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Malawi

Poverty and Vulnerability Assessment

Investing in Our Future

Synthesis Report: Main Findings and Recommendations

December 2007

Poverty Reduction and Economic Management 1
Africa Region



Document of the World Bank

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Republic of Malawi



The World Bank

Malawi
Poverty and Vulnerability Assessment
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CURRENCY EQUIVALENTS

(Exchange Rate Effective December 1, 2007)

Currency Unit	=	Malawi Kwacha (MK)
MK1	=	US\$0.0072
US\$1	=	MK139

MEASURES

Metric System

FISCAL YEAR

July 1 to June 30
(as of July 1998)

ABBREVIATIONS AND ACRONYMS

ADD	Agricultural Development Division
ADMARC	Agricultural Development and Marketing Corporation
AGOA	African Growth and Opportunity Act
AHL	Auction Holding Limited
ARET	Agriculture Research and Extension Trust
ART	Anti-Retroviral Therapy
BOP	Balance of Payments
CEM	Country Economic Memorandum
COMESA	Common market for Eastern and Southern Africa
CPI	Consumer Price Index
DFID	Department for International Development
DHS	Demographic Health Survey
EBA	Everything But Arms
EPZ	Export Processing Zone
ESCOM	Electricity Supply Commission of Malawi
EU	European Union
FAO	Food and Agriculture Organization of the United Nations
FBO	Faith-Based Organization
FEWS	Famine Early Warning System
FTA	Free Trade Area
GDP	Gross Domestic Product
GOM	Government of Malawi
HAART	Highly Active Anti-Retroviral Therapy
HIPC	Highly Indebted Poor Countries
IDA	International Development Association
IFC	International Finance Corporation
IHS	Integrated Household Survey
IMF	International Monetary Fund

LCE	Local Commodity Exchange
LDC	Less Developed Countries
M&E	Monitoring and Evaluation
MASAF	Malawi Social Action Fund
MDGs	Millennium Development Goals
MDHS	Malawi Demographic Health Survey
MEPD	Ministry of Economic Planning and Development
MGDS	Malawi Growth and Development Strategy
MOAI	Ministry of Agriculture and Irrigation
MOHP	Ministry of Health and Population
MPRS	Malawi Poverty Reduction Strategy
MRA	Malawi Revenue Authority
MRFC	Malawi Rural Finance Company
NAC	National AIDS Commission
NACP	National AIDS Control Program
NASFAM	National Small Farmers Association
NFRA	National Food Reserve Agency
NGO	Non-Governmental Organization
NPV	Net Present Value
NRA	National Road Authority
NSNS	National Safety Nets Strategy
NSO	National Statistical Office
ORT	Other Recurrent Costs
PA	Prime Age
PRGF	Poverty Reduction and Growth Facility
PRSP	Poverty Reduction Strategy Paper
PSIA	Poverty and Social Impact Analysis
PWP	Public Works Program
RBM	Reserve Bank of Malawi
SADC	Southern Africa Development Community
SFFRFM	Smallholder Farmers' Fertilizer Revolving Fund of Malawi
SGR	Strategic Grain Reserve
SME	Small and medium Scale Enterprise
TAMA	Tobacco Association of Malawi
TCC	Tobacco Control Commission
TIP	Targeted Inputs Program
TLU	Tropical Livestock Unit
TNP	Targeted Nutrition Program
USAID	United States Agency for International Development
VCT	Voluntary Counseling and Testing

The Malawi Poverty and Vulnerability Assessment was prepared by a core team of Government and World Bank officials led by Antonio Nucifora (AFTP1, Senior Economist, the World Bank), and Time Fatch (Ministry of Economic Planning and Development), and comprising Kathleen Beegle (DECRG, World Bank), Gero Carletto (DECRG, World Bank), Rhoda Eliasi (Ministry of Economic Planning and Development), Shelton Kanyanda (National Statistical Office), Khwima Nthara (AFTP1, World Bank), and Diane Steele (DECRG, World Bank).

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MALAWI POVERTY AND VULNERABILITY ASSESSMENT INVESTING IN OUR FUTURE

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EXECUTIVE SUMMARY

1. This study builds a profile of the current status of poverty and vulnerability in Malawi. Poverty is pervasive and not merely the situation of the lowest economic groups. Therefore, while this report focuses on the least-well-off sections of the population, the analysis provides valuable information to accelerate wealth creation and economic growth for the whole of Malawi. The main source of information used in this report is the second Integrated Household Survey (IHS2), carried out by the NSO in 2004/05.

2. **Income measures of poverty indicate that more than half of the population (52 percent) lives below the poverty line and about one fifth (22 percent) is living in ultra-poverty.** The proportion of people living in poverty is highest in rural areas of the southernmost and northernmost parts of the country, while the center is relatively less poor. A similar pattern is observed for ultra-poor people. Urban areas have much lower percentages of people below the poverty line (25 percent), and they also have the lowest share of ultra-poor (8 percent).

3. **Access to assets, services and opportunities is profoundly unequal across the population.** The richest 10 percent of the population has a median per person income that is eight times higher than the median per person income of the poorest 10 percent. Similarly, while the bottom 50 percent of the population accounts for only 25 percent of total income, the richest 5 percent accounts for 20 percent of total income. The extent of inequality does not vary much across rural areas but is substantially higher in urban areas.

4. **Moreover, there has been virtually no progress in reducing poverty and inequality over the past decade since the last household survey was completed in 1998.** Poverty continues to be much higher in rural areas than in urban areas, and the South is still the poorest region.

5. **Poverty has not been static, however. The frequent and widespread occurrence of shocks in Malawi results in large movements into and out of poverty.** When compared to the data from the first Integrated Household Survey (IHS1) for 1998, some districts experienced a reduction in poverty, while others saw increases in poverty. Even at the local level, about two-thirds of households have moved into or out of poverty during the past decade.

6. **Recent trends in human development indicators broadly support the same conclusion, that there has been little progress in reducing poverty.** Recent trends in living conditions of Malawi's population, measured using a set of non-income human development indicators such as literacy, school enrollment, malnutrition, infant mortality, and maternal mortality, also show little improvement. Progress towards the Millennium Development Goals (MDGs) remains mixed; unless corrective policies are introduced, Malawi is unlikely to meet several of the MDGs by 2015.

WHAT ARE THE MAIN CHARACTERISTICS OF POVERTY IN MALAWI?

7. Living conditions—in terms of housing, water, sanitation, cooking fuel, lighting fuel—are very basic for the vast majority of the population, making it difficult to distinguish poor

households based on these characteristics, especially in rural areas. A number of characteristics differentiate poorer households, however, and provide useful information for policy design.

8. **Malawi has a very young and rapidly growing population, and this is a key factor explaining Malawi's high and persistent poverty.** Larger households are more likely to be poor, particularly those with a large number of children. The average number of children per household in the poorest 10 percent of households (decile) is 3.5, which is four times that of the richest decile (0.9). While this report does not discuss issues related to family planning, nevertheless, this will be a critical factor for poverty reduction in Malawi.

9. **Education is a major driver of higher wealth, but access to education is highly inequitable.** Higher levels of education of the head of the household are strongly correlated to being non-poor. However, almost 30 percent of poor children do not even start primary school. Only 60 percent of primary school students who entered Standard 1 could be expected to reach Standard 5, and only 39 percent could be expected to reach Standard 8. The cost of schooling (for fees and uniforms) appears to be a major reason for failure to enroll, and for the high drop out rates in primary education. Secondary education is largely limited to non-poor households, and access to higher education is most heavily skewed towards the richest 20 percent of households in the population.

10. **Households own very limited land, livestock and other durable assets, which limits opportunities for wealth creation.** Ownership of even basic assets and livestock is limited to a small portion of the population. Average ownership of agricultural land is only 1.2 hectares per household, and averages only 0.32 hectares per person. Per person land holdings increase as expected by wealth decile, but even in the richest deciles, the average per person land holding is fairly small. In fact, smaller landholdings are not synonymous with poverty. It is the combination of small landholdings with low assets, and limited access to inputs and markets, that causes low productivity and poverty.

11. **Limited access to markets and services is another major constraint to getting out of poverty.** The poor tend to live in remote areas with limited roads and/or means of transportation, which restricts their access to markets and trading centers, and limits their economic opportunities. Further, roads in rural areas are often impassable, on average for up to four months of the year, and sizeable portions of the population are isolated from the rest of the country for substantial amounts of time.

12. **Similarly, access to financial services is severely constrained and mostly limited to the better off.** Only 12 percent of households reported obtaining credit and access to credit is especially difficult for smallholder farmers. This situation implies limited opportunities for the poor to escape poverty through (borrowing and) investing in profitable economic activities.

13. **The poor are unable to diversify out of agriculture, and tend to remain underemployed for most of the year.** Given the very limited access to productive assets, markets and services, a large share of households (about 38 percent) earns their livelihood only from their household farm or fishing activity. Agricultural households attempt to broaden their farming activity by pursuing crop diversification, livestock and tree sales. An additional 25

percent of household heads combine work on their household farm with other jobs (largely in agriculture). In the case of poor households, off-farm income sources tend to be limited to *ganyu* (casual labor in agriculture). This reflects the lack of opportunities for income diversification open to the poor, as a result of their low level of education and low capital base, and limited availability of credit and markets. For poor households, limited economic opportunities combined with the strong seasonality of rain-fed agriculture leads to labor shortages during the critical parts of the cropping season, with underemployment for the rest of the year.

14. **In addition, the existence of widespread risk and the recurrence of shocks is a major cause of poverty in Malawi.** Risk characterizes the life of Malawians, and experiencing multiple shocks is very common, especially in rural areas. Poorer households have higher relative risk of experiencing a shock. The most common shocks are weather-related, namely drops in crop yields and increases in the price of food. Illness or injury of a household member is also very common, as are shocks associated with death of family members, reflecting, in part, the impact of the HIV/AIDS epidemic.

15. **In addition to the direct impact of shocks, the pervasive risk of shocks is itself a major cause of persistent poverty in Malawi, especially in remote areas.** Households living in remote areas report fewest shocks, reflecting both limited opportunities and reluctance to engage in high-risk high-return activities. While a low-risk low-return strategy makes them less likely to experience a shock, it also keeps them in a poverty trap.

16. **The impact of shocks often forces households to sell assets, thereby undermining their ability to engage in productive activities.** The high incidence of reported shocks suggests that households' strategies to mitigate risk are not very effective. As a result, poor households remain highly exposed to shocks and have to adopt costly coping strategies after-the-event, such as selling durable assets, temporary withdrawal of children from school, and reducing food consumption. Such coping mechanisms do substantial permanent damage to the household's ability to engage in productive activities.

THE CHALLENGE OF FOOD INSECURITY AND MALNUTRITION

17. **Malnutrition is the most severe challenge facing Malawians, irrespective of their level of income and calorie consumption.** Nationwide, a staggering 44 percent of preschoolers are stunted (of which 18 percent are severely stunted).¹ Worse, these figures have remained more or less static for the last 14 years. Stunting is universal, affecting all regions of the country and cutting across all wealth categories. Such exceptionally high levels of malnutrition will have persistent long-term impacts, as malnutrition diminishes future productivity, thus perpetuating vulnerability to poverty traps in the future. Child malnutrition appears not to be highly correlated with poverty levels (and with intake of calories), suggesting that other factors need to be tackled to eradicate it.

18. **The profile of malnutrition highlights the importance of non-income characteristics.** Econometric results show that mother's age and education have positive and significant effect on reducing malnutrition. Living in a female-headed household is also associated with lower

¹ Stunted children are those with a low ratio of height for age. This indicates long-term or chronic malnutrition.

stunting; mothers being in charge of feeding decisions and practices has a positive impact on the nutritional status of older children. Mother's education appears to have a positive impact on reducing malnutrition, although it is difficult to disentangle the role of education from the effect of higher income, since the two are closely related. Access to improved sanitation also appears to be associated with lower malnutrition. Finally, participation in a targeted nutrition program (for children under 5) seems effective in reducing child malnutrition.

19. **In addition to income, a host of other factors need to be tackled to reduce malnutrition.** Programs to increase the potential of poor households to generate income must go hand in hand with actions to improve nutritional and feeding practices, as well as water and sanitation infrastructure. Interventions to reduce vulnerability to erratic rainfall, notably irrigation, and better food markets, should also play an important role. Finally, facilitating access to maize storage facilities and credit is also an important way to reduce fluctuations in the availability of food. Nevertheless, without growth in incomes, it is difficult to see a significant reduction in food insecurity being achieved in Malawi.

THE CHALLENGE OF CHRONIC ILLNESSES AND HIV/AIDS

20. **Chronic illnesses and HIV/AIDS are major challenges playing an overwhelming role in the daily life of Malawians.** The fight against HIV/AIDS remains a national emergency. With an estimated prevalence rate among prime age adults of 11.8 percent in 2004, Malawi ranks eighth in the world in terms of the severity of its HIV/AIDS epidemic.

21. **While general knowledge of HIV/AIDS is fairly high, effective preventive behavior has still not been adopted by the population.** Almost 100 percent of people reported that they had heard about AIDS (although accurate knowledge of preventing the sexual transmission of HIV/AIDS is quite low). Condom use also remains low, possibly because Malawians associate condoms with promiscuous behavior. Low condom usage may also be explained by the fact that very few people have ever tested for HIV (15 percent of women and 18 percent of men as of 2004), in spite of expressing both willingness and knowledge about where to get tested. Low testing rates are possibly due to a combination of poor access to testing sites (physical distance) and stigma.

22. **Most households affected by chronic illnesses and HIV/AIDS do not appear to be poorer.** This is possibly due to the support offered by the extended family, and coping strategies employed by the community. The true impact of chronic illnesses would be better measured using panel data.

23. **For households that incur illness-related expenditures, the cost is substantial.** Most households do not report losing land or other assets after the death of a prime age (PA) member, but the magnitude of the loss is considerable for those that do. Similarly, for households that incur health expenditures, the cost is high. About 14 percent of all households lose, on average, the equivalent to nearly one-quarter of annual income. Households mainly used personal savings and borrowed from friends to pay expenses associated with a death or illness in the household.

24. **Orphans are not more likely to be poor or ultra-poor compared to other children.** Orphanhood is one of many risk factors affecting children; however, orphan status is not consistently correlated with a higher probability of being poor or ultra-poor. This could reflect the placement of children on purpose in the better-off households of the extended family network. Alternatively, for older children, it may reflect the income contribution that they make to the household. In any case, it does call into question the common perception that orphans are systematically worse off, at least in economic terms.

POLICIES FOR WIDELY-SHARED GROWTH AND POVERTY REDUCTION

25. **Action in two broad policy areas can help address many of the problems highlighted above: (i) smallholder agriculture, and (ii) social protection. Reducing the large domestic debt and interest payments must also be a priority to free up substantial budgetary resources which can be redirected towards growth-enhancing and poverty-reducing interventions.**

i) Boosting smallholder agricultural production as a key driver of broad-based wealth creation and poverty reduction. The overarching challenge facing agriculture in Malawi is the low productivity and profitability of smallholder agriculture. Given its importance in the overall economy and in the livelihoods of the poor, policies to strengthen smallholder agriculture should be actively pursued. Furthermore, the entry of smallholders into export markets should be vigorously encouraged as a means for poor households in rural areas to escape poverty. Specific policies include:

- *Improving access to agricultural land:* Large areas of agricultural land are currently idle or underutilized by large estates, and could be made available to poor landless, or land-poor, farmers through rental or sale, without having an impact on productivity in the estate sector.
- *Increasing investments in irrigation is paramount:* This would increase productivity both directly in terms of yields and indirectly, by reducing the risk faced by farmers, and reducing the risk of food insecurity. New irrigation technologies (low cost drip systems) make small scale irrigation possible, and open up new opportunities for water conservation.
- *Improving smallholders' access to inputs requires a dual strategy:* (i) structural interventions to improve the efficiency of fertilizer markets in the medium term, and (ii) short-term 'market-smart' subsidies carefully targeted at poor smallholders. 'Market-smart' subsidies are implemented in ways that promote the development of input markets and the alleviation of key structural constraints.
- *Improving smallholders' access to credit through weather-based insurance:* Insurance policies against weather shocks, such as drought, could be an important way to minimize the risks facing small farmers. Initially, subsidizing the insurance premiums for poor smallholders would encourage farmers to take out such insurance policies. Investment to expand the network of weather stations is required for the private sector to begin offering this type of insurance.

- *Expand the reach of extension services:* Extension services need to be scaled up to allow all smallholders to benefit from more frequent contact with extension agents.
- *Improve the functioning of maize markets:* Improving the functioning of maize markets requires the separation of the multiple roles currently performed by ADMARC; specifically separating its marketing function from its social protection and price stabilization functions. The goal should be to minimize market disruption and foster the growth of private sector trading. The government should also promote local storage of agricultural commodities so that farmers are not forced to sell crops immediately after the harvest when prices are at their lowest. This could be done through facilitation of a Warehouse Receipt Scheme and Village Cereal Banks.
- *Improving the marketing of tobacco:* There is a need to reduce tobacco marketing costs and improve the pass-through of revenues to farmers, by promoting contract farming and direct exports, and bringing efficient markets closer to farmers through the creation of district level “Local Commodity Exchanges”.
- *Improving access to markets for smallholders by investing in infrastructure.*

ii) Strengthening social protection policies to better protect households from risks and shocks, alleviate extreme poverty and enhance productivity. The existing social protection program can be made more effective by moving from a series of weakly connected, short-term and unplanned activities to a long-term, regular and predictable system of social protection. Improving the implementation of existing programs is also important. There is a need to rationalize the use of scarce resources by prioritizing and careful targeting. Several specific suggestions for improvements include:

- *Policies to alleviate chronic poverty:*
 - a. A long-term, regular, reliable and predictable system of direct transfers should be introduced to alleviate extreme poverty (i.e. to help the ultra-poor, or, at minimum, the poorest 10 percent). Where possible, the government should gradually introduce cash transfers.
 - b. Programs to combat malnutrition need to target behavior change and nutrition education at community level. Feeding programs should be concentrated on children under 5 and pregnant women, since these people are the most vulnerable to malnutrition.
- *Building the assets of the chronically poor to enable them to earn a living and escape poverty:*
 - a. Improve the quality of education and facilitate access to education for the poor by introducing measures to reduce drop outs, increase the number of qualified teachers, reduce the expenditure on secondary boarding schools, and provide bursaries to cover the cost of basic education. Also, the government could pursue higher cost recovery in higher education, possibly in combination with an enhanced loans scheme.
 - b. Improve the quality of health services and facilitate access to health services for the poor by increasing the level of skilled staff, especially in rural areas, and reforming the procurement system for medicines (by reforming of the Central Medical Stores).

- *Measures to enhance the productivity of the poor and strengthen their ability to manage risks.*
 - a. Improve access to agricultural inputs for the poorest by addressing the gap in the current system, which excludes smallholders without cash. This could be in the form of a targeted ‘Starter Pack’, and/or cash assistance to complement the vouchers.
 - b. Assist households to mitigate weather risk by promoting weather-based insurance (see above). Medium-term interventions will require investment in water management, small-scale irrigation and water harvesting.
 - c. Strengthen actions to contain the spread of the HIV/AIDS epidemic through programs which can increase the accurate knowledge of how to prevent the sexual transmission of HIV/AIDS (and also tackle the cultural myths and stigma ideas around HIV, and increase the awareness of the need for self-protection), and through the provision of small financial incentives to take part in Voluntary Counseling and Testing (VCT), coupled with improvements in access to VCT for the rural populations. Rapid testing should also be encouraged to reduce the travel and psychological costs associated with accessing a VCT facility. Also, additional efforts should be made to promote behavior which prevents infection, including through the involvement of faith-based organizations (FBOs).
- *Measures to assist households cope with shocks:*
 - a. For shocks that affect entire communities or regions, such as crop failure due to drought, emergency food aid can play a valuable role. There is a need to redouble efforts to reduce leakages in the program, and to improve targeting.
 - b. For household-specific shocks, the existing Public Works Program (PWP) can play an important role, if it is adequately expanded. In addition, a safety net for households not covered by PWPs should be built into the overall social protection program.
 - c. For individuals affected by HIV/AIDS, the government should continue its efforts to provide antiretroviral therapy.
- *Managing the response to large-scale natural disasters and wide fluctuations in food prices by adopting innovative risk management tools:*
 - a. Nation-wide drought insurance could be purchased which would provide the government with financial resources in the event of food emergencies. Also, the government could reduce its exposure to high food prices in the face of a food crisis by purchasing market hedging derivatives.

STRENGTHENING MONITORING AND EVALUATION SYSTEMS FOR POVERTY REDUCTION

26. **Weaknesses in Malawi’s monitoring and evaluation (M&E) systems are being addressed.** The overall institutional framework needs to be further strengthened, particularly in terms of incentives, clarity of roles and responsibilities, and coordination among key stakeholders. Gaps remain in the different parts of the national monitoring system and in the linkages between them.

27. **The new Malawi Growth and Development Strategy provides a golden opportunity to introduce a strong M&E system**, where goals are translated into operational plans, and indicators are identified to allow monitoring of progress in individual activities, as well as towards higher level goals. Linkages between planning, budgeting, accounting, and the policy review process also need to be worked out.

Malawi Poverty and Vulnerability Assessment

Investing in Our Future

INTRODUCTION

1. This study builds a profile of the status of poverty and vulnerability in Malawi. Malawi is a small land-locked country, with one of the highest population densities in Sub-Saharan Africa, and one of the lowest per capita income levels in the world. Almost 90 percent of the population lives in rural areas, and is mostly engaged in smallholder, rain-fed agriculture. Most people are therefore highly vulnerable to annual rainfall volatility. The majority of households cultivate very small landholdings, largely for subsistence. As a result, poverty is pervasive and not merely the situation of the lowest economic groups. Therefore, while this report focuses on the least-well-off sections of the population, the analysis provides valuable information to accelerate wealth creation and economic growth for the whole of Malawi.

2. This Synthesis Report presents the main findings and policy recommendations stemming from the analysis. Due to the length and detail of this study, the ‘Full Report’ presenting the detailed analysis and results underpinning these policy recommendations is available as a separate publication.²

3. Following a brief discussion of the levels and distribution of poverty in Malawi, this report highlights some of the key characteristics and causes of poverty in Malawi, and focuses on the main sources of risk affecting households, namely food insecurity and health shocks. Based on these findings, the report goes on to develop a set of policy recommendations for widely-shared growth and poverty reduction, and for enabling the most vulnerable to make a living. Finally, the report also provides recommendations for strengthening the monitoring and evaluation systems of poverty reduction strategies, so that policy makers and Malawian society can better track the effectiveness of the policies pursued, and inform future policy choices.

4. The main source of information used in this report is the new second Integrated Household Survey (IHS2 2005), carried out by the NSO in 2004/05, with technical support from the World Bank. This survey provides a wealth of information on household living conditions. The information has been analyzed to identify the major characteristics of poor households and the main constraints to wealth creation in Malawi. In addition, data from the first Integrated Household Survey (IHS1 1998) is used to see how poverty and its characteristics have changed over time. The analysis has also been complemented with information from other sources,

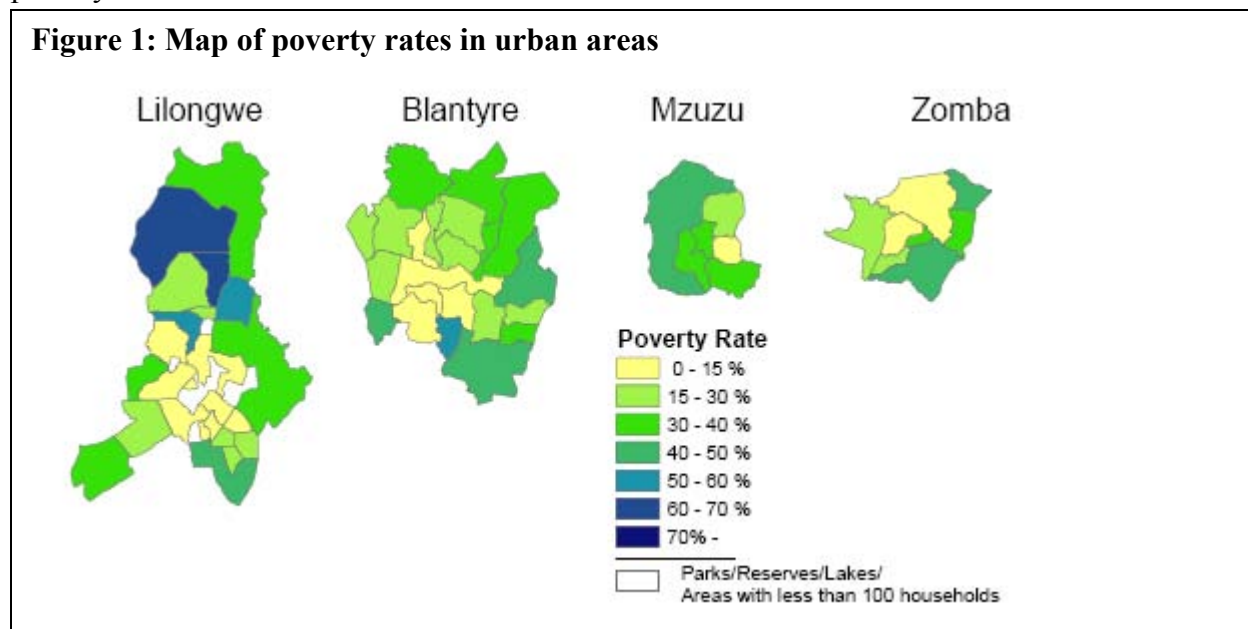
² The complete set of reports (Synthesis Report, Full Report and Appendices) is available on CD-ROM. The Full Report is divided into three parts. The first part of the report presents the characteristics and causes of poverty in Malawi, which includes static and dynamic factors, and focuses on the main sources of risk affecting households, namely food insecurity and health shocks. The second part develops these findings into a set of policy recommendations for broadly shared growth creation and poverty reduction, and to ensure participation of the most vulnerable in economic productive activities. The final part of the report provides recommendations for strengthening the monitoring and evaluation systems of poverty reduction strategies.

including the 1998 Population Census, the 2004 Malawi Demographic and Health Survey (MDHS 2004), as well as previous MDHS in 1992, 1996 and 2000.³

LEVELS AND DISTRIBUTION OF POVERTY AND INEQUALITY IN MALAWI

5. **Poverty continues to be widespread in Malawi.** Income measures of poverty (based on household consumption spending as a proxy for income) indicate that more than half of the population (52 percent) lives below the poverty line and about one fifth (22 percent) is living in ultra-poverty. In other words, about 6.4 million Malawians live in poverty and as many as 2.7 million Malawians, about one in every five people, live in such dire poverty that they cannot afford to meet even their recommended daily food needs.⁴

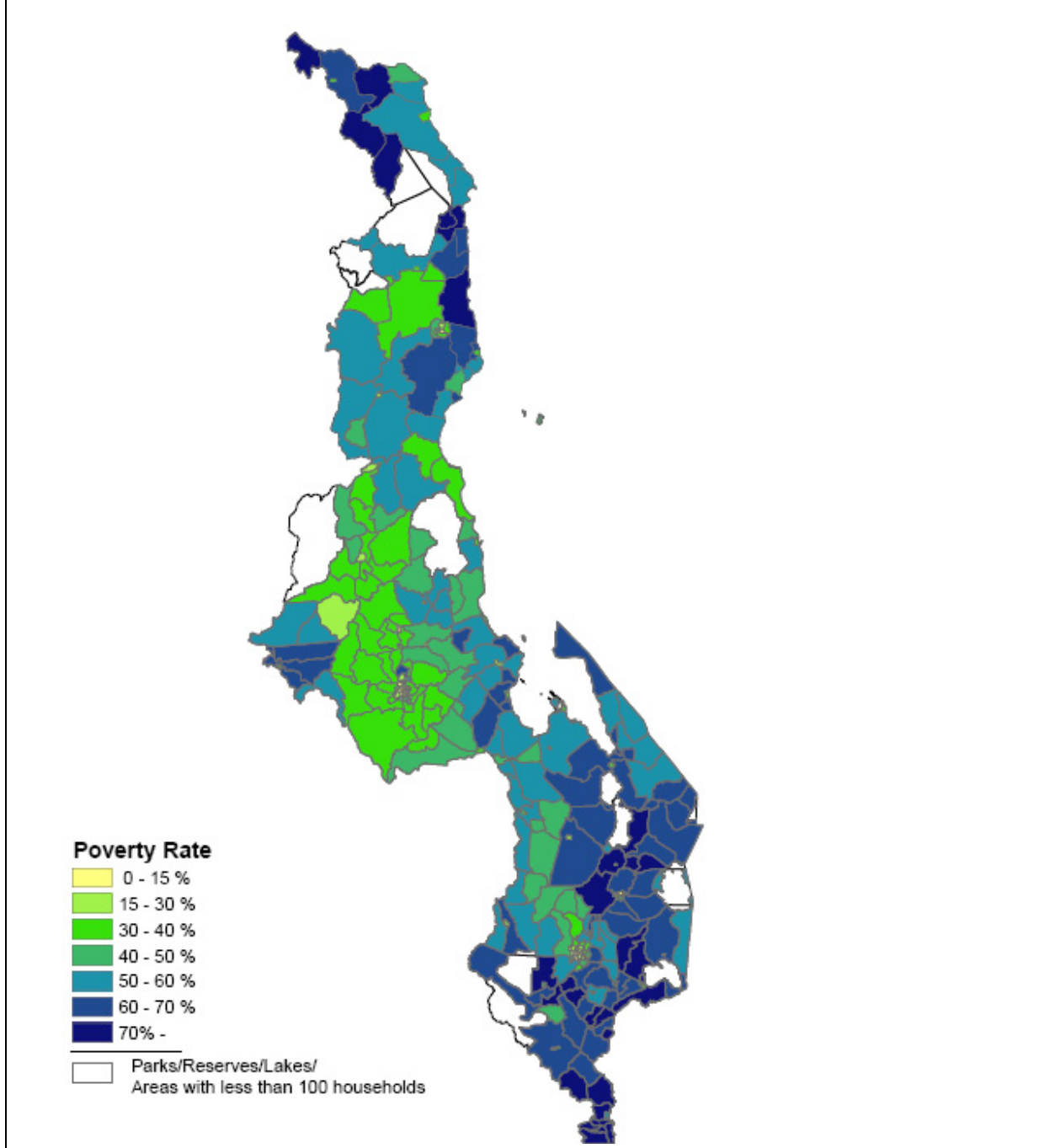
6. **The proportion of people living in poverty is highest in rural areas of the southernmost and northernmost parts of the country, while the center is relatively less poor** (Figures 1 and 2). The highest concentrations of poor people are in the South and Central regions, which are also the most densely populated rural regions. The South region has the highest poverty rate (64 percent) implying that two out of three people live in poverty in the rural areas of the South. The North region has the second highest proportion of poor people (56 percent). The Central region has the lowest proportion (47 percent). A similar pattern is observed for people living in ultra-poverty. As many as one third of the rural population in the South region and one quarter of the rural population in the North region live below the ultra-poverty line.



³ For details of data sources available, see Full Report.

⁴ As detailed in the Full Report, the poverty line in Malawi has been calculated at 16,165 Malawi Kwacha (MK) per person per year, or 44.3 MK per person per day (roughly equivalent to US\$0.50 per person per day at the time of the IHS2). The line was calculated with a food component that was derived by estimating the cost of buying a sufficient amount of calories to meet a recommended daily calorie requirement. The food poverty line (also known as the ultra-poverty line) is 10,029 MK per person per year, or 27.5 MK per person per day. The non-food component of the poverty line is 6,136 MK per person per year, or 16.8 MK per person per day. Following the standard methodology, the non-food component is calculated based on the non-food expenditure of those close to the food poverty line.

Figure 2: Map of poverty rates at Traditional Authority level



7. **Urban areas have much lower percentages of people living below the poverty line, and they also have the lowest percentages of ultra-poor people.** About 25 percent of the population in urban areas is living in poverty, compared to 56 percent of the rural population. That is, a person in a rural area is more than twice as likely to be poor. The difference in the distribution of ultra-poverty is more dramatic: 24 percent of the rural population is ultra-poor while only 8 percent of the urban population is ultra-poor.

8. **Malawi has fairly high inequality (Gini coefficient is 0.39), reflecting profound inequities in access to assets, services and opportunities across the population.** The Gini coefficient is a standard measure of inequality and can take a value from 0 (perfect equality) to 1 (perfect inequality). Table 1 shows that the Gini coefficient is high across the country. The extent of inequality does not differ much across rural areas but is substantially higher in urban areas. Put another way, the richest 10 percent of the population has a median per person income that is eight times higher than the median per person income of the poorest 10 percent. Moreover, the richest 10 percent of the population has a median income that is three times higher than the overall median income in the country. While the bottom 50 percent of the population accounts for only 25 percent of total income, the richest 5 percent accounts for 20 percent of total income. Urban areas have by far the greatest inequality but this is largely because most of the wealthiest households reside in urban areas, and not because of higher numbers of ultra-poor people.

Table 1: Gini coefficient in 1998 and 2005

	1998	2005
Malawi	0.39	0.39
Urban	0.44	0.48
Overall Rural	0.33	0.34
North	0.36	0.34
Central	0.31	0.32
South	0.33	0.35

Source: National Statistical Office, IHS2

9. **The worst poverty is concentrated in rural areas in the South and North region, while the Central region is better off.** The discussion above has focused on the number of people living below the poverty line (i.e. the poverty headcount), but has not measured the difference between their income and the poverty line. The poverty gap shows how far below the poverty line households are found, on average, expressed as a percentage of the poverty line. Those households that are close to the poverty line could move out of poverty with less effort than those that are far below the line. In 2005, the poverty gap was 18 percent overall and 5 percent for the ultra-poor (Table 2). In other words, the poor subsist, on average, on 18 percent less than the MK16,165 poverty line, and the ultra-poor survive, on average, on 5 percent less than the MK10,029 ultra-poverty line. A detailed map of the poverty gap (see Full Report) shows that the poor are much poorer in the northernmost and southernmost areas of the country, while they tend to be relatively closer to the poverty line in the central region.

10. **Severity of poverty is much lower in the urban areas, confirming that poverty in urban areas is not as extreme as in rural areas.** The severity of poverty figure is a more sophisticated, weighted measure of poverty. It takes into account the poverty gap and the inequality amongst the poor, whereby a dollar of poverty gap for the extreme poor is given more weight than a dollar of poverty gap for those who are just under the poverty line. As a result, the index increases both with respect to the poverty gap and with respect to the existence of extreme poverty. Unfortunately there is no simple interpretation of the severity measure, beyond the fact that the lower the measure the better. The severity of poverty in Malawi is 8 on average, with

large regional differences ranging from 11 in the South region to 6 in the Central region, again confirming that the South has the highest number of poor and ultra-poor (Table 1).

Table 2: Poverty Headcount, Poverty Gap, and Severity of Poverty estimates in 1998 and 2005

	1998			2005		
	Headcount	Gap	Severity	Headcount	Gap	Severity
<i>Malawi</i>						
Poor	54.1	18.6	8.5	52.4	17.8	8.0
Ultra-poor	23.6	5.7	2.0	22.4	5.3	1.8
<i>By Region</i>						
Poor						
Urban	18.5	4.8	1.8	25.4	7.1	2.8
Rural overall	58.1	20.2	9.2	55.9	19.2	8.6
North	56.3	19.5	8.9	56.3	19.6	8.8
Central	47.6	14.4	6.0	46.7	14.1	5.9
South	68.4	25.7	12.3	64.4	23.8	11.2
Ultra-Poor						
Urban	4.9	1.1	0.5	7.5	1.6	0.5
Rural overall	25.7	6.2	2.2	24.2	5.8	2.0
North	24.9	6.0	2.1	25.9	5.9	1.9
Central	16.3	3.5	3.2	16.1	3.5	1.1
South	34.6	8.9	1.2	31.5	7.9	2.8

Source: National Statistical Office, IHS1 and IHS2

Note: The estimates for 1998 have been recalculated using the same methodology as for 2005 to allow comparisons across the two sets of data. Hence the estimates for 1998 presented in this table cannot be compared to the earlier estimates for 1998 (which were presented by the National Economic Council in 2000). Standard errors for both sets of estimates are presented in the Full Report.

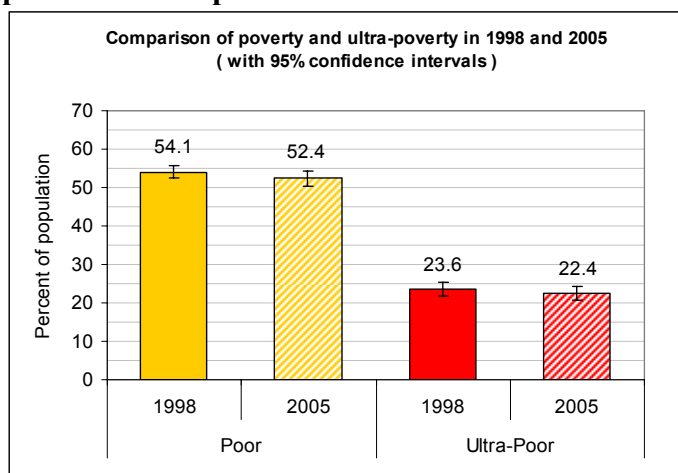
11. **There has been little or no progress in reducing poverty and inequality since the last household survey was completed in 1998.** Comparable poverty measures calculated using the 1998 IHS1 indicate that the poverty level has not changed significantly between 1998 and 2005 (Figure 3).⁵ Poverty continues to be much higher in rural areas than in urban areas, and the South is still the poorest region. There have been some movements in relative levels of poverty, however. Urban poverty has been increasing rapidly, from 18 percent in 1998 to 25 percent in 2005. This increase has been offset by a decrease in rural poverty in the South from 68 to 64 percent. Similar patterns can be observed when comparing ultra-poverty, as well as changes in the poverty gap, the severity measure and the Gini coefficient. At the national level changes between 1998 and 2005 are not statistically significant.

⁵ As highlighted above, the IHS2 estimate of the poverty rate in 2005 is 52.4 percent. It should be emphasized that this rate should not be directly compared to the 65.3 percent estimate from the 1998 IHS1 (National Economic Council, 2000). This is because the survey instruments & methods of calculating the poverty rates have been revised and improved to meet local and international standards (see the Full Report). Despite this change in survey techniques, the poverty rates for the previous IHS were re-computed using the current methodology. In this exercise, poverty estimates from IHS1 were recalculated, and can now be compared directly to the poverty rate calculated from the IHS2. As explained in the Full Report, the statistical margin of error around the two estimates is such that we cannot rule out the possibility that there has been no change in poverty levels over the period.

12. **Poverty has not been static, however. The frequent and widespread occurrence of shocks in Malawi results in large movements into and out of poverty.** When compared to the IHS1 data for 1998, some districts experienced a reduction in poverty, while other saw increases in poverty: while the overall levels of poverty remain stagnant, the ranking of districts has changed. Even at the local level, about two-thirds of households have moved into or out of poverty during the past decade.⁶ Such large movements reflect the fact that a quarter of Malawians have income levels within 20 percentage points of the poverty line and could therefore be forced into poverty by even slight misfortune. As will be discussed below, such volatility at the household level reflects the pervasive risks and shocks which affect the lives of Malawians.

13. **Recent trends in human development indicators broadly support the conclusion that there has been little progress in reducing poverty.** The Human Development Index has stagnated during the past decade, mirroring the absence of any change in income measures of poverty.⁷ Living conditions in Malawi as measured by a set of non-income human development indicators, such as literacy, school enrollment, malnutrition, infant mortality, and maternal mortality, show little improvement. While there have been some improvements in education and literacy, several health indicators have worsened over the past decade. Notably, the number of physicians per person has fallen by half, and life expectancy has fallen from 46 years in 1987 to 37 years in 2005, largely due to the HIV/AIDS epidemic. Child malnutrition has remained virtually unchanged since 1992: almost half of children under five years of age in Malawi are stunted, and 22 percent are severely stunted. These numbers are extremely high even for Sub-Saharan Africa. Childhood immunization has also decreased from 82 percent in 1992 to 64 percent in 2004. Maternal mortality rates have increased from 620 (per 100,000 live births) in 1992 to 960 in 2004, although after peaking at 1120 in the year 2000, maternal mortality rates are now on a decreasing trend. On a positive note, trends in under-five mortality and infant mortality have

Figure 3: Proportion of the population deemed poor and ultra-poor in 1998 and 2005



Notes: Estimates for 1998 have been recalculated using the same methodology as for 2005 to allow comparisons across the two datasets (and cannot be compared to the estimates for 1998 which were presented by National Economic Council in 2000). The ‘confidence intervals’ provide the range within which the real value is likely to be with 95 percent probability.
Source: National Statistical Office, IHS1 (1998) and IHS2

⁶ This finding is based on research by Sharma *et al.* 2002, using a panel of 291 households between 1998 and 2001. Preliminary findings from the *Moving Out of Poverty* ongoing World Bank study also confirm analogous findings.

⁷ The Human Development Index (HDI) is a widely used multi-dimensional summary indicator of development. The HDI is a comparative measure of poverty, literacy, education, life expectancy, childbirth, and other factors for countries worldwide. It is a standard means of measuring well-being, especially child welfare. The index has been used since 1993 by the UNDP in its annual report.

improved steadily over the past two decades. Progress towards the Millennium Development Goals is discussed briefly in Box 1. A more detailed discussion can be found in the Full Report.

BOX 1: MALAWI'S PROGRESS TOWARDS THE MDGs

Reflecting the lack of improvement in living conditions, progress towards the MDGs has been mixed. Given the lack of progress during the past decade, Malawi is unlikely to achieve the target reduction in poverty and ultra-poverty by 50 percent between 1990 and 2015 (Goal 1). Also, levels of child malnutrition remains extremely high (Goal 1). Malawi has made good progress towards achieving universal enrollment in primary schooling and promoting gender equality in primary education, although additional efforts are needed to reduce primary school drop outs and improve completion rates of primary schooling (Goal 2). Some gains have been made in promoting gender equality in education, though more remains to be done to empower women (Goal 3). Good progress is being made in reducing the very high levels of child mortality (Goal 4). Rates of maternal mortality are among the highest in the world, although are now on an improving trend (Goal 5). There has also been some success in reducing HIV/AIDS incidence (Goal 6). Finally, good progress has also been made in increasing access to clean drinking water (Goal 7). On balance, provided further progress is made, Malawi is well placed to achieve three of the MDGs by 2015, namely those relating to universal completion of primary education, promoting gender equality and empowering women, and reducing child mortality. However, achieving the other MDGs by 2015 looks unlikely, unless major policy changes are adopted.

CHARACTERISTICS OF POVERTY AND VULNERABILITY IN MALAWI

14. **The persistence of high levels of poverty in Malawi highlights the need to investigate which factors prevent households from moving out of poverty.** Here we focus on the main characteristics of poor households in order to help shape policies interventions for poverty reduction. In particular, we highlight the differences between poor and non-poor households in demographic variables, living conditions, ownership of assets, access to services and markets, economic opportunities, and exposure to risk, in order to build a profile of the poor that can be used to inform policy design.

Living conditions are very basic for the majority of the population, making it difficult to distinguish poor households based on these characteristics, especially in rural areas.

15. **Housing, water, sanitation, cooking and lighting fuel are very basic for the majority of the population.** The quality of dwellings ranges from low to medium for the entire rural population, independent of income. Housing quality is better for the richest half of the urban population. Access to improved sanitation increases by wealth decile with about half of the population in the lowest decile having improved sanitation, compared to 80 percent in the highest decile. While there is not much difference between the poor and non-poor in accessing clean drinking water, access rates are higher in urban than in rural areas. Two-thirds of the population in the lowest decile has access to improved water versus 78 percent in the highest decile. Almost all rural households depend on firewood for cooking fuel and paraffin for lighting fuel. What little access there is to gas and electricity is almost exclusively limited to urban areas. Electricity is used in 6 percent of households nationwide for lighting, but is 33 percent of urban households.

Larger households, female-headed households, and households headed by older people are more likely to be poor.

16. **Larger households are more likely to be poor, particularly those with a large number of children.** Malawi has a very young and rapidly growing population, which is a key factor explaining Malawi's persistent poverty. Malawi's total population in 2005 was estimated at 12.3 million, of which about 60 percent is under the age of 20. Poor households in Malawi are generally larger than non-poor households. When looking at average household size by income decile, the relationship is evident: households in the poorest decile are more than twice as large as households in the richest decile (6.3 versus 2.9 members). The larger household size reflects the higher number of dependents in poorer households, which in general reflects the higher number of children in the household. In Malawi, there are on average 2.1 children (aged 0 to 14 years) per household. The average number of children per household in the poorest decile (3.5) is four times that in the richest decile (0.9). In line with these observations, while children make up 49.9 percent of the total population, they account for 53.4 percent of the poor population.

17. **Poverty and ultra-poverty is more common in female-headed households.** About 51 percent of the people living in male-headed households are poor, while 59 percent of people living in female-headed households are poor. The results of our analysis indicate that, holding all other variables constant, a female-headed household consumes 14 percent less per person than a male-headed household. As discussed in detail in Box 2, this significant disparity in welfare between men and women reflects a number of gender-based differences in access to resources and bargaining power.

18. **Households headed by older people are also more likely to be poor.** Households whose head is aged between 26 and 45 years appear to be richer by around 7.5 percent, compared to household heads aged 18-25. At other ages, the age of the household head is not significant, except when the head is 66 or more years of age, when per person consumption decreases by 9 percent overall (again compared to household heads aged 18-25).

Poor households have limited access to land, and hardly any livestock or durable assets

19. **Poor households have less land per person, but smaller landholdings are not synonymous with poverty.** Average ownership of agricultural land is small, only 1.2 hectares per household⁸, and averages only 0.32 hectares per person (Figure 4). Plot size per person is highest in the North region where it reaches 0.41 per person, while in the South and Center regions it is 0.29 and 0.33 hectares per person respectively. Holdings of land per person are higher in non-poor households (0.40 hectares) than in poor households (0.23 hectares). Further, in the poorest decile per person land holdings are very low (0.17 hectares). Per person land holdings increase as expected by decile, but even in the highest deciles, the average per person land holding is fairly small (0.53 hectares).

⁸ Note that the IHS2 survey does not cover estates; hence these data only refer to the smallholder population. Also, 15 percent of households have no landholdings.

BOX 2: ARE THERE WELFARE DIFFERENCES BETWEEN MEN AND WOMEN?

The poverty status of individual household members cannot be directly calculated from the information in the IHS2, because data about the distribution of consumption within the households is not collected. As such, we can only infer the effect of an individual's gender on his or her welfare from differences between male and female headed households. As discussed in this report, the incidence of poverty and ultra-poverty is more common in female-headed households. In addition, gender-based differences in access to resources and bargaining power reveal significant disparities in welfare between men and women:

Access to land: While there is a link between poverty and the size of land holdings, there are no significant differences between male and female-headed households in terms of the size of land holdings. Nevertheless, there is a disproportionately higher rate of poverty among female- compared to male-headed households with small landholding sizes, due to the gender differences below. Further, widows have a much higher incidence of poverty than widowers. This could be attributed to property-grabbing after the husband's death by relatives from the husband's side of the family, a widespread but undocumented phenomenon in Malawi.

Crops cultivated: 90 percent of all Malawian households can be labeled as farming households. Broken down by gender, 95 percent of female-headed households farm compared to 88 percent of male-headed households. There are also significant differences in the crops cultivated by women and men, and in the decisions made about agricultural tasks. Regardless of household size, women grow crops for home consumption to a greater extent than men, who are more likely to cultivate at least some cash crops. The most important cash crop in Malawi is tobacco, a predominantly 'male' crop which is grown by 19 percent of male-headed households, compared to just 7 percent of female-headed ones. Moreover, for food crops such as maize, men are more likely than women to grow higher yielding hybrid strains that require fertilizer, rather than the lower yielding, seed-bearing strains chosen by women for domestic use. Men are also more likely to grow food crops for sale, while women grow them for domestic use. While women make the decisions in female-headed households, in male headed households, there is a clear division: to the extent that women are involved in decisions about inputs and planting, their role is largely limited to crops that do not require fertilizer application, and where seeds are recycled. They make these decisions about 50 percent of the time, compared to just 10 percent of decisions where fertilizer is applied. For cash crops like burley tobacco, cotton and vegetables that require purchasing more inputs (fertilizer, seeds and pesticides), men make almost all decisions.

Access to extension services: Provision of extension services is similarly skewed: only 7 percent of female-headed households obtained such advice, compared to 13 percent of male headed households. Based on the decision-making patterns above, it can be presumed that, within a household, agricultural advice provided to men is not always passed on to their wives, furthering this gender gap.

Division of labor: There is a clear disparity in the use of time between men and women. Women work longer hours than men. However, they spend considerably less time on income-generating activities (17 hours per week compared to 27 hours for men). The difference is made up in domestic chores, to which men devote just 3½ hours per week to a woman's 24½ hours per week. Actually, this disparity is likely to be even higher because it does not include child care and tending for the sick, which are traditionally female tasks. Much of the domestic work includes heavy labor such as fetching firewood and water (taking up 1½ hrs and 1 ¼ hours each day, respectively). The extra female burden also extends to girls, especially after age 10. They spend 16 hours a week on household chores, compared to 10 hours for their male peers. This burden has a negative effect on girls' education: among dropouts, 37 percent of girls gave the need to work at home as the reason, compared to 23 percent of boys.

Wage employment: Wage employment is not widespread in the Malawian economy, but there are gender gaps in pay, both for the same type of job, and for the types of jobs performed by men and women. The median daily wage for women is MK78, as compared to MK124 for men. For the highest paid and highest skilled jobs, men and women appear to be paid roughly the same. At lower wage levels, however, there are some signs that women are paid less for working the same number of hours on a similar task as men. These statistics need to be cautiously qualified as they are averages and are based on very few observations, and also because valid comparison in wage differentials would require more detailed data than is available from the IHS2 on the exact jobs performed by men and women, and to control for other aspects that may lead to such differences (such as education and skills).

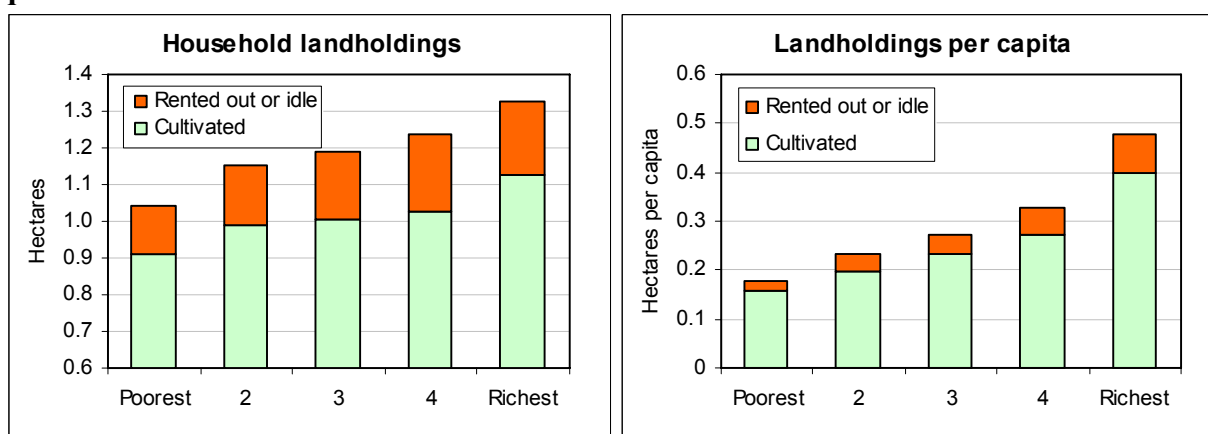
Access to credit: Overall, men were more likely than women to receive credit, though women were more likely than men to receive loans of less than MK1000. The larger the loan, the less likely it is that the recipient is a woman. It should be noted that this finding may be due to lower demand for credit by women (for instance because women may not have the same opportunities as men to open an enterprise). There are also clear differences by gender in the use of credit. While women are most likely to use their loan to start up a non-agricultural business (more than 50 percent of women), men, on the other hand, are more likely to use credit to buy inputs for agricultural production, in particular for tobacco production.

Entrepreneurship: 10 percent of women owned and managed their own enterprises, compared to 16 percent of men. Women spend on average 20 hours per week on their enterprise, compared to 29 hours per week for men, and women tend to generate less profit than men (MK160 per day compared to MK280). This lower profit might be the result of women spending less time on their business, and thus accruing less skill and opportunity for further investment. It could also be related to the lower education level of women than men, and to the type of enterprise. However, most enterprises for both men and women fall into the 'unspecified retail' category, so this effect could not be measured.

20. **Poor households are also less likely to own any livestock.** Malawi has very low livestock ownership (even by regional standards) and few households have much livestock beyond poultry. The average number of Tropical Livestock Units (TLU) in Malawi is 0.53.⁹ The non-poor have more TLUs (0.61) than the poor (0.43). Households in the North region have the highest level of TLUs (0.96), which is three times higher than in the South. As expected, the number of TLUs increase by decile. There are a few exceptions, however. In the North region which has the highest average number of TLUs, the households in the 5th through 7th deciles have the largest TLU values, and the values for the higher deciles actually decrease.

21. **Ownership of even basic assets is limited to a small portion of the population.** Overall, only about one-third of all households in Malawi own bicycles. Ownership is lower in urban areas (20 percent) than rural areas (38 percent), which may be because there are more transportation options in urban areas. Radios are owned by about 55 percent of the population, more or less evenly distributed across regional and income groups. Ownership of useful farm implements such as an oxcart, wheelbarrow or handsprayer, is rare, with less than 3 percent of all households owning these assets. For oxcarts, the North and Central regions show higher percentages of ownership than South region households. More households in the Central region have a handsprayer than households in either the North or South regions.

Figure 4: Average size of households' landholdings and per capita landholdings by wealth quintile



Note: Excludes landless households.

Source: National Statistical Office, IHS2

Education is a major driver of higher wealth.

22. **Higher levels of education of the household head are strongly correlated to being non-poor.** As shown in Figure 5, there is a high correlation between poverty and levels of education. Almost three-quarters of household heads in the poorest decile have less than complete primary education, compared to only 20 percent of the household heads in the richest decile. On the other hand, virtually all the household heads that received a degree at University

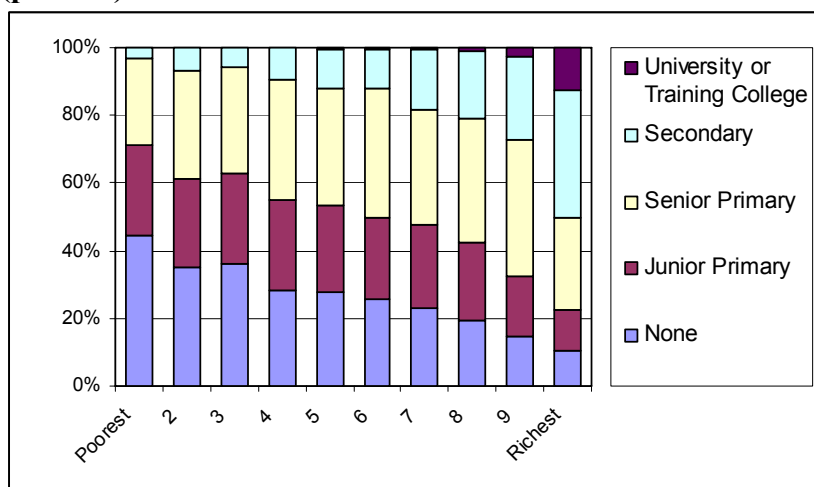
⁹ A TLU expresses the total amount of livestock present as a single, comparable value regardless of the type of animal. This is achieved by assigning conversion factors to different species to reflect their relative value.

or Training College belong to the top two deciles. Lack of education is much more common for female household heads, with 50 percent of the female heads without any formal education at all.

23. **Poor children have limited access to education.** The number of children from poor households attending primary school is similar to the number of poor households. Given that the number of children in poor households is almost double the number in non-poor households, this suggests that access to primary education is not equitable. Hence, it is clear that children in poor households are benefiting much less than proportionally. In fact, almost 30 percent of poor children do not even start primary school, and very few poor children actually complete primary school, largely because their families cannot afford it. The average primary net enrollment rate is 78 percent, implying that one in five children does not even start primary school. The rate is worse for the poorest 20 percent of the population, such that two in five children do not attend primary school. Further, it appears that the quality of primary education (as indicated by pupil per teacher ratios) varies substantially across individual schools and across regions, and that primary schools close to poor communities appear to have substantially higher ratios (88 students per teacher) than non-poor communities (68 students per teacher).

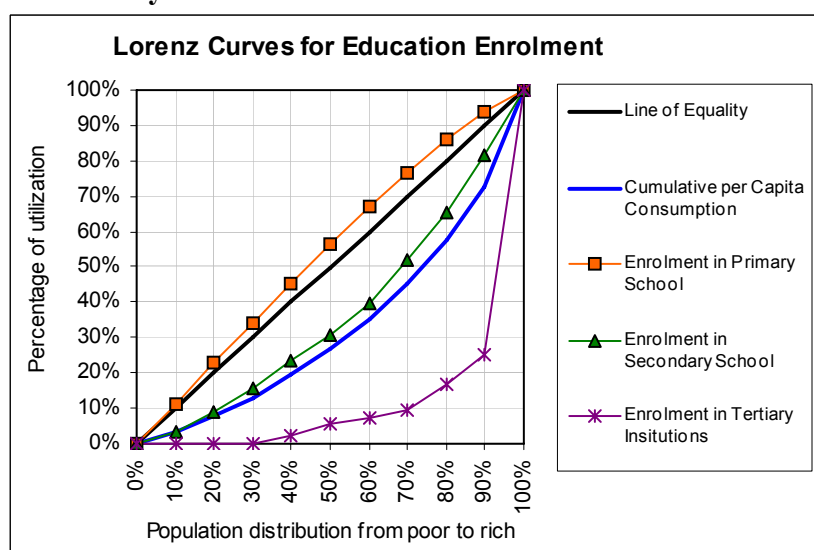
24. **Rates of primary school completion remain very low.** While primary enrollment rates are high by regional standards, very few children actually complete primary school.

Figure 5: Education of Household Heads by Wealth Decile (percent)



Notes: Junior Primary is Standards 1-4, Senior Primary is Standards 5-8, Secondary is Forms 1-6.
Source: National Statistical Office, IHS2

Figure 6: Distribution of attendance in primary, secondary and tertiary education



Source: Our calculations based on NSO data from IHS2

The 2002 DHSd survey indicates that only 60 percent of primary school students who entered Standard 1 could be expected to reach Standard 5, with or without repetition, and only 39 percent of those who entered Standard 1 could be expected to reach Standard 8. According to IHS2 respondents, the cost of schooling (fees and uniforms) is the major reason for failing to enroll and for the high drop out rates in primary education.¹⁰

25. Education after the primary level is beyond the reach of most households in Malawi, and is largely limited to non-poor households. Access to secondary and tertiary education is heavily skewed towards the richest quintiles of the population (Figure 6). Once again, the picture is much more unequal when we consider the larger number of children in poorer households. The secondary net enrollment rate is only 15 percent, and is largely limited to the wealthiest portions of the population. Three times as many non-poor students as poor students are enrolled in secondary education and boys and girls from the richest decile are 10 times as likely to attend secondary school as those in the poorest decile.¹¹ Again, lack of money is by far the most common reason given for not continuing on to secondary education (58 percent of IHS2 respondents). Enrollment in tertiary education (university or training college) is the most heavily skewed. The number enrolled is very small (less than 0.1 percent of Malawi's population) and is associated almost exclusively with households from the richest decile. Of those enrolled in tertiary education, the vast majority live in urban areas. In general, people with higher levels of education are found in urban areas where better education opportunities exist. Women have lower levels of education than men, but this situation is slowly improving.

Limited access to markets and services is a major obstacle to getting out of poverty.

26. Access to key transport infrastructure is low and limited to the richest quintiles. The poor tend to live in remote areas with few roads and/or means of transportation, which makes access to markets and trading centers difficult, and limits their economic opportunities. As expected, urban communities report much better access to and quality of roads and transport services, which connect them to services and markets. Many more urban roads are tar or asphalt compared to rural roads. Rural communities are located on average 20 km from a tarmac road, and this distance is twice as high at about 40 km on average in the North region.

27. Further, roads in rural areas are often impassable, on average for up to four months of the year. Large portions of the population remain isolated from the rest of the country for substantial amounts of time. In the North region, roads are passable by minibus on average for only five months in the whole year. In the South region, they are passable on average for less

¹⁰ Large differences in primary enrollment rates exist across the three rural regions. The North region has enrolment rates more than 10 percent higher than the Central and South regions. The differences in regional enrolment rates have already been highlighted in the 1998 Poverty Profile, and also in numerous studies on education in Malawi. The reason for these differences remains unclear, however.

¹¹ The enrollment bias towards the rich applies to both types of secondary schools, conventional secondary schools and community day secondary schools (CDSSs). However, these biases are even more pronounced in conventional secondary schools (which are generally regarded to have higher quality and better teachers), than in community day secondary schools (which generally have lower quality facilities and teachers). The results also confirm the anecdotal assertion that boarding secondary schools mostly benefit the rich, and are the least equitable type of secondary school.

than eight months. Clearly, these averages hide greater variation within regions, and highlight the fact that many communities are very isolated indeed.

28. **The ability to communicate outside of one's own community is limited to the non-poor.** Access to key communication infrastructure, notably telephones, is limited to the richest quintile of the population, and almost exclusively to urban households. Virtually all phone owners, either landline or cellular, are in the highest two deciles.

Similarly, access to financial services is severely constrained.

29. **Access to financial services is mostly limited to the better off portions of the population, and is especially difficult for smallholder farmers.** Only 12 percent of households reported obtaining credit (in the 12 months prior to the IHS2 survey). This situation implies limited opportunities for the poor to escape poverty through (borrowing and) investing in profitable economic activities. For those who did not attempt to borrow, the most common reason given (23 percent) was that the respondent didn't know any lenders. This was followed by believing they would be refused (12 percent) and getting a loan was too much trouble (11 percent). Those who received loans have a higher education level than the general population. For those households that did obtain loans, only 30 percent used the loan as capital to start up a business (37 percent in urban areas and 29 percent in rural areas). In rural areas, a similar percentage used the loan to purchase agricultural inputs for food crops (28 percent). In urban areas, 37 percent used the loans to purchase non-farm inputs.

The poor are unable to diversify out of agriculture.

30. **Most households earn their living only from their household farm or fishing activity, although a substantial group also pursues off-farm opportunities.** About 38 percent of household heads are dependent for their income solely on their household farm or fishing activity. As expected, this is more common in rural areas, reaching a peak of 55 percent in the North rural region. Depending on what opportunities are available, households pursue other economic activities, both to increase income and to reduce the risks they would face if relying on a single source of income. An additional 25 percent of household heads combine work on their household farm with additional jobs (largely in agriculture). A further 11 percent of household heads depend solely on a waged or salaried job. These wage workers are found predominantly in urban areas, where they account for 35 percent of all urban household heads. In rural areas wage workers account for about 8 percent. Finally, about 8 percent of households depend solely on a household enterprise. As expected this is more common in urban areas than in rural areas.

31. **Agricultural households attempt to diversify their farming activity by growing different crops and selling livestock. But there also remains a large number of purely subsistence farmers.** Over 50 percent of the households in Malawi earn some income from the sale of agricultural produce at the market. Livestock sales and tree crop sales are income sources for 30 and 18 percent of rural households respectively. However, almost half of the households are subsistence farmers in the strictest sense of the word, that is, farming with no crop sales, reflecting the lack of access to capital that would allow them to increase income. In addition, in the absence of functioning food markets, the danger of not having enough food may limit the

extent of diversification, by placing a premium on the production of food staples for household consumption.

32. **In the case of poor households, off-farm income sources tend to be limited to *ganyu* (casual labor in agriculture).** As discussed, large shares of both the urban and rural population have non-farming income sources, with wealthier households in rural areas much more likely to have income from enterprises, and from wage/salary employment. Poorer rural households are more likely to have some income from *ganyu*, although *ganyu* labor is a larger share of urban household income. This situation reflects the lack of opportunities for income diversification open to the poor, as a result of their low levels of education and the low capital base, and limited availability of credit and markets. Less than 1 percent of households identify remittances from migrants as a “regular source of income”, though this might be the result of the way the question was phrased.

33. **In fact, the poor remain underemployed for most of the year.** For the adult population, average working hours peak in December-January, which is the busy part of the cropping season. At that time, the adult population works on average more than five hours more per week than the annual mean. The seasonal differential is more pronounced for rural households and is largest for the individuals who belong to the poorest quintile of the population. For the poorest quintile, in rural areas, the additional workload in December above the annual average amounts to nearly 10 hours per week. The limited economic opportunities open to poor households, combined with the strong seasonality of rain-fed agriculture, therefore leads to labor shortages during the critical parts of the cropping season, with underemployment of the poor for most of the year. This suggests that the small endowments of poor households (labor and land) are not being utilized in the most efficient way, or at least, that there are serious obstacles to household generating higher incomes, despite the underemployment for most of the year.

34. **Only about one-third of the households in Malawi have household enterprises.** There is no information in the IHS2 to explain why so few households have enterprises, but it is possible to infer that obtaining capital to start a business is difficult. Retail and manufacturing were the major categories for household enterprises. The majority (63 percent) of enterprises are found in non-poor households, supporting the findings in the Poverty Profile 1998, which stated that having a household enterprise is an important factor in improving welfare. The Poverty Profile 1998 further speculated that the type of manufacturing that rural households engaged in was handicraft production which would be a seasonal activity undertaken outside of the cropping season.

Econometric analysis confirms the importance of the characteristics of the poor described above

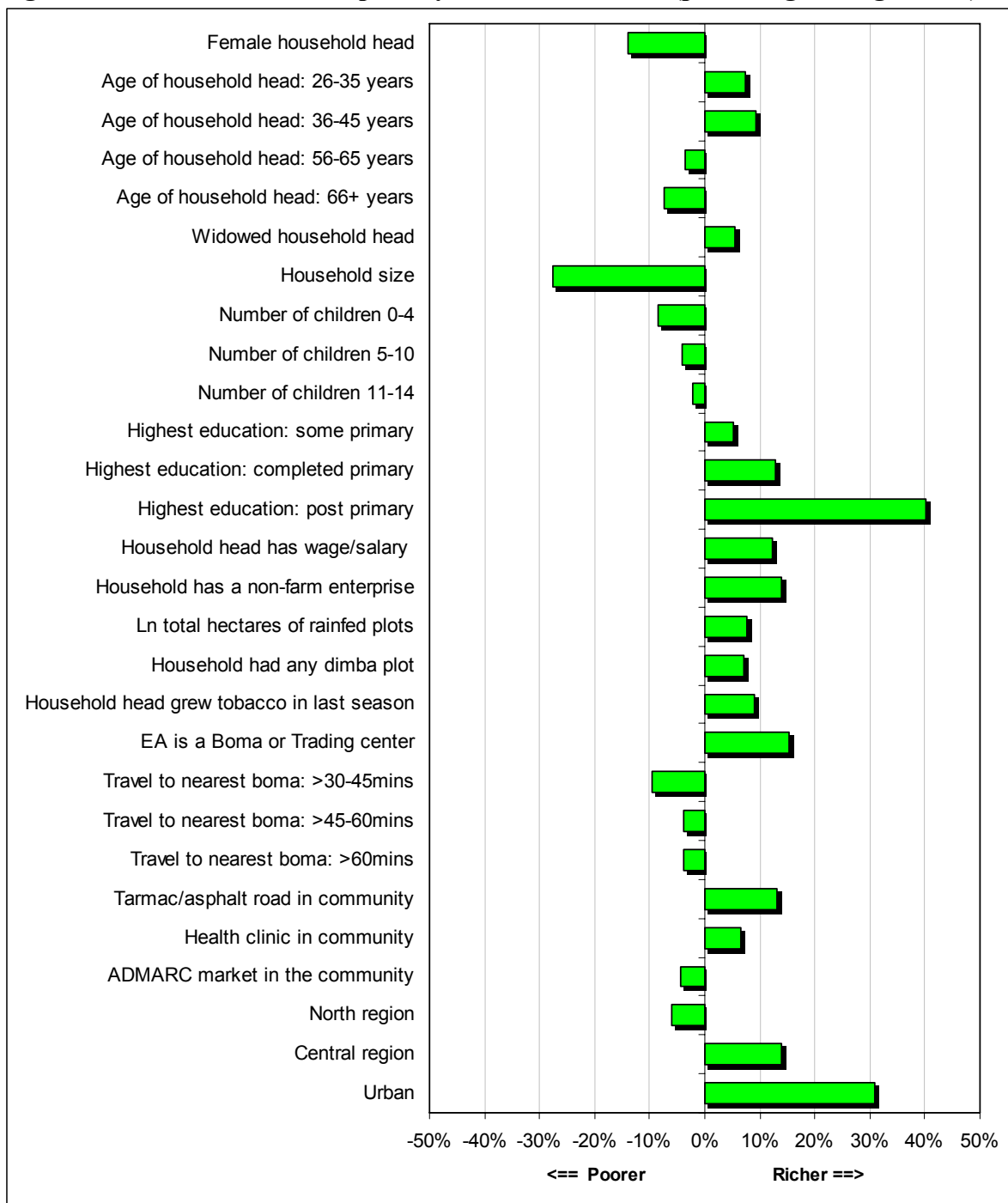
35. **Multivariate econometric analysis of the ‘determinants of poverty’ quantifies the impact of individual factors in contributing to poverty levels, controlling for the impact of all the other factors.** This analysis also provides a useful indication of the relative importance of each factor. None of the factors that characterize poverty in Malawi work in isolation. Some of these characteristics are the consequence of poverty and some are the causes of poverty. The econometric analysis can also be thought of as providing an estimate of the impact of individual variables on the probability of being poor. Our multivariate model for the ‘determinants of

poverty' confirms that the poor are more likely to live in larger households, have low levels of education, have little access to non-farm employment, cultivate smaller landholdings, have no access to irrigation or 'dimba' land,¹² not be involved in cash crop production, have no access to a tarmac road, and be located far from markets and trading centers (Figure 7). Specific findings include:

- An increase in household size is associated with an average reduction of 30 percent in consumption per person, with a further reduction of about 5 percent for each additional child.
- Education has a substantial positive impact on incomes. The per person consumption of households whose head has completed primary education is about 12 percent higher on average. The impact of secondary education is even more marked, increasing household per person expenditures by almost 40 percent.
- Economic opportunities outside agriculture lead to higher welfare levels. Households that run a non-farm enterprise have higher per person consumption by about 15 percent on average. Households whose head is employed in a wage earning job also enjoy higher per person expenditures by about 12 percent. Economic opportunities outside agriculture are limited, however, and many rural households earn derive their living exclusively from agriculture.
- An additional hectare of rain-fed land corresponds to an increase in per person consumption by on average 4 percent. More markedly, households who have access to a *dimba* plot have higher consumption by about 7 percent on average. Cash crop production is an important path out of poverty. Households that grow tobacco, Malawi's main export crop, tend to have higher per person consumption by on average 6 percent.
- Access to roads and markets is a critical determinant of poverty. Poverty is substantially lower among households living in a *Boma* (district administrative center) or near a trading center, with per person consumption increasing by about 16 percent on average. Poverty increases with distance from the *Boma*, and is higher for households which are not near a tarmac road. Households that are more than 30 minutes away from a *Boma* or trading center have substantially lower expenditures, by around 5-10 percent. Households in a community which is not connected by a tarmac road have lower consumption per person by about 13 percent on average.
- Finally, regional location remains an important determinant of poverty. The regional location factor effectively reflects differences in opportunities and characteristics which have not been already captured by other variables in our model. Households living in urban areas have higher average per person consumption by about 36 percent compared to households located in the South region. Similarly households in the Central region are 15 percent better off than those in the South, while those in the North are about 4 percent worse off. It should also be highlighted that, as discussed above, households living in the North region have relatively higher consumption per person than households in the South. However, this difference can largely be attributed to other observable factors identified in this study.

¹² *Dimba* gardens are pieces of land which due to proximity to some water source (river or stream), retain moisture for most of the year, and can therefore be cultivated during the dry season.

Figure 7: The determinants of poverty in Malawi in 2005 (percentage change effect)



Note: OLS regression on log of per capita consumption. Only statistically significant results at 10% or lower are shown. Omitted categories are: age of household head less than 26 years, education of head is zero, travel to the nearest *Boma* is less than 20 minutes, regional dummy for the South region. Each bar in the graph can be interpreted as the percent change in per capita consumption associated with a unit change in that variable. Source: own calculations based on IHS2

36. **It is also useful to focus on the characteristics of the ultra-poor, to inform policy aimed at alleviating extreme poverty.** Most of the key characteristics of the ultra-poor are the same as those of the poor, but the two profiles are not identical. The results of the ‘determinants of being ultra-poor’ regression indicate that ultra-poverty is more common among female-headed households, households headed by very young or old people, and households located in the rural areas of the South and Central regions. Larger households, and especially households with more young children and dependents, are also more likely to be ultra-poor, as are households with low levels of education, limited economic opportunities, limited involvement in cash crops, or small landholdings. Interestingly, orphan status is not consistently correlated with a higher probability of being ultra-poor, possibly due to the placement of orphaned children on purpose in better-off households in the extended family network. Not surprisingly, households in communities with better infrastructure also have a lower probability of being ultra-poor (although living in a community with ADMARC is associated with higher rates of poverty and ultra-poverty), whereas households in remote areas, or in communities not accessed by a tarmac road, are more likely to be ultra-poor.

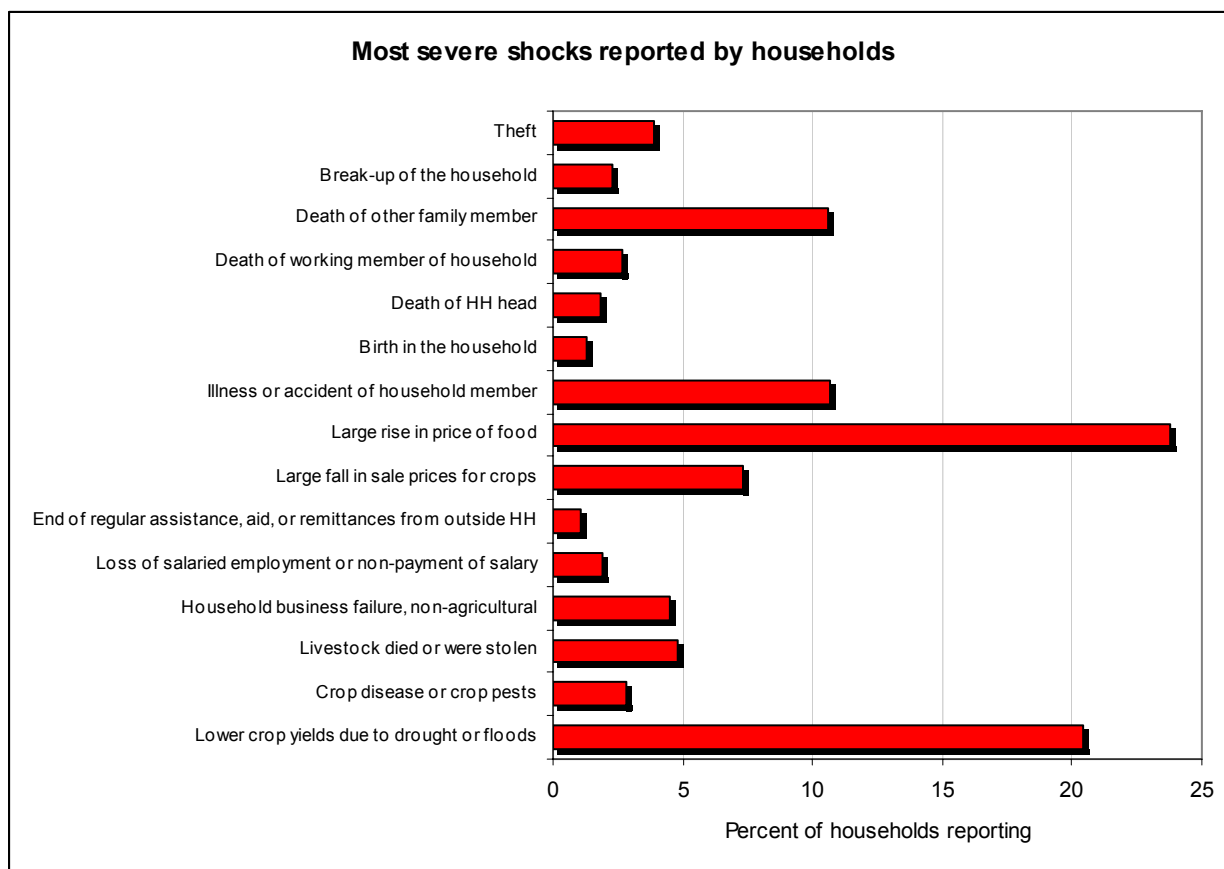
The existence of widespread risk and the frequent occurrence of shocks is a major cause of poverty in Malawi

37. **In addition to the factors discussed above, people’s lives are deeply affected by the existence of pervasive risks and shocks.** Risk characterizes the life of Malawians, with drought, price volatility, illness and death, the main sources of shocks (Figure 8). The most common shocks to hit households in Malawi relate to a drop in crop yields and an increase in the price of food, reflecting Malawi’s great dependence on rain-fed agriculture, and its high exposure to drought or floods. Over three-quarters of IHS2 households stated that they had been negatively affected by the rising price of food over the past five years, while two-thirds experienced lower crop yields due to drought or floods. In addition to being the most common shocks, drought/floods and rising food prices are perceived as the most severe. Illness or injury of a household member is also very common, affecting over one-third of households, as is the death of a family member, reflecting, in part, the impact of the HIV/AIDS epidemic.

38. **Experiencing multiple shocks is very common, especially in rural areas.** About 75 percent of rural households report more than three shocks, compared to one-third of urban households. As expected, the type of shocks reported varies; with agricultural shocks (those related to crop yields, livestock, sale prices for crops) dominant among rural households. With the exception of death and theft, wealthier urban households do not appear to be more likely to have experienced an economic shock in the past five years. Both rural and urban households with a chronically ill household member are more likely to experience shocks.

39. **Poorer households are more likely to report being affected by agriculture-related shocks.** Exposure to shocks varies depending on household characteristics and the type of shock, but some patterns emerge. Even though they are less likely to undertake high risk activities, poorer households are at higher relative risk of experiencing a shock. Notably, the poorest households were 36 percent more likely to report lower crop yields due to drought or floods. By contrast, prevalence of illness or accidents was lowest among the poorest households.

Figure 8: Most severe shocks in the past five years (percentage of households reporting)



Source: National Statistical Office, IHS2

Note: Based on the top three worst shocks experienced by households among the 15 different types of shocks.

In addition, some shocks are related to activities in which the poorest do not engage, such as non-agricultural business failure or loss of salaried employment. For this reason, rural households with more education, larger land holdings, and higher expenditure, are more likely to experience certain different types of shocks.

40. **In addition to the direct impact of shocks, the pervasive risk of shocks is itself a major cause of persistent poverty in Malawi, especially in remote areas.** Households located in remote areas and those that have longer travel times to the nearest *Boma* or do not have a tarmac/asphalt road nearby, report the fewest shocks. This finding reflects both their limited opportunities¹³ and the existence of widespread risk that prevents households located in remote areas from engaging in high-risk high-return activities. While this strategy makes them less likely to experience a shock, it also keeps them in a state of ‘chronic poverty’.

¹³ As discussed above, remoteness is typically viewed as limiting opportunities for income growth and, thus, leading to higher poverty (for example, by offering limited access to markets/traders and credit, high transport costs for crops, and lack of demand for non-agricultural services).

Coping with shocks undermines households' productive potential.

41. **Although households resort to various different strategies to mitigate risk, the high number of reported shocks suggests that these are not very effective** (although there are difficulties in measuring these effects). Malawians have too few 'before-the-event' risk management instruments, such as insurance, with the result that poor households remain highly exposed to shocks and depend on costly, 'after-the-event' coping mechanisms. As will be discussed in detail below, relevant risk prevention policies and programs have not been effectively implemented.

42. **The impact of shocks often forces households to sell assets, thereby undermining to the household's future productivity.** Faced with the occurrence of a shock, households first resort to spending cash savings, selling off assets, cutting back on consumption, and increasing labor supply. Borrowing or receiving help from others is most commonly associated with the serious illness of household members. More than half of households report "doing nothing" in response to a large drop in the sale price of crops, reflecting the fact that farmers are unable to insure against agricultural price risk. When these coping strategies are not sufficient to deal with the shock, the household may then adopt more drastic measures to survive the crisis. Shocks which occurred in the year before the survey were associated with decreases in durable assets, suggesting that asset depletion is one coping strategy for households affected by shocks. Temporary withdrawal of children from school is another, especially for poorer households. In addition to the immediate short-term costs, these coping mechanisms 'after-the-event' do substantial permanent damage to the household's future ability to produce food or earn income (e.g. due to increased stunting from reduced food consumption, or lower levels of education, or reduced productive assets, such as farming implements).

THE CHALLENGE OF FOOD INSECURITY AND MALNUTRITION

43. **The most common shocks reported by households are food related, suggesting that households frequently face the threat of food insecurity and hunger.** Average intake of calories and dietary diversity (i.e. the number of different foods eaten) are low across the board. Around 35 percent of Malawians consume an insufficient amount of calories. There are significant differences between urban and rural dwellers and across regions. The problem is more pronounced in rural areas than urban ones, and is most widespread in the Southern region, where poverty levels are higher. Although other factors contribute to the development of well-nourished individuals, improving the availability of, and access to, adequate food is a prerequisite to good nutrition.

44. **Endemic chronic malnutrition may in part reflect low levels of dietary diversity across all income levels and regions.** Cereals make up about two-thirds of caloric consumption, and maize alone constitutes over 93 percent of total cereal consumption nationwide. The diversity of the diet is roughly constant across regions, when using the simple food count index, but cereal consumption as a proportion of total consumption is highest in the South, followed by the Center and then the North. Programs supporting agricultural diversification in crops like cassava have produced some results in terms of dietary

diversification, but behavioral changes in consumption and feeding practices are also necessary. Over time, nutrition education programs may help to improve the Malawian diet.

Malnutrition is the most severe challenge facing Malawians, irrespective of their income status and calorie consumption.

45. **There is only a weak relationship between calorie intake and nutritional status.** The different indicators of food insecurity show that, as one would expect, a much higher share of the poor do not eat enough calories, and the poor have less diverse diets. Rural households are more food insecure, displaying higher levels of malnutrition, less diverse diets, and higher rates of malnutrition among children than urban ones. On the other hand, the regional breakdown suggests a more complex picture: despite having higher caloric consumption and a lower incidence of poverty, chronic child malnutrition, as measured by stunting, is significantly more common in the Central region. This suggests that other factors beyond caloric consumption are at play in determining a child's nutritional status, including sanitation, feeding practices, mother's knowledge of health and nutritional matters, diet quality and composition, as well as non-food basic-need expenditures. However, even after controlling for these factors in the analysis, there is still significantly higher stunting in the Center. Preliminary evidence suggests that this apparent paradox may be linked to the Center's agricultural production, and that cash crop adoption (namely tobacco) has not translated into significant improvements in the nutrition of household members, in spite of the generally positive impact of cash crops on household income. This very preliminary finding needs further investigation and is the subject of ongoing research.

46. **Nationwide, a staggering 44 percent of preschool children are stunted (of which 18 percent are severely stunted), irrespective of household income and level of caloric intake.**¹⁴ Worse, these figures have remained more or less static for the last 14 years. Stunting is universal, affecting all regions of the country and cutting across all wealth categories. Such exceptionally high levels of malnutrition will have persistent long-term impacts, as malnutrition harms future productivity, thus perpetuating the cycle of poverty. Child malnutrition appears not to be highly correlated with poverty levels (or with caloric intake), suggesting that other factors need to be tackled to eradicate it. There appears to be little difference in the prevalence of malnutrition in urban and rural areas, reflecting the fact that malnutrition is a nationwide problem.

The profile of malnutrition highlights the importance of non-income characteristics.

47. **Analysis of the determinants of malnutrition highlights the importance of education, good feeding practices, and good sanitation.** Household income plays a central role in improving food security. Econometric results show the crucial importance of income in both reducing malnutrition and increasing the amount of calories available to the household. This does not imply, however, that relying on economic growth will by itself produce lower levels of malnutrition. The age of the mother and her level of education have positive and significant

¹⁴ Stunted children are those with a low ratio of height for age. This indicates long-term or chronic malnutrition. Wasting children are those with low weight for height resulting from acute malnutrition, as in a famine situation. Underweight children are those with low weight for age which is a combination effect of wasting and stunting.

effects on reducing child malnutrition, although it is difficult to disentangle the role of education from higher income, since the two are closely related. The youngest and eldest mothers tend to have more malnourished children. Living in a female-headed household is also associated with lower stunting; mothers being in charge of feeding decisions and practices has a positive impact on the nutrition of older children. Access to improved sanitation appears to be associated with lower malnutrition rates. Finally, participation in a targeted nutrition program (for children under 5 years old) seems effective in reducing child malnutrition.

48. Access to irrigation and functioning food markets are also linked to reduced malnutrition. Weather volatility increases the level of stunting. Both the amount of rain and the variability of rainfall have a significant impact on the level of stunting, reflecting the

BOX 3: DO BIGGER LANDHOLDINGS REDUCE VULNERABILITY TO MALNUTRITION?

Food insecure households are most dependent on agriculture, earning almost three-quarters of total income from agriculture. The majority of Malawian households rely in large part on the home production of maize. Almost half of all calories consumed in Malawi are home-produced, and the proportion of total calories which are produced at home is strongly dependent on access to agricultural land. Consequently, households with smaller landholdings, who tend to be poorer, are less able to produce sufficient food at home and are thus more dependent on cash income and buying food on the market. Given the very volatile price of food, this results in frequent and persistent food shortages and high levels of malnutrition among less food self-reliant households. Size of landholdings does not appear to be highly correlated with better nutrition, however. There is only a very weak relationship between landholdings and food consumption, suggesting that inadequate landholding size is not one of the major obstacles to sufficient food consumption and good nutrition. While inadequate consumption decreases slightly as land holdings get bigger, even in the top land quintiles, about 50 percent of individuals have food consumption levels below the recommended requirements. Child malnutrition measures, such as stunting, present an even bleaker scenario, with larger landholders in the top two quintiles exhibiting the highest levels of chronic malnutrition. Overall, based on these simple comparisons, larger landholdings do not appear to be highly correlated with better nutrition.

vulnerability of the vast majority of Malawians to weather shocks. Weather shocks impact on food insecurity through smallholder dependence on home production of maize, as well as more indirectly through reduced economic activity—particularly opportunities for *ganyu* labor—and increased maize prices. The policy conclusions are clear: improve access to irrigation, different crop varieties, and/or reduce maize market transaction costs.

49. In addition, there is strong seasonality in the availability of food, leading to frequent food shortages during the lean season. The importance of home production in total food production, combined with the lack of irrigation and poorly functioning markets, introduces a strong element of seasonality and risk, and associated vulnerability, to the national food supply. The average availability of calories per person decreases markedly during the lean

season, as home food stores get depleted and market prices of food increase. Finding ways to reduce this seasonality and uncertainty must be central to any credible food security strategy.

50. The poor sell their produce when prices are low and buy food when prices are high, possibly due to need for cash, or lack of storage facilities, or a combination of both. Maize producers often sell some of their crop immediately after the harvest, during the season of plenty, but end up buying maize later in the year during the lean season when prices are higher. A higher proportion of poor households are forced into these transactions. Possible explanations

for this behavior include a pressing need for cash and/or lack of storage facilities. Depending on the motive behind these sales, different policies may be appropriate, such as the promotion of improved storage facilities, or some kind of micro-credit program, or short-term consumption credit, which could help smooth cash flows through the year and reduce fluctuations in food consumption.

51. **Households employ a number of strategies to deal with the lean season.** The consumption of calories from maize is maintained relatively constant, in the face of diminishing supplies and increasing market prices; instead, households cope by reducing the consumption of other foods and by consuming green maize. This is true for both poor and non-poor households, with the poor maintaining a lower constant level of consumption.

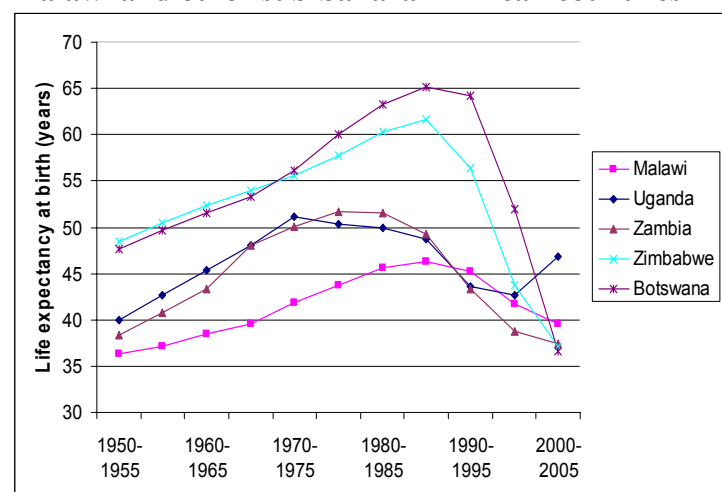
52. **In addition to income, therefore, a host of factors need to be addressed to reduce malnutrition.** Programs to improve the ability of poor households to earn income must go hand in hand with actions geared towards improving nutritional and health practices, as well as water and sanitation infrastructure. Interventions to reduce vulnerability to erratic rainfall, notably irrigation, and better food markets, should also play an important role. Finally, improving access to crop storage facilities and to credit would help to reduce the fluctuations in food availability. Nevertheless, without growth in incomes, it will be difficult to achieve a significant reduction in food insecurity in Malawi.

THE CHALLENGE OF CHRONIC ILLNESS AND HIV/AIDS

53. **Chronic illnesses, and particularly HIV/AIDS, are the other major sources of shocks playing an overwhelming role in the daily life of Malawians. The fight against HIV/AIDS remains a national emergency.** Chronic illnesses and HIV/AIDS have had a dramatic effect in reducing the life expectancy of Malawians (Figure 9). With an estimated prevalence rate among prime age adults of 11.8 percent in 2004, Malawi ranks eighth in the world in terms of the severity of its HIV/AIDS epidemic. HIV/AIDS is affecting crucial demographic trends, including crude death rates, life expectancy, and infant mortality. HIV/AIDS prevalence is higher in urban areas than rural ones, and higher in the South of the country than the other regions.

54. **HIV/AIDS has specific gender dimensions.** HIV prevalence is higher among women (13 percent) than men (10 percent). The gender differential is starker for young adults: prevalence was more than *four* times higher for females as males aged 15-24 in 2004.

Figure 9: Life Expectancy at Birth over time for Malawi and other sub-Saharan African countries



Source: United Nations (2004)

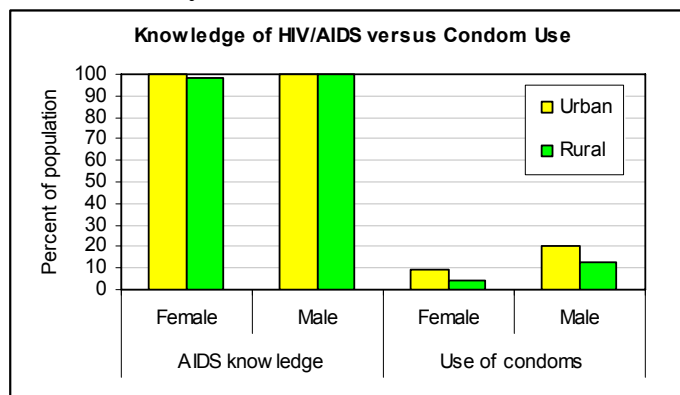
General knowledge of HIV/AIDS is fairly high, but use of condoms remains extremely low.

55. **Effective preventive behavior has not still been adopted by the population.** There are very high levels of knowledge about HIV/AIDS among Malawians, but this contrasts with extremely low levels of condom use (Figure 10). Almost 100 percent of those sampled in the 2000 Malawi Demographic and Health Survey (MDHS) reported that they had heard about AIDS. However, specific and accurate knowledge about how to prevent the sexual transmission of HIV/AIDS is quite low. Only 41 percent of young men and 34 percent of young women (aged 15-24) were able to correctly identify two ways of preventing HIV transmission, and also to reject three misconceptions about transmission (UNAIDS/WHO 2004). Despite relatively high levels of awareness of the disease, only 15.1 percent of men and only 5.2 percent of women used a condom the last time they had intercourse (NSO and ORC Macro 2005). Low condom use can be partly explained by the fact that condoms are associated with promiscuous behavior, and anecdotal evidence suggests that Malawians are generally unwilling to be seen buying them. The low level of condom use may also be explained by the fact that very few people have ever been tested for HIV, in spite of expressing both willingness and knowledge about where to get tested. This may be due to a combination of poor access to testing sites (physical distance) and stigma. Latest figures show that, in the 2004 MDHS (NSO and ORC Macro 2005), 15 percent of women and 18 percent of men reported being tested.

The economic impact of health shocks is considerable for those households that report suffering losses.

56. **Households affected by chronic illnesses and HIV/AIDS do not appear to be poorer, possibly due to the support of the extended family and community.** Households that experienced a prime-age (PA) death, presumably due to HIV/AIDS, do not seem to be significantly worse off than others. In particular, asset ownership, cropping patterns and expenditure levels of households with or without PA and head-of-household deaths are similar. However, there are important caveats to this finding. The survey data we use provides only a snap-shot, and a more complete understanding would require data collected over time. Such data would reflect the economic standing of the household prior to the death (e.g., being urban, or wealthier), as well as the support provided by the extended family and the community (e.g., distributing funeral costs across households and fostering of children). All of these factors make the economic impact of PA deaths difficult to identify in Malawi. Further, while we do not find any evidence of a correlation between poverty and deaths, this may be masking important differences in

Figure 10: General knowledge of HIV/AIDS versus condom use by location



Notes: Figures for condom use reflect the respondent's usage during last episode of sexual intercourse.

Source: NSO and ORC Macro (2001)

other non-income factors (such as schooling of children, and gender impacts). Looking at economic dynamics, we find that tobacco farming households affected by a death are more likely to withdraw from tobacco production than unaffected tobacco farmers.

57. **Most households do not report losing land or other assets after the death of a prime-age member, but the size of the loss is considerable for those that do.** In the event of a PA death, about 14 percent of all households lose, on average, the equivalent to nearly one-quarter of annual household spending. Female survivors seem to be more affected, since more land is lost when a male PA member dies. To reduce this type of occurrence, laws governing land and asset inheritance need to be revised or strictly enforced, to ensure gender equity and to reduce the vulnerability of families affected by deaths.

58. **Similarly, for households that incur medical costs, those costs are high.** Though on average health expenses account for a relatively small proportion of aggregate annual household expenditure, for those who incur medical costs, a large proportion had to borrow money or sell assets to pay for the medical care.

59. **Households mainly used their personal savings or borrowed from friends to pay expenses associated with a death in the household.** Households also increased their economic activity such as renting out animals, working more hours or selling more crops, in order to make up their losses. Government, religious institutions and NGOs were not a significant source of help in these situations.

Orphans are not typically more disadvantaged than non-orphans who do not live with their parents.

60. **Orphans are not more likely to be poor or ultra-poor compared to other children.** We extended the analysis of determinants of ultra-poverty to focus on orphans. As discussed above, children have statistically higher poverty rates than adults. Orphanhood is one of many risk factors affecting children; however, being an orphan is not consistently correlated with a higher probability of being ultra-poor. Likewise, children who are not orphaned but do not live with their parent are also not consistently more likely to be ultra-poor. Among 6-11 year olds, being an orphan is not associated with ultra-poverty, and non-orphans residing with neither parent are in fact less likely to be poor. Among children aged 12-17 years, children living with their surviving parent and non-orphans residing with neither parent are less likely to be ultra-poor. This could reflect the placement of children on purpose in better-off households in the extended family. Alternatively, for these older children, it may reflect their income contribution to the household. In any case, it does call into question the common perception that orphans are systematically worse off, at least in economic terms.

61. **However, orphans are less likely to attend school compared to non-orphans, especially adolescent orphans.** Assessing the impact of orphanhood is complicated by the fact that a large number of non-orphans do not live with one or both of their parents. Indeed, orphans are not typically more disadvantaged than non-orphans who do not live with their parents. In fact, fostering is associated with a greater impact of non-enrollment than orphan status, controlling for other factors.

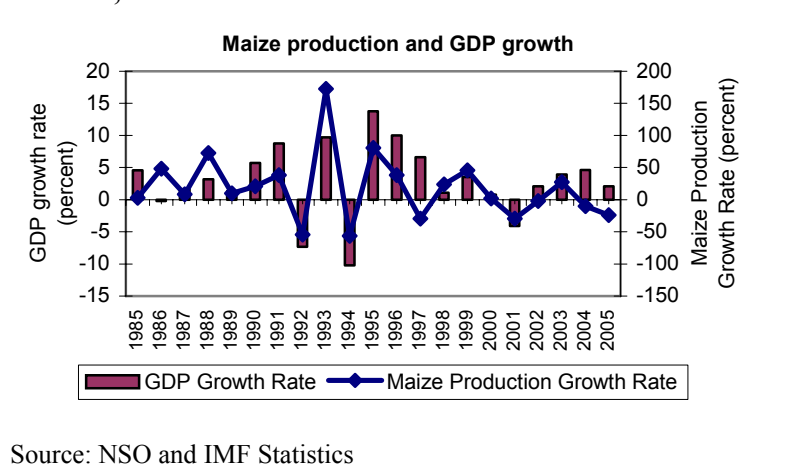
POLICIES FOR SHARED GROWTH AND POVERTY REDUCTION

62. Given the analysis presented so far, it is clear that there is a need to refocus policies for poverty reduction. The first step will be to continue the macroeconomic stabilization program agreed with the IMF, which will allow the government to reduce the domestic debt and redirect the substantial resources currently tied up in interest payments. Secondly, given its importance in the economy and in employment, and particularly in the livelihoods of the poor, smallholder agriculture has to be a key driver of economic growth and poverty reduction in Malawi. Thirdly, the government can help to protect households from risks and shocks by increasing the effectiveness of the social protection system, thereby allowing them to be more productive. Each of these policy areas is discussed in more detail below.

Pursuing sound macroeconomic policies to encourage growth and increase public spending on key areas

63. **Macroeconomic performance under the previous administration was mediocre, as a result of both weather shocks and very weak public expenditure management.** Economic growth has been volatile and weak over the past decade, with GDP growth averaging below 2.5 percent. Much of the poor performance has been the result of recurrent weather shocks on smallholder agricultural production (Figure 11). Weather shocks do not occur uniformly across the country and therefore, it is reasonable to expect that substantial movements in and out of poverty have taken place over the past decade, depending on the distribution of climate shocks. The impact of erratic weather patterns has been compounded by high inflation, and very high (nominal and real) interest rates, that have largely been the result of very poor public expenditure management. As a result of the previous government's failure to control spending, particularly since

Figure 11: Maize production and GDP growth in Malawi, 1984-2005

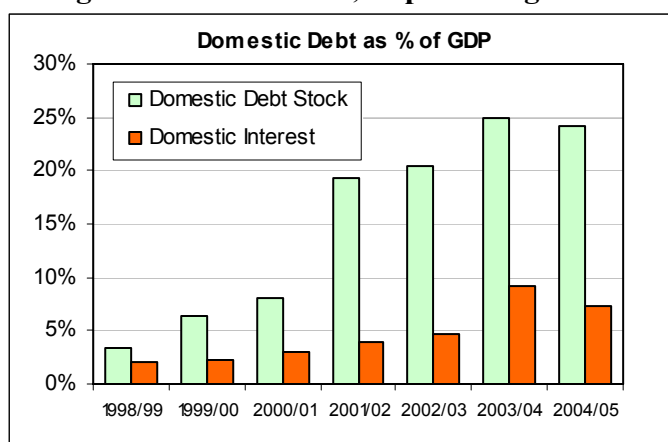


2001/02, Malawi has accumulated a dangerously large stock of domestic debt. This debt threatens macroeconomic and financial stability, and crowds out other expenditures on social and economic services, and investments (Figure 12). With over 30 percent of government expenditure eaten up by interest payments there are insufficient resources to expand the provision of basic services and to fight poverty. Further, extensive government borrowing pushed up interest rates, making credit prohibitively expensive for the poor, thus preventing them from lifting themselves out of poverty. All of these factors have contributed to the poor economic performance and stagnating rates of poverty.

64. **Reducing domestic debt and interest payments is a key priority in the fight against poverty, as it would release substantial resources to finance growth-enhancing and poverty-reducing policies.** A rapid reduction in domestic debt, and consequently in the interest bill, would release significant resources (almost 10 percent of GDP or 35 percent of the government budget), which could be redirected towards growth and poverty reduction. We recommend a rapid adjustment because the country's vulnerability to external shocks could easily disrupt, or at least prolong, the adjustment period during which the country is saddled with enormous interest payments.

65. **The new government that took office in May 2004 is fully aware of the importance of addressing this problem and has taken rapid steps since June 2004 to stabilize the fiscal situation and pursue sustainable macroeconomic policies.** The administration has enforced strict fiscal discipline and, as a result, macroeconomic performance since June 2004 has been rapidly improving. As a result, the IMF and the Government have agreed on a new Poverty Reduction Growth Facility (PRGF) that was approved in August 2005.

Figure 12: Domestic Debt Stock and Interest Bill during 1998/99 to 2004/05, as percentage of GDP



Source: Ministry of Finance and IMF data

66. **Addressing the composition of public expenditures is also important.** The reduction of interest payments on domestic debt will make available substantial budgetary resources for other recurrent and development expenditures (in areas such as in health, education, social safety nets, irrigation, and transport infrastructure). The Government therefore needs to prioritize how best

to use these resources. Given its importance in the economy and in employment, smallholder agriculture has to be a key driver of economic growth and poverty reduction in Malawi, particularly through the export of agricultural commodities. Government policies can also play a major role in poverty alleviation and wealth creation through social protection and spending on health and education.

Reviving smallholder agricultural production for broad-based wealth creation

67. **A strategy of smallholder-led agricultural and economic development offers important economic and social advantages in Malawi.** Agriculture is the largest productive sector, accounting for 40 percent of GDP, and is also by far the largest employer, accounting for 80 percent of employment. Hence, at least in the short to medium term, growth in the agricultural sector is necessary to achieve widely-shared wealth creation in Malawi. Industry currently employs about 10 percent of the labor force in Malawi, and its employment elasticity remains low compared to agriculture (i.e. agriculture is more labor intensive). Even if the performance of the industrial sector were to improve dramatically and it grew at the kind of rates

observed in many of Asia's Tiger economies during their golden years, it would still take decades before a large enough share of the labor force could be pulled out of agriculture to reduce poverty seriously. Malawi's path to wealth creation and industrialization, therefore, will likely involve increased agricultural development, based on improvements in smallholder productivity. Such a strategy offers important economic and social advantages in Malawi. Broad-based agricultural growth is economically efficient and puts increased purchasing power into the hands of the rural population, and rather than enriching just a privileged few. Small and medium-sized farms are more efficient producers in labor-surplus economies because family workers are less costly and more motivated than hired workers, and small farms are more likely to use labor rather than capital-intensive technologies. Many such advantages slowly disappear as countries develop and labor becomes scarcer relative to land and capital, leading to a natural transition toward larger farms and an exodus of small farm workers to towns and non-farm jobs. However, that transition does not normally begin until countries have grown out of low-income status, and typically takes several generations to unfold.

68. The overarching challenge facing agriculture in Malawi is the low productivity and profitability of smallholder agriculture. The agricultural sector in Malawi has been characterized by low and stagnant yields, particularly in maize production. Increased productivity and diversification into high-value crops requires equitable access to land, irrigation, modern farm inputs, credit, protection against weather risk, effective extension services, farmers cooperatives, access to transport infrastructure and market access.

Improving smallholders' access to land.

69. Substantial areas of agricultural land are currently idle and could be made available to poor landless or land-poor farmers through rental or sale. While smallholders have limited access to land, there are substantial areas of underutilized or idle land, mostly belonging to medium-sized and large estates or Government agencies. In view of this, and given the poor performance of estate agriculture, substantial areas of uncultivated agricultural land could be transferred to poor landless or land-poor farmers through rental or sale, without having any impact on production on the existing commercial farms. Such transfers would likely have a significant impact on poverty reduction. Further, the Government could provide incentives to large-scale farms not to leave land idle or under-utilized. For instance, increasing ground rents on leasehold land and improving their collection would make it expensive for estate leaseholders to leave land unused, and may encourage them to rent out or sell the land.

70. The Government has taken steps to improve land utilization. The Government finalized the formulation of a comprehensive Land Policy in 2001, which addresses the land redistribution issues described above by developing a number of effective and transparent mechanisms which will enhance the equity and efficiency of Malawi's land distribution. However, the policy has not yet been made into a law and is awaiting implementation. That said, the Government has recently increased ground rents on leasehold land, and there are plans to introduce a land tax on freehold land. These measures should foster the sale and rental markets for land, leading to improved distribution and more efficient utilization of land, and contributing to higher agricultural production and faster poverty reduction.

Investing in irrigation.

71. **The importance of investing in irrigation cannot be overstated.** There are compelling reasons for Malawi to focus on irrigation in general, and on small-scale irrigation in particular (with a focus on small dams and water harvesting). The availability of new irrigation technologies (such as low cost drip systems) makes small-scale irrigation possible, and opens up new opportunities for water conservation. Greater investments in irrigation would contribute to major advances in productivity, both directly by improving yields, and by reducing the risks faced by farmers. Further, as unreliable rainfall is the leading cause of harvest failure and hunger, investing in irrigation would also reduce the risk of food insecurity. Agricultural intensification through irrigation has the potential to quadruple yields and provide at least two harvests per hectare to the small farmer in a given year. Analysis by the UN Food and Agriculture Organization (FAO) of data from Asia shows yields per hectare (ha) for most crops increase by between 100 to 400 percent as a result of irrigation. The same report highlights that small-scale irrigation schemes in Africa (Kenya and Zimbabwe), where average size of landholdings ranged between 0.5 ha to 1.0 ha, generally contributed 25 to 80 percent to total household income, thereby contributing substantially to poverty reduction.

72. **The Government has recognized Malawi's irrigation potential.** It has identified water harvesting and small scale irrigation as key instruments for reducing vulnerability and poverty in the Malawi Growth and Development Strategy (MGDS). Given that poorly planned irrigation programs also introduce their own risks (e.g. increased malaria incidence), water harvesting programs should be closely monitored and their impact further evaluated.

Improving access to fertilizer and seed inputs.

73. **Improving smallholders' access to inputs could be achieved through a dual strategy of structural interventions to improve the efficiency of fertilizer markets, and short-term 'market-smart' subsidies carefully targeted at poor smallholders.** Access to inputs has been identified as the most critical constraint limiting agricultural growth. Current levels of fertilizer use in Malawi are too low and urgent action is required to boost fertilizer uptake and the use of high-yielding seeds. Reducing the cost of these inputs, especially for poor smallholder farmers who currently cannot afford them, is therefore essential. Over the medium term, the most appropriate interventions will involve strengthening fertilizer markets through structural policies, such as creating a mechanism for collaborative logistical planning of imports; removing transportation bottlenecks (thereby reducing transport costs); increasing credit provision to smallholders; and improving extension services. In the short term, however, there may be a role for a fertilizer subsidy targeted at poor smallholders. A blanket subsidy on fertilizer is not the solution, however. Not only would such a policy require substantial fiscal resources, but it would also be inefficient, and highly inequitable, benefiting rich farmers and estate owners the most. Furthermore, it is also likely to be associated with significant leakages and rent-seeking. Fertilizer subsidies to non-poor farmers tend to displace private purchases, undermining the goal of increasing overall fertilizer consumption.

74. **The operation of the fertilizer voucher-subsidy should be redesigned to follow the principles for 'market-smart' subsidies.** Programs should be designed and implemented in

ways that promote the profitable use of fertilizer, the development of fertilizer markets, and the alleviation of key structural constraints, such as poor transport infrastructure in remote areas. A ‘market-smart’ subsidy would aim to minimize direct government involvement in fertilizer imports and distribution, and would be carefully targeted to boost the productivity of poor smallholders, while minimizing displacement of private purchases. A possible improvement to the current voucher-subsidy scheme would be for the government to identify the beneficiaries, and issue vouchers for a certain value that would guarantee a fixed discount to the voucher holder when he or she buys inputs throughout the country. The value and type of voucher could also be differentiated to better target the needs of different groups of smallholders. Beneficiaries would have to be identified very early in the season for two reasons: (i) to allow farmers who are not beneficiaries to make early alternative arrangements; (ii) to make the private sector aware of the scale, type and distribution of the subsidy, in order to allow them to cater adequately for it. Finally, given the current fiscal situation in Malawi (as discussed above), the priority policy area for the Government should be to achieve macroeconomic stability, and reduce domestic debt and interest rates. Policy to boost fertilizer use must be formulated in this context.

Facilitating access to credit through weather insurance

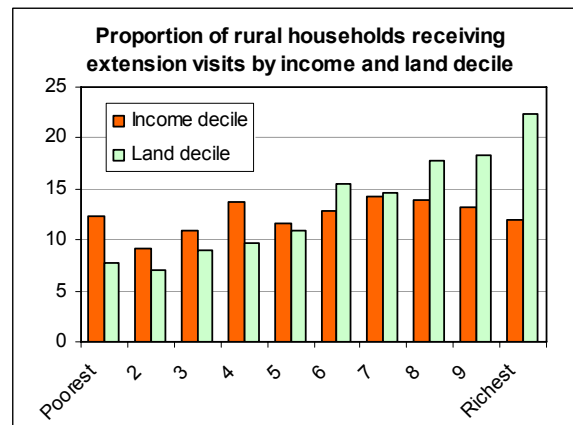
75. Improving smallholders’ access to credit is critical to increase crop diversification and use of high-yield inputs. Weather-based insurance can play a powerful role in improving smallholder access to finance. Abundant analysis indicates that the limited use of fertilizer and other productivity-boosting inputs in Malawi (and other low income countries) is due to the poor availability of credit to smallholders. The introduction of insurance policies against weather shocks, such as drought, could help to improve smallholder access to finance by making farmers more credit worthy. Weather-based insurance has already been successfully piloted in 2005/06 among 900 groundnut farmers in four areas of Malawi, marking the first time such weather-based insurance policies have been sold to smallholder farmers in Africa. The insurance helped farmers obtain the financing necessary to purchase fertilizer and certified seeds, which produce higher yields and revenues and possess greater resistance to disease. If there is a drought, a pay-out from the insurance contract is triggered, and funds will be paid directly to the bank to pay off the farmers’ loans. If there is no drought, the farmers will benefit from selling the higher volume production in the marketplace. While weather insurance contracts do not necessitate government intervention, there may be a rationale for the Government to actively promote them to boost productivity and improve smallholders’ access to agricultural credit and increase use of fertilizer and certified seeds. For instance, the Government could initially subsidize the insurance premiums for poor smallholders to encourage people to take out insurance policies. Also, the government could invest in strengthening the network of weather stations which are required for the private sector to enter into this type of insurance.

Strengthening extension services

76. Extension services need to be expanded to allow all smallholders to benefit from more frequent interaction with extension agents. Bias against smallholders and female-headed households need to be eliminated. Access to agricultural extension services appears to be equitably distributed across the various income groups, with a slight bias towards farmers from middle income households (Figure 13). Although there is no bias towards richer

households,¹⁵ there appears to be some bias towards larger farms. It is likely that this bias may reflect extension agents' prioritization of their scarce time, such that agents choose to provide more advice to larger landowners as a way to maximize the impact of their expertise. Also, there appears to be a slight bias against female-headed households. Both these biases can be eliminated by providing appropriate instructions and incentives for extension agents to channel advice to all smallholders. More importantly, there is a need to expand the role of extension services to allow all smallholders to benefit from more frequent contact with extension agents.

Figure 13: Rural Households Receiving Visits from Agricultural Field Assistants



Source: National Statistical Office, IHS2

Improving the functioning of maize markets

77. **Improving the way maize markets function requires redefining the role of the government in maize markets, notably the operation of ADMARC, to minimize disruption.** The activities of ADMARC have been detrimental to the development of the agricultural sector, and of maize markets in particular. Nevertheless, the findings of the ADMARC PSIA carried out jointly by the Ministry of Economic Planning and Development (MEPD) and the World Bank in 2003-04 have highlighted the need to maintain the *marketing functions* currently provided by ADMARC in some remote areas of the country, where alternatives to ADMARC services are less likely to exist and high transport costs and the thin private markets can give rise to substantial price mark-ups compared to urban and semi-urban areas. In the short run, therefore, the *marketing functions* performed by ADMARC may be beneficial in some remote areas that are under-served. The question then becomes whether ADMARC can play this role in a cost-effective manner, or if marketing could be done better through other market-based mechanisms.

78. **Improving the functioning of maize markets requires the separation of the marketing function presently carried out by ADMARC from its social protection and price stabilization functions.** The *social protection functions* performed by ADMARC should be explicitly addressed in the context of Malawi's social protection policy (see below). The current policy of subsidized maize sales through ADMARC discourages maize production and, given the fast rate of population growth, food imports are likely to become an ever-increasing fiscal burden, unless the Government minimizes market disruption and fosters the growth of private sector trading. Other policy instruments that have the potential to provide a safety net for the urban and rural poor more efficiently should be explored and tested, in order to end eventually the disincentives for smallholder maize production. ADMARC's *agricultural price stabilization functions* should aim to minimize market disruption and foster the growth of private sector trading. The Government's intention to promote local storage during the year of agricultural

¹⁵ This result is due to the fact that a large share of households in the richest quintile do not farm (or not as their main activity), and are therefore less likely to benefit from extension services.

commodities through the Warehouse Receipt Scheme, recently introduced in various neighboring countries, should be pursued. This mechanism can help greatly to increase storage, while facilitating access to credit for the farmers. A warehouse receipt system can be the catalyst, not only to improving access to credit but also to promoting more efficient trade in agricultural commodities. Village Cereal Banks can also assist by increasing storage at the local level where it matters for food security.

Improving the functioning of tobacco markets.

79. Improving the way tobacco markets work requires a review of the tobacco sector's institutions, in order to improve smallholder representation, and strengthen capacity and accountability. There is a need to review the tobacco sector's institutional structure to clarify the mandates of institutions, align governance bodies with the sector's current stakeholders, and eliminate conflicts of interests. The Government should also proceed to establish a Competition Commission, in line with the existing law, and entrust the Commission with monitoring the sector's monopolies/ oligopolies on a regular basis. In parallel, there are opportunities to strengthen capacity and accountability in the tobacco sector institutions: the Ministry of Agriculture, TCC, AHL, ARET and the farmer associations (with a particular emphasis on TAMA). It must be stressed that each institution should be treated on its own individual merits, in order to rid each of the institutions of their inefficiencies.

80. Marketing costs can be reduced to improve the proportion of the tobacco price that is passed on to farmers. This could be achieved through contract farming/ direct exports and bringing efficient markets closer to the farmers. The Government should continue to implement measures to encourage these developments. One channel through which this can be done is promoting the use of contract farming and direct exports. Contract farming allows farmers to manage price risk and to have access to inputs/credit and advisory services; it also allows producers to have direct contact with increasingly difficult international markets and to produce what the market dictates. A pilot contract farming operation should be launched for burley tobacco and a review of the successful pilot contract farming operation for flue-cured tobacco should be carried out. These operations would strengthen producers' bargaining power and get rid of the requirement of going through the auction floor. This is technically feasible and would

BOX 4: WHAT IS A 'LOCAL COMMODITY EXCHANGE'?

A Local Commodity Exchange would provide a regulated market place for tobacco at a location much closer to producers than the auction floors. An LCE is essentially a decentralized auction with mobile teams of auctioneers and buyers working exactly as they would on the main auction floors, but mobile. This type of marketing arrangements for agricultural commodities has been adopted successfully in several countries. One or several LCE would open at the district level to focus on tobacco (or handle several crops), and would be owned/managed, under TCC guidelines and monitoring, by private entrepreneurs. LCEs should be open to any buyer licenced by the TCC, not only to the buyers active on the AHL auction floor. The buyers would then have a choice of either selling the crop through the AHL auction floor or exporting the tobacco directly. The presence of several (20 or more) buyers would permit competition and transparent pricing, thus protecting the producers. Payment to the smallholders would be immediate. LCEs would fund their operating costs through a fee on throughput. The TCC would play a big role here in controlling transactions, auctioning LCE licenses and licensing buyers according to strict criteria. Such a scheme would ease several existing constraints although it would not solve the problem of cartels on the auction floors.

reduce the delays at AHL. Also, in an effort to bring markets closer to the farmers, serious consideration should be given to piloting “Local Commodity Exchanges” (LCE) where producers and buyers carry out direct, competitive, physical transactions. While at present there would appear to be significant institutional capacity and governance constraints in developing a large number of fair marketplaces across the country, it should be possible to start a pilot in several districts, and aim to refine the design and expand the number of local commodity exchanges over time.

Facilitating entry of smallholders into export crop agriculture

81. Promoting the entry of smallholders into export markets should be vigorously pursued as a means for poor households in rural areas to escape poverty. Data at the farm level show that smallholder farmers who grow crops for export receive higher returns. The Government should therefore tackle the constraints that prevent farmers from switching to producing more profitable crops. Analysis of the main determinants of participation in export commodity production highlights the importance of a mix of household level factors, such as demographics, household composition, health, and education, and village level factors, mainly infrastructure and access to services and facilities. Household composition affects participation in commercial agriculture through increased labor supply and a food security effect. Health and education were not identified as major constraints. At the village level, both food and cash crop markets matter in the decision to engage in export crops. The availability of food markets helps to reduce the risk of food insecurity and therefore encourages production for the market. Also, having a market to sell export crops is a crucial condition. The presence of credit institutions, intermediaries, and farmers associations (like cooperatives or tobacco clubs) increases the likelihood of participation in export agriculture and reduces the prevalence of poverty. These results provide guidelines that could be useful in the design of policies to reduce poverty in Malawi. In sum, access to transport and credit are the key constraints that may prevent greater smallholder production of commercial crops. The survey results highlight the importance of policy interventions that facilitate participation in trade. For instance, measures should focus on helping farmers mitigating risks, increasing access to credit, provision of start up capital, provision of easily accessible markets, and improving health.

82. However, promoting a switch to cash crop farming for smallholders in Malawi needs to be considered in the context of the finding that the higher income levels enjoyed by cash crop farmers are not accompanied by decreases in chronic malnutrition (see above). It is therefore paramount that cash-crop promotion goes hand in hand with policies to improve childhood nutrition and improved feeding practices through nutrition education programs.

Social protection policies to alleviate extreme poverty and enhance productivity

83. The existing social protection program does not appear to be very effective. Based on the characteristics of the poor discussed above, and the frequent occurrence of shocks, there is scope to improve the implementation of existing programs. In addition, a review of the current social protection program highlights the need to: (i) move from a series of weakly connected, short-term and unplanned activities to a long-term, regular and predictable system of social protection; (ii) shift from a reactive, crisis-driven mechanism to one that effectively protects

people against asset depletion and destitution; (iii) ensure that the safety net program also promotes, at least for some, movement out of poverty—ultimately reducing the need for social welfare support; and, (iv) increase government commitment and leadership through better coordination of safety nets and by establishing a single safety net program under government control. In addition, an assessment of the implementation of individual programs also highlights substantial shortcomings:

- Distribution of food aid and fertilizer packs appears to suffer from significant leakage. That is, the number of people on the ground that report actually receiving the benefit is much lower, by about one third, than the number of people who should be receiving it, based on what has been paid for by the Government or donors.
- Targeting is a problem in all the existing social protection programs, both in terms of exclusion of a large proportion of the poor, and inclusion of a large share of the non-poor. In practice, existing programs fail to reach about half of the poor, and benefit about 40 percent of the non-poor.
- Given the extent of poverty in Malawi, the size of the Public Works Program (PWP) (currently reaching less than 5 percent of the poor population per year) is far too limited and does not constitute an effective safety net for the ultra-poor, and the transient poor who have experienced a shock. As the PWP is the best targeted social protection program, there is a rationale to expand its operation.
- The Targeted Inputs Program (TIP) is by far the largest safety net program, reaching almost half of the population, and is very expensive at US\$20 per beneficiary (or US\$30 if leakage is taken into account; almost double the US\$17 per child spent on primary education). Moreover, the exclusion of the private sector in the procurement, distribution and sale of the subsidized inputs poses a serious risk to private sector trade in fertilizer in Malawi. Commercial fertilizer sales in cash or on credit slumped by 60-70 percent in 2005/06. Given that smallholder agriculture is by far the main activity of the poor in Malawi, it is clearly appropriate to support their productivity by subsidizing their access to inputs. However, substantial gains in the effectiveness and efficiency of the program can be made by (i) reducing leakage, (ii) improving targeting, and (iii) improving the efficiency of its operation/administration by actively involving the private sector in its delivery.
- The recent move to a fertilizer subsidy voucher for the TIP is also regressive, because it excludes the destitute who cannot afford to pay even the subsidized price (and will instead sell the voucher on the informal market). It is paramount that this aspect of the program be revised to ensure that the program benefits the poorest smallholders.
- Food aid distribution, school feeding programs, and Targeted Nutrition Programs (TNP) do not constitute an adequate answer to the persistent child malnutrition in the country. Nutrition programs for school children are expensive and will not reverse stunting much, because they do not increase mothers' knowledge of good nutrition and feeding practices. Education about nutrition and feeding practices, while very cost-effective in improving child health, are rarely demanded by communities, as they may not be aware that their young children are deficient in vitamins and minerals.

- That said, improving children’s nutrition through School Feeding will have an impact on their quality of life by improving their health, and it will help to keep them in school, thereby increasing their skill level. These benefits may justify the existence of school feeding programs, but they are not the best or most cost effective method of reducing malnutrition and stunting.
- Feeding programs should instead be concentrated on pregnant women and children under five, since people in these categories are most vulnerable to malnutrition (because they have the highest nutritional requirements of any age group). Food distribution to other adults is a low priority. The fact that TNP beneficiaries are equally distributed across income deciles is not indicative of poor targeting; rather, it underscores the earlier analysis that low income levels are not the only cause of malnutrition in Malawi.
- Finally, there appears to be almost no safety net reaching the urban poor, both in terms of alleviating poverty for the urban destitute and providing opportunities for them to earn a living. Moreover, given the fact that many households without able-bodied adults fall into this group, many of the targeting mechanisms fail to reach them effectively.

84. **Social protection policies should aim to help the chronically poor and mitigate the impact of widespread risks and shocks.** The analysis of the characteristics of poverty has highlighted the role of pervasive risks and shocks in causing both chronic and transient poverty. A comprehensive approach to redesigning the social protection system should include interventions to: (i) alleviate extreme poverty, by providing direct transfers of money and building up the assets of the chronically poor (to help them get out of poverty traps); (ii) enhance the productivity of the poor and strengthen their risk management, by helping them access productive inputs and protecting them against risks and economic shocks. In addition, given Malawi’s dependence on the agricultural sector and its high exposure to large weather shocks and food price fluctuations, the social protection system needs to operate jointly with the disaster emergency response system and fit within an overall strategy to promote economic growth.

85. **There is a need to rationalize the use of scarce resources by prioritizing policies and careful targeting.** Calculations of the size of the ‘poverty gap index’ suggests that the approximate amount of money needed to bring the income of all the poor (about 6.4 million Malawians) up to the poverty line would be about MK35 billion per year (US\$340 million at 2004 exchange rates, assuming perfect targeting and no administrative costs). Eradicating ultra-poverty would cost MK6.5 billion per year (US\$63 million), or about 3 percent of annual GDP. In practice however, targeting will never be perfect, administrative costs exist, and full funding of the poverty gap is unlikely. Therefore, strategies to assist the poor will need to be carefully crafted, and effective targeting will be key to maximizing success.

Policies to alleviate extreme poverty: providing direct transfers and tackling malnutrition

86. **A long-term, regular, reliable and predictable system of direct money transfers should be introduced to alleviate extreme poverty** (i.e. helping the ultra-poor or, at minimum, targeting the poorest 10 percent of the population). Where possible, the Government should introduce cash transfers gradually as a method of direct transfers, initially only in the months following the harvest. During the lean season, cash transfers should be substituted or

complemented by in-kind food distribution, especially in remote areas. At minimum, the Direct Welfare Transfer envisaged under the National Safety Nets Strategy (NSNS) should be made operational. However, it would be preferable to revise the NSNS by introducing a basic Direct Welfare Transfer program to target the ultra-poor.

87. A two-stage targeting, at a geographic and community level, is recommended. Targeting is a critically important issue in the implementation of safety net programs, and each of the different targeting methods available (e.g. proxy means testing, categorical targeting, community-based targeting) presents its own set of problems. Based on simulations of the expected inclusion and exclusion errors associated with different types of targeting, we recommend that two-stage targeting (building on the system already in use to target food aid) be used to provide social assistance to the chronically poor. Firstly, geographic targeting should target districts or regions with a greater share of national poverty. In the second stage, community-based efforts should be used to identify the neediest households. To address possible shortcomings, program design should include (i) clearly stated rules on how the community decides who gets assistance, and (ii) targeting guidelines based on the profile of the ultra-poor. Given the finding that, currently, almost all social protection programs in Malawi are poorly targeted, we also recommend that a series of pilot programs be designed to explore ways to make targeting more effective within this two-stage method.

88. There is a strong argument to strengthen programs to combat malnutrition by encouraging behavior change and nutrition education at community level. The Honduras Community-Based Integrated Child Care Program (discussed in the Full Report) could be as a model for providing better nutrition/health services to young children in Malawi. As discussed above, feeding programs should be concentrated on children under 5 and pregnant women, since these categories are most vulnerable to malnutrition because they have the highest nutritional requirements of any age group. Food distribution to non-pregnant adults is a low priority. Similarly, since feeding programs for school children are a very expensive way to increase school attendance and learning rates, and are also an expensive way to improve nutrition, they are not a priority from the perspective of malnutrition and are not recommended here as part of the social protection program.

Policies to alleviate chronic poverty: building the assets of the chronically poor.

89. In addition to direct transfers, measures to alleviate chronic poverty should also build the assets of the ultra-poor. The Government could subsidize access for the ultra-poor to public services, such as health, education, and agricultural extensions services, to help the poor earn an income.

90. Public spending on education is very inequitably distributed. Analysis of the distribution of benefit from public spending, shows that access to primary education, and the distribution public spending on primary education, benefit poor children less than proportionally. Expenditures on secondary and tertiary education are even more inequitable, and almost entirely benefit children from richer households. Given its role in poverty reduction, improving the access of the poor to education remains a key priority. A detailed analysis of the education sector has been carried out as part of the 2006 Public Expenditure Review, and that study makes

recommendations to improve quality of and access to education for the poor. The Government should introduce measures to reduce early drop outs by increasing the share of funding for the first four standards, increase the number of qualified teachers in primary schools, reduce the expenditure on secondary boarding schools, and introduce/expand programs to provide bursaries to cover the cost of basic education. Also, given the increased earning power which higher education brings, the Government could investigate the possibility of introducing an enhanced loans scheme to enable the non-poor (the richer 50 percent of the population) to contribute more to the cost of secondary and tertiary education. These funds could then be used to expand the existing bursaries for the poor (the poorer 50 percent of the population).

91. **Spending and access to health services is fairly equitable, but the poor make less use of these public services.** Our analysis suggests that, while there is a slight bias in favor of wealthier individuals, there is overall a reasonably equitable distribution of the benefits from public health spending. This finding contrasts with trends identified in other developing countries. Although the reason for this equitable distribution of benefits cannot be determined from the analysis, it is likely to be the result of the recent prioritization of essential health services and the provision of public health services without charge. We also found that the poor receive a considerably lower share of the benefits from the provision of government hospitals, whilst the benefits from the provision of government health centers were equitably distributed. This can largely be explained by differences in the utilization of health services and the lower reported incidence of illness amongst the poor, rather than by the distribution of the health subsidy. This implies that if the Government wants to increase the share of the benefits of health spending that reaches the poor, then a reallocation of public health spending would not be sufficient. In changing policy, it would therefore be important to understand what factors affect the utilization of government health services, as well as individual decisions about health care. Any attempt to further increase the share of the benefits from public health spending reaching the poor should focus on improving the quality of health services in rural areas, and also increasing health awareness, thereby encouraging greater utilization of health services, particularly among the rural poor. The 2006 Public Expenditure Review gives detailed recommendations to improve quality and access to health services for the poor. Notably, it will be crucial to increase the level of skilled staff, especially in rural areas, and to reform the procurement system for medicines (by reforming of the Central Medical Stores). Also, autonomy should be granted to tertiary hospitals, and cost recovery at tertiary health care facilities could be improved through the design of a sliding scale fee structure, in a manner that ensures continued access to the poorest.

92. **Access to agricultural extension services needs to be expanded.** As discussed above, the distribution of benefits from extension services appears to be fairly equitable. However, only a small number of farmers currently benefits from extension services and there is therefore a need to expand extension services so that a larger number of smallholders can have contact with extension agents.

Measures to enhance the productivity of the poor and strengthen their risk management: facilitate access to agricultural inputs and mitigate risks from weather shocks and HIV/AIDS

93. Since most of the poor earn a living from agriculture, social protection programs should include measures to help boost agricultural productivity, and address risk mitigation for poor

smallholder farmers. These interventions need to be carefully aligned with overall agricultural policies.

94. **The existing fertilizer voucher-subsidy scheme can be improved to increase the productivity of poor smallholders.** As discussed above, the current voucher-subsidy program should be redesigned to follow the principles of market-smart subsidies. Further, the current program should also be redesigned to address the gap in current coverage which excludes smallholders who cannot afford even the subsidized price of fertilizer. This may involve the re-introduction of input ‘Starter Packs’ targeted at the ultra-poor, and/or cash assistance to complement the vouchers. Administrative costs and targeting can also be improved through self-targeting mechanisms (such as work for inputs programs) that increase the likelihood that the poor and ultra-poor will benefit. Further, the analysis indicates that use of fertilizer from free distribution is associated with lower efficiency, compared to fertilizer that has been purchased, suggesting that poor smallholder farmers may not have adequate knowledge about how to use the fertilizer.¹⁶ Hence, it is also critical to provide clear instructions on the use of the fertilizer, jointly with the voucher or pack.

95. **Weather-based insurance can help to mitigate the impact of weather risks on households, and reduce fluctuations in their income.** As discussed above, there may be an argument for the Government to actively promote adoption of this type of instrument, which would enhance the productivity of smallholders by increasing their access to agricultural credit, and allow greater use of improved seeds and fertilizer. For instance, this could take the form of a subsidized insurance scheme for poor smallholders as part of the safety nets program.

96. **Investment in water management and irrigation is needed to reduce exposure to weather risk (and increase productivity) in the medium term.** The social protection program in Malawi should incorporate features designed to lessen the impact of weather shocks in advance, instead of only responding to shocks when they happen. Policies that would strengthen resistance to weather shocks include investments in water harvesting and small-scale irrigation, and promoting research and cultivation of drought-resistant crops, e.g. drought-resistant maize varieties.

97. **Strengthening action to reduce the spread of the HIV/AIDS epidemic is crucial.** As discussed above, efforts to reverse the spread of HIV/AIDS are progressing slowly and, despite widespread general knowledge of the epidemic, effective behavior to prevent infection has not been adopted. This reflects the fact that specific and accurate knowledge of preventing the sexual transmission of HIV/AIDS is quite low. Therefore much more must be done therefore to address the superficiality of HIV knowledge and the cultural myths and stigma ideas around HIV. More innovative efforts, such as offering small monetary incentives may make Voluntary Counseling and Testing (VCT) more attractive and socially acceptable, although these efforts would need to be coupled with improvements in access to testing for the rural populations. Rapid testing should be encouraged to reduce the travel and psychological costs associated with attending a VCT facility. Also, additional efforts should be made to promote behavior to prevent infection. The involvement of faith-based organizations (FBOs) in promoting preventive behavior should be encouraged and supported financially. Religious organizations have the

¹⁶ This finding may also be due to problems experienced with late delivery of the TIP starter packs in 2004/05.

potential to influence permanent changes in behavior, particularly in promoting the A and B portion of the ABC (Abstain, Be faithful, or use Condoms) approach to AIDS prevention. FBOs can also be influential in spreading messages to eliminate stigma associated with HIV/AIDS.

Measures to enhance the productivity of the poor and strengthen their risk management: assist those affected by shocks.

98. **For shocks that affect entire communities or regions, such as crop failure due to drought, emergency food aid can play a valuable role.** Food aid has been the hallmark of the social protection system thus far. The new social protection framework needs to address thoroughly long-standing criticisms, such as the significant leakages in the program. It will be of paramount importance to establish and publicize clear targeting rules and administrative procedures before the onset of a food emergency.

99. **For household-specific shocks (such as crop failure related to illness, deaths in the household, theft, etc.), the existing Public Works Program (PWP) can be very useful.** The PWP could be expanded as the main safety net to address localized harvest failures (affecting only some districts), as an alternative to food aid distribution. There are several advantages in pursuing this approach, since it is likely to be more cost effective, and will foster market development (and thereby long-term food security) by increasing demand for local produce. In addition, a safety net for households not covered by PWPs (those who experience shocks during the summer months when PWPs are largely not in operation, or those households without able-bodied adults) should also be built into the overall social protection program.

100. **For individuals affected by HIV/AIDS there is a need to provide anti-retroviral therapy (ART).** After a slow start, efforts to provide anti-retroviral therapy for those already infected by HIV/AIDS are progressing fairly well. As of early 2006, some 38,000 patients had started ART. However, creating the institutional capacity and identifying the financing needed to reach all of the affected population will be a huge challenge.

Managing the response to large-scale natural disasters and wide fluctuations in food prices.

101. **Innovative risk management tools for large-scale drought include the purchase of national drought insurance and price hedging derivatives.** To protect against shocks when they occur, macro-level, nationwide drought insurance could be purchased (based on a similar approach to the weather-based insurance discussed above) which would provide credit for the Government in the event of a food emergency. Financial derivatives are another type of market-based instrument that could help the government manage its exposure to food price risk in the face of a food crisis. The Government could purchase market hedging derivatives to help cap the cost of food imports during a possible food crisis. For instance, given the need of the Government to ensure that physical food be made available in Malawi in the case of an emergency, the structure of the derivative could be customized to combine price protection on the SAFEX maize market, with transport costs, so that the government obtains price protection in local, delivered terms in Malawi.

102. **Hedging derivatives could be used to provide an additional ‘Synthetic Grain Reserves’.** If hedging derivatives were purchased, the Strategic Grain Reserves could be restructured so that (at least part of) the management of physical stocks and storage of grain is done by private sector traders, who then write call option contracts for sale to the Government if needed in the future. In other words, the Government can minimize the substantial costs of holding in reserve a large physical quantity of grain, and hold instead option derivatives allowing it to ‘call’ on additional quantities if needed. An options contract can be designed as a fallback import strategy used in the following way: the Government buys an ‘option’ to purchase maize such that, in the event of a drought, if local prices rise to an unaffordable level in the commercial markets, and maize imports are not moving in quickly enough to meet the requirements, the Government can then quickly trigger additional imports. The payout from the insurance would then be used to purchase the necessary maize at a price that has been previously ‘locked-in’ through the call options. This approach offers the Government the advantage of security of access to imports at a certain price, while removing the need to hold large physical quantities of maize in the country. A small strategic grain reserve would suffice.

STRENGTHENING MONITORING AND EVALUATION SYSTEMS FOR POVERTY REDUCTION

103. **A sound monitoring and evaluation system is critical to ensure that limited budgetary resources continue to be spent effectively and targeted towards the poor.** A results-based monitoring and evaluation (M&E) system is critical to monitor progress towards the Government’s growth and poverty reduction objectives, as well as to create a culture of evidence-based decision making. Over the past few years, Malawi has made major strides in establishing the core elements of its national M&E system: (i) a national survey program, (ii) monitoring of the national development strategy, and (iii) monitoring of budgets and expenditures.

104. **A national M&E system is not yet fully operational in Malawi.** The political environment for M&E of government performance has improved, but the institutional framework and monitoring systems are still weak. Political leadership for a well-performing government is emerging, and accountability measures are being strengthened. In addition, weaknesses in monitoring systems are being addressed and some foundation elements are in place or are being developed. However, the national system is not yet fully operational. Furthermore, the overall institutional framework needs to be further strengthened, particularly in terms of incentives, clarity of roles and responsibilities, and coordination among key stakeholders. Gaps remain in the different parts of the national monitoring system and in the linkages between them.

105. **Malawi has a good survey program and a well-established National Statistical Office (NSO).** Malawi has an appropriate survey program for measuring welfare and living standards at outcome level—including the MDGs—and for tracking trends over time. The normal schedule of national surveys is rational and meets international statistical standards. The quality of household survey data improved between 1997/98 and 2004/05. The NSO is a well-established institution, with good leadership. However, the national survey program is fragile, and over-dependent on external funding and technical assistance. It is recommended that the NSO continue to mobilize pooled grant resources, improve dissemination, and strengthen its capability to analyze survey data.

106. **The new Malawi Growth and Development Strategy provides a golden opportunity to adopt a strong M&E system.** Monitoring implementation of the Malawi Poverty Reduction Strategy (MPRS) necessitated a major expansion of the role, capability and resources of the Ministry of Economic Planning and Development (MEPD). MEPD's role should be more clearly defined in relation to other ministries, and more realistic expectations should be set. The key challenge now is translating the goals of the new Malawi Growth and Development Strategy (MGDS) goals into operational plans. The process of costing these plans and putting them into operation can also be used to identify those indicators that can realistically be used to monitor progress in individual activities, as well as towards higher level goals. A more results-based approach to implementing the strategy can also contribute to defining the most appropriate areas of focus for monitoring implementation. More emphasis should be paid to improving administrative data, the key source of information for monitoring implementation.

107. **Linkages between planning, budgeting, accounting, and the policy review process also need to be worked out.** Malawi has embarked on extensive reforms of public expenditure management, but more work needs to be done before expenditure tracking and oversight systems become fully functional, and linkages between planning, budgeting, accounting, and the policy review process are achieved. The annual MPRS budgeting and review process has not worked well. A minimum foundation of sound fiscal management is essential for functioning public expenditure management. The Government has begun to address seriously the system's weaknesses, and should ensure that the basics of fiscal management are in place. It should also build medium-term fiscal and budget frameworks before proceeding to output-based budgeting. Piloting linkages between policy, planning and spending in the health sector might be a useful entry point, given the elaborated sector wide approach that already exists.