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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.

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Summary

Since 1996, Uganda has prioritised poverty eradication as its major development goal. This paper asks how livestock and the livestock sub-sector can best contribute to the overall goal of poverty reduction in Uganda, and in particular how best government can support that contribution. Drawing on fieldwork conducted in three agricultural districts, it describes the current livestock situation in Uganda in terms of the numbers, types and distributions of livestock, and then by elaborating on who keeps livestock in Uganda, why they do so, and what problems they face.

Based on this understanding, the paper questions the assumption that livestock sub-sector contributions to poverty reduction are necessarily mediated through increasing livestock production and livestock income. It argues that in focusing on production and livestock income, current livestock policy approaches pay insufficient attention to the wider roles of livestock in contributing to rural livelihoods, and thereby miss opportunities to enhance the contribution of livestock, and livestock development, to poverty reduction.

The paper then considers what this means for approaches to livestock development in Uganda, and wonders whether it is time for a national livestock sub-sector policy which states clearly the rationale for livestock development and the ways in which government expect it to contribute to its wider poverty reduction goals. It further suggests that Uganda's Plan for Modernisation of Agriculture (PMA) itself, as currently framed, sends the wrong messages to the livestock sub-sector because it focuses on a production-, commercialisation-, and intensification-led approach. This means that, when interpreted literally, application of the PMA principles to the livestock sub-sector leads to policy and measures which are not pro-poor and would be unlikely to contribute significantly to the goal of poverty reduction.

1. Introduction

The International Context

Approaches to livestock development throughout sub-Saharan Africa have conventionally aimed at increasing production in order to create a marketed surplus for consumption, trade, and especially export or reduction of imports. In most countries this is still the case and this is reflected in livestock sub-sectoral policies, which therefore tend to focus on production-

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related objectives, and production-enhancing support. The advent of the International Development Targets, with the specific focus on reducing poverty by half by 2015, and the spread of national poverty reduction frameworks, often as PRSPs, has led to an enhanced profile for poverty reduction in the agendas of many countries. Uganda has taken a similar route, since its resolution in 1996 to prioritise poverty eradication as the major focus of its overall sustained growth and development strategy (MFPED, 1999).

These changes are causing some to reflect on whether the focus on production is an appropriate model for livestock development in poor countries when poverty reduction is the prime objective. For example Livestock In Development (1999) propose a rethinking of approaches to the sector, and suggest that a new paradigm for poverty reduction through livestock may be required. However during these reflections, some have had difficulty in moving from previous paradigms and thinking afresh about the possible ways in which livestock contribute to poverty reduction.

The Ugandan Context

In the Ugandan case, the rules determining agricultural development strategy are found in the Plan for the Modernisation of Agriculture (the PMA). The PMA is a holistic, strategic framework for eradicating poverty through multi-sectoral interventions, aimed at enabling the people to improve their livelihoods in a sustainable manner (MAAIF/MFPED, 2000). The priority placed on poverty reduction is emphasised throughout. For example, the first sentence of the PMA document states that: 'The over-arching goal of the Plan for the Modernisation of Agriculture is poverty eradication'. The specific objectives of the PMA (MAAIF/MFPED, 2000) are to:

a) Increase incomes and improve the quality of life of poor subsistence farmers through increased productivity and increased share of marketed production

b) Improve household food security through the market rather than emphasising self-sufficiency.

c) Provide gainful employment through the secondary benefits of PMA implementation such as agro-processing factories and services

d) Promote sustainable use and management of natural resources by developing a land use and management policy and promotion of environmentally-friendly technologies.

The means by which these objectives are to be achieved relies on 'transforming poor farmers, both men and women, from producing predominantly for their own households to producing for the market. The focus … is to reorient them towards commercial agriculture in order to have a significant impact on poverty eradication in the country' (MAAIF/MFPED, 2000).

The PMA does not go into specific detail on sub-sectoral strategy, but it contains a few clues as to what might be expected in terms of livestock development. In addition to addressing major problems felt by livestock-keepers such as disease and theft, it is implied that a general objective of livestock development strategy would be to increase yield per animal, and to enhance productivity. This would require the raising of improved animal breeds, and adoption of 'proper' feeding practices (MAAIF/MFPED, 2000). However rather than specify any more detail the PMA document stresses the importance of its over-arching framework and set of rules, when it says: 'It is fundamental .. that programmes and activities of ministries, and district and sub-county development plans – now and in the future – are consistent with the principles of the PMA strategy.' The clear implication is that agricultural

(and other) sub-sectors are expected to incorporate the principles of the PMA rulebook into their plans, by providing a sub-sectoral interpretation of the overall PMA guidelines. This suggests a need across the agricultural sector for sub-sectors such as livestock to re-examine their approaches, and to reflect on their compatibility with the PMA and the likelihood of them contributing to the new goal of poverty reduction.

This Paper

Given the changes to the wider national development agenda in Uganda, this paper asks how livestock and the livestock sub-sector can best contribute to the overall goal of poverty reduction in Uganda, and in particular how best government can support that contribution.

Drawing on fieldwork conducted in the three districts of Mubende, Mbale and Kamuli (described in Ellis and Bahiigwa, 2001), it describes the current livestock situation in Uganda in terms of the numbers, types and distributions of livestock, and then by elaborating on who keeps livestock in Uganda, why they do so, and what problems they face. Based on this understanding, the paper questions the assumption that livestock sub-sector contributions to poverty reduction are necessarily mediated through increasing livestock production and livestock income. It argues that in focusing on production and livestock income, current livestock policy approaches pay insufficient attention to the wider roles of livestock in contributing to rural livelihoods, and thereby miss opportunities to enhance the contribution of livestock, and livestock development, to poverty reduction.

The paper then considers what this means for approaches to livestock development in Uganda, and wonders whether it is time for a national livestock sub-sector policy which states clearly the rationale for livestock development and the ways in which government expect it to contribute to its wider poverty reduction goals. It further suggests that the PMA itself, as currently framed, sends the wrong messages to the livestock sub-sector because it focuses on a production-, commercialisation-, and intensification-led approach. This means that, if interpreted literally, application of the PMA principles to the livestock sub-sector would lead to policy and measures which are not pro-poor and would be unlikely to contribute significantly to the goal of poverty reduction.

The Current Livestock Situation in Uganda

Understanding the current livestock situation in Uganda is a good place to start this analysis, since it will be argued that a key issue in formulating appropriate policy is understanding and appreciating what is currently there. This section brings together data from a number of sources to describe current livestock numbers and distributions in Uganda, with a focus on mixed farming systems. This focus has been adopted because pastoralism and pastoralists have received considerable attention in post-Independence Uganda, but livestock kept in mixed farming systems have received much less so, even though they are very widespread in these areas. A key question to be asked is how important are livestock in these places where they are considered not to be so important.

It should be noted that data on overall holdings of livestock in Uganda are scarce, but a combination of incomplete sources combined with original fieldwork conducted during this study provides sufficient information to gain an overview of the national picture. Census data from 1995 are presented in Table 1. However other than the relative magnitude of livestock species populations this data does not tell us much if we are interested in the

poverty aspects of livestock-keeping since we are more interested in the people who keep livestock rather than the livestock themselves. We therefore need to know more about the distribution of livestock between households.

Table 1: Livestock Census 1995

Species	Number
Poultry	22,200,000
Goats	5,900,000
Cattle	5,600,000
Pigs	1,400,000
Sheep	1,100,000
Rabbits	500,000
Donkeys	23,000
Source: MAAIF 2000	

Data from the village surveys in three districts show that overall 78 per cent of households had some livestock at the time of the survey. This average figure obscures differences in the prevalence in livestock-keeping between districts, and differences between species held in different districts and villages, as illustrated in Tables 2 and 3.

Table 2: Proportion of households keeping some livestock, by district

	Mbale *%*	**Kamuli** *%*	**Mubende** *%*	**All districts** *%*
No livestock	10.5	28.6	25.7	21.6
Some livestock	89.5	71.4	74.3	78.4
Total	*100*	*100*	*100*	*100*
Source: village surveys				

This data is not statistically representative, but the sample is biased towards the poor (see Ellis and Bahiigwa, 2001), fewer of whom keep livestock (see Table 8 below) so if anything is likely to be an underestimate. The most commonly held livestock by some distance are chickens followed by goats, and then some way behind cattle and pigs (Table 3).

Table 3: Livestock-keeping by species in three districts

% of households with:				
Livestock type	**Mbale**	**Kamuli**	**Mubende**	**Whole Sample**
Chickens	83.8	51.4	59.0	64.8
Goats	43.8	47.6	41.9	44.4
Cattle	37.1	23.8	25.7	28.9
Pigs	28.6	11.4	29.5	23.2
Other	1.9	24.8	1.0	9.2
Sheep	1.9	1.0	9.5	4.1
Turkeys	7.6	0.0	3.8	3.8
Source: village surveys				

By far the majority of livestock in these areas are kept as part of small herds and flocks, with for example only 3 per cent of cattle herd sizes, and 2 per cent of goat flock sizes exceeding 10 animals, as shown in Tables 4 and 5 below.

Table 4: Distribution of livestock herd sizes for different species

		Mbale	**Kamuli**	**Mubende**	**Whole Sample**
		%	*%*	*%*	*%*
Cattle	None	62.9	76.2	74.3	71.1
	1-5	35.2	15.2	18.1	22.9
	6-10	1.9	2.9	4.8	3.2
	More than 10		5.7	2.9	2.9
	Total	*100*	*100*	*100*	*100*
Goats	None	56.2	52.4	58.1	55.6
	1-5	41.0	36.2	34.3	37.1
	6-10	1.9	7.6	5.7	5.1
	More than 10	1.0	3.8	1.9	2.2
	Total	*100*	*100*	*100*	*100*
Chickens	None	16.2	48.6	41.0	35.2
	1-5	41.0	28.6	33.3	34.3
	6-10	17.1	12.4	14.3	14.6
	More than 10	25.7	10.5	11.4	15.9
	Total	*100*	*100*	*100*	*100*
Pigs	None	71.4	88.6	70.5	76.8
	1-5	24.8	10.5	28.6	21.3
	6-10	3.8	1.0	1.0	1.9
	Total	*100*	*100*	*100*	*100*
Source: village surveys					

Table 5: Distribution of livestock in Cattle Equivalent Units, by District

Livestock herd/flock size	**Mbale**	**Kamuli**	**Mubende**	**Whole Sample**
	%	*%*	*%*	*%*
None	10.5	33.3	25.7	23.2
Less than 1	50.5	41.0	45.7	45.7
1-5	34.3	15.2	17.1	22.2
5-10	3.8	3.8	6.7	4.8
More than 10	1.0	6.7	4.8	4.1
Total	*100*	*100*	*100*	*100*

*CEUs (cattle equivalent units): Goats=0.12; Pigs=0.14; Sheep=0.10;Turkeys=0.04; Chickens=0.02; Other=(given price/5% trimmed mean price for cattle)
Source: village surveys

Furthermore, livestock are kept across the spectrum of household wealth status, even by a large proportion of the relatively poor (Table 6).

Table 6: Livestock-keeping by wealth group

% of sample HHs with some livestock				
Wealth rank	**Mbale %**	**Kamuli %**	**Mubende %**	**Whole Sample %**
Poorer	79.5	59.5	57.4	65.4
Middle	96.7	78.8	75.0	83.5
Wealthier	96.7	80.0	100.0	92.2
Source: village surveys				

However there are differences in types of livestock held by different wealth ranks, with poor households more likely to keep chickens, goats and pigs, and wealthier households more likely to keep all species, but notably with a greater likelihood of keeping cattle (Table 7).

Table 7: Different species held, by wealth rank

% of households keeping:				
	Poorer %	**Middle %**	**Wealthier %**	**Whole Sample %**
Chickens	56.4	67.0	74.4	64.6
Goats	28.6	47.3	64.4	44.3
Cattle	9.0	30.8	56.7	29.0
Pigs	20.3	24.2	26.7	23.2
Other	6.0	12.1	11.1	9.2
Sheep	1.5	4.4	7.8	4.1
Turkeys	3.8	4.4	3.3	3.8
Source: village surveys				

Nevertheless, livestock holdings are highly skewed, with wealthier households not only more likely to keep livestock, but also keeping proportionately more livestock than poorer households (Table 8). Indeed, livestock ownership was stated as one of the important criteria defining household wealth status.

Table 8: Skewed livestock holdings by wealth

Mean livestock holding in CEUs - means of all HHs				
	Mbale	**Kamuli**	**Mubende**	**Whole Sample**
Wealth rank	Mean	Mean	Mean	Mean
Poorer	0.68	0.25	0.38	0.44
Middle	1.39	1.45	0.52	1.15
Wealthier	2.16	6.40	6.51	5.02
Source: village surveys				

Going beyond survey data, recent estimates by Thornton *et al.* (2002) suggest that Uganda has 4.7 million poor livestock-keeping households, where poverty is defined by World Bank rural poverty criteria. The same study identifies the sort of environments in which these poor livestock-keepers may be found (Table 9), and shows that the vast majority of poor livestock-keepers in Uganda are to be found in mixed farming systems of the kinds described here. This suggests that the findings presented in this paper may be broadly applicable to the majority of poor livestock-keepers in Uganda.

Table 9: Numbers and percentages of poor livestock-keepers in Uganda, by livestock-keeping system

System	**Number of poor livestock-keeping households**	**% of poor livestock-keeping households**
Mixed rainfed humid/sub-humid	3,809,336	81%
Mixed rainfed highland/temperate	718,710	15%
Livestock only rangeland humid/sub-humid	147,462	3%
Livestock only rangeland highland/temperate	2,753	< 1%
Total	4,678,261	100%
Source: Thornton *et al.* (2002)		

Together, these figures show very clearly that livestock are very widespread in Uganda beyond the areas normally considered to be where livestock are important, such as the 'cattle corridor'.

To summarise, this section has shown that:

a) Livestock are widely kept in mixed farming areas of Uganda;

b) Poultry are kept in greatest numbers, followed by goats, cattle and pigs;

c) The majority of animals are kept in very small holdings;

d) Livestock are kept across all wealth groups;

e) Different wealth groups keep different species, with poor households more likely to keep chickens goats and pigs, and less likely to keep cattle;

f) Wealthier households are also likely to keep greater numbers of animals; and

g) These findings although based primarily on limited fieldwork are likely to be applicable to a large proportion of poor livestock-keepers in Uganda.

The next section examines why livestock are so widely kept.

Contributions of Livestock to Livelihoods

The following data show how livestock incomes represent a relatively small proportion of the wider livelihood income portfolio, across the three districts.

Table 10: Income Portfolios by District and by Village

% shares of total aggregated income									
	Bananas	**Food crops**	**Cash crops**	**Wages**	**Self-employment**	**Transfers**	**Livestock**	**Fish**	***Total***
Whole Sample	20.5	11.4	0.6	10.5	28.6	1.9	**5.0**	21.4	*100.0*
Rank	3rd	4th	8th	5th	1st	7th	**6th**	2nd	
District									
Mbale District	34.1	9.2	0.9	13.1	37.3	2.5	**2.9**	0.0	*100.0*
Kamuli District	0.0	6.4	0.0	6.4	24.5	1.2	**3.2**	58.4	*100.0*
Mubende District	29.5	23.4	0.9	12.5	19.8	2.1	**11.6**	0.0	*100.0*
Source: village surveys									

Across the whole sample, livestock income was the 6th most important source of income, with a similar finding when the analysis is applied to livestock-keeping households only. In none of the cases shown in Table 10 does livestock income rise above 5th in order of magnitude.

The substance of these findings is strongly supported by major national household surveys conducted in 1992-3 and 1999-2000, which calculate livestock incomes as representing 0.6 per cent and 0.8 per cent of household income share, respectively (Integrated Household Survey 1992-93; Uganda National Household Survey 1999-2000). The percentage

contributions of livestock to overall household income, at around 5 per cent, are therefore relatively high in comparison[1].

These findings suggest that, according to income criteria, livestock are relatively unimportant in the livelihoods of rural Ugandans in the areas studied. However, if livestock provide such trivial contributions to household income, how can we reconcile this with the very wide ownership of livestock described in the previous section? How also can we reconcile this with the clear popularity of livestock: the fact that the majority of those who do not currently keep livestock aspire to do so? The answer lies in the fact that, despite the low contribution of livestock to household income, people commonly ranked livestock as the second or third most important means of livelihood (Table 11).

Table 11: Comparison of importance of livestock to livelihoods and livestock contribution to household income

District	Village	Livestock Importance Ranking
Kamuli	Iyingo	F 3, M 2
	Kiribairya	4
	Kinamwanga	3
Mubende	Kalangalo	3
	Kansambya	2
	Kabbo	2
Source: village reports and surveys. Note: no results for Mbale villages		

Why? How can we explain this apparent anomaly?

The analysis presented here shows that livestock contribute a relatively low share of income to households in a variety of rural contexts, and yet they remain very highly valued by these same households. The clear implication of this analysis is that the majority of livestock-keepers in mixed farming areas of Uganda do not keep livestock in order to provide direct income; they keep them for other reasons. The next section elaborates on insights provided by this study on what these might be.

The Real Importance of Livestock

The previous section has argued that livestock income is not the objective of keeping livestock for the majority of poor livestock-keepers in Uganda. This section shows how livestock are valued for the multiple contributions they make to wider livelihoods, most of which are not captured by income data, and that this is the real reason why people, especially the poor, in mixed farming areas keep livestock.

[1] This can probably be explained by the influence of one village in Mubende (Kabbo village) where livestock contribution was 21 per cent. This village was more pastoralist in nature, and in pastoralist systems the arguments made in this paper about the importance of livestock income are less applicable.

Why People Keep Livestock

The three district surveys show clearly that the main source of livelihood for the majority of rural households is farming (with fishing playing an important role in Kamuli for those involved), but that for most this is complemented by a variety of other diversified activities.

However it is equally clear that farming is defined as 'crops and livestock' rather than crops alone, illustrating that these are not considered to be separate activities but are parts of the same thing. Crops and livestock in the three districts studied are integrated in terms of farming systems, as is widely recognised (see for example Uganda's livestock breeding policy, and the animal health policy), but perhaps more importantly they are integrated in terms of wider livelihood systems.

In most cases crops (or fishing for some households in Kamuli) are the main outputs of the livelihood systems that people orient their strategies to deliver. But livestock have an essential input into this system, both directly and indirectly; to farming and also beyond farming. This is the key to understanding why people keep livestock: to 'oil the wheels' of their wider livelihoods.

Livestock-keeping Roles and Strategies

So in general terms, rather than keeping livestock for the relatively narrow contribution of income alone, most livestock-keepers in Uganda keep their livestock for the multiple contributions they make to their livelihoods. The following discussion describes a number of the most common roles and strategies observed by this study that livestock-keepers adopt to achieve their objectives.

Enabling Saving. Livestock are commonly purchased with money that does not need to be spent immediately, and therefore serve as a place in which savings may be kept until they are needed in similar ways to which others use banks.

Livestock-keepers often argued that investing in livestock was better than putting money in a bank. First, this is because banks are perceived to be bureaucratic and livestock can be turned into cash more easily than it is to withdraw money from a bank. Secondly livestock continue to grow and breed, so that all being well their value appreciates quicker than does money in a bank. Thirdly, due to their multiple functions livestock provide many useful products while they are being accumulated, whereas money in a bank does not. On the down side, livestock-keeping is subject to major problems in the three districts, a point to which we will return in the next section.

Livestock are also felt to be a better form of savings than land. Land is neither so readily available nor so liquid, which is important because a key role of livestock is to be turned into cash in an emergency. Land ownership has many advantages, but providing access to accessible savings is not one of them.

Providing Security. The converse of the savings role of livestock is that they may be sold when something goes wrong and when money is required urgently, for example to pay for a visit to hospital. Where people do not otherwise have access to cash savings, the essential role played by livestock in contributing to the sustainability of people's livelihoods, by making available lump sums of money is essential.

Accumulating Assets. One of the routes out of poverty pursued by the poor is to progressively accumulate assets such that they no longer need to be sold to ensure livelihood security, and can therefore become productive and contribute to enhancing livelihood status. Livestock accumulation is a key objective for most rural households, and for many this begins with a process of acquiring small animals, increasing their numbers and sequentially trading up to larger species. In this way, people start with chickens, which they then rear and trade for a goat/pig, which they again multiply until they have sufficient for a cow or bull.

Financing Planned Expenditures. Livestock are a key source of funds for expenditures in the areas covered by this study. Regular or small expenditures such as for medicines, food, seed, or fertiliser can be financed by selling a chicken or a goat. Larger expenditures such as purchasing land, a boat, some new fishing gear, a house, starting a small business, paying school fees or making a dowry payment can be made through sale of larger numbers of smaller animals or fewer large animals such as cattle.

Maintaining Social Capital. It was observed that livestock are frequently shared, lent, borrowed, given as gifts, and slaughtered for a range of ceremonies and occasions. Activities such as these are often seen as 'unproductive' but in practice are highly valued for their ability to secure social capital which can play an important role in future livelihood security, especially for the vulnerable. They also contribute to households' overall sense of wellbeing and ability to be seen as a respected part of society.

Providing Livestock Products. In addition to the roles described above, livestock are also valued by some for the products they provide directly, including draught power from cattle, manure, and meat milk and eggs.

Livestock-keeping in Uganda: Understanding Reality

The following discussion helps to explain why the roles and strategies described above are important to the wider livelihoods of livestock-keepers, and why livestock-keepers in Uganda therefore value the multiple roles of livestock above production for income alone. It also begins to provide pointers to the need to re-evaluate Uganda's approach to livestock development, and starts to suggest possible directions of change.

The absence of alternatives. A key element in understanding the livestock-keeping strategies discussed above is that in most rural contexts there is no realistic alternative to the functions they play. Since these functions are themselves crucial elements of wider livelihood strategies, livestock continue to be seen as very important to rural Ugandans.

Livestock as rural finance. The availability of rural finance is considered to be a key constraint to livelihoods in Uganda (MAAIF/MFPED, 2000). From the discussion in this paper, it is clear that livestock are currently fulfilling this role for the majority of rural households, although not without problems. Taking this point a step further: livestock disease, or other sources of livestock loss, have the same effect as economic uncertainty does for credit use: it is destabilising, it reduces risk taking, and it reduces investment. Livestock mortality is the same as losing savings. Supporting livestock such that problems are minimised might be expected to have a similar effect to providing rural finance.

The importance of all livestock species. The accumulation strategies for livestock mentioned above illustrate that for many poor households in particular, the route to increased livestock holdings begins with poultry, which are then multiplied and exchanged for goats,

which in turn provide opportunities for acquiring pigs, steers and ultimately cows. However the process does not end there; cattle are then the springboard for investment in land, business, fishing gear, or other productive activities and assets.

This brings the importance of the much-neglected small animal species into clear focus, and is a lesson for livestock policy and strategy in Uganda. Supporting these species, including people with a few free-ranging village poultry, in such a way that enhances their livestock accumulation strategies may be a very effective way of supporting both livestock development in general and the wider livelihood strategies found in rural Uganda.

The logic of saving not selling. Livestock strategies are oriented largely to accumulate livestock numbers as savings so that they can either be invested productively (for example in other livestock, in crop farming, or in other business), or can be sold when needed to provide cash for specific needs (such as during sickness, for school fees, or for food when it has run out). In these situations, different types of livestock will be sold for different sized financial needs, with the objective of reducing livestock holdings as little as possible.

For many livestock-keeping households, especially the relatively poor, livestock sales – and therefore income from livestock – are frequently seen as undesirable since they compromise the accumulation strategy, and in many ways are indicative of a failure of other elements of the wider livelihood system to do their job. Therefore increasing sales or income from livestock may be the very opposite of what livestock-keepers themselves are trying to achieve. On the other hand, everyone values income and one of the main functions of livestock in livelihood strategies is to be sold when needed. The point is that the majority of smallholder livestock systems, due to their multiple roles, are not aiming at profit maximisation, and therefore do not make decisions about investment and returns in the same way as someone who has this objective.

Livestock as a springboard to livelihood diversification. When the livestock accumulation strategy is successful people become in a position to make positive choices about disposal of livestock, and to pursue productive investments such as small business or fishing gear as we have seen above. In this case livestock play the role of a springboard to livelihood diversification, by providing investment funds which are frequently not available from any other source. However even in this case, this does not mean that livestock are regarded as an enterprise in which enterprise efficiency is an important consideration, since this strategy requires accumulation until sufficient are kept to be able to sell them to invest in something else. Selling at an optimal time for production would not be compatible with this strategy; this sort of commercially-oriented selling behaviour therefore only occurs when productive investments are made in livestock specifically as a means to provide income.

It might therefore be expected that livestock numbers would increase as livelihood diversification beyond agriculture increases, since livestock are a home of savings and as people diversify they increase income and increase savings. This will create new demands for services, but not for services aimed at providing livestock income and increasing the efficiency of livestock production; it is more likely that the demand will be for services that will help protect people's savings.

In Conclusion

Currently livestock are making a very important contribution to livelihoods in the three districts studied. This paper has argued so far that the importance of livestock is not well

captured by income data, and that this is primarily because livestock are not kept only for income: they are valued for the multiple roles they play in support of people's wider livelihoods.

This is a surprising conclusion to some, who assume that the key objective of keeping livestock is to produce in order to provide income or other tangible products. Others would see it as undesirable, and that livestock should be kept for production and income. However when seen in terms of the wider livelihoods of the poor, the strategies described here represent an appropriate response to the challenging environment in which rural Ugandans make a living, by providing many valued roles which are not otherwise available.

Poor rural households do not live in sectors but have integrated holistic livelihoods. They are interested in livelihood goals, not sectoral goals. To poor rural people, their livelihoods are not a collection of individual sectoral businesses, as technical professionals tend to see them; they are in fact a system that needs to work as a whole. Livestock play a central and irreplaceable role within that system, but this is not always mediated through production and income. Since the livestock element of people's livelihoods is not seen as an enterprise, then it is unrealistic to expect 'enterprise-style' decision-making. This is why poor livestock-keeping systems tend to be based on low investment, and avoid unnecessary risk taking.

A practical implication of this understanding is that, because of the importance of all the wider contributions of livestock to livelihoods beyond production and income, livestock-keeping systems, objectives and strategies are unlikely to change unless there are suitable alternatives to those roles. Currently, as argued above this is not the case for most rural livestock-keepers in the three districts studied, especially the poor. The people who do modernise and invest in production are those who are able to fulfil those roles in ways other than through livestock. This analysis has far-reaching conclusions for livestock policy in Uganda, and anywhere else that similar arguments apply: policies aiming to increase livestock income through increased production are not appropriate for the majority of livestock-keepers, and especially the poor, because this is not the objective of the livestock-keepers themselves.

Current Constraints to Livestock-keeping

Despite the importance of livestock to rural livelihoods in Uganda, livestock-keepers currently face many problems which inhibit the effectiveness of this contribution. Furthermore, fieldwork suggests that many of these problems are getting worse rather than improving. The two main problems identified during the study relate to poor animal health, and animal theft. Interestingly marketing was felt not to be a problem. In all three districts livestock are easily sold, due to the itinerant traders who come to villages in search of animals.

Animal Health and Disease

One of the key problems felt by livestock-keepers is the presence of disease and the corresponding poor animal health. Specifically mentioned are the problems of Newcastle Disease in poultry, African Swine Fever in pigs, and Foot and Mouth Disease in cattle. Part of the cause of this problem is the difficulty many livestock-keepers in all three districts in accessing animal health services. These are felt to be too distant, difficult to attract, and if they are available they are prohibitively expensive for many due to the need to pay not only

for drug costs but also often transport and fees. These findings are supported by several authoritative sources, including the Ministry's new Policy for Veterinary Services, by the PMA itself, and by UPPAP. It appears as though for most livestock-keepers, animal health services are inadequate for most of the time, and that the benefits of the changes made in the new animal health policy had yet to be translated into real progress for livestock-keepers at the time of this study's fieldwork.

The effect of animal health problems can be enormous and multi-faceted, as illustrated by the following assessment of the impact of disease in Mbale: In the context of existing livestock keeping strategies in Mbale and the multiple roles livestock play, the weakness of animal health services, the high risk of disease and the consequent livestock mortality represents the loss of savings, but also many wider effects. An outbreak of cattle disease in 1995 reduced the availability of draught power for cattle owners, but also increased the price for households who relied on hired draught for cultivation, affecting the poor disproportionately and putting it out of the reach of most. This led to a renewed reliance on hand hoes for cultivation, from which the area has still not recovered. It also reduced the amount of available manure, affecting crop yields for those who could not afford inorganic fertilisers. Furthermore Newcastle Disease in poultry has reduced the numbers of chickens, and has consequently affected the role they play in livestock and wider asset accumulation strategies. These problems have together discouraged many from investing in livestock and influenced the social institutions around livestock, which are themselves very important for the poor.

Livestock Theft

Theft of livestock is felt in several areas studied to be the major constraint to livestock-keeping, and has discouraged some people from keeping livestock at all. This was particularly the case in Mubende, which means that this syndrome is a different one from the historical livestock raiding in eastern Uganda, by which Mubende was not affected. Where theft is such a constraint, livestock development is fundamentally hampered, which means that it is an issue which government cannot ignore when planning results-focused sub-sector strategy. Recognition of this fact is implied in the new animal health policy, which assumes as a condition of its successful implementation that security will be assured, and also in the PMA in relation to theft of oxen. Nevertheless the problem remains.

Room for Improvement

This discussion illustrates that though livestock currently play a central role in the livelihoods of poor and other livestock-keepers, the current system has much room for improvement and this contribution could be significantly increased through appropriate support. The remainder of this paper considers what these findings mean for livestock development policy and practice.

The Appropriateness of Current Approaches to Livestock Development in Uganda

Current Livestock Policy

Uganda does not have an over-arching national livestock policy. Instead it has a number of specific policies, strategies and masterplans focused on commodities or cross-cutting elements such as breeding, or animal health. The following documents provide direction in national and local livestock planning:

a) Policy for the Improvement of Veterinary Services (2000)
b) The National Veterinary Drug Policy (second draft October 2001)
c) The National Meat Policy (third draft July 2001)
d) Masterplan for the Dairy Sector (1992)
e) The National Cattle Breeding Policy (1995)

Also relevant to livestock planning (in addition to the PMA) are:

a) The Local Government Act (1997)
b) The National Agricultural Advisory Services Programme (NAADS) Master Document (2000)

As such it is difficult to generalise about approaches to livestock development in Uganda, since there is no over-arching framework to provide guidance. Nevertheless, looking at the available documents, it is reasonable to conclude that the objective of current approaches to livestock development is 'to increase livestock production and productivity'. This is explicitly stated in the new Policy for Animal Health, which post-dates the PMA, and is implied by the other documents.

Many of these policy documents recognise the multiple roles that livestock are expected to play in livestock-keepers' livelihoods, but they do not reflect them in the approaches they propose. Furthermore, with the possible exception of the very progressive animal health policy, which attempts to change the rules of the game determining how services are provided including to the poor, these documents are not in practice aimed at poverty reduction.

The prevailing approach to livestock development signified by these documents places emphasis on livestock and their products, and a focus on livestock commodities. In order for such an approach to contribute to poverty reduction, it relies on an assumed causal link between increasing production and productivity, and reducing poverty. All analysis conducted for the PEAP, UPPAP and PMA, and the findings of this paper, suggest that this is an over-simplification and that such a link cannot be assumed. This in turn indicates the need to revisit livestock policy if it is to contribute to the overall poverty reduction goal.

Livestock Development at District level

Following the decentralisation provided for by the Local Government Act (1997), the role of national policies is to provide a framework which guide decisions taken at district level and below. In terms of livestock development, national government is responsible for the provision of certain national public goods, but many functions and expenditures have been delegated to districts. The interpretation of national livestock policy and the PMA at district level is therefore of great importance in determining approaches to livestock development in practice. At district level, multi-disciplinary Production Committees are part of the team that produce district level development plans which outline how the district aims to achieve its aims and contribute to national development goals.

Unfortunately when it comes to livestock development the three districts studied show little evidence of understanding the contributions of livestock to poverty reduction. This applies to

their analysis of the livestock-related issues, and also their response in terms of planned investments.

Mubende district. The Mubende district local government Three Year Development Plan 1999/2000 – 2001/02 focuses on the directions provided by the PMA, and quotes national policy as emphasising improvement of breeds and yields. It considers livestock to be the second most important activity in the district with lots of potential.

However, the situation analysis shows little understanding of the wider contributions of livestock to livelihoods beyond production alone, and focuses predominantly on cattle. It identifies animal disease as a problem for farmers, but in outlining its objectives for the sub-sector focuses almost exclusively on production through intensification and commercialisation, again with an emphasis on cattle. Thus, planned expenditures for livestock comprise:

a) Dairy development (milk marketing infrastructure, artificial insemination, village breeding, training in modern technology and skills)
b) Modernisation of poultry-keeping (intensification, housing, exotic breeds, transformation from free-range)
c) Beef development (sensitisation to produce beef, dip tank rehabilitation, dams)
d) Pig and rabbit development (pig and rabbit scheme with demonstrations and credit)
e) Control of Contagious Bovine Pleuropneumonia and Rinderpest (vaccination programme with MAIFF)
f) Small Ruminant Production (breed 'improvement')

Priorities for the next three years are for disease control, forage development and genetic improvement.

Mbale District. The Mbale District Local Government Five Year Development Plan (1997 – 2001) has as its goal for the livestock sector 'to ensure a healthy and productive livestock sector in order to be self-sufficient in animal products and have surplus for export'. Its analysis again draws attention to the problems of disease, and explains poor yields and uptake of improved practices by poor husbandry practices, and lack of knowledge and awareness.

Planned programmes include:

a) Education and training of farmers
b) Breeding (artificial insemination, rearing and selling 'improved' breeds of chicken, cattle and goats)
c) Animal health (vaccination, tsetse and trypanosomosis control)
d) Bee-keeping (demonstration farm)

Kamuli district. The Kamuli District Local Government Three Year Integrated and Comprehensive District Development Plan 2000/2001 – 2002/2003 also recognises livestock as one of the major economic activities in the district.

The plan has a list of generic problems such as use of rudimentary technology and low purchasing power by communities which it explains as being a result of several factors, including: poor farming practices, cultural practices, high rate of illiteracy, poverty and lack

of changing attitude. This suggests that analysis is not based on an understanding of people's livelihood realities.

Specific planned programmes are not clearly elaborated in the Kamuli plan, but if they reflect their specific objectives are likely to involve extension, disease control, support to milk production and livestock water programmes. The overall focus is on production, but objectives include to increase livestock numbers which possibly suggests a different approach.

Overall these three district case studies suggest that:

a) PMA principles have yet to be incorporated or are alternatively being applied literally in terms of commercialisation, intensification and modernisation.
b) There is a focus in all three districts on production, and intensification of existing livestock systems.
c) There is no evidence of recognition of the wider contribution of livestock to livelihoods.
d) Analysis confirms the importance of animal health problems in each district, but planned responses do not necessarily conform to the principles outlined in the new animal health policy, and do not necessarily meet poor livestock-keepers' needs.
e) A major share of attention and expenditure appears to be allocated to intensifying production through use of housed intensive production systems, and the introduction of new breeds.

The analysis in this paper suggests that both the analyses and the plans made in each of these three districts could be questioned. Given the importance of livestock and the problems people face in maintaining them, are the planned expenditures really the best pro-poor investments possible?

Lessons from this Study

As the evidence from this study shows, the current approach to livestock development in Uganda as reflected in national policy documents does not reflect the objectives and strategies of the majority of livestock-keepers in practice. The study shows that livestock-keepers, especially the poor, want to keep their animals alive and expand their numbers so that they can contribute most effectively to wider livelihood strategies. However, the prevailing approach to livestock development revolves around improving management, breeds, and animal health services in order to enhance production and trade of livestock commodities. The outcome of this dichotomy is that many of the services being offered to livestock-keepers or being planned in their name are in fact inappropriate, as can be seen from the district plans discussed above.

Whilst improvements to current livestock-keeping practice are of course possible current efforts centre upon intensification, whereas this paper shows that this is precisely what most livestock-keepers do NOT want, or more accurately are not able to support at the current time due to the strategies they pursue as a result of their wider livelihood situation. Despite this, the study shows that livestock are very important, in fact central, to the livelihoods of the majority of rural households, and that these households suffer from many livestock-related problems. Overall, this means that due to the mismatch between the priorities of livestock-

keepers and the support offered by government, Uganda is currently missing a major opportunity to maximise the contribution of livestock to the livelihoods of the poor, and consequently hampering its pursuit of the national goal of poverty reduction.

Implications for Livestock Development Strategy under the PMA

Implications for Livestock Development

The basic argument of this paper is that farming, defined as 'crops and livestock', is the basis of even relatively diversified rural livelihoods in the three districts studied. The role of livestock in this system is not as a profit-making enterprise where efficiency of production is the aim, but one of supporting the system in multiple ways. National livestock policy, however, emphasises livestock production in order to provide income. To many there may appear to be nothing new in these findings: most livestock professionals know that livestock are a part of farming systems, that they contribute in multiple ways to livelihoods, and that meat, milk and eggs are not their only products. However, it is the interpretation and depth of this understanding that is important in policy terms: current policy and its interpretation does not reflect this widely-held understanding.

The key argument here is that recognising this wider objective of livestock-keeping is essential to the definition of appropriate policies for the poor. An understanding of the roles livestock play in the livelihoods of the poor (and others), the options they have and the constraints they are under will cause us to adopt different approaches from when production is the objective, and allows us to be more specific in targeting policy interventions to achieve the result we are seeking. Fundamentally, if you are using livestock for savings and insurance, then you go about it in a different way than if you use them to produce income, and good policy needs to reflect this fact. The conventional analysis, reflected in most current livestock policy, holds that increasing livestock production and productivity is the main objective of livestock development, and that the effect on the poor is achieved through the impact of increased income that this is expected to have.

The analysis presented here suggests that increasing livestock production and income is not necessarily compatible with the strategies being pursued by livestock-keepers, and that greater impact from livestock development could be achieved by a reorientation in which the multiple contributions of livestock to livelihoods are supported rather than just those related to production and income. Where a poverty agenda is the paramount concern, it is the overall income and security (or any other livelihood goals people may have) produced by people's wider livelihood strategies that is important, not livestock production and income *per se*. Ultimately, we all want to see increased production, increased income, and reduced poverty. However the big question is <u>how</u> to achieve that, and this paper argues that a production-focused approach will not achieve that aim. The reason for this is that the constraints to commercialisation and intensification of livestock lie in the constraints to wider livelihoods, not livestock alone. Commercialisation and intensification requires: risk-taking that poor households cannot bear; finance that is not available; means of asset management beyond livestock that do not exist in rural areas; and availability of cash for investment that poor households just do not have.

All of these issues will not be solved by commercialisation and intensification of livestock-keeping; they are prerequisites for it. In order to reduce poverty through livestock development, a different approach is required.

Pro-Poor Livestock Development: the Future

The implication of this analysis is that the reason underlying livestock development itself needs to be revisited, when poverty reduction is an important consideration. This means a rethink of the contribution of the livestock sub-sector to poverty reduction: at national level this implies a need to be supporting the contribution of livestock to national development goals (in this case poverty reduction), rather than marketed surplus; at a local level it implies a need to support the wider contributions of livestock to the livelihoods of the poor, rather than focusing on a limited selection of these potential contributions (namely production and income).

Though there are several livestock sub-sector policy documents currently to be found in Uganda, there is not one which provides an agenda for the whole sub-sector: which states the objective of livestock development, what it should aim to do, and how its success should be measured. In previous times this was less problematic because it was assumed that maximising livestock production was the obvious objective of livestock development. However, poverty reduction is now explicitly the main objective of government: people and not products are now what counts.

The findings of this study suggest that it is now time to redefine the objectives of livestock development in Uganda, to take account of the poverty agenda which is emphasised in the PEAP and the PMA, and the multiple contributions livestock make to livelihoods. Perhaps it is time for an over-arching policy and strategy for the sub-sector as a whole, which interprets the wider rules provided by the PMA, to ensure that efforts at livestock development do indeed contribute to national development goals.

Differences from Current Approaches

A pro-poor approach to livestock development would differ in the following ways from current practice:

Get policy right. Policy needs to reflect the realities and aspirations of the poor if poverty reduction is to be an important objective. This means refocusing policy on the people who keep livestock rather than the animals themselves and their products. It also means that indicators which measure the success of livestock development should be based on its impact on people and their livelihoods, rather than on production and trade. Getting policy right and ensuring it is well known and understood is an important part of changing hearts and minds within the livestock profession and beyond to reflect the departure from the past that a pro-poor approach represents, and so that all know what is expected of them and can respond as necessary. This is particularly important in the context of decentralisation where many of the real decisions and plans which affect livestock-keepers are being made at district level. It is also important for a wider group of stakeholders so that they can know what to expect from the livestock sub-sector.

Understand clients. A key element of being client-focused and demand driven is understanding people's objectives and strategies, and responding appropriately to these. This study shows that livestock-keepers in Uganda are not well understood by those who are meant to serve them. A client-oriented approach to service delivery and provision of an enabling environment, as envisaged by the PMA, requires a greater understanding of who are the clients and what are their priorities, on which to base policy, programmes, and plans. It is

important to recognise that differences exist between the objectives, strategies, constraints and priorities of different livestock-keepers. To assume a single objective (increasing production) therefore neglects the needs of all those – the majority – for whom other priorities are more important. This paper argues that unless such differences are recognised and factored into livestock development planning, then the livestock-sub-sector contribution to poverty reduction will be fundamentally hampered.

Address multiple roles. The reality of livestock-keeping, as outlined in this paper, is that people do not see livestock as businesses or enterprises, but as the sources of multiple outputs and contributions to wider livelihoods. This is perfectly valid but in focusing on production, government continues to service only one of these many contributions. A pro-poor approach to livestock development will involve recognising the validity of these wider concerns and what really motivates livestock-keepers, and addressing these wider roles as well as addressing the production-related roles.

Support vs change. This paper argues that livestock currently make a huge, irreplaceable and under-valued contribution to the livelihoods of the poor and others in the areas covered by this study. However the fundamental approach of government policy and programmes is to change the systems which make this contribution into something else: something in which production features more highly, and which is based on commercialisation and intensification. This is still the case post-PMA.

A pro-poor approach to livestock development would seek to understand and appreciate the obvious value contributed by currently practiced livestock-keeping systems and strategies, most of which are subject to major problems, and seek to support those systems – rather than change them – so that they can contribute more effectively to people's routes out of poverty. To do otherwise is incompatible with a client-focused approach, since it amounts to arguing that 'we know better than you, you are doing the wrong thing, and you would be better off if you changed in the ways we tell you'. This study argues that this is an incorrect analysis, and explains the limited uptake of 'improved' livestock technologies and systems other than by the relatively wealthy despite years of pushing the same 'commercialise and intensify' message.

Implications for the PMA

This study has major implications for livestock development policy in Uganda, but does it also have potential implications for the PMA itself? The UPPAP studies (cited in MAAIF/MFPED, 2000) have shown us that poverty in Uganda is about more than just income; this study shows that the same applies to livestock development.

However the PMA focuses on transformation towards market-oriented commercial production as the means to achieving poverty reduction. If the PMA is interpreted literally, as it clearly has been at district level, this study suggests that the PMA messages of increased commercialisation and a focus on income are not appropriate, or at least are not sufficient, as a basis for pro-poor livestock development. The PMA therefore currently sends the wrong message when it comes to sub-sectoral strategy for livestock development.

If it is not the intention of the PMA to send such a message, and a wider reading of the document suggests that it is not, then perhaps it is time for a deepening of its analysis at a sub-sectoral level, and an iteration of the document to reflect the emerging understanding of rural livelihoods emanating from studies such as this one.

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