

AGRICULTURE AND MICRO ENTERPRISE IN MALAWI'S RURAL SOUTH

Alastair Orr and Sheena Orr

Abstract

This paper reviews and interprets changes in rural livelihoods in southern Malawi following market liberalisation. It argues that, by reducing household maize production, market liberalisation has increased the need for resource-poor smallholders to develop market strategies that provide them with income security. Whereas previous scenarios for poverty elimination in Malawi were based either on green revolution technology or burley tobacco, the emerging scenario in the rural south is one where smallholders seek market niches that do not threaten household food supply. The potential of this market-based scenario for poverty elimination requires a greater understanding of the links between agriculture and micro enterprise, two livelihood strategies that usually receive separate treatment in the development literature.

Research findings

- *The 1990s witnessed a growth in area planted to crops that are highly marketable but do not reduce household maize production. Evidence from national surveys suggests there was a surge in micro-enterprise activity during the 1990s, but that most enterprises were short-lived and did not develop into stable or growth businesses.*
- *Although we lack firm evidence from national income expenditure surveys, evidence from micro studies suggests that the net effect of market liberalisation on household income has been positive.*
- *Specialisation in high-value cash crops and micro enterprise is limited by the need to secure household food supply. This reflects market failure since rural households lack confidence in the market to provide them with maize when and where they need it and at a price they can afford.*
- *Rather than specialise and maximise income, households are optimising income by diversifying their livelihood strategies, in particular by combining minor cash crops with micro enterprise, in order to increase their income security.*

Policy implications

- *The Green Revolution and Burley Tobacco scenarios for poverty alleviation overlook regional dimensions of poverty. We argue that a more relevant scenario for the rural south is a Market Niche scenario that links smallholders with markets for micro enterprise and minor cash crops, promotes a competitive food processing industry, and focuses on production of agricultural tradeables.*
- *Government's approach to the problem of market failure is to insulate households by increasing own-maize production through welfare measures such as Starter Packs. More emphasis is needed on tackling market failure directly through measures that increase entitlements to buy maize, and the availability of maize by improving the efficiency of domestic and regional markets.*

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Acronyms

ADD	Agricultural Development Division
ADMARC	Agricultural Development and Marketing Corporation
BLADD	Blantyre Agricultural Development Division
CIMMYT	International Maize and Wheat Improvement Centre
DFID	Department for International Development
EPA	Extension Planning Area
FEWS	Famine Early Warning System
FHH	Female-Headed household
FINCA	Foundation for International Community Assistance
GEMINI	Growth and Equity Through Microenterprise Investments and Institutions
GOM	Government of Malawi
GTZ	German Agency for Technical Cooperation
IGA	Income-Generating Activities
IFPRI	International Food Policy Research Institute
IFSP	Integrated Food Security Programme
MK	Malawi Kwacha
MRFC	Malawi Rural Finance Corporation
MSE	Micro and small enterprise
NASFAM	National Association of Smallholder Farmers in Malawi
NEC	National Economic Council
NGO	Non-Governmental Organisation
NSO	National Statistical Office
OMT	Organic Matter Technology
RDP	Rural Development Project
RRA	Rapid Rural Appraisal
SADP	Smallholder Agricultural Development Programme
SHMPA	Shire Highlands Milk Producers' Association
SL	Sustainable Livelihoods
SPS	Starter Pack Scheme
UWCT	Usiya Wata Credit Trust
VAM	Vulnerability Assessment Mapping

AGRICULTURE AND MICRO ENTERPRISE IN MALAWI'S RURAL SOUTH

Alastair Orr and Sheena Orr

1 INTRODUCTION

Malawi – a small, landlocked nation in east-central Africa – is one of the world's poorest countries. Four in ten Malawians live below a poverty line based on the basic needs of food, clothing and shelter, unable to lead an active, healthy life. Rural households make up 80% of the poor. Income inequality is the highest recorded in sub-Saharan Africa (World Bank, 1996). Since the introduction of multiparty rule in 1994, poverty alleviation has become a national priority. Aid flows have increased in consequence and currently average US\$250 million per year, equivalent to \$23 for every man, woman, and child (World Bank, 1998a). Malawi is now the second-largest recipient of UK aid after India.

Market liberalisation from 1987 onwards has resulted in the removal of price subsidies for maize seed and fertiliser and removal of price controls for the marketing of smallholder crops with the exception of maize, for which there is a price band. Burley tobacco – formerly an estate monopoly – has been liberalised to give smallholders access to Malawi's most lucrative cash crop. The private sector has now largely replaced the parastatal ADMARC as the main supplier of farm inputs and buyer of smallholder crops. Liberalisation of rural trade has resulted in the growth of micro enterprise while the liberalisation of smallholder crop production and marketing has increased the area planted to commercial crops such as burley tobacco and grain legumes.

The significance of these changes and their impact on rural poverty is the subject of debate. One view is that, by increasing the cost of hybrid maize production, market liberalisation has reduced household food security. Since most smallholders have limited land and give priority to maize production, the scope for raising income through cash crops is limited, and most non-farm activities are short-term 'survival strategies' which reflect growing poverty (Devereux, 1997). This implies that policies to eliminate poverty should be productivity-led, focusing on new maize technology to raise household food supply. An alternative view is that market liberalisation has created new opportunities for smallholders to earn cash income (World Bank, 1998b). This has compensated for any decline in household maize production by increasing their ability to buy maize. In this view, cash crops and non-farm activities offer smallholders with limited land a pathway out of poverty. This implies that policies to eliminate poverty should be market-led, and give priority to raising household incomes.

This paper seeks to contribute to this debate by analysing recent changes in livelihoods in the rural south, which has the highest concentration of Malawi's rural poor. The approach is inductive and based on a review of available literature. Although the paper offers an interpretation consistent with the empirical evidence, it is important that its arguments are tested more rigorously through further field research.

Based on the findings, we argue that:

- Despite limited room for manoeuvre, smallholders in the southern region have responded positively to market liberalisation.
- Scope for specialisation in market-led livelihood strategies is limited by the lack of a secure market for maize, which forces smallholders to divert resources into securing household food supply. This has prevented specialisation in high-value crops and more profitable forms of micro enterprise that compete with household maize production. Consequently, smallholder specialisation is limited to market niches (intercrops, vegetables, low-value micro enterprise) that provide some cash income but do not threaten food supply.
- By reducing household maize production, market liberalisation has increased the need for income security among rural households. The search for income security has made the interactions between agriculture and micro enterprise more important, as households develop income portfolios that allow capital accumulation and spread risk. Unfortunately, although they are closely integrated at the household level, agriculture and micro enterprise have come to represent parallel streams in the development literature. We provide a simple framework for analysing these interactions in southern Malawi.
- Two scenarios – the Green Revolution and Burley Tobacco – dominate official thinking on poverty reduction in Malawi. We argue that neither fits the emerging reality in Malawi's rural south, which is best described as a Market Niche scenario. In this unfolding scenario, poverty reduction results from a combination of market-oriented agriculture and micro enterprise serving both domestic and export markets.

The next section describes our methods and conceptual approach. Section 3 uses the Sustainable Livelihoods (SL) framework to summarise selected research findings in the southern region. Section 4 offers an analysis of changes in rural livelihoods, while Section 5 outlines three capsule scenarios. Section 6 concludes.

2 METHODS AND CONCEPTUAL FRAMEWORK

Information on livelihoods was drawn from a wide range of published and unpublished sources, including field research by the authors. Although there is now a rich literature on various aspects of livelihoods in Malawi, there is no overall synthesis. This article brings information together to create a composite picture of changes in rural livelihoods.

The version of the SL framework used by the Department for International Development (DFID) (Carney, 1998) was used to structure information on livelihoods and identify key research findings. The SL framework is a systems approach to understanding rural change. Improvements in livelihoods ('livelihood outcomes') are the result of interactions between variables at both the micro and macro levels. At the macro level, livelihood outcomes are influenced by:

- the 'vulnerability context' or environmental and economic trends beyond smallholders' control;
- 'transforming structures' (levels of government, private sector) and 'transforming processes' (institutions, policies) that affect rural households and help determine the economic opportunities open to them.

At the micro level, livelihood outcomes are influenced by:

- livelihood assets, including not only physical capital (e.g. land) or financial capital (cash) but human capital (skills) and social capital (networks, patrons);
- livelihood strategies, or the particular mix of economic activities that households choose, based on the opportunities open to them.

Livelihood strategies can be elaborated in various ways. Scoones (1998) distinguishes three major categories:

- *intensification*, or a more intensive use of the natural resource base;
- *diversification*, or expanding the share of *non-farm* income in the household's income portfolio;
- *migration*, either seasonal or more permanent migration from village to town.

A two-dimensional matrix was used to analyse the relationship between agriculture and micro enterprise (Figure 1). This tool has developed out of research conducted in the southern region over the previous six years. It reflects the different options that households face in combining farm and non-farm activities and links these to different levels of livelihood security.

The Y axis of the matrix shows the level of household income from agriculture, whereas the X axis shows the level of income from micro enterprise. The household's position on the matrix reflects its level of income from each of these two livelihood strategies. Households in the bottom left hand corner are subsistence farmers with limited income from both agriculture and micro enterprise. Depending on their objective, households can move either up, along, or diagonally across the matrix.

- Households that move up the Y axis specialise in commercial agriculture at the expense of micro enterprise.

- Households that move along the X axis specialise in micro enterprise at the expense of agriculture.
- Households that move along the diagonal balance agriculture with micro enterprise.

Although it is recognised that income diversification may take other forms besides micro enterprise (e.g. remittances and salary income), the matrix focuses on micro enterprise. In addition, the matrix does not capture diversification *within* agriculture, whereby smallholders change the crop mix by introducing new crops or expanding the area planted to particular crops.

Figure 1 also relates degrees of specialisation to Devereux's (1999) typology of four household livelihood strategies.

- Survival – Erosion of assets to prevent destitution or death.
- Coping – Minimisation of the costs of adverse livelihood shocks, such that future livelihood capacity is not seriously impaired.
- Adaptive – Risk-spreading diversification.
- Accumulative – Increase in stocks of assets through profitable enterprises.

These strategies form the overarching framework within which households work, with agriculture and micro enterprise being just two elements within the strategy. Adaptive and accumulative strategies are more proactive and positive strategies that do not decrease assets while coping and survival are more defensive and reactive strategies associated with reduction of assets. 'Assets' include not only productive assets but also human capital, household relations and social capital.

3 THE SINGULARITY OF THE SOUTH

The south¹ is the largest of Malawi's three administrative regions, with the highest concentration of poor households (Table 1). Smallholding size and low productivity have resulted in a diversified livelihoods base, where the majority of rural households rely on off-farm income to buy maize. In this section, we outline the main features of rural livelihoods in the south, structured around the SL framework.²

The vulnerability context

The farming system is maize-based, with numerous intercrops. The maize ecology is diverse, with a single growing season of 150 days, rainfall of 800–1000 mm, and infertile soils (Heisey and Smale, 1995). Almost half smallholder households cultivate 0.5 ha or less (Table 1). Because farmers cannot afford sufficient inorganic fertiliser, soil fertility is a major production constraint. Almost four in 10 households are female-headed and prone to labour shortages, resulting in a higher share of land left fallow (Binauli et al., 2000). About half the smallholder households in the southern region face chronic maize deficits (World Bank, 1995).

Structures and processes

Market liberalisation processes were outlined in Section 1. Structures include:

- The Grain and Legume Development Association Limited (founded 1999) which has collaborated with government research services to improve pigeonpea

Figure 1 The relationship between agriculture and micro-enterprise

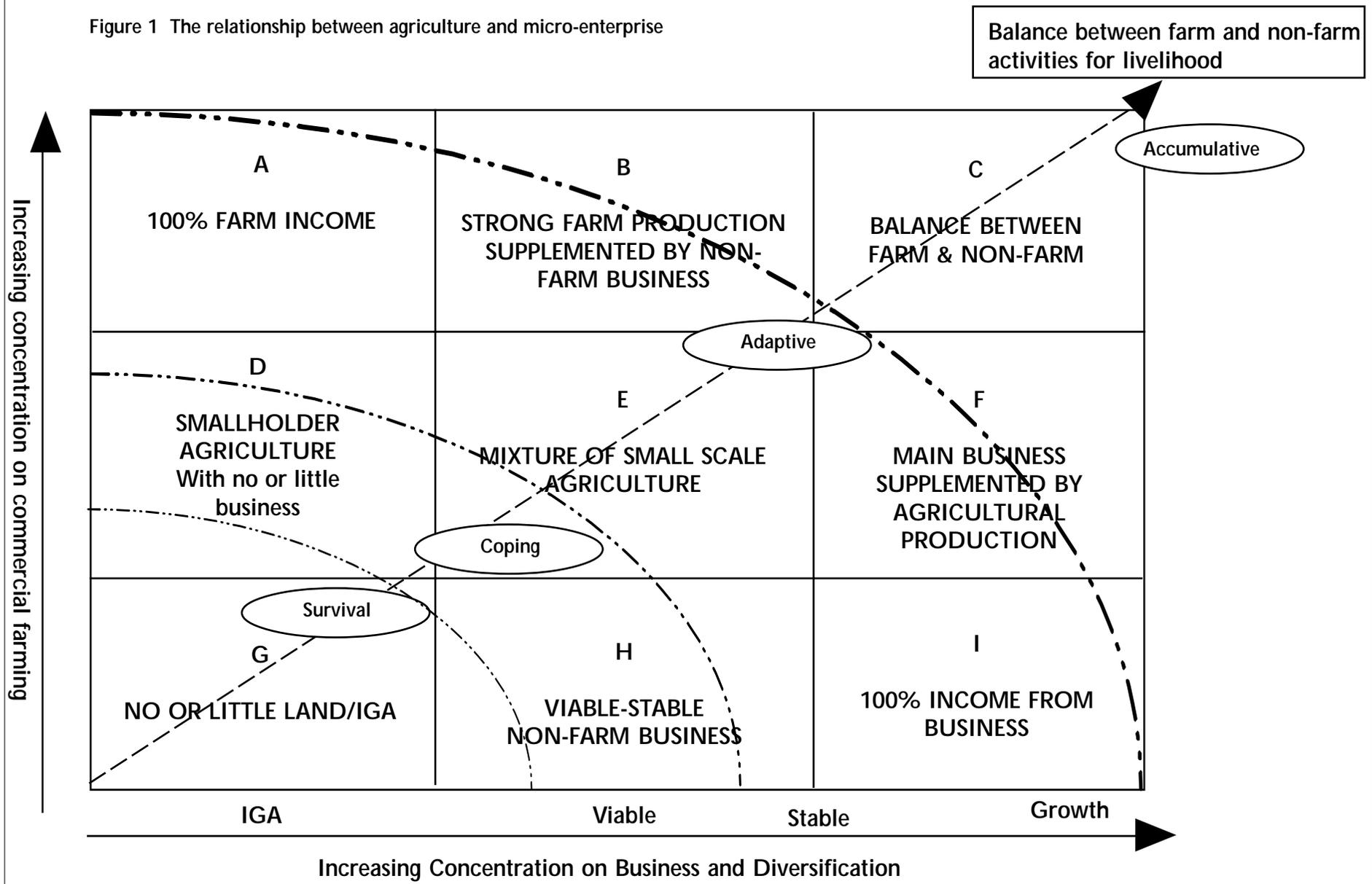


Figure 2 Southern Malawi and its hinterland

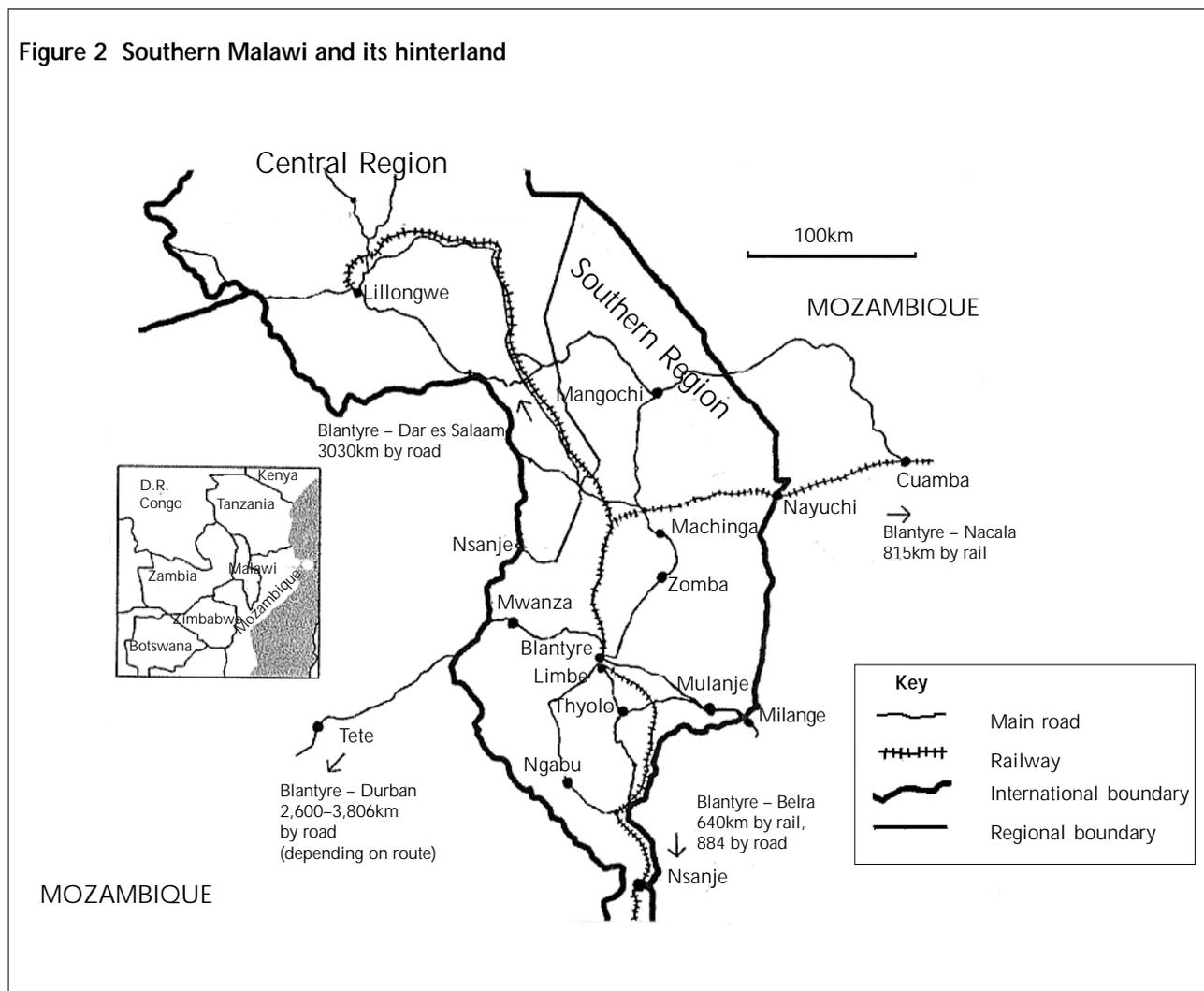


Table 1 Malawi's rural south: facts and figures

	Administrative Region			
	Southern	Central	Northern	Malawi
Households (%)	48	41	11	100
'Poor' (% hh)	51	39	11	100
Rural FHHs (%) ^b	37	20	20	32
Farms < 0.5 ha ^b	45	31	21	36
Annual income (MK per capita) ^a	4571	4821	5484	4817
of which:				
% micro enterprise ^c	17	2	1	8
% employment ^c	31	27	24	28
% farm production ^c	36	50	45	43
Maize production (kg/head/yr)	44	123	114	85
Food purchased (% of total value) ^c	50	29	28	38
Hybrid maize (% hh growing)	23	39	40	32
Tobacco (% hh growing)	3	33	16	17
Credit (MK/hh/yr)	241	696	775	402

Sources: ^a GOM (2000a). ^b GOM (1996a,b). ^c GOM (2001a). All other figures from GOM (2000b).

Note: In 1999, the official exchange rate was 44 Malawi Kwacha (MK) = US \$1.

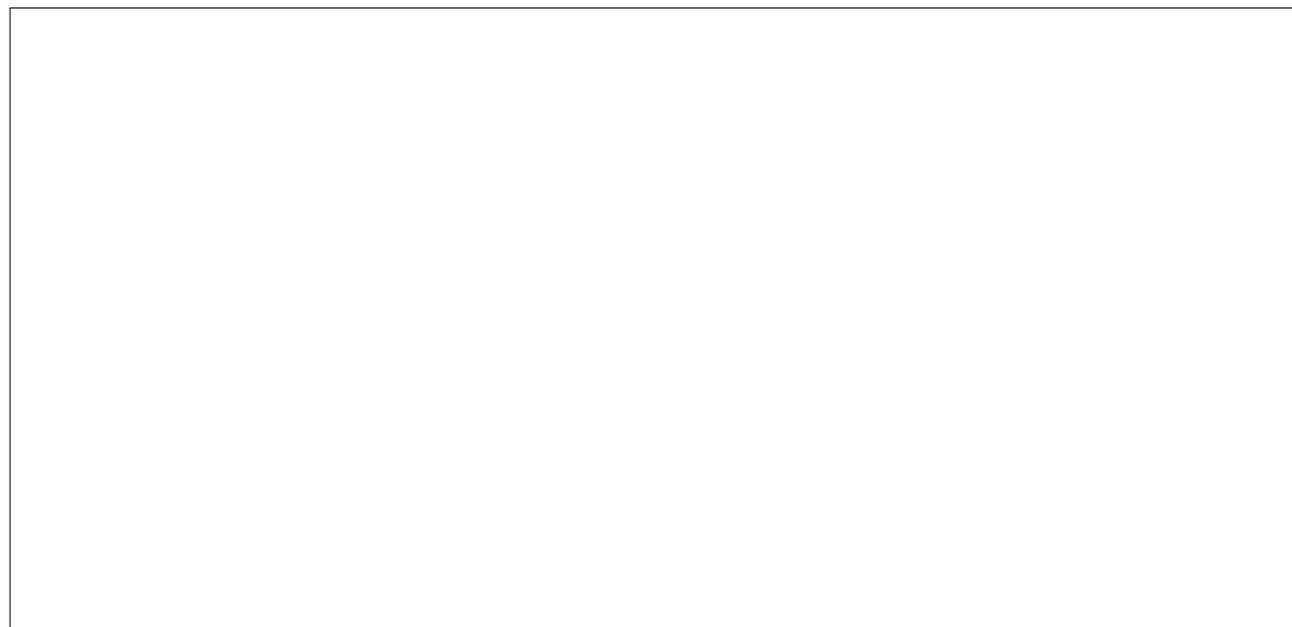
seed quality and improve access to export markets (Jones et al., 2000).

- The Smallholder Agricultural Development Programme (SADP) which introduced farmers' cooperatives in 1995. Clubs are affiliated with the National Association of Smallholder Farmers in Malawi (NASFAM) and receive credit from MRFC for production of cash crops.
- The Shire Highlands Milk Producers Association (SHMPA), an independent farmers' organisation, which has about 21,000 members supplying milk to urban markets.

Another 'structure' is the Starter Pack Scheme (SPS), intended as a welfare safety net, which supplied all rural households in Malawi with improved seed and fertiliser sufficient for 0.1 ha in 1998/9 and 1999–2000. The scheme was modified in 2000/1 to target only poorer households (Levy et al., 2000).

Capital assets

Rural households in the south have lower incomes, less land, and lower maize production per capita than other regions (Table 1). Poverty has depleted the value of social capital and informal safety nets are often inadequate (Lawson-McDowall et al., 2000; Devereux, 1999).



Livelihood strategies

Agricultural intensification

Maize: In Malawi 90% of the cropped area is planted to maize, which provides a higher share of calorie intake than anywhere else in the world (Smale and Heisey, 1997). Before the advent of Starter Packs, the adoption rate for hybrid maize was lowest in the south (Table 1). Higher input costs have reduced the continuity of adoption of both hybrid seed and fertiliser (Smale et al., 1998). Privatisation of smallholder credit has had little impact on adoption, since few smallholders were previously members of maize credit clubs (Smale et al., 1991).

Burley tobacco: Tobacco is Malawi's premier cash crop, accounting for 30% of GDP and 70% of exports by value. Despite liberalisation, only 3% of smallholder households grow it (Table 1). Burley competes for land with maize, and requires rotation to prevent build up of plant nematodes. High labour requirements are also an important adoption constraint, particularly for FHHs (Orr, 2000).

Vegetables: Roughly one-third of smallholders in Blantyre Agricultural Development Division (ADD) have access to *dimba* fields, where residual soil moisture supplemented by irrigation from streams or wells allows year-round cultivation (Orr et al., 1999). These are planted with high-value horticultural crops such as cabbage and tomato.

Intercrops and sweet potato: The area planted to grain legumes and root crops has increased sharply (Figure 3). Since pigeonpea and beans are intercropped, intensification has not reduced the area planted to maize. Similarly, the increase in area planted to sweet potato has been achieved by planting a second crop that is relay-sown with maize and a third crop planted after the maize harvest (Mwale et al., 1999). Two-thirds of the cultivated area in the southern region is intercropped, with 40% planted with just one intercrop (BDPA/AHT, 1998). This suggests there is scope for further expansion provided that households have access to seed.

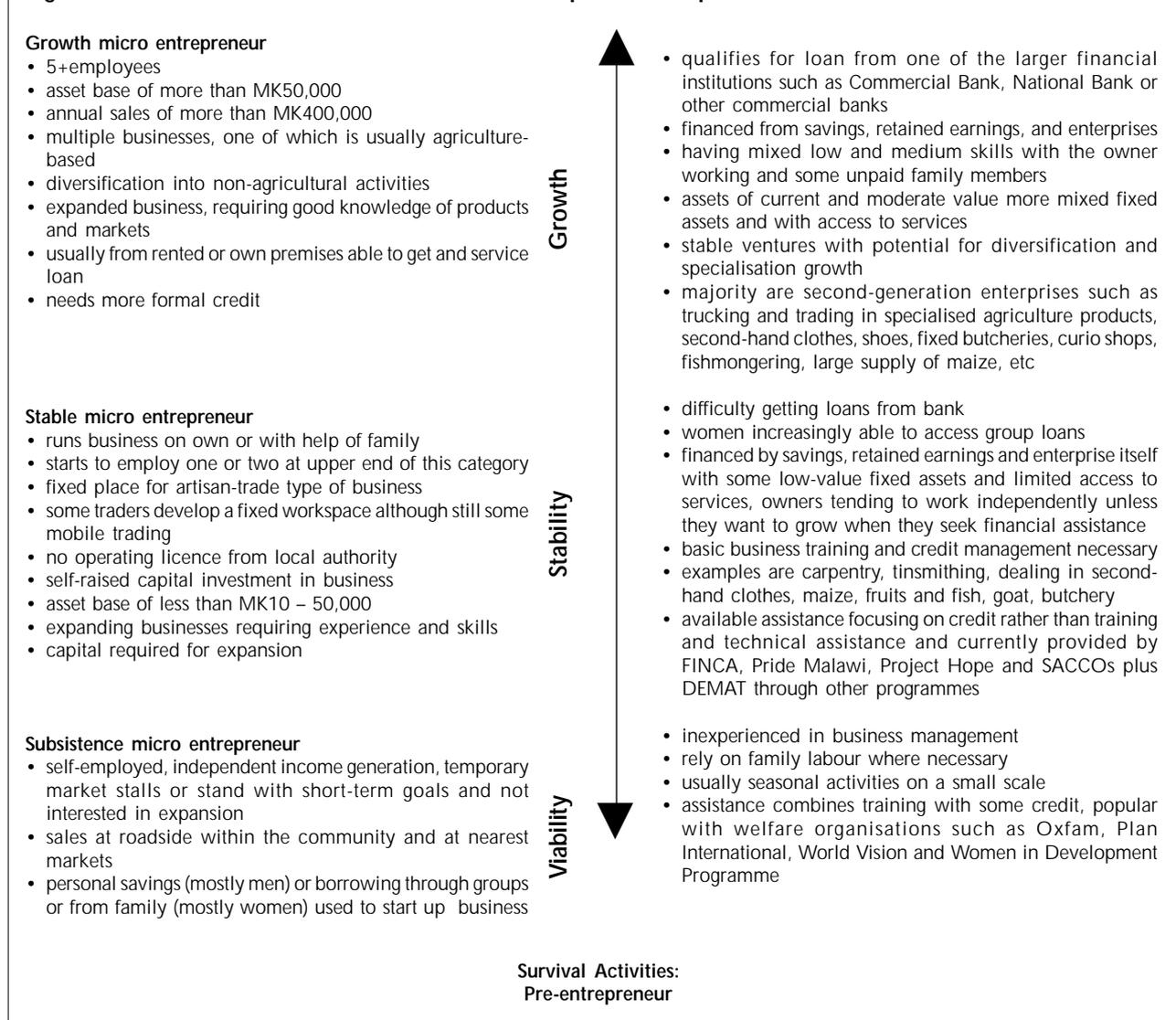
Intercrops are an important source of cash income for the poor. When households with holdings of 0.5 ha or less were questioned about their main cash crops, 31% identified sweet potato, 20% pigeonpea, 20% cassava, and 24% vegetables. These proportions were higher than for households with bigger holdings (Longley et al., 1999). Growth in the area planted to cassava is attributed primarily to market demand from urban and peri-urban consumers (Peters, 1996).

Diversification

Micro enterprise: In Malawi nine out of 10 micro and small enterprises (MSEs) employ four people or less, including the owners (GOM, 2001b). Women wholly or partly own two-thirds of MSEs. The share of income from micro enterprise is highest in the south (Table 1). Vulnerability Assessment Mapping (VAM) in Malawi shows that, of 54 Extension Planning Areas (EPAs) where household food security was primarily dependent on Income-Generating Activities (IGAs) for cash to buy maize, 42 (78%) lay in the southern region (Moriniere et al., 1996). Informal cross-border trade is an important source of income. Malawi is the main source of manufactured goods for the population of Nampula, Zambezia and Tete provinces in Mozambique, and this trade accounts for 30–50% of wholesale turnover in the southern region (Whiteside, 1998). Informal imports from Mozambique consist largely of agricultural commodities (Minde and Nakhumwa, 1998).

National survey data show a massive expansion in micro enterprise following market liberalisation. Between 1992 and 1999, the number of MSE start-ups rose fivefold, from 20,000 to 100,000 (GOM, 2001b).³ This increase in activity is confirmed by case studies of micro-entrepreneurs, which reveal growing competition in the sector (Orr and Makawa, 2000). Similarly, in Zomba District the number of trading centres has grown since 1990, as more households participate in part-time trade, and as the number of outside buyers increases, together with their radius of operation (Peters, 1998). However, this surge of activity has not been sustained

Figure 4 The business ladder: levels of micro-enterprise development



and MSE closures have equalled start-ups. Indeed, the figures show that the absolute number of rural MSEs has actually dropped by 16% since 1992, and employment in rural MSEs by 17%.⁴

How to explain this paradox of an explosion of MSE activity but little sustainable MSE growth? In large part, the explanation is that rural households see micro enterprise as a short-term, seasonal source of income rather than as a specialised activity to replace agriculture. On average, MSEs operate for only eight months of the year (GOM, 2001b). This suggests it is important to differentiate between different types of MSE.

Typology of micro entrepreneurs: Micro entrepreneurs in Malawi may be classified into different groups according to their position on the business ladder (Figure 4) (Orr et al., 1999; Orr and Makawa, 2000).⁵ Of the 30% of rural households involved in micro enterprise, 15% can be classed as subsistence micro entrepreneurs, 10% as stable micro-entrepreneurs, and 5% as growth micro entrepreneurs.

- Subsistence micro entrepreneurs
Subsistence entrepreneurs operate small, seasonal enterprises better described as income-generation

activities (IGAs). Employment is confined to the owner and help comes from unpaid family members, usually children. Examples include trading doughnuts, bananas, and farm produce. (*Geni*, the Chichewa word for petty trade, implies buying and selling the produce of others rather than sale of own-farm produce.)

- Stable micro entrepreneurs
Stable micro entrepreneurs have higher levels of capital investment and turnover, mostly operate from fixed places of trading and show evidence of diversification of activities. Employment is still confined to family members but now includes adults. Profits are large and regular enough to make market rates of interest more affordable although there is difficulty in getting formal loans. Examples of businesses at this level include carpentry, tinsmithing, second-hand clothes, maize, fruits and fish, goat and butchery.
- Growth micro entrepreneurs
Growth micro entrepreneurs have larger, multiple businesses, more assets and more formal systems of management. Operating successfully at this level

requires a good knowledge of products and markets. Capital inputs start at MK50,000 (US\$625), turnover can be anything from MK300,000 (\$3750) per annum. They usually employ staff or larger numbers of *ganyu* labour (see below). Growth businesses may qualify for loans from commercial banks. Examples include: cross-border trade, seed multiplication, transporting, maize milling, large grocery stores, commercial farming and specialist activities such as herbal medicine.

Ganyu

Roughly one-third of the working population participates in casual labour or *ganyu* (Zgovu, 2000).⁶ Being seasonal, its average share of household income is low, but it is a valuable source of income for poorer households (Whiteside, 2000). Although used primarily as a strategy to acquire cash to buy maize, one-third of participants used *ganyu* as a source of liquidity (Zgovu, 2000). A micro study of four hamlets of related households in BLADD found that only one-third of *ganyu* contracts were entered into specifically to obtain food; earnings were mainly spent on snacks, household necessities, clothing, or invested in micro enterprise (Lawson-McDowall et al., 2000).

Livelihood outcomes

Income

Malawi – perhaps uniquely for one of the first countries to experience structural adjustment – has no regular, comparable series of national income-expenditure surveys allowing analysis of poverty trends. Consequently, we lack firm macro-level evidence on the impact of market liberalisation on rural poverty.⁷ Countrywide Rapid Rural Appraisals (RRA) concluded that market liberalisation has had a negative impact on rural poverty (Evans, 1999; NEC, 1999; Khaila et al., 1999). These studies suffer from several methodological flaws, however. In particular, public discussions with large, heterogeneous groups are not a reliable method of obtaining information on sensitive topics like changes in household income (Orr and Mwale, 2001).

Micro studies in the southern region suggest that market liberalisation has reduced rural poverty. Peters (1998) showed that average per capita expenditure (a proxy for income) dropped between 1986 and 1990 by 8% but then rose by 72% in real terms between 1990 and 1997. Overall, between 1986 and 1997, real incomes rose by 59%. Income inequality worsened, with an overall *decline* in real income of 32% for households in the poorest income quartile. However, between 1990 and 1997 incomes in the poorest quartile rose by 39%. These results are even more impressive when it is recalled that incomes in the terminal year (1996/7) were depressed by a poor maize harvest. The sharp fluctuations between years also reflect the importance of income from tobacco among the sample.

Similarly, Orr and Mwale (2001) found that 58% of sample households reported an improvement in their economic status over the period 1990–2000. A decline in economic status was reported by 25% of households,

but this was due primarily to social factors (e.g., divorce, death of a breadwinner) rather than the effects of market liberalisation. Unlike the sample by Peters (1998), these households were not composed largely of burley growers but were representative of the smallholder population.

Income from crops: Only 7.5% of Malawi's rural households may be classed as agricultural entrepreneurs, defined as those selling at least half of their production with a value of US\$75 or more in 2000 (GOM, 2001b). Fertilised, hybrid maize is only profitable when grown for home consumption because of the high cost of inputs (including the imputed value of family labour) and the difference between producer and consumer prices. On a cash-cost basis, the benefit-cost ratios for sweet potato, pigeonpea, and beans are all higher than for maize (Orr et al., 2000).

Income from micro enterprise: Earnings for 60% of MSEs are less than MK20,000 per year (\$250 in 2000). Only one-third of households running MSEs reported that all their income came from this source, and one-quarter reported that it accounted for less than half their income (GOM, 2001b). Case studies of specific enterprises showed that *geni* (buying and selling) was usually the most profitable enterprise and operated throughout the year. Craft enterprises (making baskets, hoes, and granaries) had the lowest returns to labour and often employed elderly men who were physically too weak for *ganyu* (Orr et al., 2001).

Food security: Peters (1998) shows a sharp decline in households selling maize between 1990 and 1997, suggesting that they are becoming more concerned to secure their own food supply. Almost half the households studied by Orr and Mwale (2001) reported a decline in their maize production over the past decade. Among households that received Starter Packs in the southern region, self-sufficiency in maize increased by 3.1 months in 1998/9 and 1.3 months in 1999–2000 (Nyirenda et al., 2000). But recipient households still faced large maize deficits, averaging 3.7 months in 1989–99 and 5.3 months in 1999–2000. Maize availability has been increased by informal cross-border trade. When the south suffered a poor harvest in 1996/7, an estimated 50,000 mt crossed the border into Malawi, dampening the rise in prices (Whiteside, 1998).

4 INTERPRETING CHANGE IN RURAL LIVELIHOODS

Poverty, household food security, and market failure⁸

Rural poverty in Malawi is correctly identified with the absence of household food security. However, household food security is usually equated with own-production of maize. Efforts to eliminate poverty have therefore focused on intensifying maize production by promoting the adoption of hybrid maize seed and fertiliser. Successive devaluations have made this technology package too expensive for the majority of smallholders, however. As a result, fewer smallholders can afford to use the new seed-fertiliser technology continuously, and they apply fertiliser in smaller amounts than before.

This focus on household maize production overlooks the distinctive feature of livelihoods in the southern region, which is their diversity. Historically, demographic pressure on land has forced smallholders to intensify crop production and diversify household income in order to earn cash to buy maize. As a result, livelihoods in the rural south are closely integrated with markets. Market liberalisation has encouraged this diversity by giving smallholders new opportunities for cash cropping and micro enterprise. Livelihood diversity requires that poverty is viewed more broadly than from the narrow perspective of household maize production. The need for household food security must be balanced by an appreciation of the potential for income security, or the opportunity to purchase maize through the market. From a livelihoods perspective, therefore, the roots of poverty in the rural south lie as much in low income security as in low maize productivity.

In turn, low income security reflects the absence of a stable and secure market for maize. If smallholders could rely on the market to purchase maize (supplied from areas of maize surplus such as the central region of Malawi or northern Mozambique) they would be more willing to specialise in cash crops or in non-farm activities that could provide them with cash income. But because they lack confidence in this market, resources that could be used to increase income security are diverted to take care of household consumption needs. Hence, specialisation remains limited, and smallholder incomes are lower than they could be if the food market worked efficiently. Thus, an important barrier to the transition out of poverty in the rural south is market failure⁹ in the food market, which limits smallholders' involvement in market transactions.

The limits of specialisation: agriculture

The impact of this market failure is clearly illustrated by the smallholders' supply response to market liberalisation. Ten years ago, burley was confidently expected to transform smallholder agriculture. Where burley production has reached a critical mass, there have been significant increases in income, including those of the poorest households. But burley has not lived up to its promise as the engine of growth for the rural economy. Five years after liberalisation, only 3% of smallholders in the southern region were growing burley.

Instead, what seems to be happening is that smallholders are starting to occupy different technology niches, or under-exploited farm enterprises that suit each household's resource base and income strategy. Agriculture in the southern region is coming to resemble a honeycomb of technology niches. What strikes one about these niches is that each exploits a market opportunity. Vegetable growers are responding to demands from the urban market. Sweet potato producers are producing for home consumption but also for traders who purchase entire fields before harvest. Women planting pigeonpea are responding to growing demand from millers and processors supplying foreign markets. Dairy farmers are responding to urban demand for fresh milk and milk products. All these

niches are created by market demands and by increases in relative prices for the respective commodities. Attempts to create technology niches that ignore markets are doomed to failure. Farmers welcomed Starter Packs with seeds of beans and groundnuts, for example, but not seeds like soybean that had no market (Cromwell et al., 2000).

Equally striking, however, is that smallholders favour niches that *do not interfere with household food supply*. Grain legumes are planted as intercrops with maize. Similarly, vegetable production does not compete with land for upland maize, and is sequenced to avoid competition for labour needed for maize planting and weeding. By contrast, cash crops that compete directly with resources for maize, like burley, have not been widely adopted. Where households have adopted burley, their motivation has often been to obtain access to credit for maize production, rather than to maximise income from burley. In short, specialisation is limited because of the priority given to household food supply.

A recent household model developed for the southern region shows the implications of this market failure for smallholder incomes (Alwang and Seigel, 1999). In the baseline situation, the need for household food security requires that the household grows at least half its maize supply. Simulations with the model illustrate the importance of better-functioning maize markets which allow smallholders to specialise in higher-income activities:

- Relaxing the household's need to produce half its own food supply increases household income by allowing an increase in the area planted to higher-value crops.
- Reducing seasonal fluctuations in the price of maize increases household income by allowing the household to buy maize instead of producing it, resulting in more land available for high-value crops.
- Providing credit to increase liquidity boosts household food security by allowing households to increase the area planted to maize that they can fertilise, and by reducing the need to divert labour to *ganyu* employment. It also increases income security by allowing the cultivation of burley tobacco.

The limits of specialisation: micro enterprise

Despite its importance for households in the southern region, most micro enterprise is best described as *income-generating activities* that rarely develop into either stable or growth enterprises. Hence, most micro enterprise is essentially an unspecialised activity involving one or two people, carried out at or near the home, and operating for about eight months each year in order to fit in with agricultural activities and the need to secure household food supply.

Several factors explain this limited specialisation, and the failure to graduate from income-generating activities to micro enterprise:

- *Psychology of food security* – The primacy of food security in the minds of rural Malawians means that even where income-generating options are available the first choice will be to get land and grow crops for

home consumption. There is some evidence that this attitude is breaking down in peri-urban/urban areas where more stable and ready markets for maize exist and where income-earning opportunities are higher.

- *Psychology of income security* – When faced with a choice of going into business or gaining employment the latter is preferred. A regular job offers greater security and predictability as well as possible benefits. Business is risky, being subject to many factors that can affect performance, and income is variable.
- *Cultural attitudes to business* – While influencing the above thought patterns, also provide a mediating variable that hinders entrepreneurship in a number of ways. Success is often equated with witchcraft; traditional gender divisions of labour are challenged when women become involved in cash transactions (women who travel are considered to be prostitutes); and funeral practices may require the affected household not to run a business for 40 days. In addition, some religious organisations forbid the production and sale of beer (a highly profitable but socially damaging micro enterprise), while others forbid anything to do with pork. In Lomwe culture, selling maize is frowned upon even where there is a surplus, thus limiting access to cash for diversification into business.
- *Lack of credit*, along with markets and inputs discussed above, is the most commonly cited problem among existing MSEs. A current concern is that the credit methodology of the Foundation for International Community Assistance (FINCA), which insists on weekly repayments, limits business growth by not providing sufficient time to make a profit. It is likely that, as more micro credit providers come into the market, client needs will be more closely catered to. Meanwhile both the quantity and type of credit can be a limit to the growth of very small businesses. An alternative view is that successful entrepreneurs often shy away from credit and actually attribute their success to not having to pay prohibitive interest rates (Orr and Makawa, 2000) – there is a case to be made both ways.

Starting up a business is dependent on a number of variables indicating whether a person is likely to develop a growth enterprise. The following statements summarise the promoters of business start-up and subsequent growth:

- being attracted to run an enterprise rather than pushed into it by circumstance;
- natural ability (often phrased as having '*nzeru*' (wisdom) and '*mtima wa businesi*' (heart for business) and being '*kulimbikira*' (hardworking));
- growing up in a household with a business;
- travel to other countries;
- non-traditional businesses which meet basic needs (e.g. seed multiplication, cross-border trade, transportation);
- resources once business is set up;
- family support, especially from husbands – emerging as an important factor;
- confidence – which many women lack.

Most literature on micro enterprise is concerned with promoting growth businesses and nurturing entrepreneurs. Specialisation in micro enterprise, reflected in a stable or growing business, is the measure of success. However, this view of micro enterprise may not reflect the perspective of rural households, which may favour a mix of livelihood strategies including agriculture. Despite the remarkable surge of MSE activity in the 1990s, relatively few micro entrepreneurs succeeded in developing stable or growth businesses. Rather, MSEs have played a supporting role in the household economy, with the profits used to meet immediate household needs. By removing barriers to entry, market liberalisation has made micro enterprise a more popular livelihood strategy, with large numbers of rural households experimenting to find niches in the market to complement agricultural activities. At this stage of agricultural development, when the market for maize remains volatile, this is a rational strategy.

Agriculture and micro enterprise: a growing partnership?

'Rural families increasingly come to resemble miniature highly diversified conglomerates' (quoted in Ellis, 1998).

Given this context, what seems to be happening in the southern region is a growing partnership between agriculture and off-farm activities, particularly micro enterprise. Unfortunately, we cannot rigorously test this hypothesis because the databases on agriculture and micro enterprise are not comparable. While the National Sample Survey of Agriculture (NSSA) collects information on a household basis, the recent GEMINI survey of MSEs collected information for individual enterprises, without reference to households.¹⁰ Nevertheless, the evidence is suggestive.

Figure 1 shows the range of available options, with the Y axis indicating increasing specialisation in agricultural products and the X axis indicating increasing specialisation in business. The matrix offers a choice of 'career paths' through the different levels of livelihood security.

Conventionally, the career path lies along the Y axis as households strive to produce more food for family consumption. Agricultural strategies promoting both intensification and agricultural diversification push households in this direction. As we have argued, however, scope for agricultural specialisation in the southern region is limited. This has pushed households into business in order to make up the food deficit. Other households have been pulled into enterprise by factors such as the existence of an urban market and its associated demand for products, opportunities for cross-border trade and the influence of organisations targeting women in enterprise.

The picture is one of a complex balancing act between agriculture and a growing enterprise sector. The balance in any one household will depend on a range of factors (see Box 1). But whereas the typical household would previously have been placed in box D of Figure 1 (agriculture with little or no business), now households are more typically found in box E (mixture of small-scale agriculture), box F (business

Box 1 Household case studies

Agricultural Specialisation

Mr. and Mrs. C. have been renting a *dimba* garden since 1988 when they returned to Mr. C.'s home village. Their main cash crop is tomato, followed by maize, field pea, and green beans. They do not grow cabbage because the cost of fertiliser and pesticides make it less profitable than tomato. Four years ago, they had no upland field and relied entirely on income from *dimba* vegetables to buy maize. However, one year, when the price for their tomato crop was poor, they were unable to buy enough maize. They decided then to buy a maize garden. They have since bought one upland field and rent another to grow maize. Recently, after years of trying, they bought their own *dimba* garden. The cash to buy the land and build their new brick house with its sheet-iron roof all came from *dimba* cultivation. Mrs. C. has never undertaken any micro enterprise because she and her husband have been saving their capital to invest in agriculture and a house.

Balancing business and agriculture

Dissatisfied with low wages working as a night watchman and having no land for cultivation, Mr. K. started a small tyre-fitting business outside Blantyre. When the opportunity came up for his wife to obtain a FINCA loan he encouraged her to apply. The loan was used to build up the tyre business. Within a year a second shop had been opened and the business expanded to selling tyres as well as repairing and fitting them, giving the couple more income security. Meanwhile, emboldened by the newly gained respect from her husband, Mrs. K. suggested the purchase of a plot of land which enabled them to grow enough food to feed the family plus some vegetables. Following requests from neighbours, the next year Mrs. K. grew enough vegetables to sell. Recent discussions with her husband have raised the possibility of Mrs. K. herself starting an off-farm business – a situation that Mr. K. has only just come to terms with.

Specialisation in business

Mr. L. is married with four children. He has a grocery shop in the border town of Muloza and operates a cross-border trade in produce. He buys tons of maize and beans from Mozambique, which he sells in Malawi. His main market is Blantyre. A hardworking and determined man, Mr. L. was forced to start business at an early age because he could not continue his education, his family being too poor to afford school fees for the children. He first saw the opportunity in produce trading when supply was difficult but market demand high. Because of the growing economy of the area he decided to use funds generated by his trading to start the shop which is stocked with a variety of goods demanded by the townspeople. He also has a truck to transport produce to the Blantyre markets. Mr. L. plans to increase his produce buying capacity and acquire another truck to assist in transporting produce and to hire out. His businesses are valued in excess of MK 800,000 in property, and stocks earn him about MK 40,000 per month.

Sources: Mwale et. al., 2000; FINCA Impact Assessment Case Studies

supplemented by agriculture), or box C (balance between farm and non-farm). As the market for maize becomes more reliable, the psychology of food security will change and more households will begin to move into box H (stable business) and I (specialisation in business), allowing food to be bought from income.

Eliminating poverty in Malawi's rural south requires a greater understanding of these interactions, and their implications for the household economy. For example:

- Does income from micro enterprise boost agricultural productivity, and vice versa? Are they complementary?
- How does women's participation in micro enterprise affect the division of labour in agriculture?
- Are some forms of agricultural commercialisation more compatible with micro enterprise than others?
- What is the relationship between agriculture and graduation along the business ladder? Must households reach a threshold level of food security from own-maize production before they can develop stable businesses?

5 SCENARIOS

Green Revolution

In this scenario, growth in smallholder incomes is achieved by increasing maize productivity. As maize production rises, households become food-secure, and the relative price of maize starts to decline. Since expenditure on maize forms a large share of household expenditure, this represents a net gain in income for most smallholders. As incomes rise, demand grows for manufactured goods and services.

Burley tobacco, or the high road to commercialisation

In this scenario, smallholder burley acts as the locomotive for the rural economy. Smallholders now produce as much as one-half of Malawi's burley crop. Income from burley allows smallholders to invest in new seed-fertiliser technology and boost household food security. Multiplier effects from burley include increased demand for farm labour, rural goods and services. Income rises sufficiently from burley and from investment and employment linkages to allow significant graduation from poverty.

Market niches, or the low road to commercialisation

In this scenario, income growth occurs through support for market niches such as lower-value cash crops and micro enterprise. Households' existing activities are the best guide to interventions in this area. In agriculture, these include smallholder dairying, horticulture, food cash crops, and non-traditional export crops. Exploiting market potential will require industry-wide partnerships, with the private sector playing a key role in identifying markets and matching products with consumer requirements.

Comparing scenarios

Relevance

Both the Green Revolution and Burley Tobacco scenarios have reached an impasse. Malawi's Green Revolution was barely launched (semi-flint hybrids first appeared in 1990) when it was derailed by currency devaluations that put

the cost of hybrid-seed fertiliser technology beyond the reach of most smallholders. Ever since, the question of how to set the Green Revolution back on track has dominated the policy agenda. Even with subsidised Starter Packs, however, the average household in the southern region faces a maize deficit for four or five months a year. Similarly, smallholder burley has failed to live up to its promise as an engine of growth for the southern region, largely because structural rigidities in the farming system limit adoption of cash crops that compete for land and labour with maize. There is a clear pattern of regional specialisation, with burley production concentrated in the centre and north.

An alternative is the more modest Market Niche scenario that now seems to be emerging in the rural south. The example of Machakos (Kenya) shows that it is possible to achieve a broad-based increase in rural incomes without technology change in maize production, 'provided that market developments make farming profitable' (Tiffen et al., 1994: 13). Advocates of productivity-led growth have questioned the relevance of this example for Malawi's rural south, emphasising differences in agro-ecology and population density (Whiteside and Carr, 1997). The significance of Machakos, however, lies less in convergence with specific conditions than in helping us to break free of mental models like the Green Revolution that limit our thinking about development. Market linkages play a much greater role in the livelihood strategies of rural households in Africa than they do in Asia (Heyer, 1996). The challenge is to recognise this, and develop and exploit these linkages in ways that increase income for smallholders.

Approaches to market failure

Devereux (1997) distinguishes between households that are food-insecure and lack income to buy food, and those that are food-insecure but income-secure. The poverty focus of the Green Revolution is on household *food security*. The objective here is to insulate households from the consequences of market failure by increasing own-maize production. Entry points include: Starter Packs, Food for Work or Fertiliser for Work programmes, Organic Matter Technologies (OMTs) to boost maize yields, and the provision of seasonal

credit for maize production.

The poverty focus of the Burley Tobacco and Market Niche scenarios is on household *income security*. Their objective is to increase smallholders' entitlements to food by raising cash income. Entry points include: private sector partnerships linking producers with international markets (burley, pigeonpea); seed multiplication schemes (ActionAid, Integrated Food Security Programme (IFSP), Oxfam), R&D to reduce the unit cost of agricultural tradeables, and micro finance to increase the profitability of MSEs, particularly for women (FINCA, Pride Africa, Usiya Wata Credit Trust (UNCT)).

In economic terms, the advantage of the *income security* approach is that it makes the most productive use of limited economic resources and avoids locking smallholders into the production of low-value staples. However, until food markets develop and they gain confidence in this market, smallholders will continue to demand technology that improves household food security. At the operational level, therefore, the problem of market failure requires a twin-track approach to meet the need for both food and income security.

Resilience or graduation?

It is important to distinguish between poverty-reduction scenarios that strengthen 'the economics of resilience' and those that strengthen 'the economics of graduation' (Rahman, 1998).

While the Green Revolution scenario will increase *resilience to poverty*, it seems unlikely to result in *graduation from poverty*, at least in the rural south. Maize deficits among rural households are simply too big to be overcome through OMTs or welfare measures such as Starter Packs. By contrast, the Burley Tobacco scenario has proved its potential to raise households above the poverty line. Where burley production has achieved a critical mass, incomes have also risen among non-adopters. However, burley has proved suitable for only a small proportion of households in the rural south. Overall, its contribution to graduation from poverty has been limited.

Arguably, the Market Niche scenario offers greater potential for broad-based graduation from poverty, since it permits limited specialisation without threatening food supply. For this to happen, however, growth must be driven by the production of agricultural tradeables so

Table 2 Three scenarios for poverty elimination in Malawi

Scenario	1	2	3
Description	Green Revolution	Burley Tobacco	Market Niches
Strategy	Productivity-led	Market-led	Market-led
Intensification pathways	Hybrid seed-fertiliser technology	Traditional cash crop	Minor cash crops, Micro enterprise
Poverty focus	Household food security	Household income security	Household income security
Impact on Poverty	Broad-based resilience	Limited graduation	Broad-based graduation?
Food market		Market liberalisation, price stability, inter-regional trade	
Safety-nets	Required in all three scenarios		

that it is not limited by the small size of the domestic market. This highlights the importance of identifying products in which smallholder agriculture has a comparative advantage, adopting a consumer-led approach to agricultural research and development, and helping Malawi's food processing industry to compete effectively in regional and world markets.

6 CONCLUSIONS

A livelihoods approach highlights the singularity of Malawi's rural south. Changes in the *vulnerability context* have produced an agrarian structure that, combined with low productivity, means that household food insecurity and poverty are concentrated in the southern region. *Livelihood strategies* are consequently more diverse, with relatively more households engaged in agricultural labour and micro enterprise. Given this context, changes in *structures and processes* through market liberalisation have produced mixed results. Household maize production has fallen because of higher input costs. Smallholders have not adopted burley tobacco because they lack sufficient land to grow maize. On the other hand, they have responded to market liberalisation by planting more intercrops, and by increased involvement in micro enterprise. In terms of *livelihood outcomes*, although we still lack firm evidence from national income-expenditure surveys, the net effect seems to have been positive.

The challenge for policy is to recognise this singularity. Analysis of household food insecurity in Malawi has focused on structural aspects, such as the relationship between food security, access to credit, and holding size. The *geographical* dimension of household food security has received relatively little attention. This has led to one-size-fits-all scenarios for poverty reduction, without due regard for regional differences. This is not to discount the Green Revolution or Burley Tobacco scenarios for poverty alleviation. They remain highly relevant for the central and northern regions. But in the rural south, it seems likely that they will play a supporting rather than a leading role. Hybrid maize and burley will provide some room for manoeuvre, but for the majority of rural households they offer limited scope for graduation from poverty. Graduation, we argue, is more likely to result from a combination of non-traditional cash crops (such as pigeonpea) and micro enterprise. These will provide maize-deficit households with a greater measure of income security. For the majority, therefore, the primary pathway out of poverty lies not through own-food production but through increasing entitlements to food.

The paper has three broader messages. The first is the need to search for local, rather than universal solutions to rural poverty. Our mental models of development are not necessarily applicable everywhere, at all times. Experience in Malawi's rural south shows the value of understanding households' livelihood strategies and developing scenarios based on local realities. Such scenarios will require a closer knowledge of the rural economy than can be gained from rapid rural appraisal or participatory methods. Recently, such methods have overshadowed the use of farming systems

research and anthropological case-study methods but experience in southern Malawi suggests that such intensive approaches have a high payoff.

The second is the value of a household rather than a sectoral perspective in understanding the relationship between agriculture and micro enterprise. Despite the close integration of agriculture and micro enterprise at the household level, they represent (as we have said) two parallel streams in the development literature. Farm and non-farm activities are fast becoming separate fields of expertise. By categorising livelihood strategies as (farm) intensification and (non-farm) diversification, a livelihoods perspective may inadvertently foster this separation. There is a risk that these analytical distinctions will obscure their interdependence at the household level, especially in situations where imperfections in the food market inhibit rural households from economic specialisation. In southern Malawi, market liberalisation has made it vital for researchers and policy makers to understand this integration, and the potential it offers for the elimination of rural poverty.

Finally, growing interaction between agriculture and micro enterprise presents new challenges for agricultural research and extension. There is a need to differentiate smallholders not just in terms of access to land but also according to levels of non-farm income. Households that combine agriculture with micro enterprise will have different technology needs from those specialising in agriculture. They will require crops, input levels, and management techniques that do not reduce cash or labour needed for off-farm employment. Greater recognition is needed of the potential for intercrops to provide cash, not just food, for resource-poor households. Lastly, the Market Niche scenario highlights the need to improve market linkages for poorer smallholders. New technology for smallholders must be consumer-led and meet the needs of the market, and markets must be made to work for poorer producers, both indirectly by ensuring that markets are competitive and directly by encouraging partnerships between producer groups and agri-business.

REFERENCES

- Alwang, J. and Seigel, P.B. (1999) 'Labour shortages on small landholdings in Malawi: implications for policy reforms', *World Development*, Vol. 27, No. 8, pp. 1461-75.
- Bureau pour le Developpement de la Production Agricole (BDPA)/AHT International (1998) 'Draft final report on customary land utilisation study'. Lilongwe, Malawi. Mimeo.
- Binauli, L., Kunkwenzu, E., Polepole, M., and Chipeta, L. (2000) 'Sustainable livelihoods/poverty reduction, intra-household distribution, and gender aspects of Starter Pack - Module 3'. University of Reading: Statistical Services Centre.
- Carney, D. (ed.) (1998) *Sustainable rural livelihoods: What contribution can we make? Papers presented at the Department for International Development's Natural Resources Advisers' Conference, July 1998*. London: DFID.

- Cromwell, E., Kambewa, P., Mwanza, R., and Chirwa, R. (2000) 'The impact of Starter Pack on sustainable agriculture in Malawi'. 1999–2000 *Starter Pack Evaluation*, Module 4. University of Reading: Statistical Services Centre.
- Devereux, S. (1997) Household food security in Malawi. *IDS Working Paper* No. 362. Brighton, UK: Institute of Development Studies.
- Devereux, S. (1999) 'Making less last longer: informal safety nets in Malawi'. *IDS Discussion Paper* No. 373. Brighton, UK: Institute of Development Studies.
- Eigen, J. (1992) 'Assistance to women's business – evaluating the options'. *Small Enterprise Development*, Vol. 3, No. 4, pp. 4–14.
- Ellis, F. (1998) 'Livelihood diversification and sustainable rural livelihoods', pp. 53–65 in D. Carney (ed.) *Sustainable rural livelihoods: What contribution can we make? Papers presented at the Department for International Development's Natural Resources Advisers' Conference, July 1998*. London: DFID.
- Evans, J. (1999) *Rapid assessment of the impact of policy changes on rural livelihoods in Malawi*. Lilongwe, Malawi: World Bank.
- Government of Malawi (GOM) (1996a) 'National Sample Survey of Agriculture, 1992/93'. Vol. 1: *Smallholder Household Composition Survey Report*. Zomba: National Statistical Office.
- Government of Malawi (GOM) (1996b) 'National sample survey of agriculture, 1992/93'. Vol. 2: *Smallholder Garden Survey Report*. Zomba: National Statistical Office.
- Government of Malawi (GOM) (2000a) *The integrated household survey, 1997/98*. Zomba: National Statistical Office.
- Government of Malawi (GOM) (2000b) *Profile of poverty in Malawi, 1998: Policy analysis of the Malawi integrated household survey, 1997/98*. Lilongwe: National Economic Council.
- Government of Malawi (GOM) (2001a) *Detailed tables for a poverty profile of Malawi, 1998: Poverty analysis of the Malawi integrated household survey, 1997/98*. Lilongwe: National Economic Council.
- Government of Malawi (GOM) (2001b) *GEMINI Study of small and micro-enterprises*. Zomba: National Statistical Office.
- Heisey, P. and Smale, M. (1995) 'Maize technology in Malawi: a green revolution in the making?' CIMMYT *Research Report* No. 4. Mexico, DF: CIMMYT.
- Heyer, J. (1996) 'The complexities of rural poverty in sub-Saharan Africa', *Oxford Development Studies*, Vol. 24, No. 3, pp. 281–97.
- Jones, R., Likoswe, A., and Freeman, A. (2000) 'Improving poor farmers' access to technology and markets for pigeonpea in Malawi' pp. 150–7 in J. M. Ritchie (ed.) *Integrated crop management research in Malawi: Developing technologies with farmers. Proceedings of the final project workshop, Club Makokola, Mangochi, 29 Nov–3 Dec 1999*. Chatham, UK: Natural Resources Institute.
- Khaila, S.W., Mvula, P.M., and Kadzandira, J.M. (1999) *Consultations with the poor: Country synthesis report, Malawi*. (Zomba: Centre for Social Research).
- Poverty monitoring system, *Malawi Institute of Management, Feb 1–3*. Lilongwe: National Economic Council.
- Lawson-McDowall, J., Chiumia-Kaunda, C., and Simkoza, E. (2000) 'Village level safety nets: a study of resource-flows between closely-related households. Farming systems integrated pest management project'. Department of Agricultural Research and Technical Services. Mimeo, 42 pp.
- Levy, S., Barahona, C., and Wilson, I. (2000) '1999–2000 Starter Pack Evaluation Programme'. Main report. University of Reading: Statistical Services Centre.
- Longley, C., Coulter, J., and Thompson, R. (1999) 'Malawi rural livelihoods Starter Pack Scheme, 1998–99: Evaluation Report'. London: Overseas Development Institute.
- Minde, I.J. and Nakhumwa, T.O. (1998) Unrecorded cross-border trade between Malawi and neighbouring countries. USAID.
- Moriniere, L., Chimwaza, S., and Weiss, E. (1996) *A quest for causality: Vulnerability Assessment & Mapping (VAM), Malawi baseline 1996*. Lilongwe, Malawi: Famine Early Warning System (FEWS).
- Mwale, B., Orr, A., and Saiti, D. (2000) 'Adapting to adjustment: smallholder livelihood strategies in Blantyre Shire Highlands'. Vol. 2: *Household Case Studies*. Blantyre: Kadale Consultants.
- Mwale, B., Orr, A., and Saiti, D. (1999) 'Sweet potato and smallholder food security in Blantyre Shire Highlands RDP'. Farming systems IPM project, Ministry of Agriculture and Irrigation. 16 November. Mimeo, 26 pp.
- National Economic Council (NEC) (1999) *Qualitative impact monitoring of poverty alleviation policies and programmes in Malawi*. Lilongwe: NEC.
- Nyirenda, K.F.D., Musapole, R., Gondwe, H.C.Y., and Msowoya, M.N.S. (2000) *Starter Pack Scheme evaluation 1999/2000. Micro-economic impact and willingness to pay*. University of Reading: Statistical Services Centre.
- Orr, A. and Orr, S. (2001) *Changing livelihoods in Malawi's rural south: a synthesis and interpretation*. Blantyre: Kadale Consultants.
- Orr, A. and Mwale, B. (2001) 'Adapting to adjustment: smallholder livelihood strategies in southern Malawi'. *World Development*, Vol. 29, No. 8, pp. 1325–43.
- Orr, A., Mwale, B., and Saiti, D. (2001) 'Market liberalization, household food security, and the rural poor in Malawi'. *European Journal of Development Research*, Vol. 13, No.1, pp. 47–69.
- Orr, A. (2000) 'Green Gold? Burley tobacco, smallholder agriculture, and poverty alleviation in Malawi', *World Development*, Vol. 28, No. 2, pp. 347–63.
- Orr, A., Mwale, B., and Saiti, D. (2000) 'Markets and livelihoods: lessons from farming systems research in the Blantyre Shire Highlands' pp. 279–91 in J. M. Ritchie (ed.) *Integrated crop management research in Malawi: Developing technologies with farmers. Proceedings of the final project workshop, Club Makokola, Mangochi, 29 Nov–3 Dec 1999*. Chatham, UK: Natural Resources Institute.

- Orr, A., Mwale, B., and Saiti, D. (1999) 'The potential of IPM for *dimba* crops'. Farming Systems IPM Project, Ministry of Agriculture and Irrigation. 26 March. Mimeo, 43 pp.
- Orr, S., de Gabriele, J., Green, J., and Makawa, J. (1999) *Improving support services to micro-enterprise in Malawi: Action Research Report for Oxfam*. Blantyre: Kadale Consultants.
- Orr, S. and Makawa, J. (2000) *Micro-entrepreneurship in Malawi*. Lilongwe: National Economic Council.
- Peters, P. (1996) 'Conceptual quagmires, old problems, and new questions: rethinking policy assumptions about Malawi's rural economy'. Harvard, MA.: Harvard Institute for International Development.
- Peters, P. (1998) 'Agricultural commercialisation, rural economy and household livelihoods, 1990–1997'. Harvard, MA: Harvard Institute for International Development.
- Rahman, H. Z. (1998) 'Poverty in Bangladesh: A Strategic Review of Issues'. Report prepared for DFID-Bangladesh.
- Scoones, I. (1998) 'Sustainable rural livelihoods: a framework for analysis'. *IDS Working Paper No. 72*. Brighton, UK: Institute of Development Studies.
- Smale, M. and Heisey, P. (1997) 'Maize technology and productivity in Malawi', pp. 63–79 in D. Byerlee and C. K. Eicher (eds) *Africa's emerging maize revolution*, Boulder, CO.: Lynne Rienner.
- Smale, M. and Phiri, A., with contributions from G.A. Chikafa, P.W. Heisey, F. Mahatta, M.N.S. Msowoya, E.B.K. Mwanyongo, H.G. Sagawa, and H.A.C. Selemani (1998) *Institutional change and discontinuities in farmers' use of hybrid maize seed and fertilizer in Malawi: Findings from the 1996–97 CIMMYT/MoALD Survey*. *Economics Working Paper 98–01*. Mexico, D.F.: CIMMYT.
- Smale, M. with Kaunda, Z.H.W., Makina, H.L., Mkandawire, M.M.K., Msowoya, M.N.S., Mwale, D.J.E.K., and Heisey, P.W. (1991) '*Chimanga Cha Mokolo*, Hybrids, and composites: an analysis of farmers' adoption of maize technology in Malawi, 1988–91'. *CIMMYT Economics Working Paper 91/04*. Mexico, DF: CIMMYT.
- Tiffen, M., Mortimore, M., and Gichuki, F. (1994) *More people, less erosion. Environmental recovery in Kenya*. Chichester, UK: John Wiley and Sons.
- Whiteside, M. (2000) '*Ganyu* labour in Malawi and its implications for livelihood security interventions – an analysis of recent literature and implications for poverty alleviation'. *Agricultural Research and Extension Network Paper No. 99*. London: Overseas Development Institute.
- Whiteside, M. (1998) 'When the whole is more than the sum of the parts: the effects of cross-border interactions on livelihood security in southern Malawi and northern Mozambique'. A report for Oxfam GB. Email: whiteside@gn.apc.org
- Whiteside, M. and Carr, S. (1997) 'Encouraging sustainable smallholder agriculture in Malawi'. Economic and Development Consulting Ltd. Mimeo, 64 pp.
- World Bank (1995) 'Malawi agricultural sector memorandum: strategy options in the 1990s'. Vol. 2: Main Report. Report No. 12805-MAI. Washington, DC: World Bank.
- World Bank (1996) 'Malawi human resources and poverty. Profile and priorities for action'. Report No. 15437-MAI. Washington, DC: World Bank.
- World Bank (1998a) *World Development Indicators, 1998*. Washington, DC: World Bank.
- World Bank (1998b) 'Malawi impact evaluation report. The World Bank and the agricultural sector'. Report No. 17898. Washington, DC: World Bank.
- Zgovu, E. (2000) *The dynamics of the rural labour market in Malawi*. Lilongwe, Malawi: Rural Economic Policy Centre.

ENDNOTES

1. Since most of the literature on rural livelihoods relates to Blantyre and Machinga Agricultural Development Divisions (ADDs), for the purpose of this paper 'the south' is used to refer to conditions in these areas.
2. A fuller version of this section can be found in the original report (Orr and Orr, 2001).
3. Since they were excluded from the 1992 survey, these figures exclude MSEs in the agricultural or natural resources sector. Crop, livestock, and fishery MSEs have increased over the period with burley tobacco accounting for the bulk of crop MSEs.
4. Changes in MSE numbers are also difficult to interpret because of the way they were measured. The GEMINI surveys measure the number of individual enterprises. Falling numbers might reflect consolidation as households focus on more profitable activities. In addition, the 1992 survey was conducted in the dry season when MSE activity is high, whereas the survey in 2000 was conducted at the start of the planting season when activity is focused on agriculture. Thus, the fall may be partly a statistical illusion.
5. The 'business ladder' is based on Eigen's (1992) levels of entrepreneurial sophistication.
6. In Zgovu's (2000) sample, the potential working population was 1738 persons. Of these, 983 persons (56.6%) consisted of employees, job-seekers, and employers who were also employees. Of those in employment, 56.1% engaged in *ganyu*. Expressing this as a share of the potential working population (56.1 % of 56.6%) gives 31.8 % engaging in *ganyu*.
7. The Integrated Household Survey in 1997–8 provides a baseline to measure future trends. A panel of households selected from this survey is now being regularly monitored for this purpose.
8. For a fuller statement of the argument in this subsection, see Orr et al. (2001).
9. A market failure occurs when competitive markets do not achieve a socially optimal allocation of resources (i.e. Pareto optimality, where it is not possible to make someone better off without making someone else worse off).
10. Attempts to include a household dimension in the design of the survey questionnaire were rejected because 'this was not part of the GEMINI methodology'.

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