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ABOUT LADDER

LADDER is a research project funded by the Policy Research Programme of the UK Department for International Development (DFID) that seeks to identify alternative routes by which the rural poor can climb out of poverty. LADDER is working with nearly 40 villages and 1,200 households in Uganda, Tanzania, Malawi and Kenya to discover the blocking and enabling agencies in the institutional environment facing rural people that hinder or help their quest for better standards of living for themselves and their families.

This working paper represents work-in-progress and the reader is advised that it has not been subjected to academic quality control, nor edited for errors of fact or interpretation. The paper forms part of a mosaic of research findings that will contribute towards an overall picture of rural livelihoods and micro-macro links to poverty policies in the case-study countries. The findings and views expressed here are solely the responsibility of the authors and are not attributable to DFID.

All available Working Papers and Village Reports can be downloaded from the project website: http://www.uea.ac.uk/dev/odg/ladder/, which also details other information about the project. For any further enquiries, please email j.mims@uea.ac.uk.

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Summary

Research was conducted in 2001 using the sustainable rural livelihoods approach to look at the effects of macro policy events over the last 10-15 years on agriculturally based livelihoods in Central Malawi. Village level results indicated that most farming households have been adversely affected by input and market liberalisation policies. Most produce sufficient maize to supply household food needs for only 2-3 months of the year and employ a mixture of strategies in attempts to survive. Those with sufficient land and labour grow alternative food crops but many, and most of the poor, rely on piecework or ganyu, to carry them through these difficult periods. Though ganyu works as a survival mechanism it forces many poor farmers to neglect their own fields, at key times throughout the farming year, and thus its overall effect on farming-based livelihoods is negative. Better-off farmers appear more able to diversify within and away from farming to compensate for declining maize productivity. There are strong indications that farmers are likely to invest resources generated away from the farm in improved farming activities. There is huge farmer demand for advice on current and new crops and improved forms of management from the agricultural support services. The requirement for support has increased in recent years as most farmers cannot afford purchased inputs and so need alternative options for soil fertility management and pest control. They also need support in accessing inputs and advice for new crops. Unfortunately the results suggest the agricultural support services have all but ceased to function over the last 10 years, leaving farmers, the poor in particular, stranded in these difficult times. The problems appear to be not so much with the detail of policy over the last 5-10 years but the lack of resources and institutional capacity for its implementation. The MPRSP hopes to address many of the constraints to farmers identified in this research. As with previous policy, success will depend not so much on the finer policy detail but on whether the resources, capacity and will are there to carry it through sufficiently for there to be an impact on agricultural development and rural poverty the ground.

Introduction

This paper reports research carried out under the LADDER project in Malawi between 2001-2002. The objective was to use the sustainable rural livelihoods (SRL) approach to examine agriculturally based livelihoods in rural Malawi with particular attention to local impacts of the major recent macro policy 'events'. These events are the structural adjustment policies of the 1990s, the more recent Malawi poverty reduction strategy paper (MPRSP), the national Agriculture & Livestock Development strategies and the current policies concerning

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decentralisation. This research attempts to establish whether these policy processes block or facilitate the attempts of rural people to improve their livelihoods.

Following the introduction and a summary of methodology the paper moves to the research results beginning with a description of farming-based livelihoods in the study areas. It then considers recent livelihood changes in rural areas, farmers' aspirations and their views on what helps and hinders their attempts to accumulate assets and move out of poverty. Farmers' perspectives in these areas are important particularly as the MPRSP views farmers very much as "masters of their own destinies" (GOM, 2001). An attempt is then made to link the field-level findings to the macro-policy environment and then say something about the likely impact of some important proposed policies on the farming sector.

Agriculture in Malawi

The importance of farming as a livelihood is not disputed in Malawi. Smallholders constitute 80 per cent of the population and 90 per cent of the country's poor (World bank, 1996). The sector contributes 36 percent to GDP 27 percent of which comes from the smallholder farming (GOM, 2001). Soils are variable but generally deficient in nitrogen and there is evidence of significant decline in organic matter levels over recent decades (Benson, 1998, Hardy, 1998). Only 5 per cent of the land is irrigated thus agriculture is essentially rain-fed and moisture is probably the most serious constraint to productivity. This was clearly demonstrated in the early 1990s when drought had a devastating impact across the country hitting resource poor farmers particularly hard. Malawi is one of the most densely populated countries in sub-Saharan Africa and this creates pressure on land, particularly in the south and central regions. 72 per cent cultivate less than 1 ha and 41 per cent less than 0.5 ha (average area is 0.28 ha). In the South and Central regions pop densities are 265 and 254 people per km^2 respectively and the resultant land pressure prevents many farmers from practising rotation and has increased land degradation (erosion, fertility decline).

Malawi boasts the highest per capita maize consumption in the world. This crop can give high yields if well managed and surpluses were generated up until the early 1980s. 76 per cent of smallholders' land is planted to maize. Improved flinty types were introduced in the early 1990's which, together with free or subsidised input distribution programmes, caused small-holder plantings of hybrid maize to increase greatly – up to 35 per cent of the total maize grown by some estimates (Tomich, 1995). Use of fertiliser and hybrid seed has declined sharply since then, however, as input costs have escalated. Maize requires adequate nutrition, particularly nitrogen, and with the inherently low soil nitrogen levels in most Malawian soils, yields have dropped steadily over the last 20 years in Malawi as input use has reduced (Hardy, 1998).

Methodology

Eight villages in Dedza and Zomba Districts were purposively selected for this research in an attempt to capture a range of livelihood circumstances typical of rural Malawi. The research combined both secondary and primary data collection. Secondary information was mainly obtained from a review of literature, including key government of Malawi policy documents. Both qualitative and quantitative primary data were collected from the field. Key informant

interviews and focus group discussions were carried out in each village and at District level. These were semi-structured and organised around particular themes relevant to the research (e.g. recent change in village agricultural activities). A questionnaire-based survey was also conducted in the villages to obtain data on income, aspirations and other aspects of people's livelihoods that could be subjected to quantitative analysis. Within each village, a PRA wealth-ranking exercise was conducted, resulting eventually in the identification of three wealth groups (well-off, middle-income and poor) that acted as the sampling frame for a stratified random sample. A list of names of all households in each village was produced and used to place each household in one of the three wealth groups. From the wealth groups, 10 households were randomly chosen from each of the well-off and middle groups, and 15 households from the poor group, resulting in a sample size of 35 households for each village.

Wealth ranking enabled the research to capture a wide range of livelihoods within each village. More households were selected from the poorer group in order to access more information about the poor since they are given insufficient attention in many sampling procedures, and yet they are the core of government efforts to fight poverty. While care was taken to make the samples as representative as possible within the 9 villages, no claims are made about the statistical representativeness of sample findings with respect to populations in the districts that were studied nor for Malawi as a whole.

This paper concentrates on the five farming and farming/forestry communities as farming was of secondary importance in the fishing communities and they are being discussed in a separate paper (Allison, 2002). Data were disaggregated by wealth using income terciles (calculated from household income data).

Results and discussion

Farming systems

Average farm size was 1.2, 1.6 and 1.2 ha for the farming, farming/forestry and fishing community samples respectively. Distribution of land ownership is detailed in Table 1. Most households own between 0.5 ha and 2 hectares. Between 78 and 100 per cent of the respondents in the non fishing-based villages gave crop farming as their main activity. In agreement with other reports, maize cultivation dominates: 80 to 93 per cent of the village land was devoted to maize sole or mixed crops in 2001 (Table 2). The wisdom of such a high dependency nationally on maize has been questioned and alternative cereals or root crops have been suggested as more appropriate staples where, agro-ecologically, maize might not be the most suitable crop (GOM, 1995). Maize is, however, the preferred staple for most Malawians, it is the best adapted cereal crop for much of the country and has a number of other advantages (e.g. relatively low susceptibility to pests) that mean farmers will continue to grow it unless forced to do otherwise. However, it has a high demand for nitrogen and the inability of most farmers to fertilise the crop has dramatically reduced yields since the mid 1990s. As a result, approximately three-quarters of farmers in this study were unable to grow more than a quarter of the maize they needed for household consumption last year. Many farmers are growing and eating cassava, sweet potatoes and other crops to fill the gap, or engaging in *ganyu*.

Table 1. Distribution of land owned, by study location

Land owned	Study location			
	Farming	Forestry	Fishing	All
	% of sample			
None	1.4	1.4	15.8	6.6
< 0.5 ha.	12.1	4.3	9.2	9.4
0.5 - 1 ha.	31.9	17.1	21.7	25.1
1-2 ha.	42.6	40.0	40.0	41.1
2-3 ha.	6.4	28.6	8.3	11.8
3-5 ha.	5.7	8.6	2.5	5.1
> 5 ha.	0.0	0.0	2.5	0.9
Total	100.0	100.0	100.0	100.0

Source: LADDER household survey.

Table 2. Crops grown by sample households

	Study location			
	Farming	Farming/ Forestry	Fishing	All
Crops grown	Area %			
Maize/legumes	37.1	27.0	17.9	28.2
Rice/rice mix	0.0	0.0	48.4	15.7
Maize	10.5	9.9	14.7	11.7
Maize/legumes/roots	10.6	17.6	4.8	10.6
Maize/roots	3.6	11.5	3.4	5.7
Maize/millet/legumes	5.3	6.1	0.4	3.9
Other maize mix	12.1	7.9	3.1	8.0
Roots	3.0	6.7	0.1	3.1
Legume/roots	3.4	1.8	0.0	1.9
Other	6.3	4.8	0.4	4.0
Other	6.3	4.8	0.4	4.0
Unspecified	8.1	6.7	6.8	7.3
Unspecified	8.1	6.7	6.8	7.3
Total	100.0	100.0	100.0	100.0
Total	100.0	100.0	100.0	100.0

Source: LADDER household survey.

Data from the village group meetings on characteristics of the farming systems, and main off-farm activities in the study villages are summarised in Table 3.

Table 3. Farming systems and livelihoods of LADDER sample villages in Malawi

Village	Farming system	Major food crops	Major cash crops	Major livestock	Main off-farm livelihood activities
Kanyezi	maize, tobacco	Maize, cassava, groundnuts, banana, beans, rape, cabbage, millet, pigeon peas, sweet potatoes, pumpkin, (soya, Irish pots)	Tobacco, soya, paprika, Irish pots.	Cattle, goats, pigs, chickens	Brick-making, selling firewood and thatch, petty trading, *ganyu*, construction work, carpentry, milling, beer brewing, tobacco processing, (sewing, knitting and baking for some women)
Kunsinja	maize, groundnuts, dimba	Maize, vegetables and Irish pots, beans, soya, cassava in sloping *dambo* land.	Beans, Irish pots, soya, vegetables, paprika	Chickens, goats, cattle and pigs for home consumption and sale	Petty trading (e.g. selling chips), milling; selling thatch, fire-wood and handi-crafts, beer brewing, *ganyu*, brick-making, remittances
Lumwira	maize, vegetables	Maize, cassava, sweet potatoes, Irish pots.	Groundnuts, soya, peas, beans, Irish pots.	Cattle, goats, pigs, chickens	Beer-brewing, petty trading (e.g. banana, potatoes), carpentry, hawking, *ganyu*, selling firewood & poles, hiring out carts.
Chiwamba (***Phomula*** is quite similar)	maize, woodland	Maize, Irish pots, soya, beans, peas	Cassava, beans, paprika, vegetables, tobacco		Tin-smiths, tea rooms, *ganyu*, selling poles, wood-carvings, fire-wood, reeds, thatch, petty trading (fish, pots); migration, eating bananas and vegetables, cassava, beans, green maize

Source: LADDER village reports.

Livestock

All groups but particularly those in Dedza nearer the Mozambican border, claim that poor security and high risk of cattle rustling have caused the very low livestock populations and represent a strong disincentive to engage in cattle farming. As a result all samples were relatively poor in livestock assets (Table 4, also see box 1).

Table 4. Distribution of Livestock Assets in CEUs*, by Study Location

CEU ranges	Study location			All
	Farming	Forestry	Fishing	
	% of HHs with			
None	22.0	31.4	39.2	30.2
< 0.5	55.3	55.7	49.2	53.2
0.5-1	9.9	4.3	3.3	6.3
1-5	10.6	7.1	7.5	8.8
5-10	1.4	1.4	0.0	0.9
> 10	0.7	0.0	0.8	0.6
Total	100.0	100.0	100.0	100.0

Source: LADDER questionnaire survey.

*CEUs (cattle equivalent units): Pigs = 0.19; Goats = 0.11; Sheep = 0.09; Ducks = 0.02; Chickens = 0.02; Rabbits = 0.01; Pigeons = 0.004; Others = Actual price/Trimmed mean cattle price

Box 1. The risks of livestock keeping as an asset accumulation strategy

Mr Sabiele was born in 1946 in Kanyezi. Between 1970 and 1980 he was working in mines in South Africa. The money he brought back was used to buy an oxcart, fertilizer and maize seed. From the mid-80s until the 90s he engaged in maize farming. Good harvests allowed him to exchange three oxcarts of maize for one cow and also gave him enough income to educate his children. He acquired more cows through breeding and purchase so that, by 1996, he had a total of 17 cows plus an oxcart. One night in 1996 he lost his entire herd to cattle thieves. Of the 17 he managed to recover 13, losing 4. Then, in 1997, thieves struck again stealing all his remaining cattle along with herds from other households in Kanyezi and surrounding villages. He reported the theft to the police, members of Parliament and other politicians but never recovered the animals.

This has had a serious impact on his farming activities. His maize cultivation has collapsed because he is unable to afford fertilizers and has lost his source of manure. He is trying to cope by farming vegetables in his dimba to raise cash for his daily needs. His educated children are jobless so are not yet bringing additional income into the household.

The example in Box 1 demonstrates the importance of farming, both crop and livestock, in generating assets the household can then translate into other forms of capital (oxcart, education for the children etc.). In this example the theft of the cattle – the most significant

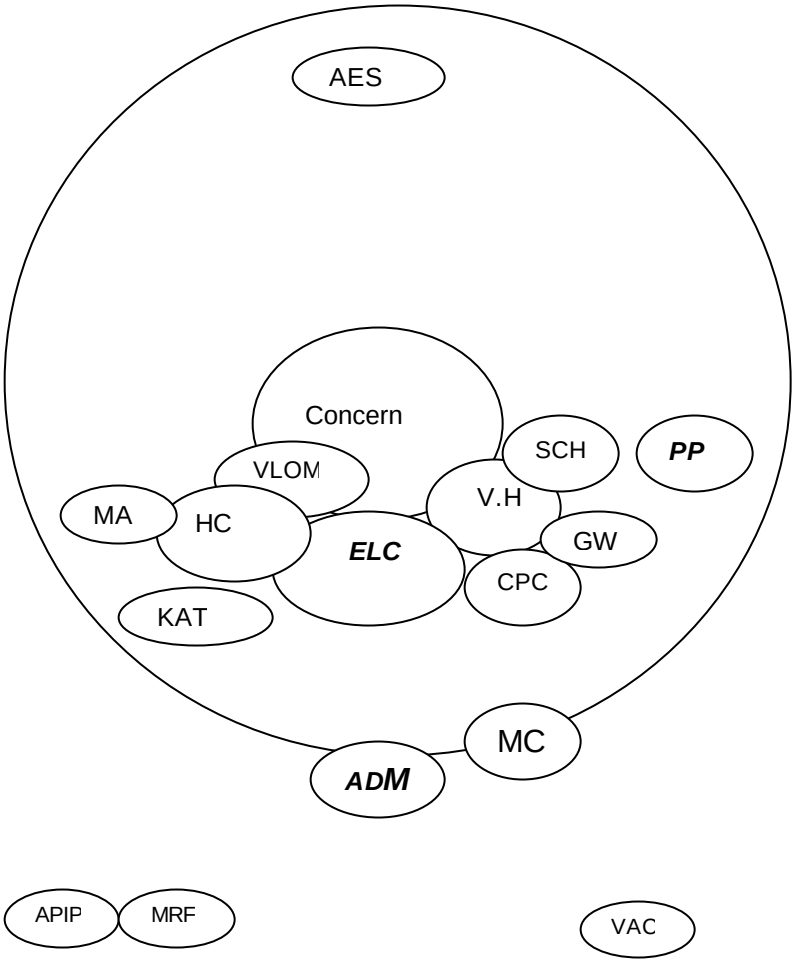
assets of the household – was a severe blow, wiping out the fruits of an accumulation strategy pursued successfully over a twenty-year period and forcing the family back into poverty. Five years on it is clear that the farmer has not yet recovered from this blow. Experiences such as this explain the reluctance of villagers, particularly in Dedza district, to invest in cattle and so one of the best paths to asset accumulation is closed to them. In Lumwira a strict new policy on the issuing of certificates to butchers by veterinary officers has significantly decreased cattle theft – a good example of relatively straightforward and easy-to-implement policy initiative with positive impact.

Institutions: helpful and harmful

The results from the participatory institutional analyses were quite similar across communities. As an example the data from Kanyezi village are presented as a Venn diagram in Figure 1. Church organisations and any NGOs active in the area (e.g. Concern in Kanyezi and Kunsinja) were generally rated highly and credited with substantial impact. In village group meetings the village authority, particularly the village headman was also always highly rated. However, he was usually present in the meetings and this may have affected responses. Some criticism of headmen came to light in household questionnaires e.g. there were complaints that the Kunsinja headman did not target the poor households with maize starter packs. Some respondents felt the headman's traditional "right" to a free bucket of beer for every round brewed for sale made beer-brewing less profitable.

Figure 1. Venn Diagram Showing the Linkages amongst the Operating Institutions in Kanyezi Village

Guide to interpretation: The closer to the centre, the more positive the impact of the institution; the larger the oval, the larger the impact; overlaps indicate linkages and overlaps between institutions; Anything located outside the large circle is thought to have a negative impact on the village.



Source: LADDER village meeting.

Key:
ADMC = Agricultural Development and Marketing Corporation (ADMARC)
PP = Political Party
AES = Agricultural Extension Services
SCH = School Committee
APIP = Agricultural Productivity Improvement Programme
VAC = Village Aids Committee

CPC = Crime Prevention Committee
VH = Village Headman
ELC = Evangelical Lutheran Church
VLOMC = Village Level Operation Management Committee
GW = Gule Wamkulu
HC = Health Committee
KAT = Katapila
MA = Malawi Social Action Fund (MASAF)
MC = Market Committee
MRF = Malawi Rural Finance

Agricultural support services

In all communities the agricultural services (crop and livestock extension officers) were rated as ineffective, largely because few villagers came into contact with them. These support services appear to be virtually non-existent in most areas and they are certainly failing to deliver appropriate advice on crop choice and management to the poor. The importance of a well-resourced, informed and motivated extension service cannot be over-estimated, particularly in Malawi where farmers are desperate for solutions to the problem of maize decline, yet the costs running these services are high. Even if resources allowed a rather optimistic ratio of one extension officer per village, time efficient ways of working are required if a significant proportion of the population is to benefit from extension activities (e.g. Kanyezi has 900 households and 6000 people). Decentralisation and privatisation of service provision is discussed below.

ADMARC and other marketing institutions

ADMARC was generally rated poorly. For a long time ADMARC had a monopoly on input and produce trading. It is widely accused of systematically favouring the estate farming sector and exploiting small-holders and because of this many farmers rate it negatively and were initially pleased to see it dismantled. From the State's perspective it was clearly inefficient and unprofitable (Tomich *et al*., 1995). However, though unfair, ADMARC was the main (and usually quite reliable) marketing institution in the village, the main source of affordable maize in the "hungry months". ADMARC used to have weekly markets in Kanyezi and Kunsinja for trading in tobacco, maize, groundnuts, beans etc. Here it was perceived as very helpful but these markets were withdrawn with liberalisation in 1999. Private traders are the alternative but they are generally viewed more negatively than ADMARC as they offer lower prices and take advantage of ill-informed and scattered producers. In several village meetings they were described as unscrupulous, operating with a ‘take it or leave it’ attitude – some product markets have disintegrated as a result. In more remote areas when ADMARC withdrew, the vacuum was not filled by private traders often because poor accessibility made sourcing produce unattractive or uneconomic. In response to this ADMARC reopened unprofitable markets in some areas in the late 1990s but, suffering cash-flow problems in recent years, is sometimes unable to purchase crops and prices are often low. E.g. in Lumwira ADMARC was ranked very negatively for running out of money for purchasing beans in 2001– the most important cash crop in the village. In another village it only bought back sufficient tobacco in 2000 to cover costs of the loans it gave out. Farmers

had to sell the rest below input cost price. Thus, even where ADMARC has returned, it is clearly not providing a reliable service. The very negative ratings ADMARC receives appear grounded but, at the same time, reflect the important contribution of this service to farming security in times past.

Most farmers are clearly concerned about prices they are paid for produce but fears about market instability are just as great.

Recent changes in farming

During the village discussions farmers were asked, how their farming activities and factors influencing them had changed over the last 10 years. Their responses are summarised in Table 5. A mix of biophysical, economic and institutional constraints were highlighted in all villages. Declining (maize) productivity, often linked to soil exhaustion/low fertility was the one most frequently mentioned. Some highlighted increasing pest and disease problems but, in the questionnaire responses, few claimed that land shortage was a significant constraint at this time. However, increased land-use intensity was mentioned in several group meetings (e.g. Lumwira) and a number of studies suggest this has, in most areas, been part of the emerging complex of problems over the past 5-6 years. All farmer groups and the great majority of individual farmers mention lack of credit, high input prices (hybrid seed and fertilisers) and low/unreliable market prices as major constraints to production.

During the questionnaire survey individuals were asked, in broader terms, how their livelihoods had changed over the same 5-10 year period and these responses are summarised in Table 6. In general farmers claim to be growing a greater diversity of crops than 10 years ago with one or two important cash crops emerging, notably soyabean and paprika. Cattle ownership has declined greatly and many farmers blame this on rustling as discussed above.

Table 5. Summary of recent farming-related change in study villages

Village	Crops and livestock			Other changes in last 5-10 years
	Currently	5 years ago	10 years ago	
Kanyesi	**Food:** Irish potatoes, beans, maize, grounduts **Cash:** paprika, soya, tobacco	**Food:** maize, groundnuts, beans **Cash:** tobacco, soya	**Food:** maize, beans, groundnuts **Cash:** tobacco,	
Kunsinja	**Food:** Irish potatoes, beans, maize, **Cash:** vegetables, soya, paprika. **Livestock:** reduced livestock	**Food:** maize, Irish potatoes, beans, **Cash:** soya, **Livestock:** reduced livestock (theft was rampant)	**Food:** maize, beans, **Livestock:** many livestock	Reduced access to credit, inputs, markets. Increased unemployment. Land fragmentation. *Ganyu* increasingly common. Depletion of forests and fuel-wood sources. Reduced security (associated with Mozambican refugees). *Dambos* were used only for grazing, now fully utilised for crops. Increased involvement in non-farm activities. A greater proportion of income is now spent on caring for the sick. More crop pests and diseases.
Lumwira	**Food:** maize, beans, soya, Irish pots, sweet pots, bananas, cassava, **Cash**: soya, groundnuts, Irish pots, beans. **Livestock:** rabbits, guinea pigs	**Food:** maize, beans, soya, Irish pots, bananas, cassava, **Cash:** soya, groundnuts, Irish pots, beans. **Livestock:** cattle, goats, pigs, chickens	**Food:** maize, beans, Irish pots, bananas, cassava, **Cash:** soya, groundnuts, Irish pots, beans. **Livestock:** cattle, goats, pigs, chickens	Much reduced service from AES; fertilisers applied by most 10 years ago are now beyond the reach of most; increased problems with pests and diseases, declining productivity more land fragmentation. Few livestock pests or security problems 10 years ago – serious now. Increased input prices, more difficult marketing as ADMARC became less effective. Relatively few non-farm activities – increase in all those mentioned above.
Chiwamba (Phomula similar)	**Food:** maize, Irish potatoes, soya, beans, peas, bananas **Cash:** cassava, beans, paprika, vegetables, tobacco **livestock:** cattle, goats, sheep, chickens	Beans, peas, groundnuts, Irish potatoes, bananas, sweet potatoes. livestock: as now	Beans, peas, groundnuts, Irish potatoes, bananas, sweet potatoes livestock: more cattle	Cattle rustling since 5-6 years ago. Sources of income not thought to have changed greatly in last 10 years, though selling poles, firewood, reeds, thatch and *ganyu* more prominent. land more scarce and fragmented

Source: LADDER village group meetings.

Table 6. Villager responses to questions on recent change (per cent values in brackets)

Question	**Income tercile**	**farming area**			**farming/forestry area**		
		Yes/more/ improved/ increased	No/fewer/ worsened/ reduced	Same	Yes/more/ improved/ increased	No/fewer/ worsened/ reduced	Same
Has the HH started "new" farming activities in the past five years?	I	13 (28)	34 (72)	-	10 (43)	13 (57)	-
	II	20 (43)	26 (55)	-	13 (54)	11 (46)	-
	III	23 (49)	23 (49)	-	11 (48)	11 (48)	-
	total	***56 (40)***	***83 (59)***	**-**	***34 (49)***	***35 (50)***	**-**
Would the HH like to start "new" farming activity?	I	38 (81)	9 (19)	-	21 (91)	2 (9)	-
	II	45 (96)	2 (4)	-	19 (79)	5 (21)	-
	III	39 (83)	7 (15)	-	21 (91)	2 (9)	-
	total	***122 (87)***	***18 (13)***	**-**	***61 (87)***	***9 (13)***	**-**
Does the household rely on more or fewer non-farm activities than five years ago?	I	11 (23)	21 (45)	12 (26)	9 (39)	8 (35)	6 (26)
	II	15 (32)	15 (32)	14 (30)	6 (25)	9 (38)	9 (38)
	III	19 (40)	11 (23)	15 (32)	9 (39)	4 (17)	9 (39)
	total	***45 (32)***	***47 (33)***	***41 (29)***	***24 (34)***	***21 (30)***	***24 (34)***
Would the household prefer to engage in more or fewer non-farm activities in the future compared with the present?	I	22 (48)	16 (35)	6 (13)	14 (61)	9 (39)	
	II	32 (68)	9 (19)	5 (11)	16 (67)	6 (25)	1 (4)
	III	32 (68)	4 (9)	10 (21)	10 (43)	4 (17)	8 (35)
	total	***86 (61)***	***29 (21)***	***21 (15)***	***40 (57)***	***19 (27)***	***9 (13)***
During the past five years has the “situation” of the household been improving, worsening or remaining the same?	I	4 (9)	35 (74)	8 (17)	1 (4)	20 (87)	2 (9)
	II	5 (11)	31 (66)	10 (21)	1 (4)	23 (96)	
	III	12 (26)	26 (55)	8 (17)	4 (17)	13 (57)	5 (22)
	total	***21 (15)***	***92 (65)***	***26 (18)***	***6 (9)***	***56 (80)***	***7 (10)***
During the past ten years has the amount of land reduced, increased or stayed the same?	I	1 (2)	12 (26)	34 (72)	5 (22)	9 (39)	9 (39)
	II	5 (11)	9 (19)	32 (68)	2 (8)	8 (33)	14 (58)
	III	7 (15)	11 (23)	28 (60)	2 (9)	5 (22)	15 (65)
	Total	***13 (9)***	***32 (23)***	***94 (68)***	***9 (13)***	***22 (31)***	***38 (54)***

Recent change and aspirations

Most respondents (80-90 per cent) across all wealth groups and study areas are eager to expand their farming activities but only 40 per cent of those in three predominantly farming-based villages feel they are engaged in more farming related activities than they were five years ago – fewer than 30 per cent of the poorest income tercile. This does suggest that many, and particularly the poor, are unable to diversify within agriculture in the way they would like (Table 6). The consensus in all village meetings was that farming will continue to be of key importance and the priority should be to remove barriers to better agricultural production. The data suggest that the effects of diversifying within farming are positive – 45 per cent of the households in the poorest tercile feel their farming activities have become less diverse over the last ten years, while 23 per cent feel the diversity has increased. Conversely only 23 per cent of those in the richest tercile feel their farming activities are less diverse and 40 per cent believe diversity has increased. Logically, where households are unable to grow sufficient food their main wish is to be able to do so. Much of the interest and aspirations across all income terciles relate to maize. The consensus is that land-use is intensive, soils are exhausted and farmers are unable to give the crop what it needs. There is every reason to expect that a large proportion of money generated from on-farm and non-farm diversification is likely to be spent on seed and inputs for maize, once food needs have been met. Several respondents mention that they have used money generated form paprika sales to buy fertilizer for maize garden.

35 per cent of the poorest tercile would like to engage in fewer non-farm activities. 48 per cent of this tercile would like to engage in more. This contrasts with terciles II and II of which 68 per cent would like to engage in more non-farm activities. This different perspective on non-farm activities by the detailed responses indicating that the poorest tend to engage more in *ganyu* than other income groups. In some group meetings (e.g. Kanyezi) there was a feeling that the profit margin from non-farm activities is low but, again, this view is probably because *ganyu* represents most people's experience of non-farm activities. In Lumwira, another village where many view non-farm activities negatively, many are unable to meet household food needs (they run out 3 months after harvest) hence they engage in a number of off-farm and non-farm income generating activities to generate cash to buy maize. They feel forced but ill-equipped to move away from farming.

Table 7. New farming related activities taken up in the last 5 years. N = 47 & 23 for each income tercile for farming & farming/forestry samples respectively

Main activity	Income tercile (1 = low)		tobacco	Irish potatoes	soyabean	peas	groundnut/ beans	goats&pigs	small livestock	cassava	vegetables	paprika	new farming activities of any kind
farming	I	Count	1	5	1	2	1	1	1	1	0	0	12
		%	**2**	**11**	**2**	**4**	**2**	**2**	**2**	**2**	**0**	**0**	**26**
	II	Count	1	10	6	1	1	1	5	4	2	0	19
		%	**2**	**21**	**13**	**2**	**2**	**2**	**11**	**9**	**4**	**0**	**40**
	III	Count	0	6	5	1	1	7	4	2	2	0	21
		%	**0**	**13**	**11**	**2**	**2**	**15**	**9**	**4**	**4**	**0**	**45**
	Total	Count	2	21	12	4	3	9	10	7	4	0	52
		%	**1**	**15**	**9**	**3**	**2**	**6**	**7**	**5**	**3**	**0**	**37**
farming/ forestry	I	Count	0	2	0	1	1	2	3	1	1	2	9
		%	**0**	**9**	**0**	**4**	**4**	**9**	**13**	**4**	**4**	**9**	**39**
	II	Count	0	2	0	1	1	0	2	6	1	2	13
		%	**0**	**9**	**0**	**4**	**4**	**0**	**9**	**26**	**4**	**9**	**57**
	III	Count	0	4	0	1	1	0	2	4	0	3	11
		%	**0**	**17**	**0**	**4**	**4**	**0**	**9**	**17**	**0**	**13**	**48**
	Total	Count	0	8	0	3	3	2	7	11	2	7	33
		%	**0**	**12**	**0**	**4**	**4**	**3**	**10**	**16**	**3**	**10**	**48**

For those who have successfully moved into new farming activities mentioned by farmers most have started growing new crops – 38 per cent of new activities as opposed to 13 per cent involving livestock (not cattle but goats, pigs or smaller: poultry, rabbits, hairs, guinea-pigs, mice). Rather few have taken up tobacco farming recently reflecting the decline in relative attractiveness of this crop. In the farming area Irish potatoes appear to be the most accessible new crop for poor farmers with soyabean more accessible to the middle and upper income terciles. Irish potatoes is the most common new crop across all income groups and both regions. Where paprika is grown slightly more from the richest income tercile have started to grow it but some farmers from all groups have been able to take it up. In the farming/forestry based communities relatively large numbers of households in the middle and higher income terciles have taken up cassava growing whereas this is a much less significant new crop in the farming area.

Vegetable production (Irish potatoes, particularly) are a somewhat less risky option as they can be sold at local markets. Dambo land can be used very productively for vegetables but most is already occupied and there is little scope for expansion in this area in the communities sampled.

In the farming/forestry areas many of the households in the middle and wealthier tercile have started growing cassava. This is primarily a food crop, grown to supply the household with food during the months after the maize supply is exhausted. That relatively few of the poorest households have taken up growing cassava perhaps reflects their lack of land to devote to this crop. In contrast relatively more of the poorest households have moved into livestock (small and large) production in the last 5 years.

Table 8 summarises farmers' explanations of why they have not been able to expand their farming activities, cash-cropping particularly. The most common reason given is lack of capital and inputs (59 per cent and 56 per cent in the farming and farming/forestry communities respectively). A few claim they are satisfied with what they have or are too weak and/or old to take up new activities and surprisingly few claim to be constrained by land. Whereas 38 per cent and 20 per cent of the wealthiest terciles claim to be satisfied with their situation only 13 per cent and 15 per cent of the poorest terciles claim the same (in the farming and farming/forestry communities respectively). Age/ill health, lack of land and lack of information are also significant constraints to some people but not as frequently mentioned as capital/input constraints.

Table 8. Reasons for non-uptake of new farming activities in the last five years (data are from those claiming not to have expanded their farming activities over the past five years)

Main activity	income tercile (1=low)		no capital/ inputs	too risky - marketting particularly	lack of information or advice	lack of land	old/ ill health	satisfied
farming	I	Count	21	1	0	2	2	4
		%	70	3	0	7	7	13
	II	Count	16	0	3	2	1	3
		%	64	0	12	8	4	12
	III	Count	8	0	0	3	2	8
		%	38	0	0	14	10	38
	total	Count	45	1	3	7	5	15
		%	59	1	4	9	7	20
farming/ forestry	I	Count	6	1	2	1	1	2
		%	46	8	15	8	8	15
	II	Count	6	0	1	0	2	0
		%	67	0	11	0	22	0
	III	Count	6	1	0	0	1	2
		%	60	10	0	0	10	20
	total	Count	18	2	3	1	4	4
		%	56	6	9	3	13	13

It was clear from the village discussions and the questionnaire responses that there is little or no credit provision in any of the villages. Poor farmers are effectively excluded from the 'clubs' that disseminate information, inputs and often credit required for growing new crops such as paprika because of the high joining fees. There is also great uncertainty around the marketing of cash crops. The declining market value (only 60 per cent of its value 5 years ago) and rising input costs of tobacco mean this is no longer an attractive crop for many small-holders. In Kanyezi farmers report that maize and soyabean farm gate prices have increased 2.4 and 10 times respectively over the last ten years whereas maize seed prices and fertilisers have increased 80 and 20 times respectively in the same period (calculated from price data collected at Kanyezi village meeting). This explains the current popularity of soyabean. Tobacco prices are only 60 per cent of their level 5 years ago and input costs are rising, hence many farmers are trying to get out of tobacco farming. Paprika has emerged over the last few years as a profitable alternative but already (e.g. in Chiwamba) prices are falling fast as more are growing the crop and traders, due to lack of competition in marketing,

are using this to force prices down. Soyabean is now the crop that many farmers want to move into. As with paprika, however, any traders enjoying a monopoly will eventually drive the price downwards. Cash cropping is an uncertain business at the moment, where success depends on access to market information and an ability to adapt quickly to changing demands. Those least able to do this will always be the resource poor farmers in remote locations with little or delayed access to information on new crops or management techniques. An effective, informed extension service is crucial here but the current marketing institutions fall a long way short, in terms of stability and coverage, of what is required if the poorer majority in rural areas are to venture into cash cropping.

Non-farm income generating strategies

82 per cent of the farming and farming/forestry samples are engaged in some kind of non-farm activity (Table 9) with similar levels of involvement across the three income terciles. Almost 45 per cent of the respondents engaged in *ganyu* with all the income terciles involved though more of the poorest tercile (49 per cent) than the richest tercile (34 per cent). 'Business' (largely petty trading and transport) and beer brewing are the next two most significant non-farm activities with 27 per cent and 17 per cent of the whole sample engaged in them respectively. Almost twice as many respondents in the richest tercile were engaged in 'business' compared with the poorest tercile. Involvement in beer brewing was quite even across the three terciles.

Though all types of households are engaged in non-farm activities only the 'well-off' appear to have better access to some of the more attractive options. The questionnaire responses suggest this is because of the start-up costs involved with venturing into activities such as carpentry, maize milling, small-scale trading etc. Engaging in seasonal work on other farmers' fields or *ganyu* is by far the most common non-farm activity with 46 per cent and 43 per cent of the farming and farming/forestry samples engaging in this. In some villages e.g. Kanyezi there seems to be a lot of labour available for hire for piecework and the poorer households, in particular, are very reliant on *ganyu* to generate cash to buy food when their own maize runs out (in some cases people are paid in maize meal for *ganyu*). As a result poor families tend to spend less time in their own fields at crucial times of the year – in this way *ganyu* can promote poor productivity and a cycle of poverty. In all communities farmers are suffering from the apparent paradox, also described by Alwang and Siegel (1999), of labour shortage on small farms. Holden and Binswanger (1998) also report sub-optimal land-use in Malawi by farmers who are 'too poor to be efficient' due to their need to engage in *ganyu*. Late land preparation planting can easily reduce crop yields by 20-30 per cent or more (GOM, 1993) particularly in low input systems where the flush of nutrients from the soil with the first rains are rapidly lost if not taken up by the crop. Late sown crops can also be more vulnerable to late season droughts.

Table 9. Proportion of Households Engaging in Non-Farm Activities, by Per Capita Income Terciles, Dedza District (i.e. farming and farming/forestry households combined)

Non-farm activity	District per capita income terciles						Total	
	I		II		III			
	Count	% HHs	Count	% HHs	Count	% HHs	Count	% HHs
Gaanyu	34	48.6	36	51.4	24	34.3	94	44.8
Seasonal wages	4	5.7	6	8.6	7	10.0	17	8.1
Regular wages	2	2.9	2	2.9	1	1.4	5	2.4
Private sector salary	3	4.3	3	4.3	5	7.1	11	5.2
Govt. salary	1	1.4			1	1.4	2	1.0
Business	14	20.0	16	22.9	26	37.1	56	26.7
Other non-farm	2	2.9	1	1.4	2	2.9	5	2.4
Beer brewing	11	15.7	12	17.1	13	18.6	36	17.1
Building material	1	1.4	4	5.7	2	2.9	7	3.3
Fuelwood	2	2.9	5	7.1	2	2.9	9	4.3
Grass (udzu)	2	2.9	4	5.7	2	2.9	8	3.8
Mat making	6	8.6	2	2.9	5	7.1	13	6.2
Pottery	5	7.1	1	1.4	4	5.7	10	4.8
Smoking fish	1	1.4	2	2.9	3	4.3	6	2.9
Weaving dengu	1	1.4	4	5.7	6	8.6	11	5.2
Other ONR	3	4.3	7	10.0	8	11.4	18	8.6
None	15	21.4	12	17.1	11	15.7	38	18.1
Any non-farm/ONR	55	78.6	58	82.9	59	84.3	172	81.9

Worse or better off than before?

The data from the village group meetings and the individual questionnaires (Table 6) agree in indicating that a large majority of the people in the sample believe they are worse off than five years ago. Most blame this on rising fertiliser and hybrid maize seed costs and associated declines in maize yields and food security since the mid 1990s. For example, in Kunsinja village group meeting the consensus was that people could only cope these days by selling their labour and food supplies and/or migrating seasonally to cities in search for low paid jobs. Alternative 'coping' strategies in this and other villages include eating pumpkins, cassava meal, green maize and local beans but those with little land or *ganyu*-enforced labour shortage were less able to grow alternative crops. They are being forced to diversify away from crop production in order to survive. This finding agrees with a number of studies that suggest the effects of structural adjustment policies on small-holders have been largely negative (e.g. Evans, 1998).

Orr and Mwale (2001), question the negative effect of SAP in rural areas on the basis of their research in the Blantyre Shire Highlands where they found that the majority of small-holders are better off as a result of SAP. Their chosen study area did, however, appear to differ in some important ways from much of rural Malawi. Only 20 per cent of the households they surveyed were food-insecure; *ganyu* did not seem to figure much in people's activities, nor did credit as a route to accessing fertiliser. These characteristics suggest a relatively well-off population, with more room to manoeuvre than the bulk of rural Malawians. Certainly the majority of farmers in the LADDER study, across all areas and wealth groups, felt worse off than five years ago.

Policy

Structural Adjustment Policies

Elements of reform associated with structural adjustment have gone ahead during the 80s and 90s (GOM, 2001). These include the liberalisation of agricultural input suppliers (fertiliser, improved seed) and, linked with this, the dismantling of parastatals involved in supplying credit, inputs, processing and marketing services – most notably ADMARC. As in many countries these dismantling and withdrawal processes were effected relatively rapidly and, whilst it was acknowledged that there was a need for the private sector to step in to provide these services, this generally hasn't happened, particularly in areas remote from main roads (GOM, 2001, Bryceson, 2002). Bryceson (2002) refers to SAP policies as 'turning-point' policies in Malawi blaming the collapse of the small-holder commercial agriculture sector on the removal of input subsidies. This view is largely supported by this research.

Agriculture and Livestock Policy

Policy in the agricultural sector was set out in the 1995 Agricultural and Livestock Development Strategy and Action Plan (ALDSA). This document articulates a vision for development of the agricultural sector largely following the growth linkages model: technological advances in agriculture leading to increased productivity, market-oriented farming and rising incomes which, in turn stimulate the demand for non-farm goods and services etc.

There were some inconsistencies apparent in these proposals. Despite the clear awareness that most households cannot afford the entry costs associated with starting many types of cash-crop farming, stimulating market-oriented agriculture was still central to the proposals. The plan advocated the need to maintain soil fertility, improve productivity, conserve natural resources, improve food security, income earning opportunities, welfare etc. Yet there was little evidence that much, if any, of this was achievable with the capacity and resource constraints then in Malawi.

There were many sound elements in what was being proposed, however. Some effort was made to identify different options for maize farming for poor and less poor farmers. E.g. farmers with little access to finance for hybrid seed or fertiliser were to be encouraged to intercrop local or composite maize with pigeon pea or other legumes and/or establish agroforestry for soil fertility improvement. It was recommended that seed and fertiliser should be made available in small packs. Higher income farmers would be encouraged to grow hybrid maize under higher input levels. More drought resistant crops were to be promoted in drier areas where maize cultivation is risky etc. The importance of demand driven approaches to agricultural service provision were also acknowledged as is the need for strong research-extension-farmer linkages. The plan proposed more PRA-based, interactive extension methods; the dissemination of low cost, demand driven messages to poor smallholders; intensive training for both extension officers and farmers on new technologies. On the other hand, it was recognised that MoALD funds are insufficient to allow field officers to make many and that the funding situation was unlikely to change.

Policy impact and macro-micro links

Though the ALDSA is in accord with much current thinking in approaches to agricultural development it is clear from the LADDER village level studies that, seven years on, the vast majority of Malawian farmers have not been touched in any positive way by the action plan – very little has been implemented. A refined analysis of the detail seems a little redundant. It may be more useful to try to identify the more fundamental reasons that have caused the ALDSA to stall.

The over-whelming impression is not of fundamental flaws in the policies but more of a substantial mismatch in what these proposals require and the resources and institutional capacity available for their implementation. The Malawi Agricultural and Livestock Sector Investment Programme (MASIP) was proposed to address this resource constraint, defined as the key vehicle through which development assistance from the donor community would be channelled. It was also designed to address problems of overlap and inconsistency between different donor initiatives and lack of Malawian ownership of some donor-funded activities in the agriculture sector. A review of policies in the agriculture in 1999 re-emphasises its importance of MASIP (MoAI, 1999) but, even when the resources are available the institutional weaknesses will take a long time to resolve.

There appears to be a problem with the implementation of any policy involving large amounts of investment, organisation and co-ordination from central Government. MASIP has only relatively recently got off the ground but there are major institutional capacity constraints at every level from Central government down to district, ward and village level. Some of the reasons for these constraints are discussed elsewhere (Cross and Kutengule, LADDER paper No. 4) but it is likely that District administrations will struggle just as much as the central administration to reach the poor small-holder.

The Malawi Poverty Reduction Strategy paper (MPRSP)

The MPRSP (GOM, 2001) is the key over-arching policy document in Malawi today summarising the Government's cross-sectoral approach to achieving poverty reduction. Within agriculture it recognises most of the problems and needs uncovered in this research and proposes to address them with policies to strengthen the extension service, improve farmers' access to inputs and continue with the safety net policies of maize starter packs. As with the 1995 policies, many of these policies are appropriate but whether they succeed of fail depends on whether Malawi can successfully resource and develop the capacity to implement these policies. The MPRSP is explicit about the need to focus on implementation but the mechanisms for ensuring and evaluating efficient delivery of policy to the most vulnerable are not very clearly set out. There is also a danger that support for high-input, commercially oriented farming methods will be prioritised and that the needs of the low input, subsistence sub-sector will lose out.

Decentralisation and agricultural service provision

Given their low profile and consistently low rating it might be tempting to conclude the existing extension service is structurally flawed and should be replaced rather than tinkered with. Uganda is going down this route, currently piloting a privatised extension service in several districts (GOU, 2001). Decentralisation is also further advanced in Uganda and certainly its effects are already being felt. Most of the effects on agriculture service provision have been negative, as district administrations have diverted funds into road improvement, educational works and sitting allowances. There is a danger that the same could happen in Malawi. For example the Malawi extension service received only 0.6 per cent of total government expenditure in 1995/6 and this had halved to 0.3 per cent by 2001 (GOM, 2001). Even when large sums are allocated to the agricultural sector very little seems to make it all the way down to the field operations.

Decentralisation and privatisation may also be attractive policies for central governments for other reasons. They are both consistent with the strategy of withdrawal and the passing on of responsibility for a service to someone else – in this case district administrations and the private sector. The rapid reform of input price and markets in Malawi has already shown there is a danger of creating vacuums in financial/physical markets and service provision. Withdrawal of Government institutions can be effected quite rapidly when the will is there (these are largely money-saving exercises after all). Yet it requires a long time to construct a well-supported and regulated environment attractive enough to private sector providers for them to move in sufficient numbers. The results from this research indicate this has not happened in the key areas of input suppliers, credit and marketing institutions.

There are also real inadequacies in capacity at local level to govern efficiently and evenly (Cross and Kutengule, 2001). The best policies can founder if implemented ineffectively or unfairly e.g. in Kunsinja there was broad criticism of the starter pack safety net programme (otherwise almost universally praised) for not targeting the poor sufficiently well – its implementation was subject to favouritism by traditional leadership and local politicians so had little impact with the poor. In Lumwira when the bore-hole broke recently the Water Department claimed it was unable to help unless the community paid for all of the work including allowances for the district officials (source: Lumwira village group meeting). Again problems of resources and capacity appear more significant than the policy detail.

In Malawi there is a risk that decentralisation (and privatisation if pursued) of agricultural services will result in further reductions in allocated funds. This will not have any profound change at the village level as there is so little happening at the moment. However, a further five or ten year period without support for small holder farmers will have an even more devastating effect in rural areas. Farmers require more support immediately if they are to have better access to new crops and management options and achieve consistent productivity improvements in their maize-based systems. It is important to ensure that the agricultural sector does not become a casualty of the decentralised, cross-sectoral policy approach in the MPRSP.

Maize and soil fertility management

A substantial amount of high quality applied research into soil fertility and maize productivity has occurred in Malawi. This has resulted in the area-specific fertiliser recommendations for hybrid maize (GOM, 1999) and a good understanding of ‘best bet’

options for soil management in small-holder maize based systems (Hardy, 1998). Maize is probably the best crop for most Malawian small-holders yet their current inability to afford chemical fertilisers largely explains the productivity declines and the food-insecure situation many of them are in today. With the current depressed price of maize in Malawi it is not profitable for farmers to buy fertiliser to apply to maize they are going to eat.

Legume rotations and intercrops have the potential to make some contribution to soil fertility but it is likely that the majority of the nitrogen input in the future will still have to come from chemical fertilisers. The starter pack schemes are particularly well-suited safety-net strategies and address issues of input accessibility but the mis-match between fertiliser and maize prices still seems to constitute a direct block in the path to food security for most small-holders. Any policy initiative that can address this mis-match is likely to have very significant and widespread impact.

Support with marketing

It is telling that in a number of cases farmers clearly prefer dealing with ADMARC than with private traders. This suggests that some form of state controlled marketing service, or back-stopping of local services run through co-operatives would really benefit small-holders and substantially reduce the risks preventing resource-poor farmers moving into cash-cropping. In this research there were some complaints about the high market charges made by District assemblies. Clearly any move made by official or traditional authorities to increase taxation of marketed produce can only block the attempts of poor small-holders to move into cash-cropping. The MPRSP recognises that some form of government support with marketing for farmers is required. Priority action is required in this area.

Conclusions

The results from the village level studies in this research leave no doubt that most low income households in rural areas are in a desperate state, struggling to feed themselves with very few assets to fall back when times are hard. A combination of the droughts and floods of the last decade, adverse price trends and the negative effects of structural adjustment policies are directly to blame. Farmers are also suffering from exploitation at the hands of the private sector and the national agricultural support services have almost completely broken down.

Lack of resources and uncertain markets are preventing the poor majority from diversifying into cash crops. In contrast, there is some evidence that farmers at all income levels are diversifying more into non-farm activities and this represents an important survival strategy in rural areas. However, for most, non-farm activity = *ganyu* and, though it allows them to survive, it undermines their efforts to farm their own land efficiently. Thus *ganyu* should be viewed as a survival strategy and unlikely to constitute a ‘route out of poverty’ for anyone. Other more profitable opportunities to diversify away from farming are few and usually only open to the wealthier in the community. Current proposals for the development of Market Information Systems (MIS) and building up the role of the Extension Service in linking farmers to marketing information and markets are timely but the resources and capacity required to do this will be substantial.

Although agriculture and livestock sector policies have been formulated and reviewed etc. they have not been effectively implemented and this research uncovered little if any positive macro-policy impact at village level. As in other countries in the region recent radical policy

shifts (SAP, decentralisation, privatisation) are associated with very long and painful periods of transition felt acutely by rural households. Furthermore, rather than resulting in improved support for poor small-holders the evidence suggests that decentralisation will have a negative effect on funding, co-ordination, targeting of the poor and fair allocation of resources in rural areas.

Recommendations

- The maize productivity task force has produced sound area specific fertiliser recommendations. Some best bet low input soil fertility management technologies have been proposed and tested in Malawi and these appear to offer real promise to farmers. Farmers need access to this information and advice, ideally through a centrally funded well co-ordinated and informed extension system. Care is needed when formulating plans for the new demand driven semi-privatised extension service to maintain a structure with national coverage and the potential for co-ordination and linkage with research institutions at a national level.

- Farmers know how to grow good maize crops in Malawi – they need to use more inputs. Access to fertiliser and improved seed will have to improve if rural small-holders are to be able to feed themselves and begin generating surpluses and accumulating assets. The best means of achieving this is not clear but the maize starter pack initiative had the double benefit of helping people feed themselves and also allowing farmers to experiment with the technology and judge themselves whether investment of their own resources in inputs is economic.

- The mis-match between cost of fertiliser relative to the price of maize needs to be addressed as it prevents farmers, small-holders particularly, from using fertiliser. The PRSP proposes improvements in farmer access to credit for buying fertiliser but the current pricing levels are likely to lead to very high default rates that will destabilise any such initiative. The distribution of starter packs to the poorest households as part of a targeted safety net programme has worked well in the past and is also likely to have positive impact in the future though the targeting mechanisms operating at village level need to be well thought through. As with all TIPs it is important to monitor their success in reaching their intended beneficiaries.

- Efficient and consistent local markets for existing and new cash-crops are essential. It seems likely that there will be a medium to long-term requirement for state support in input supply and marketing. If a new-look ADMARC is to fill this role it needs to be adequately funded and structured in a way that does not discriminate against poor small-holders. There is already active discussion of options and strategies for better provision of marketing services (e.g. Hardy, 1998) and these need to be better supported.

- Attempts should be made to increase the access of farmers to non-farm income generating options other than *ganyu* as such a high reliance, by poor farmers particularly, on *ganyu* impacts negatively on their own farming activities. The evidence suggests diversification away from farming in the short to medium term can lead to more investment in farming as most farmers' aspirations are tied up with improving their maize and cash cropping activities.

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