of inputs. Computerization of customs and excise as soon as possible will facilitate the monitoring process.

Constraint: Agricultural exporters do not enjoy the same tax incentives as do industrial investors. According to the Investment Promotion Act of 1991, industrial investors are guaranteed a wide range of tax allowances to stimulate investment. Firms in export processing zones and manufacturing under bond receive even larger benefits. Agricultural exporters, on the other hand receive only duty-free importation of inputs. While recognizing that monitoring compliance is sometimes more difficult with agriculture, we recommend procedures be developed that investment and export promotions be granted equally to the agricultural and industrial sector.

Land Leases

Constraint: The procedure for obtaining a land lease is lengthy and not transparent. The most implacable of obstacles and the one most often cited by would-be investors is the difficulty of obtaining land. This is a major disincentive for both agroprocessors and exporting firms, whether they wish to build processing and packing installations in urban areas or locate their facilities in rural production zones. The feeling is widespread that certain groups face discrimination; the process is far from transparent; and the average completion time of over a year is a constraint to diversification. The procedures for obtaining a lease on land in Malawi fill seven pages even in outline form. A major bottleneck is the capacity of the Department of Surveys for surveying lands. We recommend that the Department of Surveys should be upgraded to enable it to accomplish its tasks more quickly and the entire process for allocating land of all types should be made transparent.

ADMARC: The Government's Role in Agricultural Trade

Constraint: The government restricts private commodity trade on an ad hoc basis with export or import bans or requirements that certain commodities be sold only to or by ADMARC or other parastatals. These interventions cause supply distortions and constrain diversification by creating uncertainty as to the probability of government intervention. Control of the groundnut trade mentioned under the export licensing section above is an example of ADMARC suppressing trade. We recommend that trade in all agricultural commodities be freed, with an explicit policy commitment by the government not to place restrictions on agricultural trade. ADMARC should compete as a private trader with no specific advantage/power from the government.

Constraint: ADMARC's pan-territorial pricing and supply policy creates barriers to entry for private input and output traders, thus constraining the establishment of alternative marketing channels for agricultural produce. In effect, this amounts to a subsidy by ADMARC on inputs and outputs for remote producers in the amount of the freight and handling charges necessary to deliver inputs to farmers or haul product away (the basis). Although private traders can compete in close-in markets because of small differences in cost, this tends to exclude them from the more distant markets. This deprives producers not only of competitive buyers but also of a source of market information as to current and expected demand and supply conditions of crops they could potentially produce. We recommend that the pan-territorial requirement should

be removed, and ADMARC and private traders should compete on an equal basis in input and output markets.

Air Transport

Constraint: The government's exclusivity policy on air freight creates barriers for Malawian perishable produce exporters. Air Malawi, a parastatal, owns Air Cargo Ltd., an air freight company that owns no airplanes but that has an exclusive agreement with Affret Air, the freight arm of Air Zimbabwe. Under the terms of this agreement, Affret Air guarantees a given level of air cargo capacity into and out of Malawi. Affret Air, however, has consistently provided inferior service. They commonly offload Air Cargo Ltd.'s cargo if they have cargo of their own to ship; they are constantly breaking down; and their schedules are unreliable. Also, under a bilateral air traffic agreement with the U.K. and the Netherlands any other charter air freighter must pay a 7.5 percent royalty to Air Malawi. We recommend the government end the exclusive agreements and assist the perishable products exporters in negotiating a workable agreement with one or more world class freight airlines, without having to pay a royalty.

Part Four: ASAP II Themes and Targets

ASAP II Themes

In this section of the report, we re-examine the ASAP I themes to assess whether they are still valid as themes upon which to structure Phase II of the program. Our objective in the examination is to review the needs of Malawi's agricultural sector today and ensure that both the themes and specific policy reform recommendations we develop are closely linked to the ASAP goal and purpose. The goal and purpose of ASAP remain constant over Phase I and Phase II of the program. The ASAP goal is:

- To increase agricultural productivity, employment and incomes.

The ASAP purpose is:

- To increase smallholder access to agricultural inputs, output markets, cash crop production alternatives, and labor market information.

The themes of Phase I, derived directly from the ASAP goal and purpose, are:

- Production and Marketing;
- Efficiency of Input Delivery;
- Equity; and
- Crop Diversification.

While the focus of themes for ASAP I was narrow enough to define distinct policy measures under each theme heading, we have found that the policy needs for ASAP II lead to

a broader inter-linking focus of ASAP themes. This is not to imply that the Phase I themes are less relevant or appropriate in 1994 than they were in 1991. Each represents an important set of objectives for Malawian agriculture today. However, rather than being separable into distinct activities, they represent objectives that are jointly attainable through a set of recommended policy measures.

The inter-linking nature of ASAP I themes is most apparent when looking at the equity and diversification themes on one hand, in combination with the crops and inputs themes on the other hand. The specific policy measures that would have greatest impact on the equity issues are measures focusing on production and marketing of crops (Theme 1), efficiency of input delivery (Theme 2), and crop diversification (Theme 4). For example, permitting more smallholder farmers to grow burley or to sell dark-fire tobacco directly on the auction floor will have a powerful equity impact. In fact, the ASAP purpose—to increase smallholder access to inputs, output markets, cash crop production alternatives, and labor market information—is an equity concern for smallholder farmers. All ASAP themes and all ASAP policy measures should address this equity concern. Similarly, policy measures having the greatest impact on diversification are measures dealing with production and marketing of crops and efficiency of input delivery, Themes 1 and 2.

Two alternative sets of themes which focus on efficiency and equity are presented as an organizing structure for the ASAP II policy matrix. Each of the themes, as well as the policy measures themselves, address directly the efficiency and equity focus of ASAP's goal and purpose. The three new themes would be:

- To increase efficiency and equity through liberalizing agricultural **input** markets;
- To increase efficiency and equity in agricultural **trading** through increasing competitiveness of ADMARC's marketing function;
- To increase efficiency and equity through reduced distortions in agricultural **output** markets;

The second alternative departs entirely from the ASAP I themes and instead groups the proposed policy measures into categories based on the type of reform being proposed. As with the first set of themes, each of these three themes maintains the ASAP goal and purpose focus on efficiency and equity. The three themes under this alternative would be:

- Reduce **administrative restrictions** in the agricultural sector for increased equity and efficiency;
- Eliminate **market interventions** in the agricultural sector for increased equity and efficiency;
- Facilitate **market development** in the agricultural sector for increased equity and efficiency.

In each of the theme categories specific policy measures could deal with inputs, outputs, or trading. The policy measures recommended for ASAP II are presented in a policy matrix organized using the first set of alternative themes.

ASAP II Targets

GOM is committed under ASAP program covenants to target small farms and women in allocations of new burley quotas. The covenant reads:

Of burley tobacco quotas issued to customary landholders, the GOM will see that an increasing proportion is allocated to landholders with less than 1.5 ha, and an increasing proportion is allocated to women.

Data on land size and female participation in burley club membership since initiating ASAP indicate considerable success in meeting the covenant. However, closer examination of the numbers brings the success of targeting small farms and women into question. With both land size and female participation, it is clear that data reported are often questionable. There has been confusion at the ADD level interpreting exactly what is intended with the targeting which affects both targeting activities and monitoring of progress. In some cases, there are measurement problems with monitoring the targeting objectives as well.

There are also costs of targeting to consider. Direct costs consist of the time and cash requirements placed on the extension service for recruiting, verifying, and monitoring targeted beneficiaries. With over 800 farm families per field assistant, the extension service is already overstretched in terms of both personnel and resources. Indirect targeting cost are also high arising from diverting the extension service away from exactly the types of activities that are of great potentially value to the resource poor farmers that the targeting is intended to assist. Most specifically, crop husbandry messages pertaining to timing and methods of field preparation and planting, and information on organic inputs, would be beneficial.

Targeting membership for burley clubs comes at an efficiency cost in tobacco production, too. The most efficient farmers would be those that self-select themselves into clubs for production rather than those recruited to meet targeting goals. It is important to note, however, that these costs *do not* arise from burley being produced by farmers with small landholdings or by women farmers. They arise instead from direct targeting of beneficiaries. Production on small farms and by women is potentially just as efficient as by other farmer categories, perhaps even more so. In fact, smallholder burley clubs tended to fulfill more of their quotas and receive higher prices (meaning high quality) for their tobacco than estates.

Indirect Targeting—The Regional Approach

To address targeting goals while avoiding some of the costs associated with targeting, USAID encouraged MOA to increase its quota each year to the Southern Region where many of the target groups reside. The proportion of female headed households is greatest in two

southern ADDs. In Blantyre and Liwonde, women head 42 and 37 percent of households, respectively. Around 25 percent of households are headed by women in Ngabu, Lilongwe, Salima, and Mzuzu. The rate is about 15 percent in Kasungu and Karonga. Higher population densities in the south, particularly in Liwonde and Blantyre, means that farms sizes tend to be low in the region, too. The Southern Region accounts for 50 percent of Malawi's population but only 25 percent of the total land area.

Concentrating burley groups in particular areas may also create positive externalities which increase total impacts of program activities. Tobacco production, even among smallholders, raises the demand for labor. About 70 percent of smallholder households hire some labor every year, and this percentage would rise for smallholders producing cash crops. Since the target groups of farmers with small land holdings and female headed households rely on labor earnings to meet their food needs, higher labor demand would benefit the groups directly. Benefits may take the form of both increased opportunities for working and higher wages.

We recommend pursuing further the regional approach to targeting that has been used recently by MOA and USAID. Regional targeting has several advantages over direct targeting:

- Measurement problems in identifying beneficiaries are avoided;
- Direct costs of recruiting, verifying, and monitoring targeting groups are lower;
- Indirect costs of diverting extension services are minimized;
- Efficiency costs of directing burley production are reduced;
- Regional externalities increase program benefits;

A further argument for regional targeting is that since quota targeting will be irrelevant after liberalization, costs of setting up targeting system should be minimized. And regional targeting is the less expensive alternative. Our recommendations on tobacco quotas call for elimination of burley quotas over a period of several years.

Regional targeting to date has been pursued broadly for the Southern Region as a whole. However, it seems that based on farm sizes, female headed households, and income data, more specific ADD or even RDP targeting may be warranted. There are pockets in both the Central and Northern Regions that would certainly qualify for targeting with criteria based on the proportions of households with small farms or female headed households. Nkata Bay in the north and Ntchisi in the center, for example, are areas with the highest rates of female headed households in the country, however they would not receive special attention with targeting to the Southern Region only.

1. ALTERNATIVE POLICY SCENARIOS FOR MALAWI TOBACCO

USAID and the Government of Malawi (GOM) are currently reviewing options for further liberalization of Malawi's tobacco sector. In particular, approaches for enhanced smallholder production and increased grower access to alternative marketing channels are under consideration. There is evidence that smallholder production of tobacco is, in key respects, more efficient than production by some estates and that the Malawi economy could benefit substantially from a transference of some production capacity from the estate to the smallholder sub-sectors. Further, tobacco seems to offer the best current option for increasing smallholder income levels, specifically resource-deficient smallholders. Tobacco production is well within smallholder management capabilities and it offers high returns to their scarce land. This is a separate issue from efficiency. It is not yet clear how complete a transformation is desirable, particularly with respect to its effect on volumes and, hence, world market share and price.

At present access to burley tobacco production, like that of most other tobaccos, is controlled through administratively allocated production quotas. Over the past four years, the government has progressively allocated increased burley quota to registered smallholders. In 1994 this quota is 8 percent of production (around 100 million kg). Under existing agreements with international funding agencies, the quota for smallerholder is due to increase by a further 8 percent by 1998.

At the same time, smallholders have become an increasingly significant source of production, outside the formal system. It has been estimated that 20 percent of estate production in 1993 was accounted for by "illegal growers," i.e. unregistered smallholders who sell through estates, contravening the present regulations and with little protection from exploitation by their patrons. Because of its illegality, estimates of the scale of this phenomenon are unreliable but it is widely conceded to exist.

There have been significant changes in the estate sector too as the number of small estates has continued to grow—by perhaps 40 percent in 1994 alone. There is a growing consensus that the present system is breaking down under the sheer weight of numbers. Thus, the system is in need of some reform, even in terms of the present industry structure.

In addition to its adverse effects in terms of economic efficiency and limitations on smallholder incomes, the present system of controls tends to retard agricultural diversification. To the extent that quotas support estate profits from burley, they ensure that innovators amongst the estates have little incentive to develop alternative enterprises—export and domestic. There is also an extensive bias favoring tobacco production throughout the agricultural sector ranging from preferential access to credit to provision of extension services.

For all these reasons it seems clear that reform of the present quota system is needed, little consensus exists amongst the parties concerned (whose interests in the issues diverge significantly) as to how radical this should be. This review starts with an update on the Malawi tobacco market—internationally and within Malawi. It then describes the current burley quota system and reviews three policy options for burley: modification of the present quota system;

a tradable quota system; and complete liberalization. This is followed by a brief proposal for phased liberalization based on the findings in the preceding sections.

Attention is then turned to the dark-fired and oriental tobacco markets where liberalization (increasing the number marketing channels) is being considered. Policy options for direct access to the auction floor for dark-fire tobacco growers and direct sales between growers and buyers for oriental tobacco are reviewed.

For each of the policy options under consideration, specific policy measures for implementation are discussed and an analysis of policy impacts is presented. Impacts analyzed include policy effects on poverty, production efficiency, the tobacco industry, tobacco markets, tobacco quality, the environment, and agricultural diversification.

1.1 UPDATE ON THE MALAWI TOBACCO MARKET

Much already has been written on Malawi's tobacco industry and is cited in the Reference section of this report. This section is an update on the Malawi tobacco market focusing only on those areas in which significant changes have occurred and have not been documented to date. After a summary market update, a brief discussion is provided of two important policy changes that are critical to the tobacco sector; the Intermediate Buyer Program and the new Reserve Bank directive to pay growers in U.S. dollars. In addition, the current credit crisis which is critical to the continued health of the tobacco sector is briefly discussed.

1.1.1 Tobacco Market Update

The world tobacco situation is critical to the profitability of the Malawi economy. Nearly all (99 percent) of Malawi's tobacco production is exported accounting for approximately 30 percent of Malawi's GDP and 75 percent of export earnings.¹ However since 1991, world tobacco production has increased 12 percent, resulting in increased stock levels and depressed world prices. Total world tobacco production reached 8.57 million tons last year, boosted by a record 3.7 million tons of production from China alone. Depressed auction floor prices in Malawi last year were a direct result of the global tobacco market.

On the demand side, world cigarette consumption is expected to continue to increase for the next decade as purchasing power grows in many middle-income and developing countries. To Malawi's advantage, increased demand for high-quality Western-style cigarettes has fueled the demand for burley and other high-quality leaf types. In the longer-run, however, world demand is expected to fall as trends of declining consumption in the developed world move into

¹ Tobacco earnings for burley were MK 689.8 million in 1993 (US\$160.4 million) and MK 665.2 million in 1992 (US\$158.4 million) based on exports of 62.6 million kg and 55.4 million kg, respectively. Dark-fired earnings were MK 58.8 million (\$13.7 million) in 1993 on exports of 15 million kg.

the developing countries. Falling consumption will result in depressed world prices if production levels remain at current rates.

Tobacco prices in Malawi have fluctuated greatly in recent years in response to both a global tobacco glut and domestic market conditions. Prices for burley tobacco, which accounts for about 73 percent of Malawi tobacco, fell by 25 percent in 1993. Auction floor prices averaged MK 6.52/kg in 1992 (US\$1.55/kg), falling to MK 4.89/kg in 1993 (US\$1.14/kg). As a result of the low prices, combined with severely tightened input credits and poor weather conditions, the 1993-94 burley crop is estimated to be around 80 million kg, down about 20 percent from the previous year. The estimated quota allocated for the 1994 marketing year, which was set in line with resident buyers' purchase intentions, was 50 percent higher than output.

Unlike burley prices, prices for Malawi's dark-fire crop which accounts for 6 percent of production, rose considerably in 1993. In 1992, lower leaf (as positioned on the plant) prices averaged MK 3.73/kg on the floor, with main leaf bringing MK 3.67/kg. Production fell from 11 million kg in 1992 to a disappointingly small 3.8 million kg in 1993. Given the short 1993 crop, northern division dark-fire prices increased to MK 5.55/kg and MK 6.25/kg for lower and main leaves, respectively, and production this year is expected to reach 6-7 million kg.

Resident buyers have repeatedly indicated that they would purchase 10-12 million kg of dark-fire tobacco off the floor, if available. In response to resident buyer pressure, the Agricultural Development and Marketing Corporation (ADMARC) agreed to provide fertilizer credits (estimated at MK 280,000) and increased firewood access to many smallholder dark-fire producers. Apparently neither this assistance nor the higher prices were sufficient to bring dark-fire production up to market-clearing potential.

Oriental tobacco production has historically been low in Malawi, due primarily to more profitable tobacco production alternatives. Despite declining world demand, significant reductions in oriental production in both Western and Eastern Europe have spurred recent interest in developing high-quality oriental leaf production in Malawi. Total 1994 production is expected to reach 500-700 thousand kg, up slightly from 1993. Oriental leaf exports were down significantly in 1993, dropping to 194.6 thousand kg from 332.5 thousand kg the year before. However, the average export price per kg increased nearly 50 percent, indicating both an improvement in production quality and buyer attempts to cover high overhead costs.

1.1.2 Intermediate Buyer Program

The creation of the Intermediate Buyer Program (IBP) pilot project for the 1994 marketing year is a potentially important new market channel available to burley tobacco growers. In recent years, smallholder burley producers were permitted to sell either directly on

the auction floor via burley clubs, or to sell through ADMARC.² However, in mid-March, the Ministry of Agriculture (MOA) created the IBP which licenses entities (initially estates) with sufficient infrastructure to effectively purchase burley and market directly on the auction floor. In the current marketing year, estates have until May 15 to apply to MOA/Tobacco Control Commission for licensing to bring a specified quantity of leaf to the auction floor. Intermediate Buyers are then assigned marketing and delivery quotas based on total licensed sales volume.

Some of the advantages of the IBP include: allowing smallholder burley producers another marketing choice; presenting marketing alternatives for weaker smallholder clubs; increasing the opportunity for an efficient marketing system to develop; taking advantages of economies of scale in transporting, grading, and baling tobacco; better bale presentation on the floor; utilizing excess fixed asset capacity within the estate sector; and ultimately resulting in a more efficient burley marketing system with additional profits accruing throughout the tobacco sector. Further, the infrastructure and management provided by the IBP could also be efficiently utilized for input marketing. The IBP would allow inefficient estates to profitably utilize their grading, baling, and transportation capabilities and "fall out" of tobacco production when prices are too low to support their high levels of input use.

Disadvantages of the IBP include: further stretching of estate management already in short-supply in some instances; possible overconcentration in the intermediate marketing sector; further legitimization of production outside of quota, rendering the current supply-control system meaningless and swamping the auction floors.

The first press release describing the terms of the IBP license was published on 23rd March 1994 in the "Monitor" newspaper. Since public notification was so late in the season—less than one month before the auction floors open—participation is expected to be low the first year. However a low response rate might be desirable in the pilot year to test the implementation procedures of the program.

1.1.3 U.S. Dollar Scheme

The Malawi kwacha declined in value from approximately 4.3 MK/US\$ in late 1993 to 6.6 MK/US\$ in spring 1994. The value of the kwacha now fluctuates within a floating exchange regime, based on bank-issued tenders. The 50 percent devaluation of the kwacha against the dollar is both a problem and an opportunity for the Malawi tobacco sector. Malawi tobacco is now more price competitive on the world market but many inputs used in tobacco production including seed, fertilizer and hand implements, are imported and thus more expensive. As the kwacha devalued, input prices quickly rose. However, there is a fear that auction floor prices will fail to rise in absolute kwacha levels to fully reflect the devaluation. Since nearly all (99

² Another option to selling to estates is legally on the books, but few estates chose to obtain the license to legally buy smallholder club burley. Estate burley producers have always sold directly on the auction floor.

percent) of Malawi tobacco production ends up on the world market, U.S. dollar prices are extremely relevant.

To counter the effects of the devaluation, in early spring 1994 the Reserve Bank of Malawi required that tobacco auction prices be quoted in U.S. dollars and that all growers (smallholders and estate producers alike) be paid in U.S. dollars. The Reserve Bank assured the local commercial banks that they will have access to U.S. dollars in order to provide the customary line of credit to the resident buyers. Upon receipt of their tobacco auction floor checks (which will be denominated in U.S. dollars), growers will have the choice of either receiving kwachas or of holding a U.S. dollar account. These dollar accounts can be used in the short-term (a few months) to purchase imported inputs. If not used, the dollar accounts will automatically convert to kwacha accounts after this period.

For financially-strapped smallholder producers and inefficient estates with significant cash-flow problems, the dollar accounts will probably be meaningless, unless a dual currency or more active black market develops. For the more financially-stable estates, which are already importing some inputs, the dollar accounts will prove extremely valuable. Perhaps the biggest question at this point is whether or not the Reserve Bank can guarantee access to U.S. dollars in amounts needed, given their previous limited capacity. Further, any costs of conversion or loan guarantees will probably be passed onto the grower.

However, the U.S. dollar scheme appears to be re-designed daily and at the writing of this report it is unclear what form it will take when auction floors open April 18. The latest word is that resident buyers will be forced to bring in U.S. dollars from outside Malawi to finance their credit lines, due to the inability of the Reserve Bank to do so. It has been further proposed that auction prices be quoted in dollars, but growers be paid in kwacha at that day's exchange rate. In a separate but related move, access to foreign exchange will be increased as importers can tender for currencies without specific approval from the Reserve Bank (except for a short negative list).

1.1.4 Input Credit Constraints

The Malawi tobacco sector currently faces severe financial constraints arising from shortages in input credits and higher prices for imported inputs. Tobacco growers typically receive input credit through the Smallholder Agricultural Credit Administration (SACA) or through private commercial lenders (as in the case of estate producers). Loan repayment rates of both smallholders and estates have been extremely low in recent years making many growers ineligible for receiving further credit. As a result, growers have curtailed expenditures on current production costs (such as fertilizer and hybrid seed) and capitalization projects (including basic maintenance on existing structures). In the short term, inadequate levels of inputs, particularly fertilizer, constrain both the quality and the quantity of tobacco production. Lack of long-term credit inhibits investment in new infrastructure and technological capacity.

Smallholder Credit Access: SACA and the newly formed Malawi Rural Finance Corporation (MRFC) pool credit obtained from a variety of sources, including MOA and various donor agencies, and distribute it to smallholder growers through the ADD's (Agricultural Development Divisions) in the way of credit inputs. No financial credit is actually allocated, i.e. only in-kind inputs are allocated. Input costs appear to be increasing faster than the simple devaluation of the kwacha might have suggested and continued input credit access is critical to the stability of the tobacco sector.

To provide some history, the drought of 1991-92 resulted in some regions being unable to repay their credit advances to SACA. It was politically determined that all SACA loans be rescinded, even in areas where credit advances could be recovered. The 1992-93 crop year was good, however it was a referendum year and again, political signals discouraged repayments. Consequently, a precedent of non-repayment was established.

SACA policy requires that the grower is only eligible for credit if the previous year's loan is repaid. If it is determined that nonpayment is "willful", then SACA can take the grower to court immediately. If repayment is "beyond the grower's control", SACA has the option of taking the grower to court after three years of nonpayment.

In 1992-93, total agricultural input credits to smallholders totaled MK 144 million. However, the repayment rate fell to 15 percent. Many smallholders were taken to court for nonpayment, despite political pressure to the contrary. Due to low repayment rates, credit access for smallholders was severely restricted in the 1993-94 production year, totaling only MK 20 million.

High interest rates provide further restrictions on credit access. SACA increased loan interest rates this year to 30 percent compared to 18 percent last year (all agricultural interest rates are established by GOM). Also, input prices have soared after the devaluation of the kwacha. For example, the price of hand implements has doubled.

Notably, most SACA loans this year went to smallholder burley growers, who averaged a 64 percent repayment rate in the 1992-93 crop year. Although records do not track repayment rates based on the channel through which smallholders market their burley, rates appear to be highest with growers who sell through burley clubs directly on the auction floor. For example, in the Mulanje region, most smallholder burley growers sold directly on the floor and averaged an 81 percent repayment rate. In the Phalombe region, where most sales go through ADMARC, repayment rates last year averaged 41 percent. To increase total repayment rates, SACA would like to be able to deduct input credits directly from sales on the auction floor and for burley clubs as a whole.

To further expand and strengthen SACA's input credit role, the Malawi Rural Finance Company (MRFC) was created (in conjunction with World Bank assistance). Under the MRFC, rural credit will also be extended to estates with less than 30 ha. The new budget allocates MK 6 million for these small estates which have traditionally fallen between the cracks of SACA and

commercial credit access. However, recent low repayments rates to SACA have placed the MRFC in jeopardy and it appears as of this writing that the new rural creditor will not actually get off the ground, at least in the near term.

Estate Credit Access: Credit access for estates is available through local commercial lenders (such as The National Bank of Malawi or The Commercial Bank of Malawi) for both current production expenditures as well as for capital projects. Interest rates, which are controlled for estates as well as smallholders, rose from 18-20 percent last year to 30-32 percent this year. Importantly, long-term credit is basically unavailable, rendering long-term investment in agriculture negligible.

A typical commercial bank policy is to deny finance to the first time producer. Other growers must provide sheets from the auction floor recording last year's price and volume received to be considered for credit. Loan repayment can then be deducted from the auction floor. Repayment rates, as measured by "foreclosures" or "financially stressed" rates, is difficult to ascertain from the commercial lenders. However, it is widely believed throughout the industry that estates are under considerable financial duress and many have gone under receivership. However, with only long-term land lease arrangements and dilapidated capital infrastructure in many cases, "foreclosure" has a nebulous meaning and banks have been very unsuccessful to date in recovering loan losses. Obviously, this credit crisis has affected not only the tobacco sector, but other agricultural sectors as well.

1.2 BURLEY TOBACCO—THE PRESENT SYSTEM

Historically, burley tobacco production in Malawi has been a privilege reserved for estate growers through a quota system. However, beginning in 1991, smallholder farmers were authorized to produce a limited amount of tobacco (which is well-documented elsewhere, see References). Burley tobacco production has grown quite rapidly. In 1988, 46 million kg of burley was sold on the auction floor and sales reached approximately 103 million kg in 1993. Due to inadequate credit access, resulting in significant input constraints, and lack of sufficient rainfall in many parts of the country, burley production is expected to fall to 80 million kg (possibly less) in the 1994 marketing year, at least 20 percent below what the market can clear.

1.2.1 Burley Subsector Characteristics

The dualist distinction between estate and smallholder production of tobacco has been blurred in recent years as new small estates have been formed. Recent figures suggest that at least half of estates are, in social and economic origin, indistinguishable from the customary land farmers from whose ranks they have "graduated." This is not to say that customary land farmers—smallholders or graduates—are an undifferentiated mass; they are not. The people at the estate/smallholder interface are generally the sort who were once called "achikumbi", or, in international parlance, kulaks or rich peasants. This process continues and has a dynamic of its own, independent of the smallholder program, though not unconnected to it. Policy decisions must take account of these recent developments with small estates.

Marketing of "illegal" production through registered estate quota holders also blurs distinctions in the burley sector. In 1993 an estimate of "illegal" growing was put at 20 million kgs, i.e. 20 percent of production. Estimates suggest that some 20-50,000 smallholders may be involved at the margin. All the indications are that many of these producers have dropped out of production in the current season, largely as a result of poor prices or outright non-payment in 1993. It would be tempting to equate their departure with the equal drop in estimated production for 1994 (i.e. from 100 to 80 million kgs). The reality is more complicated. First, the crop may yet turn out to be substantially less than 80 million kg. Many estates have reduced their plantings as a result of low burley and high fertilizer prices. But the biggest factor reducing output has been the weather.

Data on burley sales from Auction Holdings indicate that smallholders have been able to produce and market tobacco meeting high standards of quality. Smallholders sold 5.4 million kg at auction in 1992/93 for an average price of MK 5.28 per kg which compares favorably with the national average price of MK 4.89 per kg. Auction floor prices serve as a proxy for leaf quality and demonstrate that smallholders collectively can put a high quality product on the world market enhancing Malawi's international reputation and securing important market share.³

With respect to efficiency, smallholders (and small estates) follow very different agronomic practices: i.e. input use, yields, disease control, land use, rotation and soil conservation. TRIM has done work in this area and model farm budgets have been produced for the World Bank's ASAC preparation and Agricultural Sector Memo (ASM) background papers. The farm budgets seem to distort the smallholder case by 1) not costing family labor 2) not providing for casual labor, which is widely employed, even by small smallholders and 3) assuming zero overhead. The assumption, then, that smallholders are, sui generis, efficient resource allocators seems still to be an open question. It is expected that the ACDI Smallholder Burley Club Strengthening Project will, in time, give answers to these questions.

1.2.2 Institutions

Three principal institutions deal with the operation of the burley tobacco quota system. They are the Ministry of Agriculture, the Tobacco Control Commission, and Auction Holdings.

The Ministry of Agriculture (MOA) has a number of distinct roles in the tobacco market:

- General policy in the tobacco industry, including the coordination of aid agencies' increasing attention to it.

³ To further refine this proxy for quality, Auction Holding data on daily prices received by smallholders and estates can be compared. This would eliminate possible distortions arising from timing of deliveries since tobacco prices vary over the course of the year. The price comparisons should also be made over several years since quality premiums vary from year to year.

- The registration, licensing and allocation of production quota to all growers (clubs and estates). The system is summarized below and has been described in more detail in certain of the references (eg. ACDI 1992, 1993).
- As the parent ministry of two statutory bodies directly concerned—ADMARC, which needs no introduction, and the Tobacco Control Commission (TCC).
- As promoter, mentor, financier and guardian of smallholder clubs; the ADDs (from Program Management to field assistants) are closely involved in the day-to-day management of club affairs. MOA's role as financier (through SACA) is, as noted, in transformation.

The Tobacco Control Commission (TCC) is a Government Statutory Body, in force since 1938. Its Board is appointed by the Minister of Agriculture and includes:

- A Chairman appointed by the Minister;
- One member to represent ADMARC;
- Two members to represent the Tobacco Association of Malawi (TAMA);
- Two members to represent the Tobacco Exporters Association of Malawi (TEAM);
- Two members to represent Government.

TCC is thus the single institution in which all the main parties to the industry are represented. It has wide formal powers to collate statistics and disseminate market information. As the Government's advisor in the industry, it promotes and expands the sale of tobacco and, in practice controls and regulates the sale of tobacco on the Auction Floors in Malawi.

In the present context, the latter function includes the registration of sellers and the allocation and administration of delivery (i.e. marketing) quotas. Historically, TCC also administered production quotas but this function was assumed by Government itself some years ago, as a result, it seems, of irregularities in TCC's performance.

TCC is financed by a cess (in 1992, 0.72 tambala/kg), a tax paid equally by seller and buyer, and by a number of other license fees. Its operations are in the hands of the General Manager, appointed by the Board, and his staff. As a result of careful financial control by the Board, it would seem that the present staff is slim and fully employed.

A number of past reports have recommended that the administration of quotas be returned to TCC [Agmark 1989, ACDI 1993, amongst others). The case is overwhelming. That it has not happened seems due, in equal part, to the reluctance of the ministry to lose control of a process carried out by its own staff (and the patronage associated with it) and to the reluctance of TCC's financiers to assume the costs of administering it. This report details an option which would address both these objections.

Auction Holdings Limited (AHL) is, formally, a private corporation. However, GOM holds (through ADMARC) a majority shareholding (51 percent), which it took soon after independence. The balance is held by the heirs of the individual growers who founded it and the growers' representative association TAMA (8 percent).

AHL does not in practice function as a profit-making company, generally it returns excess revenues to the growers in the form of a rebate. AHL and TCC work closely together in regulating the day-to-day operation of the market control system, though they have no influence on the initial award of quota. In the present context, it is important to note that the working relationship is a good one.

1.2.3 Quota System Procedures

"Quotas" are a complex institution, comprising at least the following elements: registration process, decentralization, seed forms, smallholder individual quota certificates, the license, licensed weight as recorded by AHL, uplift, delivery quotas, and penalties.

Registration Process: All growers must renew their quota entitlement every year. This is a lengthy process starting with an application in April/May. For small growers this starts at the RDP (or even EPA) level. Applications are supposed to be accompanied by a MK 50 application fee. It seems to have become accepted that the fee need not be paid until the seed form (see below) is issued. This is presumably in recognition that the application for a license may not prove successful, as a result of excess demand. This, perhaps minor, confusion is itself indicative of the political pressures on the system. The fee is supposed to cover the administrative costs of the process and an unsuccessful application costs almost as much to process as any other. At some stage MOA seems to have retreated from this position. It is also noteworthy that the fee has not been recently revised to account for MOA's inflated wage costs.

It has not been possible to find out how many applications were made in 1993 and how many were successful. Somewhere in MOA this information should exist. The difficulty in retrieving it and the absence of routine reporting of summaries of this sort of information is indicative of the weakness of the present system.

Decentralization: All applications are collated on a data-base at the ADD level. This should be complete by June/July. In 1992 it was proposed to decentralize the distribution of quota to the ADDs. This does not seem to have happened and ADDs continue to forward their registration data-bases (on disk) to MOA for, as it seems, verification before they are returned to the ADDs for printing seed forms. The capacity of many ADDs to actually do this has only recently been provided, in the form of high speed printers, under ASAP. For decentralization to work, ADDs should be allocated an overall target before registration commences. This has not happened.

MOA Seed Forms: Seed forms entitle growers to purchase certified seed, in proportion to quota, from authorized outlets. The price of seed has been kept cheap to encourage growers

to maintain varietal purity and quality. It is not clear what the scale of subsidy is, or whether this will change with policy changes in seed pricing and regulation. The seed form is the first indication growers receive as to the size of their quota, yet it has no legal force. Moreover, growers consistently complain that they do not receive seed forms until (and often after) the last moment at which they should be sowing seedbeds in September/October. This compromises their ability to plan the crop.

Smallholder Quota Slips: Smallholder clubs are not yet fully integrated into this system. A parallel registration process has evolved under ASAP, with a separate registration data base. So far, management information is confined to a list of names and clubs and an analysis of gender participation. Information on landholdings is widely acknowledged to be useless, as those involved, for the most part, have learnt to declare landholdings which reflect ASAP targets. In addition to reports which aggregate and verify collective quota applications, the system's main output is a slip, similar to a seed form, confirming individual smallholders' seed entitlement and individual quota. There has been no opportunity yet to evaluate the impact of this instrument, as development and procurement of the system has meant that 1994 will be the first season in which the slips should be distributed before the season starts.

The smallholder quota slip should function as seedform, confirmation that the person is registered as a member of a certain club and notification of individual quota, a requirement of ASAP I. The legal status of individual quota is uncertain, there are no mechanisms to enforce it and ample evidence that, within clubs, production is distributed very unevenly, not at all following the principle of equal entitlement to a fixed amount. If smallholder participation is to increase significantly, it must be questioned whether this system is sustainable and ASAP II will provide an opportunity to evaluate current practice.

MOA License: The License to Grow and Sell/Buy and Resell is the single legal instrument in all this, issued by the Minister of Agriculture under the authority of the Special Crops Act. Most growers do not receive their license until seedbeds are well established and transplanting under way. Insofar as it has any impact on planting decisions (and production), it has therefore become an empty and redundant formality. In fact, it now seems that few, if any, growers have actually received their license for 1994 at all. If they have, TCC is unaware of it and is registering growers with AHL (a responsibility it retains) purely on the basis of last year's records. TCC has no official information on the rumored 14,000 new "licenses" (presumably seed forms) issued by MOA as a result of political pressure.

Licensed Weight as Recorded by AHL: At a certain stage, MOA provides AHL with a complete list of licensed growers and their licensed weight. Formally this is done through TCC, though TCC has little influence over the whole process so far, except to coordinate, with TAMA and TEAM, initial estimates as to the overall level of quota. How unsuccessful this can be was amply demonstrated in 1992, when AHL registered 146 million kg (Mkg) of quota, compared with a TEAM-TAMA target of 85 Mkg, in a season which eventually produced 100 Mkg. The position in 1993 improved somewhat, as a result of the Permanent Secretary of

Agriculture's personal intervention, but the improvement was marginal. AHL registered 136 Mkg, compared with expectations of 110 Mkg and an eventual crop of 103 Mkg.

The actual transfer of data is handled electronically. Though MOA and AHL use different software (and operating systems), AHL is able to translate MOA's data from disc, though, seemingly, not the other way round. It is noteworthy that, at the time of writing (four weeks before the floors open), both TCC and AHL are still unsure of how many registered growers they must cater for in the 1994 season.

Uplift: The licensed weight recorded by AHL is not the final effective marketing quota. At TCC's discretion, provision is made for a margin of error (as a result of seasonality etc.). Recently this has been 15 percent—i.e. growers are permitted to exceed licensed weight by this amount. The resulting total is known as uplifted weight. It is not clear how far this discretion has become institutionalized but it seems likely that growers have come to regard uplifted weight as their "real" quota.

Delivery Quotas: Daily access to the floors must be rationed. The capacities of the floors to handle sales are limited: Kanengo—12,500 bales/day (0.9 Mkg, approx.) Limbe—5,000 (0.4 Mkg, approx.). These figures are ideal maxima, making no allowance for re-offers, disruptions and other inefficiencies. Without a rationing system the market would break down as all sellers struggle together for access. As it is, a significant proportion of transport capacity is tied up at any one time, waiting to offload. Unregulated access would mean unthinkable chaos. The delivery quota system is administered by TCC, in close collaboration with AHL. The formula is based on licensed weight, simplified into fairly broad categories and sorted by geographical location. The details have been revised each year in a constant—and effective—search for improvement and all that need be said here is that the formula has a significant bias in favor of small growers.

Penalties: There are three sets of sanctions in the system. Growers who exceed (uplifted) licensed weight are penalized by AHL withholding 70 percent of excess sales proceeds. There are also a set of penalties for abuses of delivery quota, introduced in 1993. While these are undoubtedly effective to some degree, their deterrence has been limited in the past by the Government's apparent willingness to give in to grower pressure and to return them to the delinquents, albeit after some lapse of time. There is apparently no very clear principle as to the "ownership" of these funds and they are the subject of regular and unseemly wrangling between various of the parties involved. As a third sanction TCC can, and does from time to time, revoke the license of persistent and egregious offenders. This is comparatively rare.

There are elements of both a production and a marketing quota in the system described above, but all the sanctions are in the marketing element. Though the license would seem to stress the production element by specifying location, acreage, total production and (for most burley growers) number of tenants, there are no effective controls on production. The extension service vehemently refuses to accept a role in policing this aspect, arguing, reasonably enough,

that its primary responsibility is to retain the confidence of farmers in order to promote good husbandry. This it cannot do if it is to function as a police force.

Need the quota be either a production *or* marketing quota? After all, what is produced must be marketed and vice versa, and the present license might seem, sensibly, to emphasize both. This report takes the view that only the marketing element counts as the primary purpose if the quota is to constrain the market so as to stabilize prices and farm incomes. Indeed, as a consequence of the terms of the intermediate buyer license, it would be consistent to say that the present system has already become, in effect, a purely marketing quota. It might be useful if, under the terms of ASAP II, this confusion were cleared up and the quota re-defined as a Seller's License.

Many of the inefficiencies in the current quota system should be plain in the account given above. The paperwork is enormous and does not arrive, at any of the levels described, in time to have its intended effect. There is no clear idea of what the present system costs to administer and how this relates to revenue. The arbitrary allocation process also provides room for corruption, though it should be said that there is no evidence of really wholesale corruption. Demand so strongly exceeds supply that one feels considerable sympathy for the many honest officials who waste a good proportion of their working year wrestling with a system which has simply out-grown itself in the burley boom of 1986-93.

Another characteristic of current quotas is that the overall level of quota has little relation to actual production. A number of growers produce only 50-60 percent of their quota allotment. However, it would be wrong, to conclude from this that the system is completely ineffective. Many growers continue to honor the license. Other growers have quotas far in excess of what they produce, perhaps in order to inflate delivery quota, or to provide leeway for trade in "illegal" tobacco, or just remaining after previously higher production years. Getting into the system in the first place is arduous enough that quota, even if unused, may not be released.

1.3 BURLEY POLICY OPTION 1--IMPROVED QUOTA SYSTEM

Continuing the basic principle of the quota system is a valid policy option. Continuing with the way it presently operates does not seem to be. Change is needed. MOA could continue efforts under way for two years now to improve the operation of the present system, but this is unlikely to succeed given the increasing administrative complexity of the problem. There are too many levels at which decisions must be made and data transferred. There are too many growers and too many others eager to be admitted.

Fortunately there is a simple solution. Quotas could be issued electronically, on the basis of AHL's computer records of growers' actual performance. Most of the cumbersome (and ineffective) administration would be rendered unnecessary, with significant efficiency gains within MOA.

1.3.1 Allocations to Existing Quota Holders

All existing quota holders would be awarded quota based on historical records of the volume they have sold and prices they received. It might reasonably be argued that this should be averaged over more than one year, so as to smooth out extenuating circumstances. A rolling average could be used to ensure a much closer relation between quota and production than is possible under the present system. The present tendency to acquire additional production quota merely to increase delivery quota would be effectively eliminated.

There is a problem in timing since quotas for the upcoming production year need to be issued before the selling season is over. Thus, sales records are incomplete. In the 1995 quota year for example, the first base production year with complete records available would be 1993. As the system took off this would become less of a problem as the quota awarded on the basis of the previous year could be made conditional on confirmation at the end of the selling season. By the time seed beds go in, farmers have finished reaping and should know the size of their crop. Once they understood the system (and transparency is one of its great advantages), they would be able to make adjustments themselves, as a result of unusual changes in volume.

For all existing license holders, the whole registration process would be unnecessary and could safely be discarded. Only new applicants need go through registration. Any license holder who dropped out of the marketing system would lose the quota, and it would become available for re-distribution.

Though AHL's records would be the basis of the system, AHL lacks the legal authority to administer the scheme. As a private company, it is not desirable that they should do so. But their records include information which is commercially confidential and no business of a licensing authority. There are a number of ways to deal with this. AHL could provide the licensing authority with relevant information on disc; information could be filtered by appropriate software in a direct computer link or the licensing authority could simply contract AHL to do the work on its behalf. The last option would seem to be the simplest. An appropriate payment mechanism, originating in (or authorized by) Treasury would be needed to replace the present license fee, which is treated as part of general revenue.

The case for returning the responsibility for quota administration to TCC is very strong indeed. It is a statutory body under MOA's control, with the explicit mandate of performing this function. It has close institutional links with the various interests which make up the industry and are represented on its board. Not least, its offices are physically at the center of the industry. A return to TCC offers the industry the opportunity, and responsibility, of governing its own affairs, rather than remaining at the whim of the ad hoc arrangements of this or that passing aid project.

By removing responsibility from the ADDs, program management should be insulated, to some extent, from political pressure for new quota, though they might have to continue

processing first-time applications. By adding transparency in the improved system, potentials for corruption would be reduced.

With the need to re-register annually removed and, particularly, because of the efficiency of a computer based system, the cost of administering such a system should be manageable. One would hope it could be achieved within the cost of the existing license fee, though this, and other, aspects of the proposal would need to be the subject of a detailed feasibility study before these claims are certain. The license fee can be deducted from sales at no loss to the grower. This should go some way to overcoming the historical resistance of TEAM and TAMA (which finance TCC's operations) to the proposal.

1.3.2 Efficiency Modifications

These modifications to the existing system would yield operational and, probably, some cost efficiencies. They would protect the system from abuse and interference (though they would give enormous potential patronage to the computer, a factor to be considered at detailed design). However, they would do nothing to ensure the placement of existing quota in the hands of the most efficient producers; nor would they provide for new entrants—smallholder or estate; nor is there provision for distributing such additional quota as may become available through market expansion. Additional measures would be needed.

To improve efficiency, a formula could be devised which penalized inefficient producers, who would have quota withdrawn. The details would need considerable thought but some set of weights could be devised which took into account these performance criteria:

- volume: success in meeting quota
- price: success in producing quality
- rejection rates: success in handling and presentation
- adherence to delivery regulations.

Poor performers on this index would lose quota. How drastically quotas would be cut needs to be decided in trial runs of the proposed system. Average performers within some band (which would have to be defined) would be unaffected and would retain quota.

It would be consistent, and desirable, to reward good performers with a quota increase, giving both clubs and estates some scope for development. This is an equally important part of the move to efficiency. We also should recall the close relationship between many small estates and their communities. It might be desirable to favor certain producer categories if it were certain that they represent generally efficient allocators of resource inputs. Otherwise the increase should be across the board.

Quota would thus be available from three pools:

- historical rights

- estimated additional market capacity
- penalty withdrawals from poor performers.

The question arises as to how quota from the second two pools would be distributed to good performers and new entrants. Let us assume that half the amount available was transferred to demonstrably efficient (at least on the output side) existing sellers—though the exact proportion should not be fixed until the feasibility study and some simulation runs have been carried out.

1.3.3 Allocation to New Entrants

The first call on the balance would be the amount needed to meet existing smallholder commitments (ASAC/ASAP + IFAD). These are:

TABLE 1.1: PROJECTED QUOTA BENEFICIARIES, 1994-1998

Year	ASAC/ ASAP	IFAD	Total Quota	ASAC/ ASAP	IFAD	Total	Percent of Farm Families
	Million kgs				'000 members		
1994	8.5	.07	8.6	29	1	30	1.6
1995	9.2	1.0	10.2	34	10	44	2.3
1996	10.7	2.25	13.0	40	23	63	3.2
1997	10.7	3.5	14.2	40	35	75	3.7
1998	10.7	5.0	5.7	40	50	90	4.3

Notes: Projected number of direct beneficiaries: ASAC/ASAP numbers based on current mean individual quota. IFAD figures, as projected at appraisal. Total national quota = 100 Mkg, approx. (n percent) = percent of total farm families, MOA projections.

Given the extremely limited impact on the population of these commitments, it might well be argued that the great majority of new entrant quota should go to new smallholder clubs. The proportion would need to be fixed but, if some flexibility for changing resource allocation in the estate sector is to be retained, it would be wise to provide for some new entrants (perhaps as a result of sub-division) in these categories too.

Initial registration procedures for new entrants would have, broadly, to follow present practice. No other workable system suggests itself. At least computerization would allow an early indication of the amount available, which could then be allocated, geographically, to the ADDs for action in canvassing or, more realistically, selecting new entrants. Some criteria are needed for selecting clubs, given likely continued excess demand.

The present practice of ensuring that heavily populated ADDs are supplied with club quota in proportion to population would be continued or, possibly, emphasized. Preference would be given to clubs able to give evidence of "cohesion," preferably by endorsement from SACA/MRFC.

1.3.4 Additional Measures

In order to enable them to compete with intermediate buyers, ADMARC would be freed from present pricing constraints under the ASAC formula. This might include the liberty to adjust prices during the season and should, for consistency, include the abolition of the commitment to announcing pre-season prices, at least for burley. By the same token, the corporation should be freed of the present quota limits and the requirement to be bound by clubs' declared intentions. It is not thought necessary that ADMARC should pay an intermediate buyers' license fee. ADMARC has enough headaches—see below on Western tobacco. These provisions could be made immediately on effectiveness of ASAP.

The principle that intermediate buyer quotas are available to all comers, over and above total estimated market size, is important. Without this it is unlikely that the option will be formally taken up on any effective scale. At the same time, this new marketing channel is completely untried. Before any conditionalities regarding intermediate buyers came into effect, it is desirable that at least one complete season's experience be absorbed and properly evaluated. At the time of writing, it is not clear that this will be possible in 1994, due to the late introduction of the scheme.

After the initial intermediate buyer quota has been implemented, it should be possible to extend the scope of the license to include entities other than estates, including clubs. A commitment to a regular review of the IB license fee is highly desirable, with a view to putting it on a sounder basis than the present ad hoc arrangement of 5 percent of last year's floor average (rounded).

Intermediate buyers are bound to come into conflict with estates over the purchase of tenants' tobacco. It should already be clear that this is quite outside the scope of the license, but any unfinished business from ASAP I on the mutual obligations of landlord and tenant could usefully be addressed in ASAP II.

To increase understanding of how the market works, this option would include enhanced monitoring and evaluation of new marketing entities introduced under ASAP I—i.e. smallholder clubs and intermediate buyers, as well as the quota system itself. Results to be widely published to encourage public understanding and participation in their further evolution.

1.3.5 Impact of Policy Option 1

Environmental: By controlling production, this option is neutral in environmental impact. Burley sheds will continue to be made, but they would have been anyway.

Poverty Alleviation: The provisions for quota transfer to new entrants will have a positive effect as more smallholder clubs are brought into the system, over and above existing commitments. How they fare once in it would be a matter for monitoring. There would be winners and losers. Poor performers amongst the clubs would be pushed out. They might continue to sell through ADMARC and intermediate buyers, though strictly this would be illegal. Conversely we would expect on the limited evidence so far that many clubs would improve their quota position, enabling them to develop and, less certainly, take on additional members. It is not possible, in the time available, to quantify these benefits.

Scrapping the existing licensing system would presumably mean abandoning smallholder individual quota certificates. This may be undesirable as this document is the only formal assurance that club members have against their share being taken over by stronger members. We do not know yet if it is effective. It is important that an evaluation of this aspect of ASAP I is made and, if it seems that individuals really need this document, it would have to be retained. This would mean annual re-registration (to check for ghost members) and the costs associated with it.

The criteria mentioned for selecting new entrant clubs are, the consultant is aware, inadequate to ensure targeting certain groups. The vexing relationship between efficiency and equity goals needs further attention, as would the criteria for new estates.

Market Share: More effective control on, and allocation of, quota would have a positive impact on Malawi's world market share. To the extent that this option rewards good performance, conditions on the floors should improve, an attraction for the buyers. There is provision for increasing total quota, as and when world market conditions permit, in an orderly and transparent way. The point needs to be made, if it is not obvious, that the computer could also be used to reduce quotas in the event of market contraction—perhaps across the board, perhaps favoring certain categories of efficient sellers.

Quality: This option would have a generally positive impact on quality, by rewarding it, but the impact would be limited by seasonal factors (rainfall) and the technical capability of growers and sellers.

Diversification: This option holds no benefits for diversification. It would tend to increase economic rents accruing to efficient sellers who hold quota, particularly the well-organized producers of quality tobacco. As it is generally believed that it will be such estates who must lead diversification, the impact of making the present system work properly would be negative.

Efficiency: In terms of economic efficiency the option has a positive impact, though it would be gradual. Transfer of quota by the formula would take time, perhaps after an initial flurry. The definition of efficiency is partial, at best, in that it concentrates only on behavior in the market. Those 'estate' sellers catering for "illegal" growers can continue to operate,

though, if it is true that this arrangement produces inferior tobacco, they will eventually lose quota and be obliged to apply for intermediate buyer status.

Operational: This point throws light on some of the practical difficulties which would be encountered in devising the formula. If too much weight is given to price (quality), sellers dealing with the low input/low output segment of production would be continually pushed out of the market. This is undesirable as these grades have their market niche. Perhaps the formula, as applied to intermediate buyers, could be modified to accommodate this particular problem. There are certain to be others like it and the software developed would need to be thoroughly tested under a number of sets of assumptions. Quite who would pay for software development is an issue needing further attention. Otherwise the gains in operational efficiency are clearly very substantial.

1.3.6 Actions

It is believed that all this can be achieved within TCC's existing legal mandate and the Special Crops Act, requiring no special legislation. Two studies would be needed. One, by AHL's computer consultants (Burco Electronic Systems Ltd, Limbe) on the basic feasibility and cost of this option. The detailed re-allocation formula could be handled later. MOA would assess the cost of the present system. Both would be compared with present revenue from the application fee.

The role of TCC would have to be confirmed, both by MOA and TCC's own board. The board would then appoint a committee to oversee the development of software, if necessary seconding technically qualified staff from its members.

A decision would be made, again by the TCC board, on the timing of introduction. As the proposal includes scrapping re-registration by existing sellers a decision is needed very soon on whether this can safely be assumed for the coming season. If this is not made before end-April, re-registration will continue on its time-honored, and time-wasting, course for another year. Perhaps this is inevitable.

Responsibility for monitoring and evaluation of the burley quota system should be fixed. There needs to be a functioning approach for asking the right evaluation questions and assuring monitoring data is collected and evaluated to obtain a full understanding of impacts.

1.4 BURLEY POLICY OPTION 2—TRADING AND/OR AUCTIONING QUOTAS

This section concentrates on the trading and auctioning of burley quotas once the quota has been assigned within a given year. Therefore, discussion will involve the marketing of quota between individuals or other entities within the assumed quota pool. It is also assumed for this report, consistent with industry views across the board, that some type of delivery quota must be maintained to organize the flow of tobacco to the floor in an orderly and efficient manner. Conceivably, the sale or auction of delivery quota could also be devised along similar

guidelines suggested below. However, intervention would only prove necessary in this area if the current production/marketing quota system is entirely eliminated.

It has been suggested that short of eliminating the production quota altogether, enhanced efficiency through improved resource allocation might ensue if rights to production are tradable. Tradable, in this context, means either leasing the quota for use over a single season, or the outright sale of the quota by the assignee to another market participant who would own it over the longer term. Further, quotas can be bought and sold for cash or credit, either on a private market, through a public auction system, or through specialist brokers.

Efficiency gains with a tradable quota system as compared to administratively allocated quotas arise from the buyer's "willingness to pay" for rights to production or marketing. Because a restrictive quota is a scarce commodity, producers would bid the price up over time to reflect the value of the production rights that come with the quota. The most efficient producers would be able, and thus willing, to pay more for the quota. Less efficient producers would not be able to generate the revenues out of their tobacco production to purchase quotas and they would leave tobacco farming. Proceeds from sales of quotas are benefits accruing to original assignees of the quota.

This describes the long-run efficiency allocation of tradable quotas. In the short-run, allocation may be determined more by the current assets of bidders than revenue generating potential from production. This may not only continue the efficiency distortions of the present allocation system, but aggravate distortions if there is further concentration of quota holding based on current wealth and access to credit.

A tradable quota of sorts has already been established through estates' rights to purchase burley from registered quota holders to sell on the auction floor (although this system was poorly implemented and is rarely used), and more recently through the Intermediate Buyers Program which was conceived as superseding the earlier provision.

The initial introduction of trading failed, in part, because smallholders had not been adequately educated about this option and estates have been frustrated in their attempts to actually become licensed. In addition, estates can purchase burley illegally, so there is a disincentive to pay for a license. The Intermediate Buyers Program has already been discussed. The latter option may be preferable in that eventually any one could become an intermediate buyer. Before an alternative marketing quota scenario can be devised, the IBP must be allowed adequate time to develop and be refined. Within the IBP, many opportunities exist for the trade or sale of marketing quota. This report evaluated the IBP with respect to poverty alleviation, market impact and diversification (see section 1.1.2).

1.4.1 Quotas as Marketable Assets

Production quotas have been used extensively throughout the world as a supply control measure, frequently in tandem with a price support system, to both enhance and stabilize farm

income. However, once assigned, quotas become valuable because they authorize access to productive capacity. Whether attached to a land base or free-standing, quotas then become assets which fluctuate in value as the supply and demand for quotas shifts. From an equity standpoint, the initial allocation of quota, subsequent allocation of quota, as well as quota values themselves, become barriers to entry (and sometimes exit) to production of the commodity in question. Furthermore, quotas are market distorting measures which have the potential of reducing efficiency in both input and output markets. That is, when quota allocation is fixed, resources are not permitted to be re-allocated in an efficient manner and results in welfare loss.

1.4.2 Policy Measures—Owner-Assigned Tradable Quota

If Malawi desires to encourage stable burley production, yet allow resources to shift freely as free markets would dictate, a system could be devised for the trading or auctioning of quotas. Although a full conceptual development of such a system for Malawi burley tobacco quota is beyond the scope of this work, two possible systems are described below, from which the essential features of tradable quotas are discernable. It is to be emphasized that many possible variations are conceivable and as many models available, world-wide; what follows is illustrative only and is provided to show the components that would have to be considered when devising a tradable quota system.

- Computer registration of all burley quotas, with critical information including name and address of quota holder, quota allotment (in kilograms), and land base available. If an individual or other entity holds title to more than one quota, it should be listed consistently under one name with multiple entries. (This would simply be an expansion and refinement of Auction Holdings' present data base, as administered by TCC—see policy option 1, section 1.3.5).
- Multiple computer registration sites would be established, with at least one per ADD all interconnected with TCC, MOA, and Auction Holdings.
- The quota selling party should register the sale or lease, with signed approval from the buyer, with the local RDP office. Assuming no problems occur, registration of the sale should take effective immediately or with very little delay. The computer link would ultimately register the transfer at the point of effective control—i.e. the AHL computer.
- Constraints could be placed on the terms of the sales. Examples might include: assuring the buyer has sufficient access to a suitable land base; minimum and maximum amounts of quota defined for each transaction and the total any one entity could hold at a given time; restrictions on the time of year transactions could take place; and restrictions on the buying and selling of quota within or outside a given geographic region. These could be designed to assure economic efficiency and to prevent unhealthy market concentration—for example, to prevent quota accumulating in the Central Region, with its undoubted comparative

advantage in tobacco production. Or, smallholder club quota could be "ring-fenced" (a term used in UK livestock quota) to prevent it being traded, except between smallholders.

- Terms of the sale should be stated. That is, if the transaction involves non-price terms (eg., barter trade, access to other production assets from the seller, shared inputs, or a share of future crops), these factors should be clearly stated. (This information can be quantitatively evaluated and provided to interested parties. See following item.)
- Computer summaries of transactions should be made available on a frequent basis. This would permit an enhanced flow of market information, thus more competitive bidding, and more efficient scheduling of quota deliveries to the auction floor. Computer analysis would also provide increased opportunities for a monitoring and evaluation system to be put in place to correct problems or abuses with the program.
- Records on actual deliveries (both volume and quality) and prices paid should be integrated into the same data base. This would permit a more comprehensive picture of the grower industry at any given point in time. Persistent non-producers could also be identified and eliminated from the system and the quota reallocated.
- An electronic auction system could also be easily added, whereby the quota is offered for a brief time period and the bidding commences electronically. Various auction styles could be used. Typical problems with such systems involve the buyer not having the luxury of physical inspection and credit-worthiness of the buyer. The first is not a problem with a non-tangible asset. The second would require verification and bank confirmation of the buyer.
- An alternative method to the electronic auction would be a simple tender system whereby tenders are published, response times designed, and bids received in descending order of value (subject to the concentration constraints noted above).
- To re-allocate quota to target groups, Government could enter the market on their behalf and purchase quota.

Essentially, the same system could be designed whether the sale was permanent or for the given crop year (i.e., a lease of that right to productive capacity). An informal leasing system already exists, but this approach would formalize the process, improve market information and enhance market efficiency. Many of the same concerns regarding poverty alleviation, market impacts and diversification would arise whether the right to productive capacity were leased or sold, with the latter perhaps magnified due to its more permanent nature (although quota could be re-purchased at a later date).

1.4.3 Features of Tradable Quota

The initial assignee of quota need not be the producer at all. Indeed the whole question of ownership is an open one. It is not vitally linked to the economic virtues of tradable quota. If there is one consistent lesson from the American and European experience, it is that ownership creates a range of problems—distorted land values and barriers to new entrants are the greatest, requiring all sorts of corrective action. For example, with certain European CAP quotas, a set proportion of all quota sold is transferred to a national reserve for re-allocation to new entrants.

An annual auction of marketing quota in which all growers start afresh on an equal footing, may provide the most efficient solution in terms of resource allocation by regularly re-distributing the whole pool. 'Ownership' would reside with government, which would be free to vary the terms of the system (including the option to liberalize completely) without political pressure for compensation for loss of assets. No special legal instruments or legislation would be needed.

This would solve the problem of entry-barrier created by a one time allocation and also prevent small growers from impoverishing themselves by permanently selling off an asset. Provision could be made for installment payments from sales proceeds for buyers without capital to purchase quotas. This equalizes access between the cash rich and poor. It might be prudent to provide for sub-leasing in the season, particularly in the early years while people learn how to price it, though this would add to administrative costs.

Though annual quotas are theoretically superior features in terms of economic efficiency, they are much more demanding in terms of market development. All would-be sellers (clubs, small estates, big estates, intermediate buyers) would have to learn the rules at the same time. There would be winners and losers—and a tendency for quota to accumulate in the hands of those wealthy enough and confident enough to enter the market early, while others hung back. Limits could be put on individual holdings and, since the process would be repeated annually, losers in the early rounds would not be excluded from a second chance.

Though the question of ownership is radically different with permanent and annual tradable quotas, they share some essential features: the need to decentralize, the need for a workable system for transferring quota rights and, above all, the need to develop and disseminate market information. Whatever measures are taken to improve access to information (and many are conceptually possible), there is presumably an uneven spread of managerial ability across different categories of seller. The information gap has both efficiency and equity implications. Efficiency gains from tradable quotas would not be realized if information is inadequate and efficient producers do not end up buying the quotas. Also, the poor among potential buyers would assumedly have the least ability to acquire and use information.

1.4.4 Impact of Policy Option 2—Tradable Quotas

Environmental: By controlling production through continued use of quotas, albeit in a different form, this option is neutral in environmental impact.

Poverty Alleviation: If an efficient system was designed for the sale or trade of burley production quota, net social gains would be realized. The question lies in how those gains would be distributed across the population. By fixing production quota and allowing them to be bought and sold by the highest bidder, the most efficient producers should be in the position to pay the highest price. However, lack of credit access would prove to be the real constraint for most smallholder and small estate growers. Especially with the current rural finance crisis, quota ownership would tend to concentrate into the hands of those with the greatest access to capital (i.e., not necessarily those with the greatest productive efficiency). In this scenario, capacity for poverty alleviation would be diminished and production would tend to concentrate in the hands of the few, unless strict volume and geographic restrictions were imposed.

Poor quota recipients could benefit even if they do not produce tobacco by selling their quotas or leasing them out on an annual basis. In effect, the tradable quota system could serve as a method of transferring cash from tobacco growers to poor quota recipients. In the case of permanent quotas, a drawback is that financially stressed farmers might sell production rights and lose all future access to tobacco production. This may be an argument for either annual rather than permanent quotas or for limiting sales to a fixed period of time. A further disadvantage of allocating permanent quotas is that the system would tend to "lock in" wealth to original quota recipients rather than distributing benefits widely.

If sufficient restrictions to market power were imposed, the system could have a positive impact on poverty alleviation. Those currently outside the quota system could have legal access to productive rights. Inefficient growers would move out of the system and illegal production would decline. To the extent production is allocated to the most efficient growers, grower profit margins should increase, further alleviating poverty.

An additional condition for tradable quota to add to poverty alleviation is that the poor must be able to take an active, informed role in the market. Under present conditions of literacy and development of communications, this is a serious intrinsic disadvantage to this option. It could be possible, though, to use the radio to develop discussion in the villages as to a realistic price to set on quota rights.

Market Share: With regard to volume, the total amount of burley produced would increase as non-producing quota holders have the opportunity to sell that production. Non-producing quota holders include persons with inadequate access to credit for inputs, persons who choose to grow other more profitable crops, or perhaps people who are aged. Maintaining a stable burley crop would go a long way in stabilizing, if not increasing, Malawi's world market share. (Much of the decline in this year's burley crop is due to inadequate credit access. A salable quota would have shifted production rights legally to those with the ability to produce.)

A stable volume of burley production would also tend to stabilize prices. A stable volume market, with realistic opportunity for price increases, would increase the value of Malawi's burley crop and subsequently increase foreign exchange earnings. The magnitude of earnings would be difficult to estimate at this point.

Quality: This option could have a positive impact on quality as better performers buy additional quota. This would result in increasing the price growers can obtain on the auction floor. There is a possibility that market power in the quota market would be accumulated by intermediate buyers specializing in the low input/low output niche. The net effect on quality is uncertain.

Diversification: The effect of tradable quotas on diversification is also uncertain. If burley production is concentrated only with the most efficient producers, land in other estates and farms would be freed up to produce other crops. These farmers may also have new cash assets from selling burley quotas that can be used to finance diversification activities. Another possibility is that the best farmers would choose to focus on diversification crops rather than burley because they would not have to purchase quotas to grow those crops. Thus, the diversification effect may be positive. On the other hand, to the extent that the best farmers focus on burley which they may do if burley is more profitable than diversification crops, diversification efforts may be hurt.

Efficiency: In terms of economic efficiency the option has a positive impact. The magnitude would depend on what system was eventually adopted and, of course, how well it worked.

Operational: This option is the least appealing in operational terms. Major investments in infrastructure would be required, with associated training, supervision and recurrent costs. There would certainly be serious operational failures in the early years as new and, to many, unfamiliar ideas came into play.

1.4.6 Actions

Only one action is appropriate here. Government, in consultation with the sponsoring agencies, needs to decide whether to pursue this option and develop some of the ideas outlined here further. This would take time.

A precondition of tradable quotas is an effective system for allocating quotas and for enforcing quotas once they are allocated. Historically, Malawi's burley quota system has failed to keep a tight rein on both quota allocation and illegal growing. Until the current quota system is enforced or modified so as to make it enforceable, quotas are essentially worthless, making the above exercise meaningless.

Further, the design, implementation (including buying the hardware and training the staff), and maintenance of such an electronic system would be costly. Of course, such a system

could be designed manually. But, in looking to the future, an investment of this type could be justified.

1.5 BURLEY POLICY OPTION 3—COMPLETE LIBERALIZATION

First, a definition. Liberalization means the removal of all checks on who is permitted to grow burley and how much they may grow, leaving the market to determine which producers remain in production. From an economic standpoint, artificial constraints on production result in market distortions, including inefficient input allocation, distorted volumes produced and distorted prices received. This is, after all, their intention—to stabilize, hence, distort the otherwise natural volatility of agricultural commodities. In a purely competitive environment with perfect market information, and a well-developed and functioning marketing system, a lifting of production constraints can lead to a more efficiently performing sector.

It has been proposed that further liberalization of the regime under which Malawi burley tobacco is produced can lead to gains in social welfare through the efficiency gain. However, to the extent that the market in question is not perfectly competitive, welfare gains may not be realized. In fact, a new host of literature is emerging specifically regarding welfare gains in the tobacco sector (see Snell and Chambers). Note, too, that targeting of specific groups for benefits through the allocation of quotas would no longer be possible under liberalization where quotas are eliminated.

In most countries, including Malawi, the tobacco sector is described as having many small growers selling to a limited number of buyers (an oligopsony). Further, the supply for tobacco in Malawi is dependent on domestic conditions, whereas the demand for Malawi tobacco is dependent on world conditions. Given that 99 percent of Malawi's tobacco is exported, the price Malawi receives for tobacco produced is a function of international demand, relative to international supply. For this and other reasons, the Malawi tobacco market does not exist in a purely competitive environment. However, to the extent that Malawi production defines world supply, Malawi can extract economic rents from the market by exerting market power. Conversely, if indeed Malawi is simply a price-taker, domestic conditions will have no influence on prices received. In reality, the truth lies somewhere in between. Therefore, any discussion of market liberalization and social welfare gains derived from such must take into account the consequences of fluctuations in Malawi burley tobacco production on world prices.

Quality is also important in establishing price and much of Malawi tobacco is sold at a premium due to its high quality. While the demand for world tobacco is fairly price inelastic, the demand for certain quality grades is more elastic. Simply put, there is a limited demand for good/high quality burley and buyers can go elsewhere if either quality slips or quantities of high quality tobacco fall.

1.5.1 What Would Liberalization Bring?

If burley production in Malawi were completely liberalized, impacts would be broadly felt given the importance of tobacco to Malawi's economy. Projecting what liberalization would bring depends largely on what the supply response would be to lifting production controls. A large and rapid supply response might dramatically decrease world leaf prices, and generate food security and soil stewardship problems for smallholder growers. It could seriously weaken Malawi's estate sector financially. On the other hand, the supply response may be moderate and succeed in greatly increasing participation and earnings among smallholders and efficient producers.

It is assumed that complete liberalization would allow any Malawian with land access to raise burley tobacco and all tobacco produced would have access to the auction floors. With full liberalization, all 1.8 million Malawian smallholder farm families would be eligible to produce burley tobacco. If just one-quarter of newly eligible smallholders grow tobacco and if they choose to produce on just one-quarter hectare each, using low input packages to produce just 150 kg of tobacco each, output by new growers would come to almost 68 million kg of burley. Estates and current smallholder producers may also increase burley production. Assuming a 25 percent increase from an 80 million kg base could lead to 100 million kg from existing producers. Thus, total Malawi burley tobacco production could reach 168 million kg, more than double this year's expected output, which could have a sharply negative impact on prices.⁴ Other negative ramifications of sudden, large increases in Malawi burley production are outlined below.

On a more positive note, liberalized burley tobacco production would allow more smallholder growers to significantly increase their farm income. The more efficient estates would also increase their burley operations. A moderate increase in Malawi burley production would only slightly depress world prices. Many estate growers, with higher overhead costs relative to smallholders, would be encouraged out of burley production and into other diversification schemes.

How likely is a large supply response to liberalization? There are strong arguments both for and against expecting a large response. The technical capacity to produce tobacco is widespread. It is probably not overstating the case to say that most of Malawi's 1.8 million farm families, if they do not have first-hand experience themselves, have access to someone (a relation or neighbor) who does. This, coupled with a widespread perception of the profitability of burley, amounts to a powerful pool of potential new producers.

⁴ Work by Larson and Thigpen, based on a model of smallholder response by Sinler, estimated a burley crop of 164 million kg with liberalization. It is understood that this number has been recently revised to upwards of 200 million kg.

Among existing growers, recent information shows that, on average, most growers in the 5,000 kg and below category fulfill quota. This includes the "graduates" estates and many clubs. This category accounts for 82 percent of growers by number, 38 percent by share of quota and 45 percent by share of sales. These figures suggest a large pool of producers constrained by the present system who might respond strongly to reform.

USAID conducted a rapid survey of 229 farmers to better inform estimates of what the likely supply response to liberalization will be. Of the 171 farmers currently growing burley, ninety percent said they would grow more tobacco if quotas were lifted. On average, they indicated they would produce more than twice as much burley. Land for tobacco would be taken principally from uncleared and fallow land. Some would also be taken from other crops, including maize. Overall, the share of land planted to burley would increase from 33 to 57 percent, the maize share would fall from 29 to 24 percent, other crops from 14 to 8 percent, and uncleared/fallow from 25 to 11 percent. Very few farmers indicated they found land, labor, credit, poles, and grass for barns as serious constraints. However, should farmers plan over half their land in tobacco, there would be serious implications for rotation.

In the short term this potential will be mitigated by the absence of credit and how deeply the disappointments of 1993 have affected perceived profitability. The present situation of severe credit restriction is well known. Seventy-five percent of surveyed farmers said they had never grown burley without fertilizer. Of those who had, half said they would not do it again. It is conceivable that the cash to procure inputs would be found, somehow, if price expectations were high enough and when it is clear, after two seasons, that SACA has no more moratoria to offer. Also, some farmers would be tempted to grow a crop without fertilizer. On some soils, they can get away with this for a short period of time.

There is reason to expect strong price signals from the 1994 crop. There are a number of factors here. The crop is certainly short, though it may not be good quality as a result of the drought. This suggests high quality differentials and, less certainly, a generally higher average. In nominal kwacha terms, prices will certainly be up sharply with the recent devaluation. Assume (and this is only a guess) an average of US\$ 1.3/kg @ US\$1 = MK 6.5; this gives a nominal price nearly 75 percent up on last year's average of MK 4.89/kg.

The very fact of bidding and (in however restricted a sense) settlement in U.S. dollars will itself add to expectations, irrational though this may be. This is not to say that villagers are insensitive to inflation but, all in all, enough anecdotes of ten kwacha prices for high quality tobacco and deals with traders for retention dollars, and price expectations will certainly rise. Against this, it is possible that the sudden access of tobacco dollars will depress the exchange rate and dampen these effects. The floors open soon and these ideas will be put to the test.

It is unclear to what degree the smallholder marketing intermediaries—the clubs, ADMARC, and intermediate buyers—are capable of absorbing any sharp supply increase and getting it to market. The club strengthening project will begin to take effect this season and there should be significant feedback during the season. This will be intermediate buyers' first

season and there should be an in-depth evaluation of their performance at the end of the year. Informal monitoring would have to suffice until then. Both these new institutions should continue to grow in strength over the next few years.

On the world market, the price impact of supply increases depends on the world elasticity of demand. Definitive estimates of elasticities of world tobacco supply and demand are lacking, though a number of estimates have been used in various quantitative analyses. A recent World Bank study by Larson and Thigpen used demand elasticities of -0.038 and -0.3 in modeling effects of increasing Malawi production. The first estimate is extremely low according to a number of experts, but more reliable estimates are currently unavailable.

1.5.2 Impact of Complete Liberalization

Poverty Alleviation: Under both scenarios, liberalization might further integrate smallholder producers into the production regime, providing support for a more equitable distribution of economic rents. However, to the extent increased production depresses world price, returns to the grower would fall.

Under the gloomy scenario, leaf prices would fall below most estates' costs of production. The National Bank of Malawi estimates that the break-even burley price for estate growers is MK 6.78/kg, compared with MK 3.78/kg for smallholder growers. (The 1992 burley price averaged MK 6.5/kg.) The University of Malawi, TRIM and Cornell University report a variety of cost figures for smallholder and estate growers. Despite the variation, it is agreed that estate growers' total costs of burley production are two to three times that of smallholder growers. Of course, it is expected that significant variation exists within the estate sector itself.

Nonetheless, given recent depressed burley prices, many estate growers would not be able to compete with lower burley prices and would be forced out of burley production. Without burley income to subsidize the transition to other diversification schemes, many estate growers would be financially bankrupt (further exacerbating current insolvency conditions). Lack of credit access, already a problem for many estates struggling to survive, would intensify. Only a few efficient estate growers would be able to survive and the estate sector as a whole would be severely weakened.

Continuing with the gloomy scenario, lower burley prices would decrease profit margins for the smallholder growers. Lack of input credit access and an undeveloped private sector input market would have severe ramifications for soil stewardship. As noted earlier, the rural credit system has severely weakened and commercial credit access is not truly an option for smallholders and many smaller estate producers. (Commercial lenders typically use quota allotment and past production history as a basis for loan approval. Assumably this practice would cease.) Inadequate credit access would result in low or non-existent fertilizer and fumigant use (the latter necessary for controlling nematode populations).

Further, crop rotation practices, clearly inadequate under the current system, would continue to falter. Although imperfect, the present system requires quota holders to have access to an ample land base for proper crop rotation (tobacco should be rotated yearly and not replanted on the same plot more than once every four years). Complete liberalization would only encourage inadequate crop rotation, creating the opportunity for nematode build-up. Land degradation may be compounded if burley prices fall due to increasing output. Smallholder growers with few production alternatives might try to maintain incomes by planting more tobacco planting larger and larger crops in continuous rotation.

There is the additional danger that farmers would plant most of their land base in tobacco and not plant sufficient maize. In the event their tobacco crop fails or lacks adequate profit margins, food security would be threatened.

Therefore, under the gloomy scenario, complete liberalization would result in; 1) increased farm income in the short term which may dramatically fall as world tobacco prices became depressed; 2) a significant portion of the estate sector could collapse and less tobacco revenues would be available to fund diversification efforts; and 3) smallholders could be faced with insufficient food supplies after diverting maize land to tobacco then suffering low prices or low yields due to nematode infestations.

For the more positive scenario to win out, three assumptions would have to be made: 1) smallholder supply responses would be moderate, or alternatively, that increased tobacco production would not significantly dampen world prices; 2) input credit access would have to be greatly increased; and 3) extension assistance would have to be available, particularly for new market entrants.

If the above conditions were met, tobacco production would likely center on efficient smallholder producers and estates with low overhead costs. The more efficient estates could continue to raise tobacco and utilize tobacco revenue to subsidize infant diversification operations. Inefficient estates would be encouraged to leave tobacco production to pursue other activities.

Market Impacts: The critical difference between the gloomy and the optimistic scenarios is the price impact of market liberalization. Assuming increased input credit access and extension assistance could divert the soil stewardship and food security issues noted above, the price received for Malawi burley would be a key component of poverty alleviation. As profit margins fell, there would be an incentive to further increase production to keep total returns constant. A discussion of Malawi's role in world burley trade is necessary.

Currently, Malawi accounts for approximately 10 percent of world burley tobacco production, yet almost 19 percent of world burley trade. Other major burley exporters include the United States, Italy and Brazil (with 21.9, 12.9 and 6.4 percent of world trade, respectively). However, the burley market is sufficiently differentiated with regard to quality. Historically, Malawi burley quality has been regarded with top honors, second only to U.S. burley.

However, while Malawi burley quality has remained essentially constant, Brazilian, Argentinean and Thai (to name a few) burley quality has increased dramatically, closing the quality gap with Malawi.

World burley production has increased from 823,321 metric tons in 1991 to an estimated 1,029,848 metric tons in 1993. Most of this production increase has come from Malawi, Brazil and China. Combined with stagnant demand, this increase in production has depressed world prices and increased carryover stocks.⁵ In 1992, total world burley trade was approximately 500 thousand metric tons. Using Malawi's 1992 burley production of 99,224 metric tons (given the short 1993/4 crop expected), a 50 percent increase in Malawi burley production would increase total production to 150,000 metric tons. Similarly, a 100 percent production increase would bring Malawi's burley crop to 200,000 metric tons.

Given the inelastic world demand for tobacco and the fact that essentially all of Malawi's burley production is traded on the world market, complete liberalization is sure to have a dampening effect on world prices. If Malawi burley production increased 50 percent to 100 percent world prices could fall dramatically. These production increases amount to 10 percent and 20 percent, respectively, of the total volume of burley traded.

However, Malawi is clearly a low-cost burley producer (Vantreese) and could significantly increase market share in the long term as high cost producers (primarily the United States and European Community) reduced production. If quality was maintained, burley prices did not drop too quickly, and input credit and extension access were available, Malawi could effectively increase world market share. Importantly, if Malawi remains a low cost producer, Malawi could increase world market share if domestic production increased slowly.

As Malawi burley production has increased, world market share has also slowly increased (from 12.6 percent in 1982 to 18.78 percent in 1992). Malawi could continue this trend if high cost producers were edged out of the market, other suppliers had time to contract production (to minimize downward pressure on price) and the domestic system could adjust to the increased volume. It is this last concern which will be addressed next.

Tobacco Infrastructure Adjustment: Beyond credit input and extension access, Malawi's tobacco sector requires significant infrastructure to move the tobacco from the producer to the international market. The current transportation system is inadequate in terms of accessibility and cost for many tobacco producers. Increasing tobacco production 50-100 percent would place a burden on the transportation sector. However, the increased volume might create the economies of scale needed to make the satellite depot stations operated by Auction

⁵ There is still a huge stock overhang, having risen phenomenally from 13 Mkg (strip weight) in October 1991 to an estimated 160-175 Mkg in January 1994. Though World production is expected to drop 15% in 1994, it will be some time before stocks return to the low of 1991. (Figures from "Worldwide Tobacco Supply and Demand", Universal Leaf Tobacco Company, Richmond, Virginia, December 1993.)

Holdings truly functional and profitable. This transportation function could also be facilitated by ADMARC or the intermediate buyers.

Complete liberalization would also have significant effects on the auction system. According to a conversation with Auction Holdings, the auction floors could handle a crop of 150,000 metric tons (particularly if the advent of intermediate buyers facilitated delivery scheduling and minimized re-offerings). However, a crop of 200,000 metric tons would be chaotic and would force the issue of mechanization. The substitution of mechanization for manual labor would make the auction floor more efficient in the long-run, but would displace workers in the near term.

It is unclear at this point whether the organizational structure and the license authority under which Auction Holdings operates give it sufficient flexibility to deal with increased tobacco deliveries and fluctuations in supply. Ideally, satellite depots and mechanization should get underway before projected supply increases actually hit the market. And given recent supply and price fluctuations, Auction Holdings is now operating in the red. Auction Holdings operations should be closely integrated with the tobacco market and given the flexibility to respond to market needs. Greater grower representation in ownership and more flexible license provisions may help Auction Holdings in meeting these needs.

After Malawi tobacco leaves the auction floor it is further processed before export (primarily through resident buyer operations of further grading, processing and storing). Complete liberalization would require that a larger volume of tobacco would have to be accommodated. Adjustments could be made. In fact, larger volumes would tend to reduce overhead costs per unit. However, more problematic are swings in production. Constant volumes are always preferred to maximize efficiency, thus profitability.

Environmental: This option would certainly have some negative impact on woodland resources due both to the entry of new producers, who would need barns, and to expansion of production by efficient existing producers. The magnitude depends on one's view of likely supply response. The worst-case scenario outlined above includes a dire prediction on land quality. It is simply that, a worst-case scenario. There are no survey data as yet on smallholder land use practices under burley. After four years of the program, it would be a point worth investigating.

Quality: Initially, this option would probably increase volumes in the lower quality range as large numbers of new entrants came in and, as some must, failed. Again, predicting the effect depends entirely on how one views the supply elasticity question. With a more muted response, the general effect would be to extend the range and, in time, volume of different qualities, giving Malawi access to a wider range of potential markets; a very positive impact.

Whether high quality producers maintain their production depends entirely on price premiums offered for higher quality tobacco and not on total market supply. Recent premiums have encouraged some growers to give greater attention to management and use higher

technology inputs with the result of higher quality tobacco. Should the premiums and the incentives shrink as has happened in the past, quantities of high quality tobacco will fall.

Diversification: Liberalization would have a generally positive impact on diversification, providing that the leading potential diversifiers (and the banking sector) were not devastated in the process.

Efficiency: There should be clear gains in terms of economic efficiency (except in the worst-case scenario, in which all would lose). It is surely highly desirable that an attempt is made to quantify these benefits—something outside the terms of reference of this report.

Operational: No study has been made of the overhead implicit in the extension service's support of the smallholder clubs; nor of their sustainability once ASAP program-aid support to MOA's budget comes to an end. It seems obvious that liberalization would create a surge in the demand for new clubs, if only from existing "illegals". This would have costs, both budgetary and in terms of operational efficiency and sustainability, if the clubs had to be hastily assembled as a response to donor initiative. The deleterious effect of this sort of action on SACA's operation has been identified as one of the causes of the collapse of the credit system and is one of the weaknesses that the strengthening project will come up against in existing clubs. One possibility for strengthening new smallholder clubs that form is to use funds generated through intermediate buyer licensing for a Smallholder Club Trust Fund. Training and other types of institutional support could be financed from the Trust Fund.

1.5.3 Policy Measures

Once policy makers are satisfied that the degree of risk discussed above is acceptable, the policy measures required would be few. The most important is a decision on timing, taking into account the likelihood of supply response and factors described in the impact section above. Two measures that should remain in place and receive further attention under liberalization are sale quantities on the auction floor and delivery quotas.

Minimum Sales Quantity on the Auction Floor: As long as the present auction system remains (and this study takes that as given, though it need not be), some constraints will be necessary on the kind of farmer who may sell on the auctions as an individual—a minimum quantity designed to keep the numbers of sellers, and the size of lot offered, to manageable proportions. Farmers unable to reach this scale on their own would have to sell through one of the intermediary channels, burley clubs, intermediate buyers, or ADMARC. Some form of registration would still be necessary to identify sellers and enable payment. This would be automatic in the case of existing sellers; new entrants would follow procedures similar to present registration.

The level at which the minimum volume for direct access was set would have two interesting consequences. To the extent that many small growers would be obliged to sell to intermediate buyers, this measure would serve to suppress price expectations, as much of the

profit would be taken by the intermediary. On the other hand, say the volume was set at 5,000 kg, many small growers—estate and smallholder, new and existing—would have a powerful incentive to form clubs together.

This emphasizes the role the club strengthening project would have in preparing for a large increase in club formation, including the politically sensitive problem of possibly having to re-absorb 'graduate' estates. Given the terms of reference of the project, it would be unreasonable to expect it to be able to fulfill this role in less than the three years that have been allotted to creating the basis for a viable cooperative movement, an ambitious enough target as it is.

Delivery quotas: Delivery quotas could remain substantially as they are, but based on registered sellers' March estimates, and backed as necessary by penalties for false estimates. The discussion on tradable quotas suggests another possibility. The ultimate (and least dispensable) point of control in the market is the delivery quota. To auction blocks of delivery quota would promote efficient use of marketing infrastructure (transport, satellite & floor capacity). A highly differentiated price structure within the season would evolve, cheap at the beginning and end, dear in the middle and reflecting present pressures on the infrastructure. Provided this market could be given some approximation of the usual characteristics of perfect information etc., there would be clear gains in economic and operational efficiency.

The market for delivery quota would not be sellers but transporters (and sellers big enough to own their own trucks). By offering suitably lotted tranches of delivery quota (probably on a weekly basis) over the whole season, much of the present delivery quota system could be done away with. There would be no need for the system of geographic areas and periods. Individual sellers could offer an unlimited number of lots at any time, provided they could meet the price of delivery quota for that week, which transporters would pass back. There would need to be some agreed form, showing sellers' assent, by which transporters could vary the charge per bale for the purposes of direct settlement by AHL.

Above all, the delivery system would be in the hands of the people with the most control over it. It is one of the injustices of present practice that sellers are often penalized for errors made by transporters, over whom they have little control. Transporters also get into trouble with AHL's delivery department while trying to offload consignments they have taken in good faith, which prove to be either over quota or out of period, something they are not able to ascertain adequately with the grower. This discontinuity would disappear and TCC and AHL would have only to deal with transporters in their constant struggle to regulate flow to the floors.

Stabilization: The operation of a stabilization fund has been considered but experience in 1989 suggests that, for this to be effective, very considerable funds (and infrastructure) would need to be made available. In 1989, tobacco growers initiated a stabilization fund funded by a cess on growers operated by growers representatives (AH employees) on behalf of TAMA. When prices were low, the fund would take tobacco off the floor, process the tobacco and market it independently of the buyers. When the system was implemented, buyers refused to

cooperate by reducing purchases to a level which forced the fund into substantial interventions. The costs of intervening quickly became unsustainable for the growers and they abandoned the fund after several days. This suggests that to compete with the buying power of resident buyers, very considerable funds and infrastructure would need to be made available.

Additional measures to dampen supply response might include the export tax described by Thigpen & Larson. An export tax is attractive on efficiency grounds because it indirectly shifts production towards the most efficient producers. Only the most efficient producers generate sufficient revenues to pay the tax. Others are forced to leave tobacco farming.

Generally export taxes are discouraged because they put a country's exports at a competitive disadvantage vis-à-vis other exporters. For a price-taking country, an export tax suppresses output and reduces net revenues. However, when a country has some degree of monopoly power in the world market, there may be latitude for raising prices and revenues through output restrictions. This is the case when world market demand is inelastic with respect to output reductions of a given country.

To make the case for Malawi imposing an export tax, one would have to show that output reductions on the part of Malawi would not be picked up by another producer. Though it is clear that prices would rise or fall if Malawi altered production greatly in any one year, it is not as obvious that other countries would not adjust their production in response. If other countries pick up the output, prices will not rise and Malawi will just have lost market share. On the other hand, production responses by other countries provide an opportunity for Malawi to increase its market share over time at their expense since Malawi is a relatively efficient producer of burley.

There are also equity considerations of imposing an export tax. Taxes shift revenue from producers to government. Taxing tobacco producers just at this time when smallholders are being permitted to participate in tobacco production in increasing numbers may not be considered equitable. Estate producers have been growing tobacco and keeping all revenue for decades. A system taxing only estates might be devised but it may be difficult to implement as well as having inefficiency costs in production. Further, the equity implication of an export tax would depend critically on how government utilized revenues it collects.

1.5.4 Actions

Complete liberalization of Malawi's tobacco sector should be fully evaluated. Swift liberalization could have devastating effects on both smallholders and estate producers. The case is persuasive for holding back on full liberalization until there is a clearer understanding of the supply response question. Policy makers may wish to spend more time on considering, and attempting to quantify, this crucial term. In the end, however, significant uncertainty will remain and the decision will involve an act of faith.

At the same time, one could begin formulating specific policy measures and an action plan to accommodate the operational demands of eventual liberalization, perhaps through the Smallholder Burley Club Strengthening Project. If the system were given adequate time to react and adjust, Malawi could possibly increase world market share without severely depressing world prices. However, many wildcards exist—mainly the current political environment in the U.S. and production in China. Perhaps the best strategy is one of market refinement and stabilization to assure continued profitability.

1.6 PHASED LIBERALIZATION

If risks of full liberalization are considered too high, moving to a liberalized burley market in more gradual phases would be an attractive alternative. Quotas could be raised each year for several years until they are no longer binding. In the meantime, the quota cap provides some margin of safety against the gloomy scenario of a large and devastating supply response.

Phased liberalization would entail a clear commitment by GOM to carefully consider the merits of complete liberalization within a given time frame and to adopt this policy, if it can be shown to be appropriate. Some leeway would need to be provided so as to pick the right moment in terms of market conditions. The alternative merits of a tradable quota system might be further considered at the same time.

Interim measures would be taken to prepare the market for, or to avoid, the big bang (a metaphor used in the liberalization of London's financial markets in the 1980s). These could include the initial adoption of Option 1 as it stands. Even as an interim measure it should yield short-run cost and operational efficiencies which would justify the effort of introducing it. It should also facilitate a wider understanding of the present structure of the market and the implications of liberalization, particularly as they affect measures for the preparation of marketing intermediaries.

In addition, total quota amounts could be increased and distributed to both new and existing quota holders, progressively increasing individual sellers' quota until it exceeds their capacity. This would have the effect of devaluing quota until it could safely be abolished altogether without engendering a massive supply response. Though total quota regularly exceeds market estimation by a very significant margin, the present system is binding on many individual growers—particularly minimum quota holders. The computerized solution would enable the application of this measure evenly across all sellers.

One element of a liberalized market has already been put in place in the form of the intermediate buyers' license. It needs to be emphasized and confirmed that this is 'free' quota, over and above the market estimation. Though these steps are the nearest the consultants have found to a practical measure for phasing in liberalization, it has to be said that it would enormously complicate the need to provide for new entrants. It would really only work if the pool of sellers were fixed, which, of course, it is not.

There are limits to how phased an approach to liberalization is conceptually possible. There are either controls or no controls; partial controls are ineffective. At some stage complete liberalization would have to be faced and it may yet arrive on its own, independently of future policy decisions, in the form of intermediate buyers.

1.7 DARK-FIRE AND SUN-AIR TOBACCO POLICY ALTERNATIVES

In this section, the term "dark-fire" is used to cover all three divisions of Malawi Western tobacco: Northern Division Dark Fired (NDDF), Southern Division Dark Fired (SDDF), and Sun-Air cured.

Despite falling world demand for dark-fire tobacco (as consumer tastes move to a lighter Western-style cigarette), Malawi dark-fire leaf is highly coveted among tobacco buyers. Total world dark-fire production has fallen by one-third over the last three years, reaching 42 thousand mt last year. The U.S. is the largest dark-fire producer (accounting for about three-fifths of world production) and has the reputation for the highest quality. Malawi dark-fire quality is second after the U.S., but sells for about half the price of U.S. leaf. Other competitors in the world market, such as Italy, have dramatically reduced their dark-fire production in recent years.

The Malawi tobacco buying industry estimates that 10 million kg could easily be sold off the auction floor and that there is room for 12 million kg at slightly reduced prices. However, dark-fire tobacco production in Malawi has fallen from 24 million kg in 1991 to 11 million kg in 1992 and to 3.8 million kg last year. Importantly, the reduction in the Malawi dark-fire crop has resulted in a loss of market share to other lower-quality African producers, notably Uganda, Kenya, Zaire, and Tanzania. The biggest constraints to expanded dark-fire production appear to be inadequate access to inputs and credit, and the price farmers receive from ADMARC for their crop.

The fluctuation in Malawi dark-fire production appears correlated in recent years with the volatility of auction floor prices (with the usual one-year lag response in supply). In 1987, season average dark-fire auction prices hit MK 3.21/kg, increased to 6.91 in 1989, fell to 3.45 in 1991, and last year reached MK 6.22/kg. These prices are only indicative of grower returns as ADMARC receives a portion of the floor price, which will be more fully explained below. This instability in both production volume and price-received is problematic for the industry, including the growers, and reduces overall industry efficiency and profitability.

It is estimated that dark-fire growers currently receive only 40 percent of the auction floor price. Essentially, ADMARC, which has the exclusive marketing authority for smallholder dark-fire tobacco, skims off the top of the floor price. The residual is given back to the farmer to cover input costs and to provide a reasonable rate of return. However, recent low returns have prompted many dark-fire growers to shift to burley production. The introduction of smallholder burley clubs and their direct access to the auction floor has increased the relative

profitability of burley over dark-fire. This has resulted in a significant reduction in dark-fire production.

Given the limited, yet significant room for expansion of dark-fire production, market liberalization could enhance the dark-fire market. By offering alternative market channels of direct selling on the auction floor, selling through ADMARC, or selling to intermediate buyers, growers would obtain higher prices providing them incentives to increase production.

1.7.1 Current Production Characteristics

Dark-fired tobacco is produced under very distinct conditions, yielding a strong-tasting leaf type primarily used in shag (roll-your-own) tobacco and some cigarette production. The curing process requires unique grower skills and sufficient access to firewood. Consequently, any changes in Malawi dark-fire production must take into account changing worldwide demand and the capacity of a limited number of Malawian tobacco growers to produce this rather distinct leaf-type.

Traditionally, dark-fire production has taken place among the smallholder growers who produce between 80 and 90 percent of total dark-fire output. Estates produce the remaining 10 to 20 percent of dark-fire tobacco. There are approximately 70,000 smallholder dark-fire growers accounting for nearly two-thirds of all smallholder tobacco producers. The remainder of smallholder tobacco is split among burley, sun-air cured, and oriental. Thus, dark-fire growers are relatively small volume producers and they are geographically dispersed.

All smallholder dark-fire tobacco must be sold through ADMARC, i.e., smallholders are not currently permitted to sell directly on the auction floor. Nor are there any other marketing alternatives currently available. In an effort to revive dark-fire production, in response to persistent industry and donor requests, ADMARC became much more involved in dark-fire tobacco production this crop year by providing firewood and fertilizer to dark-fire producers through advancing input credits. The crop is expected to reach between 6-7 million kg in the 1993-94 growing season, an increase over last year but still short of reported market potential.

1.7.2 Grower Access to Auction Floors

In addition to marketing through ADMARC, it has been suggested that the next step in market liberalization could be direct access by smallholder growers to the auction floor, similar to burley smallholder opportunities. Currently, only the Limbe auction floor located in southern Malawi offers dark-fire sales. Discussions with both Auction Holdings, Ltd. and the resident buyers indicate that it is not feasible to open two dark-fire auction floors even though most of the dark-fire production is concentrated in the central region. An advantage of the single auction floor is that bidding is more competitive with all the dark-fire offered at one location. In addition, the only processors specializing in dark-fire are located in or around Limbe. Auction Holdings has identified under-utilized back-haul opportunities to move dark-fire from Lilongwe to the Limbe floor.

The number of dark-fire producers could dramatically expand if grower returns increased with direct access to the floor. To prevent overwhelming auction floor capacities and to achieve economies of scale in bringing the crop to the floor, dark-fire growers would have to form clubs similar to burley clubs. Currently, 1,000 burley clubs exist, each of which is required to bring a minimum of 3,000 kg to the auction floor. The same minimum volume might be appropriate for dark-fire clubs. As with burley, dark-fire clubs could then submit production estimates to TCC for purposes of general market information and to establish the delivery quota.

In general, dark-fire clubs should follow the same rules as burley clubs. Based on the burley smallholder experience, the formation of dark-fire clubs must be carefully thought-out. It is more desirable for smallholder clubs to form from the bottom up, rather than be mandated from the top down. The ADDs could make available a complete list of all dark-fire growers in their areas as a starting point. Obviously, coordination of credit access and transportation should lead to marketing efficiencies.

In addition, there could be considerable gains in efficiency if intermediate buyers were also permitted to purchase dark-fire production to bring to the auction floor. The same efficiency arguments in delivery would apply here. ADMARC, too, should be permitted to continue dark-fire buying activities serving as an intermediate buyer for those growers who elect to use that marketing channel.

No production quota has been suggested at this time, although a delivery quota system would presumably provide an orderly flow of production to the auction floor. It has been debated whether existing credit and firewood constraints would naturally contain total dark-fire production in the 10-12 million kg range. The response of estates to increased smallholder production and to possible higher prices is also not clear. Any consideration of a dark-fire quota to prevent supply spikes over the 12 million kg. buyer demand should be after a one to three year stabilization response period. If it is determined that quotas are needed after the waiting period, a maximum ceiling of 12 million kg. could be put on the total of dark-fire club, intermediate buyer, and ADMARC sales.

1.7.3 The Role of ADMARC

Given the current role of ADMARC in marketing dark-fire production, additional consideration must be given to the impact of this policy alternative on ADMARC, and the implications through ADMARC for the rest of the agricultural sector. ADMARC plays a significant support role for dark-fire producers by providing transportation, storage, credit, and a minimum auction floor reserve price. If these functions were not provided by ADMARC, the dark-fire clubs, intermediate buyers, or smallholders themselves would be required to cover these costs.

The pricing issue is critical and deserves more attention. Government sets both the price that is given to growers and the minimum reserve floor price through its National Pricing Committee. Grower prices are announced before the beginning of the growing season. If the

bale does not bring the minimum reserve price on the auction floor, ADMARC will remove it from the floor and store it for later private sale. In 1993, the average grower price was MK 2.4/kg and the average auction floor price was MK 6.22/kg. Thus, only about 40 percent of the auction price was returned to the grower. The gross return to ADMARC was slightly less than MK 4/kg.

In 1991, the ADMARC margin was approximately MK 1/kg, resulting in growers receiving approximately 72 percent of the floor price. Since 1991 dark-fire auction floor prices were low, so ADMARC had less room to increase their margin and still provide a reasonable return to the grower. The higher margins in 1992 may be justified in part by higher ADMARC costs for the credit, storage and transportation they were providing. ADMARC may also have lost some economies of scale as the size of the dark-fire crop fell. However, these higher costs are not sufficient to explain increasing the ADMARC margin up to 60 percent.

Potential gains for smallholders from direct marketing of dark-fire tobacco are enormous. Assuming ADMARC's input to marketing could be covered by smallholders for MK 2/kg. Given last years auction prices and quantities, an additional MK 7.6 million could have been returned to the growers (3.8 million kg at MK 2/kg). If the crop expanded to the 10 million kg resident buyers would purchase, the gains could increase to MK 20 million, over what the grower would receive with ADMARC intervention at current margins.

Even with direct access to the floor for growers, ADMARC could continue to play an important role as a parallel marketing channel providing marketing services to smallholders. ADMARC could operate in whichever dark-fire regions it identified as profitable and possibly play an important role in market stabilization. As in the past, ADMARC could be permitted to continue to pull dark-fire tobacco off the floor if it did not meet the pre-established minimum reserve price. However, these purchases would have to be applicable only to that production sold through ADMARC.

If ADMARC is to compete in marketing, it must be given increased price flexibility. Currently, ADMARC buying prices are set by the National Pricing Committee at the beginning of the crop season. ADMARC must be able to fluctuate its purchase prices throughout the season in response to market conditions. This would help alleviate a potential oversupply situation with enhanced market liberalization. Again, a production quota system could be implemented after a waiting period if deemed necessary.

The loss in dark-fire revenue to ADMARC would have important repercussions for ADMARC, and throughout the agricultural sector. Currently, ADMARC uses these tobacco revenues to subsidize other activities that operate at losses, including activities of "social" responsibility. The loss of dark-fire revenues would result in diminished capacity to cover both ADMARC's total overhead costs and its social functions. However, in the Memorandum of Understanding between ADMARC and the Government of Malawi signed in December 1993, ADMARC costs of providing such social functions are to be reimbursed from the Treasury. The magnitude of social functions may also shrink in coming years. Elsewhere in this report we

recommend scaling back a number of ADMARC marketing activities. Note too that some ADMARC revenue could be recaptured by leasing out or selling what would become surplus storage capacity for ADMARC.

1.7.4 Poverty Alleviation

Although auction floor prices have been volatile, dark-fire production has proven quite profitable for many growers. Input costs, however, have dramatically reduced grower returns. This is particularly true of firewood costs. With regard to poverty alleviation, the price-setting role of ADMARC has defined the relative profitability of dark-fire production to a large extent. By allowing dark-fire growers to bypass ADMARC and directly access the auction floor, more of the profits from the floor could be returned to the grower. Improved profitability would have significant positive gains in poverty alleviation by increasing incomes and purchasing power.

Assuming growers are permitted direct access to the auction floor, the impact on poverty alleviation could come through: 1) higher prices received by the grower, and 2) a greater number of growers participating in dark-fire production. Thus, direct grower access could address both the breadth and the depth of poverty in producing regions. Each of these will be discussed in turn.

Higher Returns to the Grower: Returns to the grower could be enhanced if in bypassing ADMARC, growers can perform ADMARC's functions at a lower cost (i.e., reduced bulking, grading, baling and transportation costs). These costs could be kept low through the formation of dark-fire clubs or with intermediate dark-fire buyers, who could take advantage of economies of scale. Marketing at lower than ADMARC cost is quite feasible given ADMARC's high overhead charges. In addition, credit access may increase with the formation of dark-fire clubs that serve a credit function as well as a marketing function. Given current tight credit access, the formation of dark-fire clubs should allow producers increased market leverage in credit access through higher implied repayment rates. (As noted earlier, there is a high positive correlation between burley club members and credit repayment rates. The same might be expected for dark-fire clubs.)

If dark-fire clubs and/or intermediate buyers cannot achieve improved economies of scale over what ADMARC charged, returns to the grower may fall by bypassing ADMARC. It is likely that in some regions and for some growers, marketing through ADMARC will be their most profitable alternative. Availability of unconstrained parallel marketing channels should provide the most economic solution.

As suggested above, if dark-fire marketing costs could be met at MK 2/kg by smallholder clubs and intermediate buyers and with auction floor prices and quantities at 1993 levels, dark-fire growers could realize an additional MK 7.6 million in profit. This would be a major contribution in poverty alleviation.

Greater Number of Growers: The second area impacting poverty alleviation would be a greater number of participating growers. If average returns to farmers were held constant, a larger number of families participating in dark-fire production would enhance poverty alleviation by spreading the profitability of dark-fire production more widely in the smallholder sector. The effect on prices of more growers and greater output is discussed below. Generally, higher supply would suppress prices but with dark-fire, a stable level of output may in fact raise prices, even at higher output levels.

An additional impact on poverty alleviation may be felt through the input market. If dark-fire production increased dramatically, firewood would become even more scarce and prices for wood would surely rise. This would have an adverse affect on poverty alleviation and the environment, particularly in regions of significant dark-fire production. Higher wood prices would be felt throughout the region since most households use wood for cooking.

1.7.5 Market Impacts

Total world dark-fire production reached over 42 million mt in 1993, relegating Malawi's 3.8 million contribution to a negligible amount for the year. As noted earlier, however, Malawi dark-fire is high quality and holds a significant niche, particularly in the Western European market. Increasing dark-fire production to 10-12 million kg on a regular basis could dampen world prices. However, from Malawi's perspective, slowly increasing production would allow the market to adjust and Malawi could increase its market share, particularly from other African producers. Given Malawi's reputation for high-quality dark-fire production, increasing world market share should be easy if production stabilizes.

Dark-fire prices could even rise with higher and more stable production because volume and stability would bring more buyers to the Malawi floor on a regular basis. This would provide upward pressure on price through more competitive bidding. During the 1991 season, for example, 24 million kg was produced and Douwe Egberts (the largest dark-fire user) purchased large amounts at relatively low prices. That year, only 14 million kg was sold on the auction floor with the remainder going to ADMARC for future private resale. Last year, Douwe Egberts purchases were negligible. Equally important to price increases, all other things equal, is a more stable Malawi dark-fire level of production. This should have a significant price stabilizing effect.

An increase in production should significantly increase foreign exchange as nearly all dark-fire production is exported. Using an average export value of MK 9/kg (consistent with last years values), foreign exchange earned should increase to MK 63 million, (assuming a 10 million kg crop and 30 percent for shrinkage in processing).

As mentioned previously, ADMARC has played a role in providing input credits to dark-fire producers, particularly in the current growing season. But, the possibility of direct floor access, would sever ADMARC's recent credit input role with those producers and increase the

strain on the credit market. Given the current financial crisis, lack of credit inputs could result in diminished quality and a much lower supply response in general.

A significant increase in dark-fire profitability may also have adverse impacts on crop rotations, and thus disease. As with other tobacco types, proper crop rotation procedures must be utilized. Without rotations, nematode buildup in the soils will reduce tobacco yields and quality.

Although traditionally a smallholder crop, dark-fire production may increase in popularity for estates too, if floor prices rise. Since estates tend to have better access to inputs (such as credit and wood), a larger proportion of dark-fire may shift to estate production.

Firewood Scarcity: The reliance of dark-fire producers on firewood access is critical in evaluating the effects of increased dark-fire production. According to USAID Malawi estimates, 11.5 cubic meters of wood is needed for every ton of dark-fire tobacco "fired." A doubling of dark-fire production would essentially double firewood needs and exacerbate the firewood scarcity problem. In addition to affecting dark-fire producers, increasing wood scarcity would adversely affect cooking and heating costs for households.

The firewood scarcity issue might become less dramatic if estate dark-fire production significantly increased. Some estates have developed their own agroforestry industries which might be able to sustain increased dark-fire production with less of an adverse effect on the environment. However, it is believed that in most estates, wood production is not keeping up with demand either. Conceivably, estates with proper agroforestry investments could begin selling firewood to smallholder dark-fire producers.

Importantly, the scarcity of firewood and the resultant adverse environmental impacts might prove to be "natural" market mechanisms to effectively constrain production. Further, diminished ADMARC intervention in providing inputs to increase production might very well prove in the best interest of environmental protection.

1.7.6 Diversification in the Tobacco Sector

In recent years, as returns to dark-fire tobacco production fell, it is believed that many dark-fire growers shifted to burley production. If returns rise with direct access to the auction floor, previous dark-fire producers would likely return to dark-fire production. New growers may also be drawn into production, but the new growers would have to learn specific skills necessary for dark-fire production. Note though that high profitability in burley production may inhibit farmers shifting to dark-fire even with direct access to the auction floor. If former dark-fire producers do shift back from burley, they might free up more smallholder burley production for new burley entrants.

1.8 ORIENTAL TOBACCO POLICY ALTERNATIVES

Overproduction worldwide of oriental tobacco has led to persistent downward pressure on price. Turkey and Greece are by far the largest producers in the world. With oriental, Malawi does not have a quality advantage, thus it must compete on the basis of price. However, a preferential trade agreement with South Africa has given Malawi a tariff advantage in that market as well as enjoying low transportation costs to South Africa. Currently, between 80-100 percent of Malawi's oriental production is shipped to South Africa and resident buyers believe the market could clear 1.5 million kg quite comfortably.

Oriental tobacco production in Malawi has historically been quite small, typically around 500 thousand kg annually. Last year's oriental exports totaled only 194.6 thousand kg, down from 332.5 thousand kg in 1992. But, due to gains in leaf quality, the value of oriental traded increased almost 50 percent over the previous year. Thus, though the demand for oriental is small relative to other crops, it has a clear market niche which Malawi may be able to develop further. One possible obstacle to increased oriental production and enhanced profitability is the lack of direct sales between growers and buyers. The implications of permitting direct oriental tobacco sales to buyers, which will diminish ADMARC's role, will be explored below.

1.8.1 Current Production Characteristics

Compared with other tobacco types, oriental tobacco can be grown on marginal land. It is frequently grown in Malawi in drought stricken areas which have limited alternative uses. Alternative crops include millet, sorghum, and cotton (with lesser amounts of okra and chilies). Sun-air is the only other leaf type that can be grown on some of the same land. Oriental tobacco growers are dispersed geographically and situated in small pockets around the country.

Production and curing of oriental tobacco is different than that of other tobacco types. The oriental tobacco plant is small in stature and comprised of many small leaves which must be painstakingly strung together to cure. Due to the high labor requirements, oriental is grown in very small plots. Most growers in the recently established schemes in the Southern and Central Regions have had little or no previous tobacco experience, so significant training must be provided and demonstration plots must be established. Very little fertilizer is needed for oriental production, and it can even be omitted entirely in selected years. Oriental tobacco is also planted later in the planting season than the other tobacco types, so labor can be spaced more evenly over the year.

In the 1993-94 crop year, 7,106 farm families were registered for oriental production (out of approximately 1.8 million farm families). Three resident buyers have "staked claim" in each of the three regions of Malawi and typically prefer a minimum of 50 farm families in any one area of the region to minimize these costs. One resident buyer described these farm families as "enthusiastic." Two of the four resident tobacco buyers have contracted with growers on a trial basis the last two years. ADMARC serves somewhat as an intermediary between the growers and the buyers on the basis of a three year negotiated agreement with the buyers and is

compensated for this role. No oriental tobacco is traded on the auction floor. A third buyer has been involved in a joint venture with ADMARC for the past several years. In this arrangement, profits are evenly split between the buyer and ADMARC.

Significant operating losses have forced all buyers to take a hard look at the oriental market to re-evaluate production and marketing arrangements. At least one buyer has indicated he will not be contracting oriental production next year. The substantial loss incurred by buyers can be attributed to two possible sources; high overhead costs and ADMARC's interventionist pricing policies. High overhead costs are incurred by the buyers in the form of essentially a resource-providing contract with the growers. Due to somewhat unique agronomic and curing practices associated with oriental production, buyers are forced to play an extension role by providing the necessary inputs and advice to the growers. Most MOA extension field assistants are unfamiliar with oriental production and are of very little help. This extension role, played by the buyers, is exacerbated by the geographic disbursement of the growers which add to transport and management costs. Transportation costs are also high because multiple visits are made to the grower, from initial contact to ongoing production assistance to the eventual purchase of the crop.

Operating losses sustained by the buyers could also be attributable to ADMARC's exclusive marketing role for the oriental tobacco crop. Using cost data supplied by one resident buyer, the gross margin to growers last year was MK 2.97/kg, assuming a price received of MK 3.80/kg and deducting grower costs. Buyers typically paid MK 5.34/kg, resulting in MK 1.54/kg going to ADMARC. Average export value was MK 15.3/kg last year, compared with 10.8 the year before. Although these margins appear quite large, the simple fact that two of the three buyers have endured significant losses suggests that the profitability is not there. These two have only been operating for a single year and these observations may reflect high start-up costs in their first year of operation.

1.8.2 Direct Sales to Buyers

Oriental production involves three parties; smallholder growers, resident buyers and ADMARC. Estates are not involved in oriental production due to the labor-intensity involved and the contractual structure of the market. The following discussion assumes that estates will continue to not engage in oriental tobacco production due to continued higher profitability of other alternatives.

If buyers were permitted to direct contract with growers, ADMARC may effectively be eliminated from the marketing chain. ADMARC claims that their participation in the oriental sector is not profitable—which there is some question over—and they are quite willing to step out of the loop. However, direct contracting does not preclude ADMARC from continuing to participate in oriental marketing where it is profitable for them to do so. Resident buyers may also buy or lease from ADMARC some of the infrastructure, such as buying stations, they have developed for oriental crop deliveries and storage.

It is likely that the remaining buyers will continue direct contracting with those farmers they currently are engaged. They will probably expand contracting in the vicinity of current growers to further spread overhead costs. It is also assumed that the buyers will continue providing credit inputs, technical assistance, and transportation for the growers. However, this could change and the implications of such are described below. Further, if unfair competition should develop through effective geographic monopolization (such as inadequate weighing procedures and payment methods), it must be dealt with effectively. Growers must have access to legal representation (perhaps a mediator within TCC to lodge formal complaints) if disputes arise between the grower and the buyer.

1.8.3 Poverty Alleviation

Direct oriental sales to buyers could help in poverty alleviation if: 1) the gross margins earned by the grower increased; and/or 2) the number of oriental growers increased, assuming growers were shifting out of less profitable enterprises. It is not clear from the cost data available whether or not the removal of ADMARC from the marketing chain would increase grower margins. If ADMARC is truly inefficient—that is, their slice is greater than their economic contribution—then margins could be increased to the growers, to the buyers, or both.

The resident buyers must begin earning positive economic profits if they are going to continue contracting. To increase their current level of profitability, buyers will have to convert some of ADMARC's cut to the buyers profit statement. However, overhead costs to the buyer will also increase to take over the functions that ADMARC was providing (and for payment to ADMARC for use of their transportation depots or buying stations for short-term storage and market exchange). Therefore, the removal of ADMARC from the chain does not guarantee increased poverty alleviation to the grower.

According to ADMARC, their provision of services to the oriental sector operates at a net loss and they are "quite willing to give up" their intervention in this market. If ADMARC is truly operating at a loss due to inefficiencies, then removing ADMARC from the chain would increase economic rents available to the growers and the buyers. Further, if ADMARC was eliminated from the marketing chain, resources could be freed up and devoted to other agricultural activities with (hopefully) a higher return. However, if ADMARC's operating loss is in reality a subsidy to the oriental sector, the removal of ADMARC will effectively dismantle the oriental sector, thus negatively impacting poverty alleviation.

Although it is yet to be proven, some resident buyers believe that they could replace ADMARC's contribution at a lower cost, thus increasing economic rents to the income stream. If this is true, the removal of ADMARC could effectively increase the overall profitability of the oriental sector, permitting expansion to perhaps the 1.5 million kg level. If so, a greater number of farm families could be brought into the program, rendering a positive impact on poverty alleviation.

On a separate, but related issue, direct contracting between growers and buyers could result in exploitation by the buyers since there is little competition. Each buyer operates in a separate area rather than directly competing for growers. Growers must be informed of both the price and non-price elements of other contracts (e.g., the amount of inputs provided).

The final area to consider in regard to poverty alleviation is the additional stress that increased oriental production would place on the extension and the credit system. Currently, buyers are providing those functions. To further boost profit margins, buyers may wish to eventually shift those functions to the public sector, significantly increasing the burden on the existing system. Undoubtedly, without increased resources, additional services provided by MOA and SACA to the oriental sector would reduce the availability of such services to other sectors of the agricultural economy.

In summary, permitting direct oriental tobacco sales by growers to buyers may remove ADMARC from the marketing chain. However, it is not clear if additional economic rents would accrue and, if they did, how they would be distributed. It appears that profit margins would increase and even if tallied entirely on the buyers ledger (rather than accruing to the growers directly) would increase the overall profitability of the oriental sector, ultimately providing positive impact on poverty alleviation among smallholders.

1.8.4 Market Impacts

If direct sales of oriental tobacco from growers to buyers were permitted, oriental production could increase to the marketing clearing level of 1.5 million kg. Although this is uncertain (i.e., the removal of ADMARC from the marketing chain does not guarantee profitability), it is fairly certain that oriental production would severely contract without improved profitability. As noted above, unless profit margins to the buyers are increased, contracting will discontinue.

Currently, oriental tobacco accounts for less than 0.3 percent of the value of all Malawi tobacco exports (less than U.S. \$1 million). Further, Malawi plays an extremely insignificant role in regard to world production and trade of oriental tobacco. Loss of market share is not a concern directly, although with regard to the South African market, oriental trade is somewhat significant accounting for approximately 7 percent of Malawi tobacco exports to this country. Germany is the other export destination for Malawi oriental tobacco, but is a negligible share of total tobacco trade.

However, if oriental production could be increased to 1.5 million kg, significant market share could be gained in both the South African and the German market. Increased cigarette manufacturing in Eastern Europe could draw more oriental tobacco to this market, too. Eastern Europe traditionally has been an extremely important oriental producer but production has dropped dramatically during recent market liberalizations. Therefore, an increase in Malawi oriental production could help develop a foothold in the Eastern European market (a market

where cigarette consumption is actually increasing), although considerable competition could re-develop in the near term.

With regard to quality, resident buyers are working quite diligently in increasing leaf quality and have made significant strides, reflected in part by the 50 percent increase in average export value per metric ton from 1992 to 1993. Continued quality improvements, combined with the possibility of a 1.5 million kg crop could further strengthen Malawi's market position in Germany and South Africa.

1.8.5 Diversification in the Tobacco Sector

The introduction and expansion of oriental production has provided a new production alternative for farm families with limited opportunities. As noted earlier, oriental is particularly suited to areas with few crop alternatives and where the land is not suitable for the production of other tobacco types, with the possible exception of sun-air tobacco. Further, many oriental growers in these areas have had little or no previous experience with tobacco production. Thus, the introduction of oriental production in these areas itself has become a diversification strategy and expansion of the program (up to 1.5 million kg) will not reduce the production of most other tobacco types.

In regards to land use patterns, most oriental plots are 0.2 ha and are small enough to encourage proper rotation and the planting of other crops. In addition, since oriental tobacco is planted later in the season, it allows attention to be paid to those crops which must be planted earlier. This permits a favorable allocation of labor during the planting season. However, the labor-intensity by hand-stringing the leaves for the air-cure process may interfere with other enterprises the grower may be involved with at harvest time.

2. INCREASED PRIVATE SECTOR PARTICIPATION IN AGRICULTURAL MARKETING

There are a number of ways in which, either directly or indirectly, it is possible to facilitate and encourage the further participation of the private sector in agricultural marketing operations. Several of these ways in which government interventions inhibit participation are discussed in the report, including: supply of grain to the strategic grain reserve, maize seed subsidies, release of high yield variety crop seeds, price distortions such as implicit consumer maize subsidies, and fertilizer subsidies. Some of the more general constraints to increased participation are also examined. Recommendations are made for the immediate or progressive removal of these constraints. Note that several of the issues addressed in Part Two are touched on again in the context of agricultural diversification in Part Three.

2.1 THE STRATEGIC GRAIN RESERVE

In spite of the six and one-half years that have passed since the market "liberalization" of 1987, trading in food commodities in general, and maize in particular is still dominated by ADMARC which operates at fixed, pan-territorial, pan-seasonal producer and consumer prices.

ADMARC, as the agency charged by the Government of Malawi with the management of the Strategic Grain Reserve (SGR), has hitherto used its network of markets and depots throughout the country to purchase maize for replenishment of, and sales of maize when drawing from, the SGR. These operations can represent the buying and selling of between about 60,000 and 180,000 tons depending upon the size of Malawi's total maize production in a given year and hence the extent of the drawings upon the SGR.

The operations of replenishing and drawing from the SGR could, both theoretically and practically, be distinguished from operations of management of the silos. Thus while ADMARC could remain responsible for management, replenishment and sales could be put out to public tender. In order to ensure that quality standards are respected, the standards shall have to be made widely known, incorporated into letters of contract between the selected suppliers and the Government of Malawi, and enforced by ADMARC as manager of the SGR.

Clearly ADMARC itself might wish to tender for these operations; equally clearly, if ADMARC were to be awarded a certain portion of the tender, such operations could not be considered "social" obligations for ADMARC and ADMARC would have no claim on the government for any subvention in respect of this maize.

In order to avoid the excessive amount of administrative work and accounting involved if too many suppliers were to be contracted, a minimum lot of five tons could be imposed. Similarly, to increase the opportunity of the smaller scale traders being involved, a maximum of, say 50 or 100 tons could be applied.

If the principle is accepted by the government, then it would be necessary to:

- create a Tender Board for the purpose;
- establish conditions to be respected by tenderers/suppliers with regard to minimum and maximum quantities, delivery dates (with penalties for late supply), moisture content and foreign matter, origin of grain, etc.;
- prepare standard forms of contract to be signed by the government (MOA) and the suppliers/buyers;
- lay down a procedure for control and inspection by ADMARC to enforce the conditions agreed to and ensure the quality of grain delivered to the silos;
- provide seasonal finance to ensure cash payment to suppliers.

Gains to be expected from the implementation of the procedure proposed above would be:

- an increased participation of private traders in the maize marketing in Malawi, with consequent acquisition of experience and improvement of operational competence by grain traders; and
- a higher average producer price for maize as a result of the removal of these operations from the "social" obligations of ADMARC, and the application of market prices in a system of competitive tendering.

In spite of their higher producer prices, it is expected that because of their lower overheads, the private traders would be able to supply grain to the silos at a lower total cost to Government than that previously claimed by ADMARC. With the realistic assumptions that average margins for grain suppliers would be in the region of 5 tambala/kg and the average delivery price would be MK 0.56/kg, then average producer price could be expected to be MK 0.51/kg compared to MK 0.43/kg in 1993. This would be an increase of almost 19 percent. Again assuming an average delivery volume of 30 tons for the purchase of a total of 60,000 tons for the SGR as many as 2,000 private traders could be involved in the operations.

Finally, it might be useful to recall that the hurried transition to a "liberalized" marketing system which was implemented in 1987 has been criticized for a number of imperfections. The change-over recommended above could be made smoothly if preparations are timely and careful and if it is given adequate publicity.

Unlike the operations of replenishment, those of distribution would call for the availability of storage space to participating traders. This could hinder the privatization of this set of operations, since, at present, many small-scale traders do not have access to suitable stores. A decision by ADMARC to lease out unused or under utilized warehouses to the private sector could alleviate this problem and help speed up total privatization.

There is also no inherent reason why at some date in the future, even the management of the silos might not be entrusted to the private sector.

2.2 MAIZE SEED SUBSIDY

The Seed Act, 1988, governs production and distribution of seed in Malawi. This, however, is an enabling act only and needs the approval by parliament of a set of regulations to accompany it and allow it to be enforced.

Draft seed regulations have been prepared with the assistance of the World Bank and can be put to parliament during the current session. It is important that the draft regulations take into account existing national seed policy as contained in the National Seed Policy Paper:

- promotion of private sector participation in all aspects of seed production and marketing;
- provision of a legislative and regulatory framework to guarantee the production and supply of quality seed to farmers;
- provision of research, credit and extension services to promote both estate and smallholder production of seed;
- facilitation of the licensing of new seed enterprises;
- liberalization of seed prices and progressive removal of seed subsidies.

A maize seed study prepared for the USAID Mission by Ashok Chakravarti of ACV Consultants (Pvt) Ltd. was discussed in a meeting of the ASAP Seed Sub-Committee representing both government and the private sector on March 25, 1994. The principal results of this study which were endorsed by the meeting, and the action plan adopted, are given below.

Presently all certified maize seed is produced by either National Seeds Company of Malawi (Cargill Hybrid Seeds) or Lever Bros. who have contract arrangements with growers on estates. GOM provides a subsidy for the sale of maize seed, through ADMARC, to smallholders. Additionally the rural credit system, operated through SACA, obliges borrowers to obtain their inputs solely from ADMARC.

Currently (1993/1994) the subsidy on the new hard endosperm flint hybrids MH17 and MH18 which are the most popular hybrids is at 9 percent (i.e. MK 400 on a full retail cost of MK 4,400 per ton). If credit is available to smallholders, their total credit purchases of certified maize seed can be expected to be in the region of 6,000 tons annually. The savings to Government of the removal of the subsidy would therefore be of the order of MK 2.4 million for the cost of the seeds plus ADMARC's marketing costs. These latter were MK 156.72 per ton for maize for consumption in 1993/1994, as calculated using ADMARC's own figures for direct costs. The total therefore, assuming all seeds were MH17 or MH18, would be of the order of MK 3.34 million.

By the terms of the Memorandum of Understanding between ADMARC and the Government of Malawi signed in December 1993, the government has agreed to reimburse the following sums to ADMARC for previous years' seed subsidies:

for 1990/1991: MK 10,983,000;
for 1991/1992: MK 9,524,000;
for 1992/1993: MK 11,588,000.

The additional burden on producers arising out of the removal of the maize seed subsidy has been stated by Chakravarti as MK 10.55 per hectare assuming a seed rate of 25 kg per hectare and the use of MH17 or MH18. Most probably this modest rise in production cost, representing a rise of from 14 percent to 15 percent of total variable production costs will not act as a deterrent to those producers who are already accustomed to growing hybrid maize.

The 6,000 tons of hybrid seed sales from ADMARC are sufficient to sow 240,000 hectares of maize. The total country-wide area grown in 1992/1993 was reported to have been 1,322,000 hectares, of which approximately 25 percent, or 326,000 hectares, is said to have been hybrid.

Separate measures will be needed to induce the remaining approximately 75 percent of smallholders not yet growing hybrid maize to do so. These could take the form of targeted subsidies operated through donor assisted projects—probably associated with complete packages of other inputs (fertilizers, implements, etc.). A number of projects of this nature, addressing legitimate concerns about household food security, are already active and have been identified by Chakravarti.

The recommendations, endorsed by the ASAP Seed Sub-Committee with respect to the maize seed subsidy are as follows:

- That a more competitive environment in the seed maize market be created by the removal of monopolistic and non-tariff barriers—specifically, that the exclusive arrangement between National Seed Company and ADMARC be terminated;
- That the maize seed subsidy should be completely eliminated since it is financially unsustainable, has a marginal impact on producer's costs, and constrains timely deliveries of HYV seeds to farmers; it is expected that in the absence of subsidies, a more competitive seed system will exert downward pressure on seed prices;
- That Government will assess the results of the initiatives currently being implemented with donor support for targeted assistance to specific resource poor farmers for increased use of HYV maize seed; based on this assessment, Government will formulate a policy on targeted seed subsidies based on equity concerns, food security, cost-effectiveness and sustainability.

The meeting also decided on an Action Plan to be followed to bring about the complete elimination of the subsidy and the termination of the exclusive agreement between ADMARC and the National Seed Company by March 31, 1994.

2.3 ACCELERATED RELEASE OF HYV CROP SEEDS

Also discussed at the meeting of the ASAP Seeds Sub-Committee on March 25 was the need to streamline the procedures for the release of seed varieties which had been presented to the Variety Release Committee for approval, whether bred in Malawi or to be imported. The meeting agreed on the following:

- That the requirement that MOA permission be secured for importation of varieties of maize and tobacco, which have already been released in Malawi, be modified, taking into account the legitimate concerns of domestic seed producers.
- That policies and regulations governing the Variety Release Committee procedures be liberalized—specifically:

That the Committee accept data from seed testing laboratories which are accredited by the International Seed Testing Association;

That the Controller for Seeds annually gazette the names of maize and tobacco varieties which have been approved by the Variety Release Committee;

That serious consideration be given to limiting the Variety Release Committee procedures to only maize and tobacco.

- That procedures used by the MOA Variety Release Committee be streamlined and revised such that varieties submitted to the committee will be released within one year from the date of submission to the committee or the committee will provide full supporting documentation, within 12 months from the date of the submission to the committee, as to why the seed variety was not approved; that the Committee be strengthened and more fully financially supported to undertake accelerated varietal release functions.
- That the Seed Regulations currently being prepared by Government be transparent and fully consistent with the intent and spirit of a liberalized seed system.
- That domestic production non-maize and non-tobacco seeds be encouraged and that the non-regulatory environment for these seeds continue.
- That the importation of both certified and non-certified seed ("truthfully labelled seed") for non-maize and non-tobacco crops in small quantities for own use by the importers continue to be permitted as long as they are accompanied by a phyto-sanitary certificate.
- That the preliminary release mechanism currently used by the Tobacco Research Institute of Malawi be extended to other crops—specifically, that the immediate

pre-release by importers and breeders of small quantities of seed to farmers for trial production be permitted.

- That Government undertake a study to determine to what extent it is necessary, feasible, and affordable to establish a seed security system which would protect Malawi from possible maize seed shortages in a fully liberalized maize seed system.

Concerns were expressed during the Seed Sub-Committee meeting that since the two seed producing companies operating in Malawi are multi-nationals with much wider interests, the interests of a domestic seed industry would not prevail if there were to be any conflict. Cheap imported seed would, for example, be marketed in preference to home-grown and the industry built up at considerable cost and effort, be allowed to wither.

These concerns are addressed through the retention, by the Government, of the right to restrict imports under the Seed Act and the Seed Regulations. However, this right should only be used in extreme cases. The Seed Services Section of the MOA's Department of Agricultural Research should serve as a monitoring and regulatory body, able to advise Government competently concerning the interests of Malawian producers, including producers of seed. Furthermore, the possible creation of a seed buffer stock would also serve to alleviate fears of a total dependence upon imports of seeds.

Concerns were also expressed at the proposed reliance upon the results of foreign research and trials, even when these are guaranteed by international bodies such as the International Seed Testing Association. While understanding these concerns, the team feels that the increased competitiveness that will result from the liberalization of the Variety Release Committee procedures will act as a beneficial stimulus to Malawian seed breeders. Competent selection and breeding will always be rewarded by the producers' recognition of the better performance of the locally bred varieties.

The approximate losses to the nation from the delayed release of a new variety of hybrid maize can be illustrated by the following calculations:

- Assume a new hybrid with average yield potential of 3 tons per hectare against a current average of 2.8 tons per hectare, everything else being equal. The additional production of 200 kg per hectare can be valued at current ADMARC producer price for maize, MK 94.00.
- N.S.C.M., who incidentally are at present trying to obtain approval for the introduction of five new lines, estimate that they could sell 500 tons of a new introduction in the first year and 1000 tons in the second year, and so on....
- The area that could be sown with the new line in the first year of sales would be 20,000 hectares and in the second year 40,000 hectares.

- The value of incremental production, to the producers would be MK 1.88 million in year 1 and MK 3.7 million in year 2, or a total of MK 5.64 million for the two years.

The above illustration assumes that there are no incremental sales of seed, that prices are the same for the new line as for the old and that there is no incremental hectareage sown by producers as a result of the new introduction. Losses increase in proportion to the delay, as a function of the hypothetical adoption curve. Typically, in the case of a new high-yielding variety, the adoption curve is exponential.

The Action Plan adopted by the Seed Sub-Committee for the implementation of policies with respect to both seed subsidies and seed variety release is the following:

- Complete elimination of maize seed subsidy by 3/31/94;
- Termination of the exclusive agreement between ADMARC and National Seed Company by 3/31/94;
- Liberalization of seed import regulations and removal of administrative controls by 6/30/94;
- Streamlined Variety Release Committee procedures and accelerated release of seed varieties by 6/30/94;
- Estimation of maize producer price based on full costing of seeds by the 1994/95 season;
- Initiation of seed security study by 9/30/94;
- Review of results of seed buffer stock study; endorsement of specific recommendations; and adoption of action plan by 11/30/94.

It is further proposed that the MOA prepare a proposal, for consideration by Government, to separate the Seeds Services Section of the Department of Agricultural Research from its parent department and constitute it as a National Seeds Services Trust with full autonomy and its own budget. As an autonomous organization it would operate with private sector standards of administration and efficiency. The seed services trust would act as an arbiter between private sector importers, growers, government, the seed industry, and all others concerned with seeds.

2.4 CONSUMER MAIZE SUBSIDY

Given the importance of maize as the staple food of the majority of the population, and the "single largest source of calories available to the population" (Memorandum of Understanding between the Government of Malawi and the ADMARC) the Government of

Malawi's agricultural policy has aimed at maintaining long-term self-sufficiency in this commodity, as a means of ensuring both aggregate and household food security. Stabilization of consumer and producer prices is one approach the government has used in attempting to promote food security.

ADMARC is GOM's agent for the implementing stabilization policies. ADMARC buys and sells maize at fixed prices set by Government (the National Price Review Committee) on the recommendation of the MOA. ADMARC also manages, on behalf of Government, the Strategic Grain Reserve held in silos at Kanengo, near Lilongwe. The SGR capacity is 180,000 tons.

The criticism often leveled at fixed pricing policies is that, among other distortions, they maintain producer prices artificially low, thus taxing the farmer to maintain low consumer prices. This creates an implicit consumer subsidy. Low producer prices in turn discourage production.

Nominal producer prices for maize have risen considerably in the last few years. However, real prices have remained relatively constant, given Malawi's high rate of inflation. The producer price for maize over the last few years is shown in Table 2.1 using both nominal and real prices, the latter arrived at using the Consumer Price Index as a deflator.

TABLE 2.1: PRODUCER PRICES FOR MAIZE (ADMARC)

Year	1994 Price* (Tambala/kg)	1990 Price (Tambala/kg)
1990	25.98	25.98
1991	28.62	26.45
1992	30.76	23.06
1993	43.00	24.34
1994	47.00	25.05

*The 1994 price came into effect on April 1, 1994; the deflator used is the January CPI, the latest available.

Sources: Reserve Bank of Malawi; Department of Economic Planning and Development

In an effort to encourage the private sector to engage in the marketing of maize, GOM fixed a premium price for maize delivered in sacks to the ADMARC depots (i.e. the secondary collecting points where maize is stored in sacks) in quantities of at least one ton. In the 1993/94 season, the ADMARC depot premium price was MK 50.75 per bag compared to the producer

75

price of MK 42.30. This policy, which began in the 1987 buying season, saves ADMARC some bulking and transport costs.

Since few private traders possess appreciable storage facilities, the main activity of the private sector in maize marketing is bulking up for delivery to ADMARC. Still, during the 1993 buying season, at which record purchases were made by ADMARC, private traders accounted for only 11 percent of total ADMARC maize purchases.

Producer prices are normally compared with parity prices to evaluate their freedom from distortion. Export parity prices are used for exported commodities, and import parity prices used for imported commodities. An undistorted market price would be between the export parity and import parity prices. Sahn, et al. studied the evolution of producer prices, both nominal and real, from 1975 to 1988 and compared them with export and import parity prices for three reference markets—the U.S.A., Zimbabwe, and South Africa. The comparison with the U.S.A. is not very relevant as it relates to yellow maize from there, for which the price is not comparable with that of Malawi's white maize. The comparisons with border prices using the South African and Zimbabwean reference markets found evidence of large implicit consumer subsidies in the early 1980s, and again in 1986 and 1987.

A more current estimation of the subsidy was calculated using price figures for maize in surrounding markets early in 1994 and the price at which ADMARC is known to have "exported" recently to the World Food Programme (WFP). The nominal ADMARC producer price was well below export and import parity prices whether the latter was calculated at the official exchange rate, which was in effect up to mid-February 1994, or at the market rate which currently is at MK 7.2 to 1 US\$.

Table 2.2 shows the calculations for these comparisons in Malawi Kwachas. The import parity price has been calculated for the Zimbabwe and Zambia maize, and the export parity price for the maize sold by ADMARC to the WFP. Export or import parity price is the sum of the cost of the grain FOB at the capital city of the country concerned, international freight costs, insurance and handling, and internal marketing costs. In the case of the "export" to WFP there were, of course, no international freight costs. All prices have been calculated for a ton of grain.

The import parity prices are MK 1057 and MK 1129 for Zimbabwe and Zambia, respectively, calculated using the fixed rate of exchange which was in place just before the new system of foreign exchange auctioning was instituted. Export parity price for the sale to the WFP using the same rate of exchange is MK 615. The differences between these prices and the producer price for the 1993/1994 crop are MK 627, MK 699, and MK 185 respectively, per ton. These differences are much greater if the grain cost is calculated in Kwachas using the current rate of exchange. It should be noted however that 1993 was a record year for maize production. Output exceeding Malawi's consumption needs (392,000 tons surplus) would have permitted exports at reduced prices. Also, during the crop production year in question, Malawi's

TABLE 2.2: MALAWI: PRODUCER PRICE FOR MAIZE (1993) COMPARED TO BORDER PRICES

	Zimbabwe Maize		Zambia Maize		ADMARC's Export	
	USD 90/MT		USD 140/MT		to WFP USD 180/MT	
	FOB Harare		FOB Lusaka		FOB Lilongwe	
	-----		-----		-----	
Cost ^a	414	(648)	644	(1008)	828	(1296)
International Freight ^b	429		264		0	
Insurance & Handling ^c	84		91		83	
Internal Marketing ^d	130		130		130	
Import Parity Price	1057	(1291)	1129	(1493)	-	
Export Parity Price	-		-		615	(1083)
ADMARC Producer Price	430		430		430	

a) Exchange rate MK 4.60/USD; figures in () for current exchange rate of MK 7.20/USD.

b) MK 0.33/MT-km (Harare/Lilongwe by road = 1300 km; Lusaka/Lilongwe = 799 km).

c) 10% of C&F

d) 33% of producer price

smallholder producers received subsidized inputs. Incorporating these into the calculation would reduce the implied level of taxation.

The question that may be asked is whether there is also an explicit subsidy on consumer maize in Malawi? This would be the case if the ADMARC consumer price were kept artificially below the level to which it would otherwise rise by Government paying to ADMARC a portion of the real costs incurred by the corporation in marketing maize at fixed prices.

The actual direct costs incurred by ADMARC in the marketing of maize during the marketing year 1993/1994 corresponding to crop year 1992/1993, are shown in Table 2.3. It can be seen that ADMARC's marketing costs amount to 15.67 tambala/kg (MK 156.7 per ton) which is 36 percent of the producer price of 46 tambala/kg. These marketing costs are well within the 21.8 tambala/kg (MK 218 per ton) which the government had allowed as a margin between the producer and the consumer prices. Though ADMARC's general administrative overheads must be added as a cost too, one would not expect overheads to exceed the MK 58 per ton which the margin leaves unaccounted for.

In their internal accounting, ADMARC in fact allocates MK 140 per ton to maize as overhead costs for marketing, depot costs, and miscellaneous overheads—more than twice the unaccounted for margin. This accounting would bring the total consumer cost of maize marketed by ADMARC in 1993/1994 to MK 720 per ton. Since they sold maize to customers at a price of MK 650 per ton, they recorded a loss of MK 70 per ton sold—and they have a claim on the government for this amount. This explicit subsidy amounts to a total bill to Government of MK 6.16 million, on sales of 88,000 tons for the year 1993/1994 (provisional estimate).

The magnitude of maize subsidy has varied greatly over time. Table 2.4 shows subsidy levels presented in Sahn, et al (1990). for the years 1980-1988, a period during which the margin between producer and consumer prices fixed by the Government of Malawi was much narrower. Large subsidies in the early 1980s shrank considerably between 1983 and 1986 before rising again in the late 1980s.

Figure 2.1 plots in graphic form ADMARC's producer and consumer prices alongside the open market prices observed on 18 rural markets where the MOA has organized an agro-economic survey, for the 12 months from February 1993 to February 1994. The figure shows the effect of ADMARC's activity in price stabilization. In the early part of 1993 when ADMARC had already exhausted its stocks (only 40,427 kg were purchased in 1992 which was the year of drought!) and had no more to offer for sale, prices on the open market rose to nearly MK 1.00 per kilogram. When the new crop started to become available in April 1993, the open market prices came down to the region of 40 to 50 tambala per kg where they stayed till September. From then on they rose again to about the level of ADMARC consumer price. They oscillated near this level until the third week of January when they suddenly rose quite sharply. The price dropped again at the end of February, but still remained above ADMARC's consumer price.

TABLE 2.3: ADMARC'S MARKETING COSTS 1993/94 FOR PURCHASES OF 376,243kg

	<u>MK</u>	<u>MK/MT</u>
Packing Materials	7,946,885	21.01
Insurance	180,000	0.34
Fumigation	1,351,000	3.59
Transport (road)	21,000,000	55.52
Transport (rail)	500,000	1.32
	-----	-----
SUBTOTAL	30,977,885	81.78
Staff Overhead	400,000	1.06
Finance Charges	27,945,233	73.88
on MK 111,780,932*	-----	-----
@ 25% (12 mos.)		
TOTAL	59,323,118	156.72

Notes:

* Difference between opening and closing stocks.

Producer price was T 43/kg (will be T 47/kg in 1994/95)

Consumer price was T 64.7/kg (will be T 74.4/kg in 1994/95)

Margin = T 21.7/kg (T 27.4 in 1994/95)

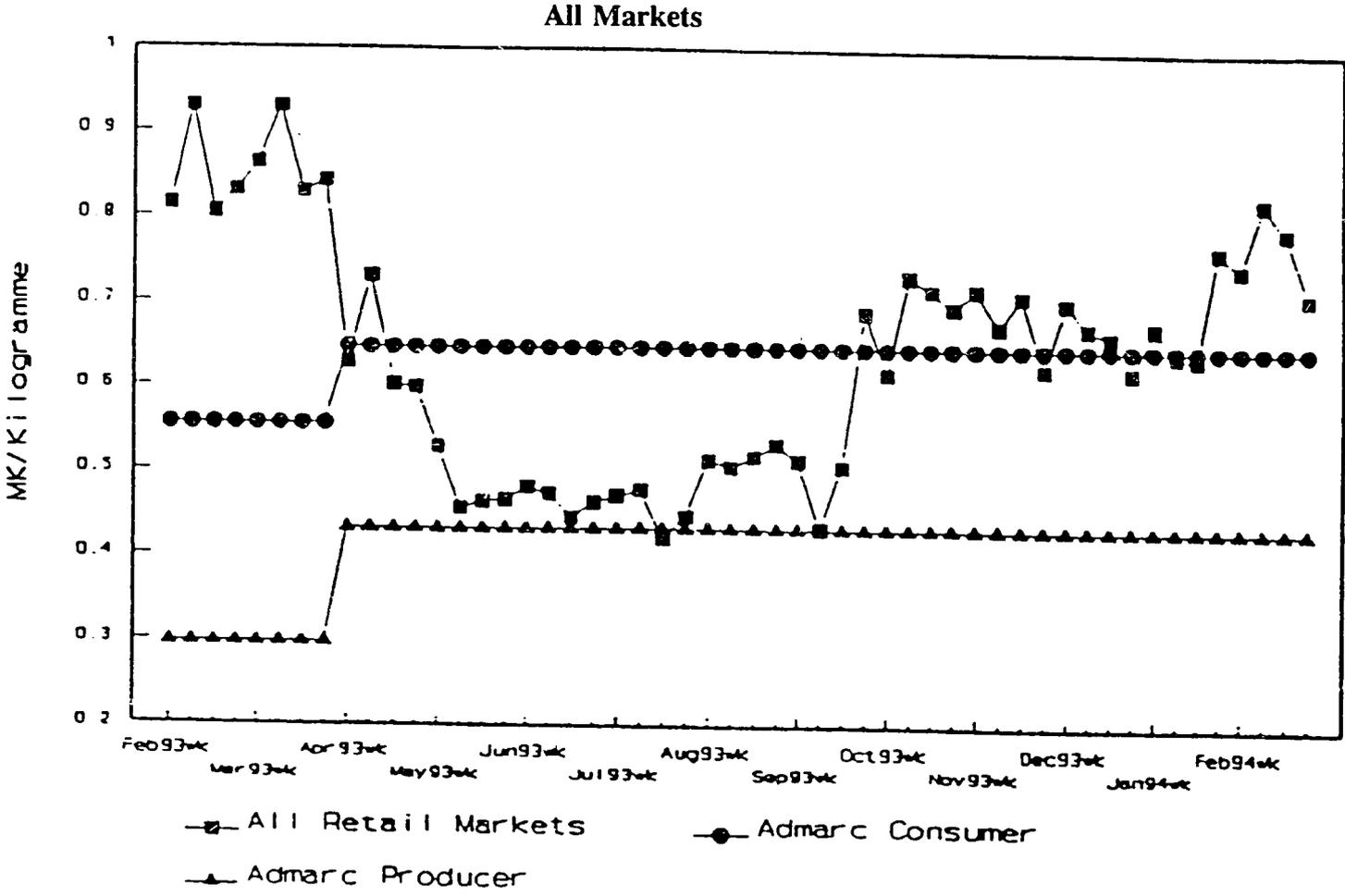
Equivalent to 9.7 percent of total costs (18.2 percent in 1994/95)

TABLE 2.4: MALAWI: ADMARC MAIZE SUBSIDY, 1980-1988

	1980	1981	1982	1983	1984	1985	1985	1987	1988
Subsidy (1980 MK/MT)	55.40	57.32	67.76	16.72	31.83	38.93	15.35	49.31	62.28
ADMARC Sales (MT)	136,849	95,821	84,212	134,885	174,678	115,460	246,860	198,108	102,399
Total Subsidy (1980 MK)	7,581,435	5,492,597	5,705,876	2,255,200	5,559,363	4,494,827	3,789,476	9,768,826	6,377,218
Subsidy as percent of GDP	0.75	0.56	0.56	0.22	0.54	0.43	0.36	0.94	0.55

Sources: Kandoole, et al. (undated); Reserve Bank of Malawi (1987-1988)
quoted by Sahn, D.E., Jehan Arulpragasam and Lemma Merid, 1990.

FIGURE 2.1: WEEKLY MAIZE PRICES (FEB 93 - FEB 94)



The general conclusion is that ADMARC's operations have served to stabilize prices somewhat, though at what price in terms of stifling of the private sector is another matter. As long as ADMARC is able to operate pan-territorial and pan-seasonal pricing over a wide network of markets and depots covering most of the country (some 1300 in all), there is no incentive to many private traders to engage in marketing in distant areas or to engage in storage for profit.

The pan-territorial prices mean also a distortion of the spatial differentials between markets and results in the Northern Region, which is a surplus producing area, having higher prices than under normal market conditions, while the prices in the Southern Region, which is a deficit area, are kept artificially low. This distortion also means that producers in the Northern Region are subsidized by a tax on producers in the Southern Region.

It would be possible to remove this distortion by having ADMARC apply regional prices based on adjustments for the cost of transport from each regional depot to the main consumption centers, while keeping within an overall price band fixed by the government. Similarly ADMARC could be allowed to respond to seasonal price changes in the market while keeping within the overall price band laid down. At present, although the producer price is only a minimum and the consumer price a maximum, ADMARC operates as though they were fixed prices. By responding to market price changes, ADMARC would be closer to operating as a purely commercial organization.

However it is recommended that, in view of the highly sensitive nature of pricing and other policies concerning maize, a comprehensive study be carried out before any decision is made on the total liberalization of maize prices. Such a study would consider not only all aspects of maize pricing policy in Malawi but also the entire role of ADMARC as buyer and seller of last resort for maize as well as stabilizer of prices and manager of the SGR.

Under the recently signed Memorandum of Understanding, the government is committed to fully reimbursing ADMARC for losses incurred in the course of the performance of its duties as an agent of Government in developmental or social operations. The study should address the issue of how to ensure that, while performing its developmental and social obligations, ADMARC does not hinder the further growth of an efficient private marketing sector.

The study should also determine the feasibility of reducing or eliminating, if necessary progressively, any consumer subsidy in order to ensure that producer prices remain as high as the market can provide, even after the removal of all input subsidies. Recommendations should address procedures and methodology associated with the annual price review and the pre-planting announcement of minimum producer prices, if administrative pricing structures are retained.

Finally, the study should take into consideration the need to ensure national and household food security, and particularly for vulnerable sections of the population.

After consideration of the findings of the study by an inter-ministerial committee including senior representatives from the Ministries of Agriculture, Finance, Office of the President and Cabinet, Trade and Industries, and Local Government, the recommendations adopted would be implemented, probably by the MOA.

2.5 FERTILIZER SUBSIDY—REMOVAL OF SUBSIDY

The Harvard Institute for International Development recently carried out a study for the GOM on the functioning of the Smallholder Farmers' Fertilizer Revolving Fund (SFFRF). The Interim Findings and Interim Recommendations of this study were available to the team.

The government has already adopted a policy for the progressive removal of fertilizer subsidies. Subsidies are due to be phased out completely by the 1995/96 season. Present inventory levels are high as a result of low usage during the 1993/1994 crop year following the breakdown of the credit system, and inventory levels are still rising. It is likely that the SFFRF will soon be holding the equivalent of more than two years of present effective economic demand.

The large stocks obviate the need for further fertilizer imports for some time and provide a fortunate opportunity for trying to increase private sector participation in fertilizer distribution. Supplies of fertilizer should be made available at the SFFRF warehouse to all dealers/suppliers wishing to purchase it at import parity prices—discounted by storage costs and losses.

In conformity with the policy of liberalizing input marketing already accepted by government, there seems no reason for the SFFRF to be still involved in the importation and distribution of fertilizers; the role of the SFFRF could be reduced, as recommended in the recent study conducted by the team from the Harvard Institute for International Development, to that of management of the buffer stock. This would leave a larger share for the private sector to market and would also leave operations more transparent.

The HIID study has recommended the re-evaluation of the appropriate level for the buffer stock. The large size of the buffer stock was originally intended to take into account the risk of total disruption of supply as a result of the war in Mozambique. Now, however, the risk has receded. Also, usage rates will probably be somewhat lower than projected when setting buffer stock levels due to higher post-devaluation prices and because efficient smallholder fertilizer usage rates are lower than those previously recommended. The rationale for buffer stock levels of 90,000 tons, up from previous levels of 70,000 tons, no longer seems valid.

Further, there is no justification for the SFFRF to be tied to ADMARC for distribution. Thus, procedures need to be established for off-take of fertilizer from the SFFRF by private dealers as well as ADMARC, perhaps against withdrawal licenses and a signed commitment to replace stock withdrawn by a specified date.

2.6 CONSTRAINTS TO FURTHER PRIVATE SECTOR PARTICIPATION IN MARKETING AGRICULTURAL OUTPUTS AND INPUTS

This section describes five constraints that limit further private sector participation in the marketing of agricultural outputs and inputs. The constraints are regulatory policies, external marketing, transport, credit, and storage.

2.6.1 Regulatory Policies

Trading in agricultural produce in Malawi is still governed officially by the terms of the Smallholder Agricultural Produce (Marketing) Regulations, 1987. These regulations, notably, place the following restrictions on trading:

- Prohibit non-Malawians from trading in agricultural produce;
- Prevent farmgate purchases;
- Limit days, hours, and places of trade;
- Provide for price fixing for certain commodities;
- Make the use of assized scales obligatory.

In April 1992, the Food Studies Group's consultancy on liberalization recommended that the regulatory regime be radically changed.

A review of the regulations by the MOA again in April 1992 resulted in recommendations to the Ministry of Justice for the promulgation of a revised set of regulations which would have retained the licensing of traders and the interdiction on trading by non-citizens, while abrogating all other provisions of the original regulations. By a Minute to the Secretary for Agriculture dated February 10, 1993, the Ministry of Justice indicated that they considered the proposed new regulations unnecessary since they contained nothing substantive. They therefore proposed to publish a Government Notice revoking the original regulations. A draft notice was attached to the minute referred to above.

Since that date, more than a year has elapsed without any apparent progress in the matter. It is recommended that publication of the relevant Government Notice be made without further delay.

2.6.2 External Marketing

As far as access to export markets is concerned, there are still barriers in the way of private traders since in addition to being governed by the regulations referred to above, they also have to obtain export licenses from the Ministry of Trade and Industries. This ministry refers applications to the MOA when agricultural produce is concerned and the MOA consults ADMARC. It is thus that ADMARC has been able to obtain restrictions on the export of groundnuts and beans and to retain a monopoly of sales of maize to donor agencies. Reasons that have been given (food security, the need to prevent subsidy leakage, or to maintain quality

standards), do not justify ADMARC having sole export rights. Negotiated prices could be used to allow for these various considerations.

Donor agencies should be asked to consider buying from the private trade for triangular arrangements (swaps) and refugee supplies. ADMARC should be deprived of its de facto monopoly on food commodities.

2.6.3 Transport

Essential to the role of almost every trader is ready access to means of transportation since marketing involves the physical movement of produce and factors of production from the producer to the consumer. The means of road transportation consists of both infrastructure (roads and bridges) and vehicles.

The designated road network of Malawi at present covers a total of 14,156.91 km of which 17 percent is bitumen roads, 11 percent gravel roads, and 72 percent earth roads. A number of road construction projects are already in hand and others programmed for the years ahead. While the entire road network serves the rural population by facilitating communications, rural access roads—which are still almost without exception earth roads—are the most important for the evacuation of production from the farm to the primary rural markets. This class of road seems to be generally omitted from the up-grading programs.

There have been conflicting reports regarding the sufficiency of the number of smaller capacity vehicles (less than 10 tons) for domestic freight carrying. The Ministry of Transport's Chief Transport Planning Officer opined that capacity is sufficient; however, he also stated that it was not possible to substantiate his opinion with any figures since the Road Traffic Commissioner's Register "is not reliable" and no survey has been carried out because they do not have the necessary manpower. The Road Transport Operators' Association (formed as a breakaway group of the African Businessmen's Association) also maintains that capacity is sufficient. This association has carried out its own survey, the results of which are just becoming available; but the Chief Transport Planning Officer was doubtful of the reliability of these.

Obtaining a full permit to operate as a transporter is also a problem. It may take up to four months to obtain the permit since it is granted after application and a public hearing before the Road Traffic Commissioner and a team of Assessors. The Road Traffic Commissioner organizes a public hearing when he feels that he has enough applications to warrant it. Normally there is a public hearing about once a quarter in each of the three regions. Pending a public hearing, an applicant may be granted a provisional permit. The Ministry of Transport believes that many "pirate" traders operate without permits.

According to the Chief Transport Planning Officer, it is ministerial policy not to grant permits to Asians for domestic transport operations. Though there is no legal backing for this

policy and no written policy statement to this effect, the informal policy is effective in precluding Asians from most domestic transport activities.

Under present customs tariffs, three classes of vehicle are distinguished: those of a gross weight not exceeding 2.75 tons; those of a gross weight between 2.75 and 10 tons; and those of a gross weight exceeding 10 tons. The first class is assessed at an import duty rate of 20 percent and a surcharge rate of 10 percent; the second at an import duty rate of 10 percent and no surcharge rate; the third is rated free of both import duty and surcharge. This discriminatory tariff system tends to discourage the importation of the smaller vehicles. Since it is the smaller vehicles that are used mainly by the small scale traders engaged in the buying and selling of agricultural produce this tariff system has a negative effect on the marketing of farm produce and inputs. The Ministry of Transport has made several unsuccessful representations to the Ministry of Finance seeking the removal of the discrimination in favor of larger vehicles.

Private road transport operations are further inhibited through rate setting by the government and prohibitions on freight transporters carrying passenger traffic. The Ministry of Transport issues "rate guidance" of minimum and maximum freight rates for freight transport. In effect, this guidance acts more like price fixing by government. At the same time, the prohibition against operating multi-purpose freight/passenger vehicles eliminates an important source of backhaul revenue for transporters, especially for short-haul truckers in rural areas where other forms of public transport are few. Both types of regulation constrain profitability of transport operations and limit effective competition in the sector. Revisions to the Road Transport Act, section 78 and section 81, are needed to deal with these two issues.

Rail transport is generally performing reasonably well but is not, of course possessed of a very dense network. Wagons are however, often detained for lengthy periods at the tobacco auction floors during sales, serving for tobacco storage despite the railways having increased the demurrage rate. Lake transport is not much used; since the water level has not yet returned to its pre-drought level there are additional costs for loading and unloading. These act as a deterrent to many transporters.

Internal freight traffic increased by 42.4 percent in 1993 compared to the previous year. The volume was distributed as shown in Table 2.5.

TABLE 2.5: FREIGHT TRAFFIC BY TYPE OF TRANSPORT, VOLUME, AND INCREASE 1992-93

	Volume ('000 tons)		
	1992	1993	% Increase
Rail	237	303	28
Lake	17	13	(24)
Road	267	424	59
Air	1.4	2.9	107
Total	522.4	742.9	42

Source: Economic Planning and Development, Transport Planning Unit

It is also remarkable that ADMARC claims to be able to obtain transport (the organization has divested itself of its own transport fleet) at as little as MK 0.33 per ton kilometer at present, though the official (indicative) rate fixed by the GOM on the recommendation of the Road Transport Operators Association, is MK 0.52 per ton kilometer. This suggests that the capacity is sufficient at least at this time when tobacco is not yet making heavy demands on transport (the auction floors are due to open only on April 18, 1994). It is reported that during the tobacco marketing season it is very difficult to get transport for other purposes.

Recommendations, however, at a policy level in the interest of liberalization, are that the discrimination against Asian transporters be removed, that all goods vehicles be assessed at the same rate of import duty and surcharge, that minimum/maximum rate setting by the ministry be stopped, that passenger traffic be permitted on freight vehicles, and that additional resources be allocated as soon as possible to the improvement of rural access roads.

2.6.4 Credit

Initial start-up of new entrants into the profession of trader in agricultural commodities or inputs requires capital. At the lower end of the scale, the trader must at least have funds sufficient to make his first purchase of the goods in which he wishes to trade. The most necessary form of credit for the entry of private sector traders into business is thus short-term credit to finance the purchase of stock. Also necessary but to a lesser degree, and at a later stage in the development of a small business, is medium term credit to finance purchase of transport, storage, and other needs.

Financial institutions which could potentially offer credit to operators in the domestic wholesale and retail trade as well as to small agro-industries in Malawi are:

- **Commercial Banks.** There are only two, viz. National Bank of Malawi and Commercial Bank of Malawi;
- **Merchant Banks.** Leasing and Finance Company, Investment and Development Bank of Malawi (INDEBANK);
- **Other lending institutions:** Indefund Ltd., Small Enterprise Development Organization of Malawi (SEDOM), Development of Malawian Traders Trust (DEMATT), Malawi Union of Savings and Credit Cooperatives, Ltd. (MUSCCO), the Mudzi Window operated through various NGOs (for micro-loans).

The Commercial Banks and INDEBANK offer credit with a minimum amount generally too high for the small rural trader, e.g. MK 300,000--MK 500,000, and at commercial interest rates. Additionally, these banks require some form of collateral and a proven track record. Both conditions commonly exclude the small rural trader. They have also generally not shown any interest in lending to small scale traders.

SEDOM has to date advanced credit to 51 traders using a revolving fund created with World Bank funds amounting to MK 5 million. The amount available has sufficed for short-term loans of working capital only and more is needed for longer-term lending.

DEMATT's Board of Directors has only recently approved the nomination of the trust as a lending institution and negotiations are in progress with UNDP for access to funds through a guarantee constituted by the U.N. Capital Development Fund.

Thus, it can be safely said that insufficient credit is available to private traders wishing to enter, or already operating at the lower end of the scale of marketing operations, **at a price and on terms which they can satisfy.** Alternative terms to collateral and a proven track record in credit operations is an assessment of the ability to repay. Specialized organizations like SEDOM and DEMATT may be able to accurately judge repayment ability whereas commercial banks are not so organized. The assessment of repayment ability is problematic when traders are illiterate and do not keep even simple accounts.

Collaboration between organizations such as DEMATT and SEDOM, on the one hand, and the financial institutions on the other, may be one way to increase lending opportunities for small traders. DEMATT for instance, using its own knowledge of the borrowers and their enterprises could assist the borrowers in preparation of their loan applications, and also assist the lending institutions in the assessment of the risk involved. It is also to be anticipated that the newly founded Malawian Rural Finance Corporation (MRFC) will be able to serve the small scale trader in the rural area as well as the farmers. Its mandate extends to all kinds of enterprise without discrimination based on sector or type of operation. Since start-up trading operations tend to be small, forming traders clubs for easier access to credit—perhaps through the MRFC—may be another approach to increasing credit access for rural traders.

2.6.5 Storage

Marketing studies conducted in the few years since liberalization have generally noted a lack of storage facilities among private traders, especially the smaller ones. The Food Studies Group distinguished the following seven categories of private trader:

- Institutional companies (Grain Milling, etc);
- Individual operators buying in large quantities for export;
- Large-scale wholesalers;
- Estates and large-scale farmers buying produce to resell to their tenants or laborers.
- Small-scale wholesalers;
- Wholesaler/retailers;
- Retailers;

Traders in the first four categories possess substantial storage facilities, either through ownership or leasing, the remaining categories either have no storage facilities or only facilities of poor quality.

There is no complete database of agricultural traders. Since licensing is decentralized to ADDs, all eight ADDs would have to be consulted for any national figures to be compiled. The categorization referred to above was based on 66 interviews with a sample of traders from each ADD but no information is available on the total number of each category nationwide since the surveyor consciously focused on larger-scale operations.

The possession of, or access to storage facilities is bound up with the question of access to capital. Firstly, storage implies tying up stocks and when capital is short, trade tends to concentrate on the fast turnover of the maximum stock which available funds can purchase. Secondly, the pan-seasonal pricing policy of ADMARC acts as a brake on profits to be made from storage.

If ADMARC's pan-seasonal pricing policy is abandoned, then with added incentive to engage in storage, more of the smaller-scale traders might look for additional space. Additional space could be obtained through leasing or purchase as an alternative to costly building. Many shops and stores, originally built by Asians before they were expelled from the rural areas are available for leasing or purchase, often at minimum prices since they are unutilized. Lastly, it is to be strongly recommended that ADMARC lease out a portion of its godowns where they are underutilized. If necessary, ADMARC should actively seek out potential lessees, and try to come to mutually profitable arrangements with them.

3. AGRICULTURAL DIVERSIFICATION IN MALAWI

3.1 INTRODUCTION

The expression "agricultural diversification" seems to have a wide range of meanings, as well as the reputation of being a panacea for an agricultural country's economic woes. In order to ensure coherence in planning, execution and evaluation of diversification, those involved must have the same vision.

What is agricultural diversification? Expressed in the terminology of industrial organization theory, agricultural diversification is the altering of the structure and conduct of the agricultural sector in order to have some desired effect on its performance. With respect to the agricultural sector (this includes animal husbandry, forestry and aquaculture), structural elements include:

- Buyer and seller concentration. The extent of monopolistic or monopsonistic advantages enjoyed by the sector's participants, including the government and parastatals.
- Product differentiation. Whether risks are spread over a range of products or the sector depends greatly upon one or two for the majority of its income.
- Barriers to the entry of new firms. Scale economies, licensing regulations or other policies or conditions that prevent the establishment of new firms into a given activity.
- Cost structures. Land, labor and capital costs of firms compared to domestic and foreign competitors.
- Degree of market knowledge. The extent to which producers and traders are familiar with prices and supply/demand conditions in the markets of interest to them.

The conduct of the sector is how it carries on its business. The specific elements are:

- Pricing behavior. The sector's relationship to its product's markets (price taker or maker). How prices are established in the sector.
- Product strategy. The process of deciding what the sector will produce and trade.
- Research and innovation. The amount of resources the sector allocates to research and technology transfer, the method of selection, and the focus of research efforts.

Conceptually, alterations of the sector's structure and conduct affect its performance: its effectiveness at achieving goals with respect to efficiency of resource allocation, progressiveness (growth), full employment and equitability of income distribution.

Note that there are a large number of possible types of modifications of structure and conduct that will affect performance, including policies affecting land, trade, production, inputs, credit, and transport. Forms that agricultural diversification could take include alternative crops; small or large livestock operations; contract growing schemes; agroprocessing operations of all sizes; and direct export sales. It is important to realize that it is the sector that is being diversified. The process may well lead the individual farmer, trader, firm or village to increase specialization in order to achieve greater income growth, for example.

Why should Malawi's agricultural sector diversify? The answer to that question is different for each subsector, since each functions in a different context. Table 3.1 describes the participants and their objectives (as well as the constraints each faces and the manner in which each can get involved in the process (two later sections of this report).

Resource-poor smallholders are families that occupy less than one hectare (the minimum deemed necessary for subsistence) of customary land (rural land traditionally controlled by village chiefs). They currently number about 1.35 million families. They typically do subsistence farming, usually maize, groundnuts, and a few vegetables for home consumption. Most must work off-farm at least part of the time to survive.

The objectives of this subsector are to extend the availability of food throughout the year and to generate cash incomes. Thus diversification might involve the use of a village-level dehydration unit to dry produce from village gardens planted in a programmed fashion. Alternatively, larger-scale commercial enterprises for production or processing may also draw on resource-poor smallholders as contract farmers or outgrowers. For example, a commercial dehydration plant could contract the growing of onions and garlic.

Commercial smallholders, who number about 450,000, are those with holdings larger than a hectare that have not registered as estates (see below). They produce for sale as well as for subsistence. Typically they have experience with a number of traditional crops, though most dedicate nearly all their land to maize production. Their marketing connections are not always favorable, as they suffer from a lack of market information and normally do not have access to transport. With respect to diversification, this subsector's objectives are to increase income through producing profitable alternatives to traditional maize and establishing favorable marketing linkages. Alternatives for this latter option are contract growing schemes for a processor or exporter or marketing arrangements with a wholesale trader to supply a municipal or regional market with produce.

Small estates are essentially commercial smallholders who have taken a lease on their customary use land and registered as an estate to obtain a tobacco quota. There are about 30,000 estates in Malawi, of which the great majority are small. Since the recommended

cultural practice is to put tobacco on a given piece of land only once every four cycles, and since there is only one tobacco harvest a year, small estates are keen to discover crops that come on stream during opposite seasons.

Their diversification objectives are to focus at first on agronomically appropriate rotations with tobacco, and then to establish linkages with markets and processors. At times these objectives may be the same, as when a small estate grows soybeans in rotation with tobacco to supply a crushing plant.

Large estates are few in number, but vast: 800 comprise more than half of all estate land. This subsector enjoys the best management skills and the most capital, and has in fact been experimenting for quite some time with various diversification schemes, although with mixed results.

Now that tobacco is not as profitable for some large estates, they are looking to reduce their dependence on it while maintaining their incomes. The establishment of a lucrative export trade could well entice some of the larger estates to enter into vertically integrated schemes with exporters or processors, or to begin exporting directly.

Agroprocessors may well prove to be the driving force behind agricultural diversification in Malawi. Oilseed crushing will create export income as well as substitute for imports and supply animal feed producers. Vegetable and fruit drying operations will help solve seasonal food shortages in rural areas.

Processors' objectives are to operate at or close to capacity by diversifying their product lines, and to establish both domestic and export sales.

Table 3.1 does not mention the government sector, which also has diversification objectives and plays an extremely important part in the process is the government. Its role is the subject of the next section of this report.

3.2 THE STRATEGY OF DIVERSIFICATION

The idea of diversifying Malawian agriculture is not a new one. Some large estates have been experimenting for as long as 30 years with alternative crops and agroprocessing schemes. It has also been an element of government and international donor policy for many years. Yet results thus far have been unimpressive. This section of the report explains why, and presents a strategy for diversifying Malawi's agricultural sector.

If agricultural diversification in Malawi is to be effective—that is, give rise to an agricultural sector efficient enough to increase farmers' incomes and diverse enough to make them less vulnerable to the fluctuations in a single world market—it must be given the same importance as the traditional crops it is attempting to replace; that is, the same amount of credit,

TABLE 3.1: PARTICIPANTS IN AGRICULTURAL DIVERSIFICATION

Subsectors	Objectives	Constraints	Program Options
Resource-poor Smallholders	Improved nutrition Cash income	Land base Knowledge Finance	Employment on nearby farms or small estates Education and training Limited production changes
Commercial Smallholders	Increased income Production and market linkages	Finance Organization Market info Policies	Diversification through alternative production systems and rotations Marketing arrangements
Small Estates	Increased income from tobacco and alternatives Market/processor sales	Finance Market info Policies Export assistance	Diversification through alternative production systems and rotations Marketing arrangements
Large Estates	Reduce tobacco dependence Maintain income Export sales	Policies Market info Export assistance	Alternative production and marketing arrangements Improved handling and storage Increased domestic sales Commencement of exports
Agroprocessing Sector	Achieve capacity Diversify line Export sales	Policies Finance Export assistance	Vertical integration Improved handling and storage

Source: World Bank, Agricultural Sector Memorandum (Draft), 1994.

technical assistance, marketing, etc., must be expended upon it. The challenge is to accomplish that end without inhibiting the ability of tobacco and maize to generate income.

The current lack of a clearly-defined set of policies and strategy in Malawi can be considered as the single biggest constraint to agricultural diversification simply because in the absence of a clear policy, neither producers nor traders nor processors can be sure the government will not intervene in their commerce on an ad hoc basis. Their apprehension is legitimate in Malawi, as evidenced by the recent restrictions placed on the trading of groundnuts. Thus, simply removing constraining policies is not enough: the government must make an explicit commitment to not intervene in the diversification process.

This commitment should be for a specific minimum amount of time. The adjustment to private sector-led diversification may not be easy. Liberalization of long-controlled trade and production conditions usually brings about a relatively confusing sorting out of new production and trade patterns during which, inevitably, some mistakes are made. This can be a frightening period for government policy makers and donor agencies, both of which tend to look for a "quick fix" for problems unless there is a specific commitment to follow a given path for a specified length of time.

Diversification can only attain the momentum necessary to achieving its goals if it is carried out as a carefully designed program. Private sector participants must have the freedom to choose their economic activities, with government policies and donor agency programs providing a supportive but not smothering environment. This aspect of completeness should include every Government Ministry, and may well involve negotiations with neighboring governments as well to arrange regional marketing schemes if the private sector demands them. The elements of the strategy should include:

- **Definition of the government's role in the diversification process**, as well as in agricultural production and trade in general. This is the most important element, the one that should be agreed upon first.

The government has three options: (1) it can take charge of diversification, (2) it can completely remove itself from the process and let the private sector handle it, or (3) it can participate as a partner with the private sector. As in any partnership, the comparative advantages of each partner should be used in favor of the partnership. This implies that the private sector should be dominant, with the government providing a supportive regulatory environment.

- **Removal of policy constraints.** Once the government and the private sector have defined their roles clearly, the government will remove policy constraints to officially get diversification under way. The next section of this report describes the current policy constraints in detail, offers some options and recommendations, and discusses the impact of removing the constraints.

- **Proactive incentive programs and removal of non-policy constraints.** Clear definition of roles and removal of policy constraints is a necessary but not sufficient condition for diversification. The fourth section of this chapter looks briefly at some non-policy constraints and proposes a two-level strategy that would modernize both the public and private agricultural sectors.
- **Diversification Commodities, Activities and Participants.** Research on the possibilities for diversification of the agricultural sector date back at least 30 years, and has been carried on intensively by the World Bank and other entities for the last decade. This last section of the chapter briefly reviews the more important findings.

3.3 POLICY CONSTRAINTS AND RECOMMENDATIONS

This section is devoted to describing constraints on agricultural diversification in Malawi that take the form of government policies, written or unwritten. For example, more than thirty formal government acts affect agricultural diversification (see Table 3.2). Removal of these obstacles is an essential second step in the strategy to diversify the agricultural sector. (The first step is to define the roles of the government and the private sector.)

The evidence presented is partly anecdotal, based on conversations with and observation of those entrepreneurs who are attempting to establish new enterprises, those who wish to but have not yet dared, and those who have tried and failed. There have been a number of reports and studies on agricultural diversification in Malawi. These studies have been reviewed and their findings incorporated into this analysis, to the extent they are relevant, to support hypotheses as to the impact of policy changes.

3.3.1 Licensing

Constraint: Exclusion of certain groups from trading in rural areas of Malawi.

Domestic markets are thin due at least in part to a dearth of traders and entrepreneurs in the rural areas of Malawi. The exclusion of a very accomplished group of traders, the Asians, has removed an important set of buyers of smallholders' produce from the market, buyers who generally paid higher prices than did ADMARC. It has also inhibited the flow of market information to smallholder growers, who rely on the traders' demand to plan their production.

Currently, an individual must be licensed in each ADD to purchase agricultural commodities, which may then be sold anywhere in Malawi without further licensing required. This licensing requirement is widely used to exclude Asians, mulattos, and even Malawians from other regions from engaging in legitimate business within an ADD, in spite of the government's recent public abrogation of this policy.

**TABLE 3.2: ACTS THAT AFFECT AGRICULTURAL
DIVERSIFICATION IN MALAWI**

African Immigration and Immigrant Act
Apprenticeship Act
Bankruptcy Act
Banking Act
Business Licensing Act
Capital Development Act
Capital Markets Act
Companies Act
Control of Goods Act
Customs and Excise Act
Electricity Act
Employment Act
Employment of Women, Young Persons and Children Act
Exchange Control Act
Export Incentives Act
Factories Act
Fair Practices Act
Forfeiture Act
Immigration Act
Industrial Development Act
Industrial Training Act
Investment Promotion Act
Labour Legislation (Miscellaneous Provisions) Act
Land Act
Land Surveys Act
Malawi Bureau of Standards Act
Regulation of Minimum Wages and Conditions of Employment Act
Taxation Act
Town and Country Planning Act
Trade Disputes (Arbitration and Settlement) Act
Trade Union Act
Trust Incorporation Act
Workers Compensation Act

The licensing procedure itself, though tedious, is not a limiting constraint: one fills out a form in the ADD, pays MK 10, waits for a week or so while the ADD personnel do a background check, and—if passed—pays another MK 50 for a license to purchase specified commodities in specified locations (only) within the ADD.

As diversification and liberalization take place, the number of private traders will grow rapidly, increasing the need for monitoring and enforcement of fair trade practices. Under the present licensing system, unscrupulous traders could move from region to region to stay ahead of their reputation. A centralized licensing and monitoring agency is needed to serve as an information hub about traders.

Recommendations:

- Issue a single national license, renewable yearly, for trading agricultural commodities anywhere in Malawi. The application procedure should be transparent: the criteria for issuance or denial of the license should be written, and should expressly forbid refusal due to race, nationality, gender or other irrelevant characteristics. The procedure should also be rapid and inexpensive. There should be a written appeals procedure.
- Set up a monitoring system to receive, record and disseminate information about complaints lodged against traders. Allow the records to be used as evidence in civil court proceedings. Computerize the system to make it universal. Have a written procedure whereby an accused trader can clear his or her name.

Impact: This policy change, along with recent government declarations lifting the ban on Asian citizens trading in rural areas, will have a major impact on smallholder producers, since the presence of small traders like the Asians creates an opportunity for diversification. The first beneficiaries will likely be commercial smallholders, who will have an outlet for their produce. As contract growing for processing or export spreads farther, however, and more produce of nonexportable quality becomes available for sale domestically, those who sell goods in villages will buy produce to sell in the cities, gradually building a viable marketing network that benefits growers of all sizes and centrally-located processors and exporters as well. The income growth potential for smallholders is tremendous.

Restrictions against Asians participating in trading arose from concerns over potential monopsonistic market power they may influence in Malawi. These concerns should be addressed directly by regulating market *behavior* rather than controlling market *participation*. Not only is the ethnicity-based exclusion unfair to those being excluded, but its greatest impact is on smallholder farmers who lose access to efficient markets and alternative market channels.

Constraint: Exclusion of certain groups from transporting goods in rural areas of Malawi.

According to an official in the Transportation Ministry, it is a government policy, though unwritten, not to give transport permits to Asians, who have traditionally been the most active traders in rural Malawi. This exclusion is a constraint to agricultural diversification insofar as it inhibits the monetization of the rural economy and the establishment of flows of goods to and from villages.

The exclusion came about through a government policy directive and must be changed in the same way, but the procedure for obtaining a permit is less than transparent and quite lengthy: One obtains the application form from the Ministry of Transport in Lilongwe; submits it to the Road Traffic Commissioner in Blantyre; he issues (except to Asians) a provisional permit "to operate goods vehicles for reward"; the provisional permit is subject to approval or revocation at a public hearing before the Road Traffic Commissioner and his team of Assessors. This last can take up to 4 months, as the RTC waits for enough applications to accumulate to justify holding a hearing. Procedures relating to application, issue, rejection, objection, and withdrawal of road permits fall under Part VI of the Road Traffic Act.

Recommendations:

- Remove the exclusion of Asians; allow any legal resident of Malawi to obtain a permit for the transport of goods.
- Approval or revocation of the provisional permit should occur rapidly, according to written and publicized criteria. A system should be devised to receive, record and disseminate complaints against transporters for use in permit renewal proceedings or in civil court. A procedure for expunging a permit holder's record should exist. Any irregularities of monopsonistic behavior should be dealt with transparently through administrative proceedings instead of using the blanket exclusion of Asians from transport.

Impact: This impact is similar to that of allowing Asians to purchase agricultural goods in rural areas. As Asians begin to reestablish themselves in rural commerce, those who carry goods to the villages will be hungry for backhauls to increase profit per trip. The greatest impact of this policy change will be felt in the smallest, most remote villages, those that only small traders and transporters visit. Again, commercial smallholders wanting to carry produce to larger markets will be among the first to benefit. With the removal of ADMARC's pan-territorial pricing and supply obligations (see below), small transporters will be more able to compete to provide inputs and transport produce to central markets.

Constraint: The prohibition on carrying passengers on freight vehicles creates barriers to the transporting of agricultural goods.

The current freight market for small transporters in rural Malawi is extremely thin. "Matola", the carrying of passengers on freight vehicles, is often the only backhaul opportunity,

without which the operator is forced to charge more for hauling the freight in order to stay in business.

Recommendation:

- Remove the ban on matola; allow the carrying of passengers on freight vehicles. This will require a general exemption under Section 81 of the Road Traffic Act.

Impact: Smallholders will benefit most from this policy change, as they frequently are faced with the need to accompany small quantities of goods to market. The effect will be to get more goods flowing to more markets.

Constraint: Government licensing requirements on the export or import of certain categories of agricultural products distort their production and trade, increasing the risk and uncertainty of production and trade. The specific EXPORT categories referred to are the following:

Beans meal,
Sorghum, sorghum meal, sorghum salt,
Groundnuts,
Beans and peas,
Maize (all forms),
Maize meal (all forms),
Munga, munga meal (millet),
Oil seeds, oil meals, oil cake,
Rice,
Rupoko, rupoko meal (finger millet),
Seeds for planting, in quantities of more than 90 kgs,
Cassava,
Gram and dhall.

The specific IMPORT categories referred to are the following:

Sugar,
Beans,
Animal feeds,
Gram and dhall,
Groundnuts,
Maize (all forms),
Oil seeds, oil meal, oil cake, offal and residue from oil seeds,
Rice,
Rupoko, rupoko meal (finger millet),
Bananas, and
Meats and poultry.

(See "Import and Export Control Regulations" in the Annex.) The licensing process itself is cumbersome: one applies at the Ministry of Trade and Industry, indicating on the form the quantity of each product to be exported or imported during the next three months; the form is sent to the Ministry of Agriculture, which consults with ADMARC; if ADMARC has no objections, the form is returned to the Minister of Trade, who also must sign. If all goes well and the Minister is present to sign, the license can be had in as little as 2 days; the usual time, however, is about 2 weeks, not nearly flexible enough to be useful to smaller traders purchasing product in villages or selling to customers across national borders.

In the case of groundnuts, the stated objective of licensing (prohibiting) external trade was to prevent the exodus of seeds and thus protect the domestic food supply. The government's intervention has succeeded only in partially suppressing what could be a very profitable export business (as evidenced by the amount of clandestine exports to Zambia). This has relegated groundnuts to subsistence-level production, lowering demand for seed and causing ADMARC's and NSCM's seed stocks to deteriorate. If groundnut trade were freed, however, producers could sell into profitable markets, so production would increase. NSCM says there would be no problem obtaining more seed of the varieties grown in Malawi.

Recommendations:

- Remove the export or import licensing requirement from the above commodities (with the possible exception of maize), allowing the private trade to balance supply and demand. What is needed here in order to establish profitable marketing arrangements is the government's guarantee that it will not intervene.
- The government of Malawi should join with neighboring governments to create a regional food security system that allows completely free commodity trade within its borders. Though beyond the scope of this work to investigate, the idea seems feasible because of recent improvements in roads, liberalization of agricultural trade in all the countries, conveniently different growing seasons, and the brisk informal trade which is already happening across the borders.

Impact: Because current trade is informal, accurate estimates are impossible to obtain. The briskness of the groundnut trade suggests an immediate increase in both production and sales if licensing requirements are dropped. This will immediately benefit commercial smallholders, the principal producers of groundnuts, though estates will likely begin to produce them again if markets prove large enough.

Malawi enjoys a comparative advantage with respect to the region in all the crops in question. Government assurance of nonintervention will enable marketing relationships to become well-established, leading to more stable, less risky trade.

Constraint: **The lengthiness of the Variety Release Committee's approval process for the importing of seeds of internationally known varieties is a constraint to the**

introduction and proliferation of new crops into Malawi, and thus to agricultural diversification.

The approval process involves growing one crop on MOA test farm plots to verify its aptness for Malawian agroclimatic conditions, and then another cycle on a local farm to ascertain the most appropriate local technology. With some varieties, the process can take as long as 5 years, because the VRC will not allow the use of data from worldwide organizations such as the International Seed Testing Association.

In recent meetings, the government has agreed to allow importation without approval by the VRC of seeds for use by the importing farmer or in contract growing of the crop (not the seed), while seeds imported for resale (i.e., in quantities of more than 90 kg) must still go through the process of approval, even if they have already been tested and approved by ISTA. This is progress, but deserves mention here as a constraint because it has not yet become law.

Moreover, the regulation in its revised form, though removing the present constraint, is still an obstacle to the proliferation of a particular new crop and a constraint on diversification. Suppose, for example, a vegetable importer wanted to establish a contract growing scheme in Malawi for snow peas. His clients were demanding three shipments a week from December through March, so that he calculated he would need to have about 75 hectares planted. If the seeding rate for snow peas is around 30 kg per hectare, the importer would need to bring in 2,250 kg of seed for his operation. Since he could not do that without going through the VRC's testing and approval procedure, he would likely decide not to bother with Malawi, and look elsewhere for his peas.

The VRC's argument, echoed mostly by currently-established seed providers, is the fear that unscrupulous traders will import low-quality seeds to make quick money and then disappear leaving Malawian farmers to face low germination rates and low yields.

Recommendation:

- Allow all seed (except maize and tobacco) tested by reputable international organizations such as the ISTA to enter Malawi for personal use or supervised contract growing programs (including large scale ones requiring more than 90 kgs. of seed) with only the usual phyto-sanitary certificate. Seed packages must, however, be labelled as to variety, purity and germination rate, and bear the importing (or repacking) person's name and address. Testing of questionable lots of seed could then result in legal action in civil courts against the trader by customers.

A market-oriented agricultural sector must be able to adjust rapidly to changing conditions in the markets in which it sells its produce. With diversification, market signals will come faster than the VRC can respond, and opportunities will be lost if they are the only channel for the response. While there is some danger of malfeasance, there is no more than in

any other business. Malawi's agricultural sector must be allowed to mature quickly. To do otherwise under the guise of "protecting the Malawian farmer" would in reality be retarding the sector's development to protect the incomes of a very few Malawians.

Impact: Smaller farmers usually will not try an unfamiliar crop until it proves itself in a demonstration plot or a neighbor tries it successfully. Therefore, the liberalizing of seed imports will be felt progressively more as the Malawian agricultural sector opens to the influence of foreign buyers, probably first by the large estates which have sufficient spare land and management expertise to master the cultivation of export horticultural crops. While NSCM will likely maintain its major market share of maize seed, competition in all other seeds will be fierce, and the average size of vendors will likely decrease.

Farmers will also—perforce—learn to deal with a wide range of choices of varieties, which will cause them to be more receptive to extensionists' teachings, which will enable them to enter more easily into associative arrangements such as contract growing schemes.

3.3.2 Duties and Taxes

Constraint: The system of duty drawbacks on imports by exporters creates a cash flow problem, especially serious for small and new firms.

While the desire is to create incentives for exporters, the legitimate concern is that simply removing duties from exporters' inputs would enable large-scale importing of inputs for resale. Exporters must therefore prove they have used the inputs to produce the products they are exporting before being entitled to a drawback.

The requirement that product export documentation support drawback claims creates lengthy waits for claimants, as Customs and Excise must do all computation and coordination by hand and the process involves complex calculations of conversion rates from inputs to outputs and percentages of product not acceptable for export; some claimants reported waiting almost a year. The 30 percent annual interest rate on money tied up in duties effectively removes the value of the drawback as an incentive: even if the drawback is 100 percent, if it takes a year to receive, the effective duty is the cost of the interest, 30 percent.

Recommendation:

- Establish a system replacing drawbacks with exemptions and the approval system with a system of penalties to discourage diverting imports of inputs. Firms producing for export would apply to be put on a duty-exempt list (no additional work, since they currently must apply to be placed on the list of those eligible for duty drawbacks). Firms on the list could import inputs duty-free, without waiting for approval of drawbacks. It would be the firms' responsibility to submit import and export documents to Customs and Excise, who would do periodic monitoring to ensure input importation was in line with product exports. A firm found

illegally diverting imports of inputs would face a stiff penalty, say, an amount equal to twice the duties from which it had been exempt during the last year.

- Computerize Customs and Excise as soon as possible to facilitate the monitoring process.

Impact: As an example: a horticultural exporter imports MK 500,000 of inputs in 1993, on which the duty is 30 percent, or MK 150,000. If it took a year for each drawback claim to be processed, the firm would lose the interest on MK 150,000, or MK 45,000, compared to what it would have earned importing the inputs duty-free, allowing the firm to be more competitive in world markets and return more foreign exchange to Malawi. But if that firm were caught illegally selling inputs which it had imported free of duty, it would face a penalty of twice its total 1993 duty exemption, or MK 300,000.

Customs and Excise (C&E) is traditionally a place where international trade bogs down, causing demurrage charges and ill will between buyer and seller. A computerized C&E will enhance Malawi's reputation as a pleasant place to do business by expediting customs procedures.

This policy change will directly benefit any horticultural exporter, i.e., large and medium estates and agroprocessors. Its impact will soon reach smallholders, especially the organized ones, as contract growing schemes reach farther out.

Constraint: Agricultural exporters do not enjoy the same tax incentives as do industrial investors.

According to the Investment Promotion Act of 1991, industrial investors are guaranteed:

- Corporate tax rate of 35 percent;
- Tax allowances;
 - 40 percent allowance on new buildings and machinery,
 - additional 15 percent allowance for investments in designated areas of the country,
 - Up to 20 percent allowance for used buildings and machinery,
 - An additional 15 percent for qualifying training costs,
- Allowance for manufacturing companies to deduct all operating expenses incurred up to 18 months prior to the start of operation;
- Duty-free importation of heavy commercial vehicles.

Firms manufacturing for export, within Export Processing Zones (EPZ), enjoy further incentives:

- Corporate tax rate of 15 percent;
- No withholding tax on dividends;

- No duty on capital equipment and raw materials;
- No excise tax on purchases of raw materials and packaging materials made in Malawi;
- No surtaxes (value added tax);
- Transport tax allowance of 25 percent of international transport costs.

While these may be incentives to the establishing of an agricultural processing facility, the requirement that it be physically within a designated EPZ is an obstacle to locating, say, a freezing plant in a rural vegetable production zone so as to be able to minimize the time between harvest and freezing.

Agricultural producers, meanwhile, only enjoy 100 percent duty-free importation of equipment and raw materials, and then only if the firm produces exclusively for export. Although its start-up costs are every bit as burdensome as those of a manufacturing plant and it employs just as many local people, it gets none of the tax breaks offered to industrial investors.

Recommendation:

- Allow the incentives available to firms within EPZs to be enjoyed by processors and fresh produce exporters, wherever they be located (i.e., give the incentive to the activity, not the designated location). Malawi's strength, its comparative advantage, has always been the agricultural sector. Exporting and processing firms will be the engine driving agricultural diversification in Malawi, and should be given every available assistance.

Impact: Awarding favorable tax and duty incentives to agricultural exporters will help to counteract the geographical disadvantage confronting all Malawian exporters. Enhancing the possibility of profitable operation will entice more investors to the field.

3.3.3 Land Leases

Constraint: The procedure for obtaining a land lease is lengthy and not transparent.

The most implacable of obstacles, the one most often cited by would-be investors, is the difficulty of obtaining land. This is a major disincentive for both agroprocessors and exporting firms, whether they wish to build processing and packing installations in urban areas or locate their facilities in rural production zones. The feeling is widespread that certain groups face discrimination; the process is far from transparent, and the average completion time of over a year is a constraint to diversification.

The Land Act distinguishes three kinds of land in Malawi: customary land, public land and private land.

Customary land is "that which is under the jurisdiction of the traditional authorities, is outside municipal boundaries, is mainly used for agricultural purposes, and is held in trust by the President for the people of Malawi." It accounts for about 75 percent of the country's total land area.

Soybean processors, condiment manufacturers, dehydration plants or shippers of other semi-perishable commodities can locate in urban industrial sites, but many firms that process or pack highly perishable products try to locate their plants near where their raw materials are produced to be able to process or pack as soon as possible after picking. These firms will likely prefer rural sites, where, in the villagers' own words, "willingness to grant a lease is directly proportional to the number of local people the firm will employ."

Public land is "that which is occupied, used or acquired by the government, and is usually, but not necessarily, confined to urban areas." As well as parks and rights of way, it includes land held by municipal governments for development purposes.

The Malawi Investment Promotion Agency (MIPA) estimates there are about 160 hectares of serviced (with water, sewage and power) public land available for industrial use in Mzuzu, and the City Council is actively looking for investors.

In Lilongwe, there is no serviced public land available at present. The government, which has resisted leasing out unserviced public land, is said to be drawing up regulations to allow that procedure to begin.

Private land is "that land held either in freehold or leasehold ownership in rural areas and within city boundaries. Freeholds tend to be historical and are granted only under special circumstances." There are within the Blantyre city limits approximately 2,000 hectares of idle freehold land, which would have to be rezoned for industrial use, and could then be leased or sold to investors.

The procedures for obtaining a lease on land in Malawi fill 7 pages even in outline form. One investor kept a log of his recent experience in obtaining a lease (see Annex for the official procedures and the investor log). The 25 steps took "only" about eight months because, as he says, "I was lucky." He also had much assistance from MIPA.

Although they are extremely long and complex, and involve at least five separate bureaucracies (the City Council Planning Department, the Department of Lands and Valuation, the Department of Housing and Physical Planning, the Ministry of Trade and Industry, and the Department of Surveys—as well as the telephone, electric and water companies if the plot is not developed), that in and of itself does not present undue difficulty.

There appear to be two constraints facing would-be investors:

- The length of time it takes to finalize the lease process. The Department of Surveys, most often identified as the bottleneck, has 20 crews to service Malawi. There are 5 private crews which can do the surveys, but their work must be checked by the Department of Surveys, so little is gained by employing them. Surveyors in the Department say they can survey a plot that is close to a reference point in 2 or 3 days; one far from a reference could take 2 weeks. However, the Department's vehicles and equipment are antiquated and break down frequently, so that 3 months or more is average.
- The lack of transparency in the system. There are no written criteria, at least none released publicly, that prioritize industries by desirability and would allow an investor to assess his or her chances of actually obtaining a lease on a plot of land, or how long the process might take. There is no clear government leasing policy that addresses agricultural diversification issues.

Recommendations:

- The Department of Surveys should be upgraded to enable it to accomplish its tasks more quickly; the whole system should be computerized, and a maximum time assigned for each procedure in the process.
- The entire process for allocating land of all types should be made transparent. This will involve the following steps:

Inventory all lands, with respect to:

Productivity,
Type of tenure,
Resources available;

Develop written allocation procedures:

Clear criteria for obtaining a lease,
Clear criteria for keeping a lease (conditionalities), with respect to:
productiveness, environmental stewardship, employment opportunities, and
infrastructural development,
Clear procedure for loss of tenure for non-compliance with conditions;

Amend current policy to allow the sub-leasing of leased lands, including a standard sub-lease contract;

Develop a land information system usable by villages, leaseholders, and prospective investors:

Village chiefs indicate whether or not they are willing to negotiate with investors,
Maps are created indicating available and non-available lands to investors,

Registers of prospective investors made available to interested village chiefs,
Registers of leaseholders wishing to sublet leased lands.

Impact: This type of system will make the procedure for obtaining leases on rural lands more transparent to prospective investors. At the same time, it will address many Malawians' legitimate fears of having traditional lands usurped by investors who contribute nothing to the welfare of Malawi in return.

Streamlining the obtaining of leases on urban lands will speed up the establishing of new processing and exporting ventures in Malawi. According to MIPA economists, there is already a waiting list for urban industrial plots. One interesting idea is for municipalities to sell urban lands to developers, who could then develop the lands and sell leases to investors.

Facilitating the establishment of rural processing or exporting firms will employ villagers and hasten the development of rural infrastructure and be of special benefit to resource-poor smallholders, who depend on outside employment to subsist.

3.3.4 ADMARC: The Government's Role in Agricultural Trade

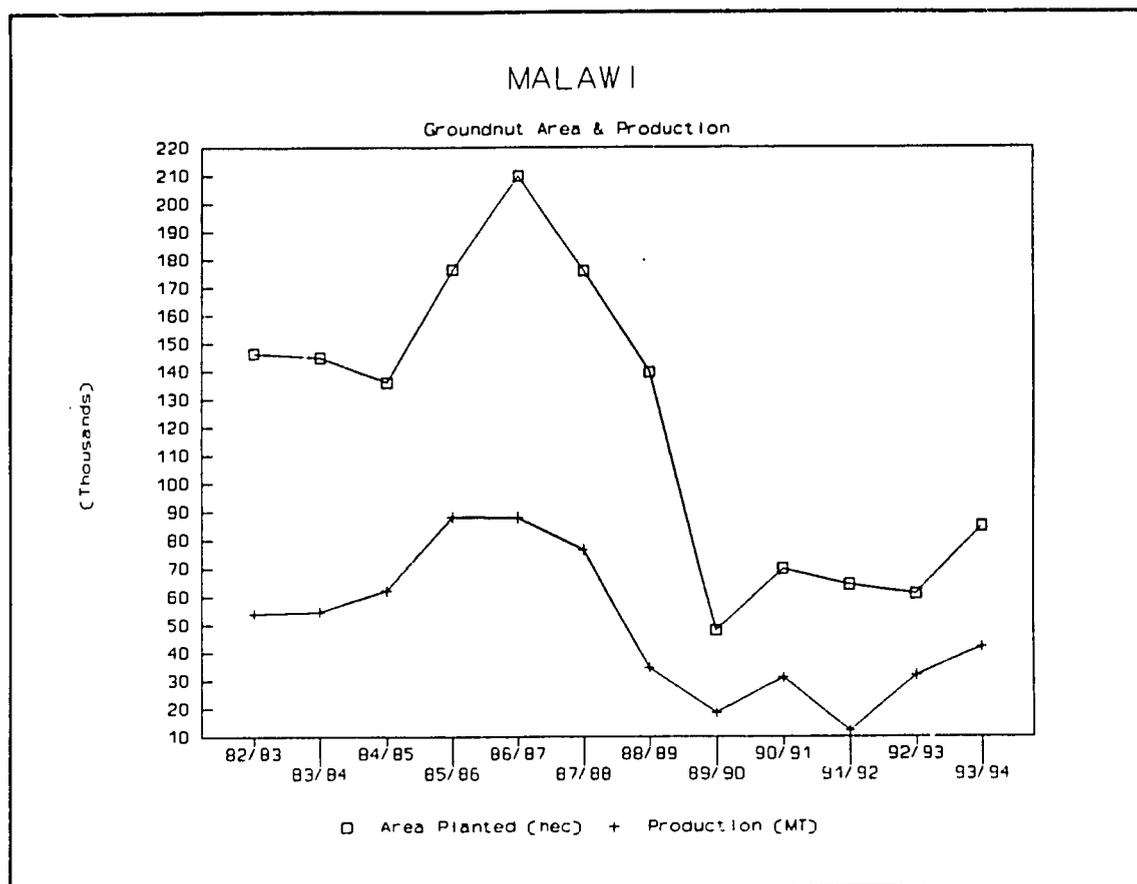
Constraint: The government restricts private commodity trade on an ad hoc basis with export or import bans or requirements that certain commodities be sold only to or by ADMARC or other parastatals. These interventions cause supply distortions and constrain diversification by creating uncertainty as to the probability of government intervention.

Groundnuts are an excellent example. During the late 1980s, the disappearance of the European market for Malawian groundnuts led to increased competition among local and regional traders. These offered more for groundnuts than did ADMARC, whose seed stocks began to dwindle and deteriorate. In an effort to resolve what it saw as a serious seed shortage, the government banned exports of groundnuts.

But most Malawian farmers keep back seed from each groundnut harvest for use in the next cycle, so there never really was a seed shortage except in ADMARC's and NSCM's warehouses (this latter because ADMARC's prices had driven NSCM out of the groundnut seed business). As Figure 3.1 shows, groundnut area and production have actually increased during the last two years, with the farmers using their own seed, as they always had.

Meanwhile, demand for ground nuts is brisk in adjacent countries, and Malawian farmers are forced to sell into that market clandestinely, which allows traders to offer them lower prices.

FIGURE 3.1: GROUNDNUT AREA AND PRODUCTION, 1982/83 - 1993/94



Recommendation:

- Trade in all agricultural commodities should be free, with an explicit policy commitment by the government not to place restrictions on agricultural trade. ADMARC should compete as a private trader with no specific advantage/power from the government.

Impact: Trade in presently regulated commodities will likely increase. Using soybeans as an example of the effect of ADMARC's intervention: According to local soybean crushers, the prices ADMARC paid soybean producers in 1992/93 were so low that few were planning on planting for 1993/94. The crushers paid for radio announcements during the month before planting, guaranteeing growers a much higher price, so that plantings are up from last year.

This policy amendment will benefit all subsectors by creating an environment supportive of long-term marketing relationships, both domestic and external.

Constraint: ADMARC's pan-territorial pricing and supply policy creates barriers to entry for private input and output traders, thus constraining the establishment of alternative marketing channels for agricultural produce.

105

In effect, this amounts to a subsidy by ADMARC on inputs and outputs for remote producers in the amount of the freight and handling charges necessary to deliver inputs to farmers or haul produce away (the basis)—more, actually, since ADMARC's monopsony power allows it to negotiate lower-than-market freight rates.

Although private traders can compete in close-in markets because of small differences in cost, this tends to exclude them from the more distant markets. At the same time, producers are deprived not only of competitive buyers but also of a source of market information as to current and expected demand and supply conditions of crops they could potentially produce. Thus when ADMARC runs short of funds for purchasing commodities, growers must resort to clandestine trade at greatly reduced prices and volumes, since export trade is restricted.

Recommendations:

- The pan-territorial requirement should be removed, and ADMARC and private traders should compete on an equal basis in input and output markets. According to ADMARC's Memorandum of Understanding with GOM, the government must reimburse ADMARC for all non-market, or "social," expenditures. The money would benefit smallholders more if spent on roads and bridges and training in agricultural marketing so that farmers could do profitable business with private traders.
- Redefine ADMARC's role in general to one supportive of the development of private trade. Retrain ADMARC's personnel to form the public sector's Marketing Extension Service, a corps of field technicians that provide information, organization, training and market development services to smallholders.

Impact: There will no doubt be a period of confusion while private traders move in and establish new marketing channels. With the removal of export licensing requirements as well, more across-the-border trade will occur because the more remote areas of Malawi are linked more closely with towns in Zambia, Tanzania and Mozambique than to Malawian urban centers. Again, although the evidence is anecdotal, the briskness of current informal trade indicates that removing distortions and barriers to private trade will bring about a rapid increase. The larger markets will also result in better prices to producers.

3.3.5 Air Transport

Constraint: The government's exclusivity policy on air freight creates barriers for Malawian perishable produce exporters.

Air Malawi, a parastatal, owns Air Cargo Ltd., an air freight company that owns no airplanes but that has an exclusive agreement with Affret Air, the freight arm of Air Zimbabwe, between Lilongwe (LLW) and Amsterdam (AMS), and between LLW and London (LGW).

Under the terms of this agreement, Affret Air carries, at a fixed and very favorable rate, a maximum of 15 tons or 7 palettes southbound, and a maximum of 4 tons or two palettes northbound of freight for Air Cargo, Ltd. twice a week, to Harare for connections with KLM to AMS or British Air to LGW.

This agreement was entered into to guarantee air cargo capacity into and out of Malawi. Affret Air, however, has consistently provided inferior service. They commonly offload Air Cargo Ltd.'s cargo if they have cargo of their own to ship; they are constantly breaking down; and their schedules are unreliable. These conditions are totally unworkable for perishable commodities trade, which relies upon consistent and reliable service on the same days each week between September and May, Malawi's marketing window into Europe.

The Government of Malawi has bilateral air traffic agreements with the UK and The Netherlands, under which BA and KLM are guaranteed two flights per week to and from Lilongwe in return for dealing exclusively with Air Malawi, in Malawi. Any other charter air freighter can land at Lilongwe, but must pay a 7.5 percent royalty to Air Malawi.

Exporters have had operational success chartering other carriers (KLM, BA, Air France), but the 7.5 percent royalty robs them of their profitability (as an example, on March 30th, the rate was MK 13.70/kg for flowers; freight on a ton of flowers to AMS would thus be MK 14,727.50 instead of MK 13,700.00; then, 10 tons 3 times a week for the 34 weeks of the season times the royalty of MK 1027.50 = $30 \times 34 \times 1027.50 =$ MK 1,048,050 per season of lost revenue—and that is just one exporter).

The agreement between Air Cargo Ltd. and Affret Air can be abrogated with 90 days' written notice by the Air Malawi Board of Directors, since it is a simple commercial agreement.

Recommendation:

- The government should end the exclusive agreement and assist the perishable products exporters in negotiating a workable agreement with one or more world class freight airlines, without having to pay a royalty.
- As even the horticultural exporters are at a loss as to the best solution, this may entail the hiring of a transport expert to study the situation and assist in setting up the new arrangement. The Government of Malawi must commit itself and Air Malawi to abiding by the recommendations of the expert. Time is of the essence: September marks the beginning of the export window to Europe from Malawi, so the compliance must be immediate.

Impact: The present arrangement amounts to protecting and subsidizing an inefficient industry: Air Malawi. Malawi already is at a disadvantage relative to Kenya and Zimbabwe, its competitors in fresh products exports to Europe. Failure to rationalize the situation to allow

Malawi's exporters to compete may well cause the demise of the perishable products export industry here.

To give an idea of what that would mean to Malawi, consider that Lingadzi Farm currently employs 340 people. Expansion is under way to 600 employees, and—all else being favorable—to 900 employees next year. Assuming that each employee contributes to the welfare of around 30 extended family members (with school fees, medical expenses, etc.), that means that 27,000 Malawians will be affected by Lingadzi Farm's fate.

3.4 PROACTIVE PROGRAMS AND POLICY INITIATIVES

Clear definition of roles for the government and the private sector and the removal of policy constraints are necessary but not sufficient conditions for effective agricultural diversification in Malawi. A number of non-policy obstacles must be removed by joint action of the public and private sectors:

- **Credit and Finance.** Lack of competition in banking leading to high interest rates and less banking services than the investing community needs. Also little knowledge of marketing among bank officials, causes reluctance to finance marketing schemes.
- **Lack of roads passable all year, as well as bridges to shorten traditionally long routes between towns.**
- **Lack of a modern telecommunications system in rural areas, with a resulting lack of market knowledge.**
- **Lack of basic education in the rural population, especially management skills of the type needed in vertically integrated production/export organizations.**
- **Small size and lack of skills of the MOA's extension force (800 families/Field Assistant; 10,000 families/Farm & Home Assistant).**
- **Shortage of professional (university-trained) agronomists, veterinarians, agricultural engineers, entomologists, etc.**

The private sector can help solve some of these by bringing its resources to rural areas, but given the underdeveloped nature of Malawi's rural economy, relatively sophisticated nontraditional export projects cannot be the only means of bringing the rural population into a modern market economy. Agricultural diversification must thus progress on two levels:

Level One focuses on strengthening the rural economy by removing the barriers to the trading of all types of commodities and diversifying production, trade and processing among locally-known crops. The principal goals are:

- To ensure an adequate food supply all year at the household and village level;
- To begin to upgrade the physical, financial and institutional infrastructure of the rural economy;
- To learn the skills necessary to developing a thriving domestic trade in agricultural commodities between villages and regions;
- To lay the foundations of Level Two.

Level Two involves a more sophisticated reaching out for export markets and foreign investors interested in establishing commercial processing and/or exporting firms and the upgrading of the country's productive capacity to meet that demand.

There will be some overlap between levels because certain regions may be more agroclimatically suited to production for a given market (temperate climate vegetables and fruits for Europe, for example), or the people in certain regions may respond more quickly to technical assistance outreach.

3.4.1 Level One Actions

- Remove all policy constraints as listed above.
- Design and execute a comprehensive training program in agricultural marketing for all ADD personnel, from Program Managers to Field Assistants (irrigation specialists and Farm Home Assistants are specifically included); for all MRFC loan officers; and for personnel involved in the MOA's market information system. Consideration should be given to reassigning some of ADMARC's personnel to answer the manpower shortage.
- Refine the operations and popularize the use of the MOA's market information system, gradually increasing frequency of collection and reporting, and adding information such as volume movements and freight rates.
- Actively promote the establishment of international banks in Malawian cities, and of branches in smaller towns.
- Provide MIPA with the resources necessary to engage in an aggressive campaign to attract investors in agroprocessing enterprises in Malawi.
- Initiate a program to promote construction and use of household or village level dehydration units for fruits and vegetables. These low-cost units can be made largely from locally available materials; they are not to be of commercial size, and should focus on dehydration of known fruits and vegetables for home use or local sale.

- Initiate the design of a country-wide project creating small smallholder irrigation systems for smallholders to use production and commercial sale of known and nontraditional fruits and vegetables. It is vital that:

The design team and the team choosing project sites include an agronomist, an irrigation specialist, an agricultural marketing specialist, an anthropologist and a soil conservation specialist;

The initial capital be in the form of loans, not grants;

The projects be small, so that the debt burden is not onerous and can be repaid with revenues from sales in Malawi and adjacent countries;

The target population be smallholders, not estates.

- Carry out a program of construction of rural roads and bridges, a farm-to-market network.
- Upgrade the country's telephone system to the point where international communications can arrive clearly and dependably at rural production and marketing locations.
- Promote the university training and employment in the private sector of veterinarians, agronomists, agricultural economists, agricultural engineers, and soil conservation and forestry specialists.
- Create the post of Commercial Attache in Malawi's foreign embassies to actively pursue export outlets. He/she should scour markets in developed and adjacent countries in search of specific buyers interested in specific Malawian exports during specific marketing windows. Promote the idea of joint ventures between interested importers and Malawian producers.

3.4.2 Level Two Actions

- Based on specific commercial contacts, carry out the smallholder irrigation project in item 7 above, where possible with the direct participation of foreign fruit and vegetable importers. Care should be taken that construction in this project not outgrow effective demand for its produce.
- Design and execute a training program in export marketing for the personnel mentioned in item 2 above.
- Expand the MOA's market information system to cover markets in adjacent and developed countries, as well as fruits and vegetables of interest to exporters.

- Continue the foreign market development campaign, using market exploration tours with prospective Malawian exporters, trade fairs and continued efforts by Commercial Attaches.

This of course is only one possible strategy. The key is to include all the aspects, and to always find buyers before initiating production schemes.

3.5 DIVERSIFICATION COMMODITIES, ACTIVITIES AND PARTICIPANTS

Research on the possibilities for diversification of the agricultural sector date back at least 30 years, and has been carried on intensively by the World Bank and other entities for the last decade. This section of the report briefly reviews the more important findings. These findings are definitely not intended to be a menu from which diversification alternatives can be selected. The actual choices of specific crops and activities are buyer-specific, not market-specific; that is, they arise from a direct request by a buyer for product, not from the observation that "the market is huge!"

3.5.1 Commodities

Ideally, a diversification program encourages each subsector to exploit its comparative advantages and minimize its shortcomings by producing commodities and engaging in activities with characteristics that match its level of resources. Table 3.3 describes the techno-economic characteristics, the market prospects and the likely participants in diversification involving six different types of crops and livestock.

Cereals and root crops, with low technology and cost requirements and thus a low risk factor, are appropriate for smallholders as subsistence and cash crops in domestic markets. Markets for these crops are typically small and diffuse rather than centralized; large-scale production is not economically feasible. Since current production and trade patterns for these crops are similar in neighboring countries, export trade in them occurs only in rather small lots in special geographical circumstances.

Pulses, groundnuts, soybeans and sunflower seed are also advantageous crops for relatively low-tech, low-cost smallholder operations. They offer the additional advantage of being drought-resistant. Markets for this category of crops are much more diverse. A substantial deficit in vegetable oil both in Malawi and in the region means there are potentially large markets for oilseeds with domestic crushers and as whole bean exports. The growing poultry industry will also add to this demand. Groundnuts, long grown by Malawians for food and trade, have been an attractive export commodity in the past, and could be again with relaxation of trade restrictions.

Livestock (dairy, beef, and small stock) operations demand somewhat more technical knowledge and higher management skills, typically beyond the reach of all but a few smallholders. Livestock activities are ideal for small estates looking for alternatives to tobacco.

TABLE 3.3: INDICATIVE DIVERSIFICATION COMMODITIES: KEY CHARACTERISTICS, MARKET PROSPECTS AND LIKELY PARTICIPANTS

	COMMODITIES					
	Cereals and Root Crops	Pulses Groundnuts Oilseeds Sunflower	Livestock (dairy, beef, small stock)	Tree Nuts	Orchards	Horticultural and Sericulture
A. Techno-economic Characteristics						
Technical Knowledge	Low	Low	Medium	Medium	High	High
Investment	Low	Low	Medium	Medium	High	High
Risk	Low	Low	Medium	Medium	High	High
B. Likely Market Prospects						
Domestic (including import subst.)	Good	Good	Good (small stock)	Limited	Limited	Limited
Export	Poor	Good	Poor	Medium	Medium	Medium
C. Likely Participants						
Resource-Poor	X	X				
Commercial Smallholder	X	X				
Small Estates		X	X	X	X	
Large Estates				X	X	X
Agro-Processors	X	X	X	X	X	X

Source: World Bank, Agricultural Sector Memorandum (Draft), 1994.

The lack of a widespread storage and transportation infrastructure for livestock products effectively confines this trade to domestic markets, of which processors, with their heavy supply requirements, could potentially be the most lucrative.

Tree nuts, most notably cashews and macadamias, also demand moderate levels of investment and technical know-how. This and the time required for the trees to yield the first commercial crop mean that large scale production must be done on the larger estates. Smallholders can, however, plant a few trees along the edges of fields and supplement their incomes by learning to supply processors with nuts. Markets for tree nuts are mainly export markets, especially Europe.

Orchards have not caught on very much in Malawi, probably because (1) they are high-tech crops that do not yield commercially for several years and so are not appropriate for any but the largest estates, and (2) their domestic consumption is limited and their export market non-existent because of Malawi's location and the number of other suppliers in the world market. There would be some possibility of supplying domestic processors, but if that happens it will probably be in a contract growing scheme.

Horticulture and Sericulture are extremely high-technology, high-management crops appropriate only for the largest and best-equipped estates. Their export markets for Malawi are in the form of niches—that is, buyer-specific opportunities to fill a gap in an importer's supply calendar. In the case of fruits and vegetables, there exists a growing domestic market for produce not of exportable quality (typically up to 40 percent of production in most crops) as fresh produce and to processors.

Agricultural diversification can also focus on three principal markets: meeting domestic demand, exporting and agroprocessing. Participants in each of these can either improve production and marketing of traditional crops and methods of processing or introduce new varieties or processes.

3.5.2 Export Market

For large estates, traditional exporters of tea, tobacco and sugar, markets are flat. In looking at new products, large estates can take advantage of relatively easy access to development capital and a high level of management expertise to enter into horticultural, sericultural or orchard fruit exports. These niches are buyer-specific and imply large expenditures on market development, so they are normally out of the reach of smallholders.

Recent export initiatives by large estates include cut flowers, chilies, paprika, pyrethrum, and fresh vegetables. These efforts bode well for smallholders, since all except the cut flowers could be contract-grown.

Smallholders, with less capital and management skill but also less overhead and lower labor costs, can find direct export markets for pulses and groundnuts in neighboring countries,

or act as suppliers of tree nuts (macadamia and cashews), fruit or vegetables to large exporters or agroprocessors.

Trade restrictions have inhibited smallholder exports of late, but the briskness of informal exports suggest healthy markets for groundnuts, soybeans, and even maize at certain times of the year:

3.5.3 Domestic Market

Malawi's chronic shortages of food would seem to indicate a potential market, but consumer incomes are extremely low, and much smallholder farming is for subsistence. Hybrid maize presents diversification possibilities, as do soybeans, an excellent rotation crop with maize, and groundnuts, a zero-input crop using kept seeds. The problem of raising smallholder incomes can also be addressed through diversification, if agro-processors and labor-intensive export packing houses locate in rural production zones.

Recent initiatives have focused on supplying domestic vegetable oil demand with locally-produced sunflower seed, cottonseed and soybeans. These offer the advantage of being low-tech, drought-resistant crops. There are also a number of small-scale broiler and egg operations starting up, although the lack of good feeds and veterinarians is a constraint. Sorghum, milk, rice and wheat are diversification prospects for the future.

3.5.4 Agroprocessing

This activity offers some real advantages. It can be any size, from a village-level vegetable dehydration unit to a major feed mill or canning plant. Many types of processing plants, those that freeze or pack extremely perishable produce, are best located in rural production zones. Since they are almost all labor-intensive, they provide an excellent source of employment for resource-poor smallholders.

A number of different sizes of oilseed crushing units has begun operation recently, most focusing on soybeans. Aside from the domestic and regional markets for soybean oil, the growth of the poultry industry in Malawi promises to stimulate bean crushing for feed manufacture.

Lever Brothers has been promoting the cultivation of sunflower seed since 1987 with mixed results due to its sometime stormy relationship with ADMARC.

4. ASAP II THEMES AND TARGETS

In this chapter of the report, we re-examine the ASAP I themes to assess whether they are still valid as themes upon which to structure Phase II of the program. We propose modifications to the degree they are needed for the design of ASAP Phase II. To do this, we look at the function of the themes, which is two-fold: to focus program activities toward addressing the ASAP goal and purpose; and, to organize the policy reforms into a policy matrix through which program funds are released. Our objective is to keep both the themes and specific policy reform recommendations closely linked to the ASAP goal and purpose.

After assessing the themes, we address ASAP targets—experience in implementing targets, costs of direct targeting, indirect targeting and quota liberalization, and make recommendations for targeting in the future.

4.1 ASAP Goal and Purpose

The ASAP program was designed to address USAID Malawi's strategic objective to increase foodcrop production and productivity. This objective is part of the overall mission strategy of enhancing the economic well-being of the average Malawian household. Malawi remains one of the world's poorest countries in spite of having achieved GDP growth rates greater than many African countries in the years since independence. The Malawi economy is characterized by a dualism that excludes a large proportion of the population from the benefits of growth. In agriculture, much of the growth has been focused in the estate sector with the result that gaps between the estate and the smallholder rural sectors have grown over the years. Thus, raising the economic well-being of the average Malawian household will require directing considerable attention to smallholders in agriculture.

The goal and purpose of ASAP remain constant over Phase I and Phase II of the program. The ASAP goal is:

- To increase agricultural productivity, employment and incomes.

The ASAP purpose is:

- To increase smallholder access to agricultural inputs, output markets, cash crop production alternatives, and labor market information.

Development in Malawi's agriculture sector during the 1980s benefited the estate sector at the expense of smallholder farmers. Smallholder agriculture was not just neglected; official policies and regulations served to constrain private agricultural trade and smallholder market access, giving explicit preferential treatment to estates and parastatals. Progress toward meeting the ASAP purpose will serve to restore a degree of equity to Malawi agriculture.

4.2 ASAP THEMES

The themes of Phase I are derived directly from the ASAP goal and purpose. As such, they remain as relevant to the goal and purpose in 1994 as when they were identified at the beginning of the ASAP program. ASAP Phase I was structured based on four policy themes:

- Production and Marketing;
- Efficiency of Input Delivery;
- Equity; and
- Crop Diversification.

Each of these themes is discussed below in terms of specific elements for implementing the theme under ASAP I and the appropriateness of these elements in Malawi's current agricultural policy environment.

4.2.1 Theme No. 1: Production and Marketing of Crops

This theme's objective is the revision of policies and regulations, and the establishment of necessary mechanisms, to permit smallholders to grow any cash crop and to market those crops through a variety of marketing channels. Elements under the theme focused on:

- Smallholder production and marketing of burley tobacco,
- Creating multiple marketing channels,
- Legal and administrative impediments, and
- Adequate market information.

Though a number of significant steps have been taken toward meeting the theme's objective, crop production and marketing in Malawi are still far from liberalized. Smallholders, particularly, operate in an agricultural economy characterized by multiple controls and interventions on the part of government and parastatals. This is true for food crops as well as for cash crops. Some of the controls are placed directly on producers, such as the continuing quota system for production of burley tobacco. Other controls are on the marketing system such as constraints on who may participate in trading and how. Both sets of controls have enormous impacts on the productivity of smallholder agriculture and the viability of small commercial enterprises.

The importance of liberalizing production and marketing of crops as a theme of ASAP is as strong now as for ASAP Phase I. However, we recommend the focus for the theme should be broadened to cover the full range of production and marketing issues rather than focusing on cash crops. Efficiency and productivity in the smallholder sector depend on farmers and traders receiving proper price incentives for all alternative activities and on them being permitted to participate in all activities as well. Specific policy measures for liberalizing production and marketing are found throughout the above three sections on tobacco, private sector marketing,

and agricultural diversification. Policy measures are also presented in the ASAP II policy matrix below.

4.2.2 Theme No. 2: Efficiency of Input Delivery

The objective of Theme 2 is to increase access to and utilization of agricultural inputs by removing constraints to private sector participation in their supply and distribution, and by improving or developing modalities of technical information dissemination. Elements of the theme are to conduct four targeted studies leading to recommendations regarding:

- Credit,
- Seed and fertilizer distribution,
- Availability of extension services, and
- Land tenure and cash crop production.

Developments in input delivery have been mixed in recent years. Private sector participation in seed and fertilizer distribution has started to grow in competition with parastatal distribution, but there are still a number of constraints as well as parastatal advantages that impede fair competition. Conditions for credit supply have been greatly complicated by the combined effects of droughts, low prices, and political interference. The resulting low repayment rates on loans—both in the smallholder and estate sector—have devastated the credit system. Restructuring rural credit through the institutional reform and recapitalization planned by the World Bank is now on hold.

Providing meaningful extension services to farmers with small landholdings and to women continues to be an important constraint in raising productivity for these target groups. Effectiveness of extension is impaired through both the delivery of services and appropriateness of messages delivered. The most important types of extension messages for the poorest segment of smallholders—those dealing with low input production and foodcrop alternatives to maize—do not reach beneficiaries owing to inadequacies in extension resources and diversion of extension attention to other targets and messages. Land tenure issues such as the uncertainty and ambiguity surrounding access to leased land and utilization of land in estates also remain to be resolved.

There is considerable scope for improved efficiency in input delivery that can be addressed in the context of ASAP Phase II. Some of the most important steps, with respect to seed supply and fertilizers particularly, come directly out of the studies conducted under Phase I funding. However, as with our recommendation for Theme 1, we believe that more attention should be directed to the more general constraints that inhibit private sector suppliers in competing with parastatals. Since traders need not, and should not, have to concentrate on strictly outputs or inputs, there is considerable overlap in the approach needed and policy recommendations for liberalizing output and input marketing.

4.2.3 Theme No. 3: Equity in the Agricultural Sector

The equity objective in ASAP I is to promote improved conditions for tenants and agricultural laborers, both for their own welfare and to encourage improvements to their productivity. Activities under Theme 3 deal with:

- Posting of terms and conditions for estate tenants, and
- Labor and compensation through the tenant burley price.

The Phase I activities under the equity theme address an important category of the poor in Malawi. However, we feel that focusing on estate tenants and laborers unnecessarily constrains ASAP's equity focus on only one category of the disadvantaged. Estate tenants and laborers are recognized as an under-privileged segment of the population, but poor smallholder represent 48 percent of Malawi's population while poor estate tenants and laborers comprise 5 percent of the population. Smallholders who are part of the "core poor" make up 18 percent of the population compared to 3 percent for estate tenants and laborers (World Bank, 1990, Growth Through Poverty Reduction).⁶

For the second phase of ASAP, we recommend broadening the equity focus to give greater weight to the smallholder sector both on the basis of poverty and population in the sector. There are an estimated 1.8 million smallholder farm families compared to 260,000 tenant families and laborers on estates (World Bank, 1993, Malawi Agricultural Sector Memo). In spite of the large smallholder population and the large contributions to GDP (25 percent), agricultural GDP (65 percent), and agricultural employment (90 percent), the smallholder sector suffers under numerous disadvantages vis-à-vis the estate sector.

Policy steps taken to stimulate productivity in the smallholder sector will have significant equity enhancing impacts owing to the disadvantaged state of smallholder agriculture. Impacts of various policy measures on poverty alleviation were addressed throughout the sections on tobacco, private sector marketing, and agricultural diversification. In addition to direct impacts of policy reforms, the poorest of both smallholders and estate tenants and laborers will benefit from increased demand for their labor and alternative channels for providing it. Specific policy measures will be summarized in the policy matrix below.

4.2.4 Theme No. 4: Crop Diversification

The objective of Theme 4 is to identify appropriate diversification paths for Malawi and potentially to identify U.S. joint venture partners. This will be accomplished by:

⁶ The poverty line amounts to roughly \$40 per capita per annum, based on a minimum requirement of 200 kg/year of maize per adult, priced at the ADMARC reference price. A relative poverty line for the core poor is drawn at the poorest 20 percent of the population.

- Identifying diversification opportunities,
- Identifying legal, administrative, or policy constraints to profitable diversification,
- Identifying technical constraints to successful diversification,
- Recommending actions to implement a diversification program, and
- Identifying and assisting in initiation of specific projects.

Though agricultural diversification has been cited as a priority for Malawi for many years, little progress has been made towards lessening dependence on traditional crops—the cash crops of tobacco, sugar, and tea; and maize as the principal food crop. Diversification remains an area of enormous though untapped potential for Malawi. Further, most of the approaches for accomplishing diversification from ASAP Phase I are appropriate for Phase II.

Addressing legal, administrative, and policy constraints should form the core of Phase II measures. Surprisingly, the list of such constraints is not long—at least not as long as frequently found constraining exports from African countries. However, several key impediments remain and are listed as targets for reform in the policy matrix.

Three other elements of diversification—identifying technical constraints, recommending actions for implementing a diversification program, and assisting initiation of specific projects—are also appropriate ASAP II objectives. Though these activities are not amenable to the non-project assistance aspect of Phase II, they can be addressed by the ASAP project component supporting the Agricultural Policy Research Unit at Bunda College.

One aspect of the Phase I diversification theme not appropriate for Phase II is for ASAP to directly identify diversification opportunities. It is neither the role nor the skill of government and donors to select crops for the private sector. The public sector should instead focus on removing constraints and establishing a promotive environment for diversification. It can also provide specific assistance in skills development and propose approaches or methodologies for diversification activities. However, specific business choices, such as crops and markets, are best left to entrepreneurial farmers and traders who are investing their own resources in diversification.

An aspect of diversification not found in the Phase I theme concerns the pervasive bias currently found in Malawian agriculture towards tobacco and maize production. This bias is both explicit—such as smallholder inputs credits being tied to tobacco and maize clubs, and implicit—such as the preponderance of knowledge and experience farmers have in growing the two crops. Given the bias, however, it is unlikely that diversification will progress rapidly without specific attention by government and donors. The attention should be directed at reducing the bias so as to even the competition among cropping alternatives. A number of the recommended policy measures dealing with input and output marketing address the bias issue.

4.2.5 Policy Measures for Implementing ASAP Themes

The ASAP I themes provide the basis for the policy matrix of ASAP Phase I. There are four parts of the matrix corresponding to the four themes: production and marketing of crops; efficiency of input delivery; equity in the agricultural sector; and crop diversification. Policy measures comprising conditions precedent to releasing each of three tranches of funding are listed under each theme. Provisional policy measures are also listed for three more tranches under Phase II (see attached ASAP I Policy Matrix).

Most policy measures in ASAP I fell under the production and marketing of crops theme. Of the 31 policy measures, 20 dealt with crops, six dealt with input delivery, four dealt with equity, and one dealt with diversification. Tranche 1 was limited to five measures dealing with burley tobacco only. Tranche 2 contained seven measures in the crops theme, three in the input theme, two in the equity theme, and one in diversification. The third tranche had eight measures for crops, three for inputs and two for equity.

Based upon the analysis presented in the three sections on tobacco, private sector agricultural trading, and agricultural diversification, we have developed a total of 45 recommended policy measures for ASAP Phase II. The measures are designed to address what we found were the principal policy constraints in each sub-sector. These policy measures are presented below as a policy matrix under the new themes proposed for Phase II.

4.2.6 Inter-linking Nature of Themes for Phase II Policy Measures

While the focus of themes for ASAP I was narrow enough to define distinct policy measures under each theme heading, we have found that the policy needs for ASAP II lead to a broader inter-linking focus of ASAP themes. This is not to imply that the Phase I themes are less relevant or appropriate in 1994 than they were in 1991. As described above, each of the themes represents an important set of objectives for Malawian agriculture today. However, the objectives are not separable into distinct activities. Rather they represent objectives that are jointly attainable through a set of recommended policy measures.

The inter-linking nature of ASAP I themes is most apparent when looking at the equity and diversification themes, in combination with the crops and inputs themes. The specific policy measures that would have greatest impact on the equity issues are measures focusing on production and marketing of crops (Theme 1), efficiency of input delivery (Theme 2), and crop diversification (Theme 4). For example, permitting more smallholder farmers to grow burley or to sell dark-fire tobacco directly on the auction floor will have a powerful equity impact. In fact, the underlying concern of the ASAP purpose—to increase smallholder access to inputs, output markets, cash crop production alternatives, and labor market information—is an equity concern for smallholder farmers. All ASAP themes and all ASAP policy measures should address this equity concern.

Similarly, policy measures having the greatest impact on diversification are measures dealing with production and marketing of crops and efficiency of input delivery, Themes 1 and 2. For example, liberalized seed import and release procedures facilitate experimentation and expansion of crop diversification. So does reducing government and parastatal intervention in markets for crop outputs. Diversification, in fact, is an outcome of liberalizing agricultural sector policies instead of an area of agricultural policy itself.

We conclude that though ASAP I themes are important for further specifying the goal and purpose of ASAP, they do not provide a useful structure for organizing policy measure conditionality for ASAP II. Two alternative sets of themes which focus on efficiency and equity are presented below as an organizing structure for the ASAP II policy matrix.

4.2.7 Alternative Structures for the ASAP II Policy Matrix

The first alternative structure is one that retains the agricultural inputs and outputs approach from the ASAP I themes while incorporating the equity theme. It also adds a new category focusing on the agricultural trading subsector and creating a competitive environment for ADMARC. Each of the themes, as well as the policy measures themselves address directly on the efficiency and equity focus of ASAP's goal and purpose. The three new themes would be:

- To increase efficiency and equity through liberalizing agricultural **input** markets;
- To increase efficiency and equity in agricultural **trading** through increasing competitiveness of ADMARC's marketing function;
- To increase efficiency and equity through reduced distortions in agricultural **output** markets;

The 45 specific policy measures being considered under ASAP II would divide almost equally into the three categories with 15 measures falling under the input theme, 14 under the trading theme, and 16 measures under the output theme (see Proposed ASAP II Policy Matrix below).

USAID/Malawi is considering disbursement of ASAP II funds using a "bubble" approach instead of in sequenced tranches. The bubble approach would release funds when all policy measures in the bubble are successfully implemented. Timing and sequencing of the reforms would be left to the discretion of GOM. The three themes above and the policy measures associated with the themes could be used as bubbles for this approach. Based on the policy measures under each theme, the GOM could focus attention on either liberalizing agricultural inputs or agricultural trading to obtain quick disbursement of an initial bubble of ASAP II funds. Owing to the relative difficulty of policy measures under the output markets theme, it would probably be the last one implemented.

The second alternative structure departs entirely from the ASAP I themes and instead groups the 45 proposed policy measures into categories based on the type of reform being

proposed. As with the first set of themes, each of these three themes maintains the ASAP goal and purpose focus on efficiency and equity. The three themes under this alternative would be:

- Reduce **administrative restrictions** in the agricultural sector for increased equity and efficiency;
- Eliminate **market interventions** in the agricultural sector for increased equity and efficiency;
- Facilitate **market development** in the agricultural sector for increased equity and efficiency.

In each of the theme categories specific policy measures could deal with inputs, outputs, or trading. Administrative restrictions are those where the government or parastatals impose regulations that tend to suppress agricultural productivity. They include administratively allocated burley quotas and restrictions on seed imports. These are passive interventions in agriculture by the government. Market interventions are active interventions where the government is doing something which serves to inhibit agriculture. Market interventions include price fixing of agricultural inputs and outputs. Subsidies fall under this category because they distort access and incentives and are financially unsustainable. Market development is also an active intervention by government, but a proactive intervention in order to stimulate agriculture. Policy measures under market development include facilitating private traders' supply of grain to the strategic grain reserve and reducing duties on key imported inputs to agricultural production and trade. The policy measures divide almost as equally into the three themes in the alternate structure as they did with the first set of ASAP II themes.

4.2.8 Proposed Policy Matrix

The policy measures presented in this proposed policy matrix are organized using the first set of alternative ASAP II themes.

ASAP Goal: To increase agricultural productivity, employment and incomes.

ASAP Purpose: To increase smallholder access to agricultural inputs, output markets, cash crop production alternatives, and labor market information.

Theme No. 1: To increase efficiency and equity through liberalizing agricultural input markets

- Completely eliminate maize seed subsidies.
- Completely eliminate all fertilizer subsidies.
- Allow unrestricted importation of non-maize and non-tobacco seeds for own use or commercial production and distribution if accompanied by phyto-sanitary certificate and germination/purity labeling.

- Maintain policy of limiting MOA variety release requirements to maize and tobacco only.
- Publicly lift all restrictions on land leases and sub-leases, business and trading activities, and domestic transportation operations on ethnic minorities resident in Malawi.
- Simplify, publicize, and accelerate seed varietal releases; maximum 2 years.
- Allow pre-release of new seed varieties by commercial seed distributors for trial production.
- Limit SFFRF responsibilities to that of managing fertilizer buffer stock including stock replenishment to reduce stock deterioration by commercial sales at market-determined prices.
- De-regulate all price controls on agricultural inputs.
- Simplify, publicize, and accelerate process for approval of leasehold land applications and sub-leases thereof; maximum of 6 months.
- Accelerate approval of applications for transport operator's license to 2 weeks.
- Remove restrictions on carrying passengers by freight transporters.
- Liberalize seed imports of released maize varieties based on GOM-USAID endorsed recommendations of study.
- Eliminate road rate controls/guidance.
- Extend duty reductions currently given to trucks (and their spare parts) greater than 10 tons to those which are 3 tons or greater, including spare parts.

Theme No. 2: To increase efficiency and equity in agricultural trading through increasing competitiveness of ADMARC's marketing function

- Release ADMARC from ASAC tobacco pricing formulas to allow ADMARC to purchase smallholder tobacco at market-determined prices.
- Allow ADMARC to become a non-fee paying Intermediate Buyer with no maximum ceiling on its marketing quota; publicize this entitlement.
- Develop and publicize policy to encourage ADMARC to sell, rent, or lease ADMARC facilities.

- Allow and publicize direct access to the auction floors for smallholders and Intermediate Buyers for all smallholder tobacco with the exception of oriental.
- Permit direct sales of oriental tobacco between growers and buyers at freely negotiated prices; publicize this marketing channel.
- Publish Government Notice to revoke the Smallholder Agricultural Product Marketing Regulations of 1987.
- Eliminate the requirement of prior ADMARC/MOA approval for agricultural exports.
- Eliminate existing and prohibit future ADMARC exclusive marketing arrangements.
- Assess need for dark-fired tobacco quota.
- Replace local agricultural trading licensing requirements with national system; publicize in newspapers and by radio.
- Remove all agricultural commodities with the exception of maize from the negative list for import and export licensing requirements.
- Replace duty drawback system with a reduction in duty equal to that of the effective duty drawback level and develop penalties for abuse and misrepresentation.
- Eliminate producer and consumer price controls on all smallholder crops and establish procedures to stabilize maize prices through SGR sales and purchases.
- Clarify and publicize procedures for duty-free privileges for mixed export-domestic businesses.

Theme No. 3: To increase efficiency and equity through reduced distortions in agricultural output markets

- Eliminate Air Malawi-Affret Air exclusive air cargo arrangement and replace with "open skies" policy to permit other cargo carriers including charters to handle air cargo.
- Transfer tobacco quota allocation and administration responsibilities from MOA to TCC.

- Publicly announce in newspapers and by radio broadcasts that Intermediate Buyers' (IB) marketing quotas are additive to national total of production quotas and are not subject to a maximum ceiling.
- Transfer funds from IB license fees to Smallholder Burley Club Trust Fund to finance club training.
- Reallocate burley quota from loan-defaulting burley clubs and members to new smallholder entrants.
- Permit and publicize open tendering for supply to and removal of maize from strategic grain reserves (SGR).
- Electronically allocate by July first of each year all burley production quotas according to efficiency performance criteria as mutually agreed upon between GOM and USAID.
- Eliminate annual quota application requirements except for first-time applicants.
- Publicize and implement the following annual quota adjustments steps:
 - (a) On October first of each year, review performance records of all burley quota holders according to criteria agreed upon with GOM and USAID;
 - (b) On December first of each year, transfer quota from less efficient producers to new entrants as well as to efficient quota holders, according to criteria agreed upon between GOM and USAID; criteria to be reviewed, and, if necessary, revised annually;
 - (c) Increase total national licensed weight by 15 million kg annually.
- Publicly allow TCC to retain and apply annual burley registration fees to costs of computerization of annual quota adjustments and allocations; allow fee deductions from sales.
- Publicize annual quota allocations.
- On March first of each year, register burley licensed weight with Auction Holdings.
- Increase individual grower participation as percent of total AH shares; increase the number of private shareholders in Auction Holdings; permit greater flexibility in setting AH commission rates to retain earnings for operational and development expenditures.

- Give same tax incentives to 100 percent agricultural export businesses as those accorded to Export Processing Zones.
- Evaluate year one of improved quota system, introduce refinements, and implement year two.
- Conduct study on introducing a tradable quota system.

4.3 ASAP II TARGETS

GOM is committed under ASAP program covenants to target small farms and women in allocations of new burley quotas. The covenant reads:

Of burley tobacco quotas issued to customary landholders, the GOM will see that an increasing proportion is allocated to landholders with less than 1.5 ha, and an increasing proportion is allocated to women.

The total quota to be allocated to customary landholders from which the targeted quota is to be drawn is to rise from 3.5 million kg in the 1991/92 crop year to 10.7 million kg by 1995/96 under ASAP conditionality. Responsibility for meeting the targeting covenant resides with the MOA extension service at the ADD level.

Data on land size and female participation in burley club membership since initiating ASAP indicate considerable success in meeting the covenant. Farmers with 1.5 ha of land or less accounted for 54 percent of smallholder burley growers in 1991/92, the first year of ASAP. This proportion rose to 67 percent and 69 percent in the following two crop years.

The proportion of women farmers participating in smallholder burley has similarly been rising, though it stands at a much lower level. Women accounted for 10 percent of club membership in 1991/92, 12.5 percent in 1992/93, and 15 percent in 1993/94.

4.3.1 Experience with Implementing Targeting Covenants

Closer examination of the numbers behind these participation averages bring the success of targeting small farms into question. Several ADDs report percentages of small farm participation so high as to not be entirely believable. Mzuzu ADD, for example, reported 100 percent of participant farmers had less than 1.5 ha. Yet, the average farm size in Mzuzu is second highest of all ADDs. Meanwhile, neighboring Kasungu ADD which is the ADD with the largest average farm size reported only 6 percent participation by farmers with less than 1.5 ha. Salima and Karonga ADDs also reported extremely high small farm participation rates (96 and 95 percent, respectively). Small farm participation rates in other ADDs were: Lilongwe, 85 percent; Liwonde, 78 percent; Blantyre, 76 percent; and Ngabu, 48 percent.

During the ASAP mid-term evaluation, a number of farmers acknowledged having land in excess of the amounts reported. Certainly the quantity of tobacco marketed from some burley clubs would have required more land to produce it than was reported by club members. The ASAP evaluators concluded that the extension service does not appear to have the political muscle to exclude larger smallholders and it lacks the resources to verify and enforce the requirements.

The ADD level data for women's participation in burley clubs show less variation between ADDs. Nevertheless, two ADDs stand out with relatively low participation rates: Blantyre (6.1 percent) and Kasungu (7.3). All other ADDs had participation rates ranging from 14.5 percent to 17.4 percent. MOA extension service officials indicate that messages to field extension agents concerning women membership in burley clubs has been confusing in the past and poorly understood. Women's participation rates are expected to pick up considerably in the near future.

A survey currently being conducted by the MOA Women's Programme Section will provide further information concerning female participation in the smallholder burley program. The survey is focusing on ADDs with the lowest female participation rates—Blantyre, Kasungu, and Mzuzu. Four hundred farmers are being interviewed, including 200 female burley club members, 100 male club members, and 100 female non-club members. FHAs implementing the survey in the field have indicated that reasons for low female participation in their regions include: labor requirement for tobacco (e.g. shed construction and baling), lack of involvement of FHAs in the burley tobacco program, and misinterpretation of the target for women's participation (the target of *at least* 10 percent women farmer participation has been taken as a *limit* of 10 percent).

A further problem with targeting both farmers with small landholdings and women for burley club participation is that they may not, in fact, be from the group of needy smallholders for which targeted allocations were intended. For example, farmers with small landholdings may be receiving substantial remittances from family members working in South Africa or Malawian towns. Or, women members might be members of well-to-do households rather than needy heads of households.

4.3.2 Costs to Direct Targeting

In addition to the problems of properly identifying appropriate beneficiaries of targeted assistance, there are costs of targeting to consider. Direct costs consist of the time and cash requirements placed on the extension service for recruiting, verifying, and monitoring targeted beneficiaries. The extension service is already overstretched in terms of both personnel and resources. There are over 800 farm families on average per extension agent in Malawi (World Bank, 1993, Staff Appraisal Report). At the same time, resources for transportation and for demonstration activities are in short supply. Field Assistants are often unable to visit farmers due to lack of transport. Requirements to target activities to specific groups of farmers stretches available resources even further.

There is also an indirect targeting cost of diverting the extension service away from exactly the types of activities that are of great potentially value to the resource poor farmers that the targeting is intended to assist. Only 25 percent of smallholders are reached by extension. Delivery of services is already skewed towards the relatively better off farmers in the sector. Farmers with more land and with more resources tend to be recipients of extension advice that focuses on modern inputs. Malawi's resource poor farmers need extension that focuses on *their* production activities and on activities that they can most readily expand into. Most specifically, crop husbandry messages pertaining to timing and methods of field preparation and planting, and information on organic inputs, would be beneficial. Effective messages would also be useful on food crops other than maize, such as cassava, pulses, sorghum, and on methods for intercropping.

Targeting membership for burley clubs comes at an efficiency cost in tobacco production, too. The most efficient farmers would be those that self-select themselves into clubs for production rather than those recruited to meet targeting goals. Self-selecting farmers will tend to be the most willing and most able to succeed with the new burley enterprise. Steering tobacco quotas to other farmers for targeting purposes will come at the cost of lower output and/or poorer quality tobacco.

It is important to note, however, that these costs *do not* arise from burley being produced by farmers with small landholdings or by women farmers. They arise instead from direct targeting of beneficiaries. Production on small farms and by women is potentially just as efficient as by other farmer categories, perhaps even more so. In fact, smallholder burley clubs tended to fulfill their quotas in tobacco delivery to the auction floor while many estates did not. Smallholders also received higher prices for their tobacco than estates meaning that their tobacco was of good quality. The average smallholder burley price in 1993 was MK 5.28 compared to the national average price of 4.89. Average smallholder prices from each ADD exceeded the national average, too, indicating that tobacco quality was high throughout the country.

4.3.3 Indirect Targeting—The Regional Approach

In order to address targeting goals while avoiding some of the costs associated with targeting, USAID encouraged MOA to increase its quota each year to the Southern Region where many of the target groups reside. The Southern Region received 38 percent of smallholder quota allocations in 1991/92, increasing to 47 percent the following year, and 52 percent in 1993/94.

The proportion of female-headed households is greatest in two southern ADDs. In Blantyre and Liwonde, women head 42 and 37 percent of households, respectively. Around 25 percent of households are headed by women in Ngabu, Lilongwe, Salima, and Mzuzu. The rate is about 15 percent in Kasungu and Karonga. Higher population densities in the south, particularly in Liwonde and Blantyre, means that farms sizes tend to be low in the region, too. The Southern Region accounts for 50 percent of Malawi's population but only 25 percent of the total land area.

Concentrations of the two target groups by ADDs are consistent with concentrations of the poor, based on the 1991 Food Security and Nutrition Monitoring Survey. Liwonde and Blantyre had the largest proportions of poor (75 and 73 percent respectively) followed by Salima and Lilongwe ADDs (71 and 61 percent respectively). Poverty was defined as having incomes less than \$40 per capita per annum—the minimum requirement of 200 kg/year of maize per adult at the ADMARC reference price.

These figures are also consistent with average annual gross value of household income in ADDs as measured in the annual survey of agriculture (UN/GOM, 1993, Malawi Situation Analysis of Poverty). Liwonde ADD had the lowest annual income of all ADDs in the survey. Liwonde, Blantyre, Lilongwe, Karonga, and Salima were all below the national average for the year. Among smaller farmers with less than 1 ha, household income was lowest in Liwonde, Lilongwe and Salima.

Concentrating burley groups in particular areas may also create positive externalities which increase total impacts of program activities. Tobacco production, even among smallholders, raises the demand for labor. About 70 percent of smallholder households hire some labor every year, and this percentage would rise for smallholders producing cash crops. Since the target groups of farmers with small land holdings and female-headed households rely on labor earnings to meet their food needs, higher labor demand would benefit the groups directly. Benefits may take the form of both increased opportunities for working and higher wages. Further, the benefits would not be limited to club members but would be spread instead over all workers in the area.

Still, regional targeting does come with a potential efficiency cost. To the degree that tobacco production is directed to areas where profitability and yields are not the highest, efficiency is sacrificed. In the past, the Northern and Central Regions have tended to obtain higher tobacco yields indicating that targeting the south will lower overall production efficiency.

4.3.4 Targeting and Quota Liberalization

Targeting in the ASAP covenants and in the discussion above has all been in the context of burley tobacco quotas. The method of targeting is to direct allocation of quotas toward specific beneficiary groups. However, complete liberalization of burley tobacco is one of the policy options being considered by MOA and USAID and under this scenario, quotas would be eliminated. The approaches to targeting now being used would break down entirely.

In a quotaless environment, targeting instead would take the form of directing specific services to beneficiary groups. For example, rather than giving a certain proportion of a fixed quota to target groups, extension services would give preferential attention to the groups. Note that this will again stretch the extension service whose capabilities are already over-stretched. However, it will entail directing services already of the type being delivered by the extension service rather than adding new activities.

4.3.5 Targeting Recommendations

We recommend pursuing further the regional approach to targeting that has been used recently by MOA and USAID. Regional targeting has several advantages over direct targeting:

- Measurement problems in identifying beneficiaries are avoided;
- Direct costs of recruiting, verifying, and monitoring targeting groups are lower;
- Indirect costs of diverting extension services are minimized;
- Efficiency costs of directing burley production are reduced;
- Regional externalities increase program benefits;

A further argument for regional targeting is that since quota targeting will be irrelevant after liberalization, costs of setting up a targeting system should be minimized. And regional targeting is the less expensive alternative. Our recommendations on tobacco quotas call for elimination of burley quotas over a period of several years.

Regional targeting to date has been pursued broadly for the Southern Region as a whole. However, it seems that based on farm sizes, female-headed households, and income data, more specific ADD or even RDP targeting may be warranted. There are pockets in both the Central and Northern Regions that would certainly qualify for targeting with criteria based on the proportions of households with small farms or female-headed households. Nkata Bay in the north and Ntchisi in the center, for example, are areas with the highest rates of female-headed households in the country, however they would not receive special attention with targeting to the Southern Region only.

To operationalize targeting, one needs a starting point—a distribution of quotas which targeting will change to meet policy objectives. Two typical starting points are (1) equal allocations by region (or ADD or RDP), or (2) population weighted allocations. Population weighted regional allocations make sense as a starting point since targeting objectives are based on population or household characteristics. On the other hand, densely populated areas will tend to have smaller farms, so with respect to the small landholding criteria this starting point is in a sense double counting. A third alternative is a starting allocation based on regions where tobacco is most efficiently produced. This starting point would reduce the efficiency distortion of targeting.

From the starting point allocation, regions would get greater or lesser proportionate shares of quota based on the relative concentration of small farms and female-headed households in the area. For example, if the Southern Region with 50 percent of Malawi's population starts with a quota allocation of 50 percent based on population, it would then receive extra quota because more small farms and female-headed households are located in the south than other regions (again, ADD or RDP allocations would better focus the targeting).

Weights used for adding to quota also need to be worked out and agreed to. For example, if a region exceeds the national average proportion of small farms by 10 percent, it

might receive 5 percent more quota; and the same for proportions of female-headed households. The extra quota would come from regions with lower than average proportions of small farms and female-headed households. It is a simple exercise to compute distributions using different percentages as the reallocation rules. Several alternatives can be computed and reviewed prior to adopting one.

The targeting that is agreed to should take account of non-ASAP tobacco activities too, specifically, the impact of the IFAD project. IFAD activities will be concentrated in the Liwonde and Blantyre ADDs owing to the high proportion of households in these ADDs with low incomes, small farms, and female heads. The quota for these ADDs should be additive including smallholder tobacco grown under all circumstances.

ASAP II: INTERVIEW LIST

ACT Ltd., Lilongwe	Jack Phiri, Branch Manager
ADMARC	Mr. Kadzako, Chief Executive Mr. Salifu, Deputy General Manager Mr. Harawa, Asst. GM, Finance Mr. Kabambe, Tobacco Controller Mr. Sankhane, MIS Controller Mr. Gunde, Maize Controller
Agricultural Trading Company Ltd.	Victoria Keelan, Company Manager
Air Malawi, Blantyre	Rex Lezard, General Manager
ASAP Advisor, Burley Clubs	John Engles
Auction Holdings	Steve McDougall, General Manager
Chamwavi Group	Roger Barclay Smith
Chancellor College	Killy Sichinga
Commercial Bank of Malawi	Rodger Giles
Consultant, ACV Consultants	Ashok Chakravarti
Consultant	James Lawrence
Consultant, De Leeuw Cather	Gary Roberts
Consultant, HIID	Richard Goldman
Consultant, HIID	Mike Westlake
Development of Malawian Traders Trust	D.E.Makako, Deputy General Manager S. Mchenga, Finance and Admin. Manager Tony Masanza, Human Resources Manager
Grain and Milling Company Ltd.	Clement Kwizombe, Manager
Estate Extension Services Trust	Jasper Steele
Export Farmers, Mangochi	Eric and Sue Phillips

ICRISAT	G.L. Hildebrand
Intabex Dibrell Ltd.	Clive LePatroul
International Commodities	Shoukat Hussein
Investment Promotion Agency	Phiri, M.J.M., Gen. Manager
Lever Bros. (Malawi), Blantyre	John Mbejere
Limbe Leaf	Peter Stevenson Rod Hagar
Lingadzi Farm Ltd., Lilongwe	Jenny Perepeczko, Gen. Mgr.
Malawi Export Promotion Council	Robert Salama
MANICA, Kamuzu Airport	Smile Namagonya, Branch Mgr
Mbame Estate, Thyolo	Colin Stanton
Mchenga Irrigation Project	Tor Mann
Mphasa Store	M.H.A. Karim
Naming'omba Tea Estates	Christopher Barrow
National Bank of Malawi Estate Management Operation	Malcolm Hatley
National Seed Corporation of Malawi (Cargill)	Kevin Whisler
Press Holdings	John Carter Nigel Christe David Fourie
R.W.J. Wallace, Ltd.	Simon W. Wallace
SEBA Foods, Lilongwe	Tony and Barbara Burgess
Small Enterprise Development Organisation of Malawi	E.Chioko, Technical Manager
Son-Thong International Ltd. and Norsk Hydro (Malawi)	Bilison Itaye

Stancom Tobacco Company	Colin Armstrong John Royal
Tobacco Exporters Association of Malawi	Clive LePatroul Mr. Mbale, Executive Secretary
Tobacco Control Commission	Evans Chipala, General Manager
Tobacco Association of Malawi	Henry Ntabe, Chairman Dr. Tchengatchenga, Exec. Secretary
Tobacco Farmer	Andrew Barrow
Transglobe Produce Exports	Parvez Tayub
Tropical Fish Exports, Salima	Stuart Grant
Valley Chicks, Lilongwe	Lynda van Nierkierk
World Learning Inc.	Charles D. Ward, Director, SHARED Project

GOVERNMENT OF MALAWI

Ministry of Agriculture	
Planning Division	Alex Gomani, Chief
Planning Division	Ian Kuwenda
Planning Division	Rod Msondi
Extension and Training	Edward Kabuye, Chief
Extension and Training	Mr. Chanza
Senior Economist, Pricing	P.C. Chirwa
Senior Economist, Marketing	E.K. Mpande
Agricultural Research, Seeds	Dr. Luhanga, Chief
Program Manager, Salima ADD	W. Ching'amba
Program Manager, Lilongwe ADD	Joseph Muyaya
Women's Programme Section	Mrs. Haule
Women's Programme Section	Mrs. Mpango
Planning Division, SDA Proj.	Alastair Orr, Advisor
National Early Warning System	Peter Murphy, Advisor
FAO Programme	Joseph S. Johnson, Advisor
Smallholder Agricultural Credit Administration	Silas Murotho W. Kaimila
Ministry of Finance	Walter Mkhandawira Patrick Zimpita

**Economic Planning and Development
Office of the President**

**Margaret Narendra
Charles Mann**

Ministry of Transport

Mr. Chitimbe, Chief Transport Planning Officer

Ministry of Trade and Industry

**S.H. Ngumuya, Principal Trade Officer,
Elias U. Ngongondo, Principal Trade Officer
A.L. Banda, Principal Industrial Development
Officer**

Reserve Bank of Malawi

**W.T. Banda, Research and Statistics
T.S. Chinkhwanga, Apex Department
D. Chigona**

**Customs & Excise Department
Kamuzu Airport**

W. Sekani

**Department of Surveys
Central Region**

M. Gondwe

DONORS

USAID

**Joanne Hale
Kurt Rockeman
Steve Shumba
Adina Rosenthal
Benson Phiri
Monty Crisp
Laurie Cameron
Stephanie Funk
Gail Schwartz**

WORLD BANK

**Peter Pohlin
Gale Rozelle
Stanley Hiwa
Francis Mbuka
Dan Fullerton
Richard Anson**

FAO

Heimo Mikkola, Malawi Representative

UNDP

M.Hein, Resident Representative

World Food Programme

Phillip M. Ostenso

UNICEF

Nathalie Hahn, Malawi Representative

CONFERENCES AND COMMITTEE MEETINGS:

Fertilizer Steering Committee Meeting: March 10

Tobacco Steering Committee, two meetings: March 11 and March 17

Centre for Social Research' Presentation on the Credit Repayment Crisis:
March 15

Seed Steering Committee Meeting: March 25

REFERENCES

- Carr, Peter. 1993. "Malawi: Private Sector Diversification Study," prepared for the World Bank, October.
- Carr, Peter F. 1993. "Promoting An Environment for Private Sector Diversification," Component 1 of the World Bank Institutional Development Fund Private Sector Diversification Study. IRI REsearch Institute, Stamford, Ct. October.
- Carvalho, Joe, et. al. 1993. "Mid-Term Evaluation of the Agricultural Sector Assistance Program (ASAP)," USAID, March 31.
- Centre for Social Research. 1994. "Credit Repayment Study," Draft report—solutions to the problem. University of Malawi, March 15.
- Chakravarti, Ashok. 1994. "ASAP Maize Seed Study," ACV Consultants, Ltd. Prepared for USAID/Malawi, March.
- Chambers, Orlando. "Strategic Trade Theory in International Trade: Application to Burley Tobacco," Ph.D. Dissertation, University of Kentucky, Lexington, in progress.
- Chilowa, Wycliffe. 1993. "The Significance of Tobacco in the Economy of Malawi," Centre for Social Research, University of Malawi, December.
- Christiansen, Robert E. and Lee Ann Stackhouse. 1989. "The Privatization of Agricultural Trading in Malawi," *World Development*. 17(5):729-740.
- Coda and Partners. 1993. "Agriculture Sector Study" Volumes 1 - 6, Prepared under TAF/ADF Grant, Government of Malawi, Ministry of Agriculture. (ADB), November.
- Crane, Don and Gavin Olney. 1993. "Organizational and Training Needs Assessment for Smallholder Burley Tobacco Clubs in Malawi," Prepared for the Malawi Ministry of Agriculture and USAID. ACDI, Washington, DC., December.
- DARUDEC - Danish Rural Development Consultants. 1991. "Agricultural Services Project: Input Supply Component," Draft, Working paper. Government of Malawi, Ministry of Agriculture, November.
- FAO. 1994. "Food Supply Situation and Crop Prospects in Sub-Saharan Africa," Special Report. January.
- Food Studies Group. 1992. "Study of the Impact of the Liberalization of Smallholder Agricultural Produce Marketing In Malawi," International Development Centre, University of Oxford, April.

- GFA. 1993. "Malawi: Agricultural Land/Food Potential and Population/Nutritional Survey," Prepared for the Commission of the European Communities, Ministry of Agriculture, Lilongwe. October.
- Goldman, R.H., A.C. Conroy, D.T. Kumwanda, J. Lawrence, J. Mhango, and M. Westlake. 1994. "Smallholder Maize Fertilizer Policy Study: Interim Findings and Interim Recommendations," Harvard Institute for International Development, March 10.
- Government of Malawi. 1993. "Food Security and Nutrition Bulletin," Vol.4, No.1. Office of the President and Cabinet, Department of Economic Planning and Development, Food Security and Nutrition Unit, July.
- Government of Malawi. 1991. "A Description of Crop Varieties Grown in Malawi," issued by the Variety Release Committee, Ministry of Agriculture, September.
- Government of Malawi. 1994. "Economic Report, 1994," Office of the President and Cabinet (Department of Economic Planning and Development), Zomba, Malawi.
- Government of Malawi. 1993. "Guide to Agricultural Production in Malawi, 1993-1994," Lilongwe.
- Government of Malawi. 1994. "Food Security Update for the 1993/94 Marketing Year," Malawi National Early Warning System for Food Security, Planning Division, Ministry of Agriculture, February.
- Government of Malawi. 1990. "Food Security and Nutrition Policy Statement," Supplement to the Statement of Development Policies, Office of the President and Cabinet, Department of Economic Planning and Development, September.
- Government of Malawi. 1993. "Memorandum of Understanding between the Government of the Republic of Malawi and the Agricultural Development and Marketing Corporation," Draft. December 7.
- Government of Malawi. 1993. "Agricultural Marketing and Estate Development Project: Mid-Term Review," (Credit 1966 - MAI). Draft, Ministry of Agriculture, Planning Division, Lilongwe, December.
- Government of Malawi. 1991. "Memorandum of Understanding between the Government of the Republic of Malawi and the Agricultural Development and Marketing Corporation," Draft, with attachments. December 17.
- Government of Malawi. 1993. "Agricultural Marketing and Estate Development Project: Mid-Term Review," Ministry of Agriculture, Planning Division. December.

- Gray, John. 1993. "Agricultural Food Export Study: Stocking Trade and Pricing Policies for Food Security," Development Support Group, Ltd in cooperation with the Malawi Export Promotion Council. October 7.
- Hirschmann, David. 1993. "Gender and Equity," prepared for the USAID/Malawi Mid-Term Evaluation of the Agricultural Sector Assistance Program, March.
- International Fund for Agricultural Development. 1993. "Malawi Smallholder Food Security Project: Main Report and Annexes," August 13.
- Kadyampakeni, James. 1988. "Pricing Policies in Africa with Special Reference to Agricultural Development in Malawi," *World Development*. 16(11):1299-1315.
- Labaree, Sarah C. 1992. "The Need for Equal Opportunities: Agricultural Development and the Smallholder Farmer in Malawi," Masters Paper. Fletcher School of Law and Diplomacy, Tufts University, April 30.
- Larson, Donald and Elton Thigpen. 1993. "Prospects for Expanded Burley Production," working paper for the World Bank Malawi Agricultural Sector Memorandum, November 18.
- Lele, Uma. 1990. "Structural Adjustment, Agricultural Development and the Poor: Some Lessons from the Malawian Experience," *World Development*. 18(9):1207-1219.
- Ligoya, Perks. 1993. "Report on the Agro-industry Survey in Malawi," Draft, prepared for the World Bank Country Economic Memorandum, September 17.
- Malawi Export Promotion Council. 1989. "Malawi Buyers Guide 1989/90."
- Malawi Investment Promotion Agency. 1994. "Roadmap for Investors," Lilongwe, April.
- Martin, Jerry. 1990. "A Pre-Feasibility Study of Malian Horticultural Export Crops," prepared under the AMIS Project for USAID/Mali, Abt Associates, Inc., October.
- Matthews, Alison and Colin Wilshaw. 1992. *The Malawi Tobacco Handbook*, Blantyre.
- Mkandawire, Richard, Steven Jaffee, and Sandra Bertoli. 1990. "Beyond 'Dualism': The Changing Face of the Leasehold Estate Subsector of Malawi," Institute for Development Anthropology. Binghamton, New York.
- Mndalasini, Andrew. 1993. "A Road-Map for Investors," Malawi Export Promotion Council, November.
- Mthindi, G.B. 1992. "Proposed Liberalisation of the Fertiliser Market," working paper, MOA/UNDP/FAO Workshop on Fertilisers in Mangochi on 7-9 September.

- Must, R.W. 1993. "Review of Agricultural Produce Marketing Regulations," Loose Minute, Agricultural Marketing and Estate Development Project, April 30, 1992. (with cover letter from the Attorney General, February 10.
- Namba, S.F. and A.P.K. Haule. 1994. "A Report on the Proceedings on the Greater Female Participation in the Smallholder Burley Tobacco Programme," Women's Programme Section, Ministry of Agriculture, March 3.
- Neils, Kenneth E., Carl Reed and John D. Lea. 1992. "National Food Security Stock Policies and Procedures in Sub-Saharan Africa: Recommendations," Technical Assistance Report No. 127, Food and Feed Grains Institute, Kansas State University. Manhattan, KS, May.
- Neils, Kenneth E., Carl Reed and John D. Lea. 1992. "National Food Security Stock Policies and Procedures in Sub-Saharan Africa: Case Studies," Technical Assistance Report No. 124, Food and Feed Grains Institute, Kansas State University. Manhattan, KS, January.
- Olney, Gavin. 1993. "Consultancy Report on Smallholder Burley Marketing for the Agricultural Sector Assistance Program," Prepared for the Malawi Ministry of Agriculture and USAID. ACDI: Washington, DC. October 30.
- Olney, Gavin. 1993. "An Evaluation of Marketing Options for Smallholder Burley Growers," Prepared for the Malawi Ministry of Agriculture and USAID. ACDI, Washington, DC., December.
- Peters, Pauline. 1994. "Deciphering the Effects of Agricultural Marketing Reforms on the Rural Poor: A Case From Malawi," Harvard Institute for International Development. Cambridge, Massachusetts, January.
- Peters, Pauline. 1993. "Maize and Burley in the Income and Food Security Strategies of Smallholder Families in the Southern Region of Malawi, 1993," Harvard Institute for International Development. October.
- Press Group. 1992. *Annual Review, 1992*.
- Pryor, Frederic L. 1990. *Malawi and Madagascar: The Political Economy of Poverty, Equity, and Growth*. Oxford University Press.
- Reserve Bank of Malawi. 1993. "Financial and Economic Review," Volume XXV, Number 3. Lilongwe.
- Sahn, David E. and Jehan Arulpragasam. 1991. "The Stagnation of Smallholder Agriculture in Malawi: A Decade of Structural Adjustment," *Food Policy*. pp.219-234, June.

- Sahn, David E. Jehan Arulpragasam, and Lemma Merid. 1990. *Policy Reform and Poverty in Malawi: A Survey of a Decade of Experience*. Monograph 7, Cornell Food and Nutrition Policy Program. December.
- Sahn, David E., Yves Van Frausum, and Gerald Shively. 1992. "The Adverse Nutrition Effects of Taxing Export Crops in Malawi," Working Paper 29, Cornell Food and Nutrition Policy Program. May.
- Salama, Robert and Andrew Mndalasini. 1993. "Agricultural Export Policy Study," Malawi Export Promotion Council. Blantyre, November.
- Schwartz, Lisa. 1993. "Malawi Agricultural Diversification," Working Paper for the World Bank Agricultural Sector Memorandum, March 29.
- Simler, Kenneth. 1993. "Agricultural Policy and Technology Options: Modeling Responses and Outcomes in the Smallholder Subsector," Working paper for the World Bank Malawi Agricultural Sector Memorandum, March.
- Simler, Kenneth. 1993. "Coping Strategies for Smallholder Households and Scope for Targeted Interventions to Improve Food Security," working paper for the World Bank Malawi Agricultural Sector Memorandum, June.
- Simler, Kenneth. 1992. "Household Expenditure Behavior and Farm-NonFarm Linkages in Rural Malawi," Working paper for the World Bank Agricultural Sector Memorandum, November 17.
- Simler, Kenneth. 1993. "Poverty Profile of Rural Households in Malawi: A Summary of Recent Findings," working paper prepared for the World Bank Malawi Agricultural Sector Memorandum, June.
- Simler, Kenneth. 1993. "Sources of Growth in Malawi: Past Trends and Future Prospects," Working paper for the World Bank Malawi Agricultural Sector Memorandum, March.
- Snell, William M., A. Blake Brown, and Russel W. Sutton. 1994. "Tobacco Policy Alternatives and Consequences," 1995 Farm Bill Education Project, sponsored by the Southern Extension Public Affairs Committee.
- Snell, William M. and Orlando Chambers. 1991. "Buying and Selling Burley Quota: What Factors Should Farmers Consider?" AEC-76, Department of Agricultural Economics, University of Kentucky, June.
- Spooner, Neil and Lawrence Smith. 1991. *Structural Adjustment Policy Sequencing in Sub-Saharan Africa*. Chapter 6: Malawi, FAO Economic and Social Development, No. 104. Rome.

- Stancom Tobacco Company (Malawi) Ltd. communication. 1993. "Stancom/ADMARC Oriental Project in the Southern Region," letter from A. C. Armstrong to ADMARC, November 29.
- Stryker, et al. 1993. "Costs and Benefits of Eliminating Institutional Constraints on the Expansion of Non Traditional Exports," Associates for International Resources and Development. Prepared for USAID/Malawi under the Consulting Assistance for Economic Reform Project, March.
- United Nations and Government of Malawi. 1993. "Malawi Situation Analysis of Poverty," Lilongwe.
- Universal Leaf Tobacco, Ltd. 1993. "Worldwide Tobacco Supply and Demand: Flue-cured, Burley, Oriental Summary," Richmond, VA, December.
- USAID/Malawi. 1991. Agricultural Sector Assistance Program, (ASAP)" Volume 1: Program Assistance Approval Document, and Volume 3: Annexes, September.
- USAID. 1991, 1992, 1993. Project Implementation Reports, ASAP Project.
- Valdes, Alberto and Kay Muir-Leresche (Eds.). 1993. "Agricultural Policy Reforms and Regional Market Integration in Malawi, Zambia, and Zimbabwe," International Food Policy Research Institute, Washington, DC.
- Van Frausum, Yves and David E. Sahn. 1991. "An Econometric Model for Malawi: Measuring the Effects of External Shocks and Policies," Working Paper 13, Cornell Food and Nutrition Policy Program. October.
- Vantreese, Valerie. 1993. "Market Outlook for Malawi's Tobacco Industry." prepared under the USAID AMIS project, September.
- World Bank. 1992. "Malawi: Financial Policies for Sustainable Growth," February 19.
- World Bank Office Memorandum. 1992. "Malawi: Agricultural Sector Adjustment Credit (Cr. 2121-MAI); Agricultural Marketing and Estate Development Project (Cr. 1966-MAI): Supervision Report." August 20.
- World Bank. 1990. *Malawi: Growth Through Poverty Reduction*. Report No 8140-MAI. Washington, DC. March 22.
- World Bank. 1984. "Malawi: Agricultural Diversification," working paper, November 15.
- World Bank communication. 1994. "Draft Seed Regulations: Comments and Suggestions," letter from Richard Anson to GOM Secretary of Agriculture, February 25.
- World Bank. "Agricultural Strategy Discussion Paper." undated.

World Bank. 1993. "Agricultural Diversification Project Reconnaissance Mission: Oilseeds and Small Scale Irrigation," Draft, May 12.

World Bank. "Inputs Sector: Fertilizer and Seed," Draft.

World Bank. 1994. "Malawi: National Agricultural Diversification Program," Draft, March.

World Bank. 1993. "Malawi Agricultural Sector Memo: Strategy Options in the 1990s," November.

World Bank. 1993. *Staff Appraisal Report, Republic of Malawi: Agricultural Services Project*. Report No. 11602-MAI. Washington, DC, February 12.