

*Full Length Research Paper*

# On the economic effects of livestock theft in Lesotho: An asset-based approach

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**While livestock theft in Lesotho is primarily caused by increased poverty among unemployed workers and drought stricken crop farmers, its effect on stock farmers can be devastating. Using an asset-based approach we show how such theft reduces the affected households' own consumption of both the "returns" on their wealth, for example milk and wool, and of wealth itself, for example meat and hides. It also restricts their ability to apply asset smoothing by forcing them to sell their remaining livestock wealth in the market place and use the proceeds to acquire the necessary food and non-food products. Some policy implications are briefly highlighted.**

**Key words:** Livestock theft, unemployed, drought, asset-based approach, livestock wealth, returns on wealth, household utility, asset smoothing, other coping methods.

## INTRODUCTION

Livestock contributes significantly to the livelihoods of people living in the rural areas of developing countries (Cornelis et al., 2001). Lesotho is no exception. Dzimba and Matookane (2005) found that in the case of Lesotho, 92.9% of stock owners reside in the rural areas, while only 7.1% stay in urban areas. Delgado et al. (1999) also found that the majority of livestock owners are poor and earn the highest proportion of their incomes from livestock, either directly or indirectly. Livestock theft has been a problem in Lesotho for some decades but it has recently intensified. Dzimba and Matookane (2005) contend that stock theft has become a "national crisis" in Lesotho and occurs more frequently than other types of crimes. The major reason behind the increase in livestock theft appears to be the vulnerability of livestock farmers coupled with the return of retrenched migrant workers from neighboring South Africa (Dzimba and Matookane, 2005; Kynoch and Ulicki, 2000). In the past, many young men with minimal or no education had worked on the mines in South Africa. But for at least the past two decades

South African mines have not been recruiting large number of semi-skilled and unskilled workers from Lesotho and a significant number of those who used to work in the mines have been retrenched.

This has resulted in increased unemployment in Lesotho and more so in the rural parts of the country. In addition, the recent drought that has devastated the country means that the majority of those who used to work in the non-livestock agricultural sector no longer have any work. Many of these individuals may have turned to livestock theft as a means of survival (Dzimba and Matookane, 2005).

Dzimba and Matookane (2005) also point out that stock theft is not only committed by unemployed or poor individuals but also by well organized groups that have sound financial and asset backing. These groups are often wealthy enough to move animals by means of trucks and trailers. Stock theft is also encouraged by the ease with which stolen animals can be traded. Stolen stock is sold without the necessary documentation to individuals for immediate use in communal celebrations and funerals and also to butchers at very low prices (Dzimba and Matookane, 2005; Kynoch and Ulicki, 2000).

Whilst livestock theft inevitably impoverishes affected livestock farmers, it may also have a distributional effect insofar as those who commit stock theft, whether rich or

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poor, tend to enrich themselves in the process. Most instances of crime naturally have a similar redistributive effect, irrespective of whether the losers and beneficiaries are rich and poor people respectively, or whether they are all either relatively poor or relatively rich.

In this paper we use an asset-based approach to analyse the economic effects of livestock theft on rural households in Lesotho.

## LIVESTOCK AS SOURCE OF HOUSEHOLD LIVELIHOOD

Attanasio and Szekely (1999), Ford Foundation (2004), Hulme (2006) and Moser (1998, 2006) introduced the asset-based approach by broadening the definition of capital owned by the poor including livestock, maize, farming equipment and dwellings; and argued that household income depends on the productive use of these income-earning ('consumable') assets. The asset-based approach essentially aims at identifying chronic or persistent poverty, or "poverty traps" (Carter and Barrett, 2006), and goes beyond conventional measures that fail to distinguish between transitory or "stochastic" poverty on the one hand and chronic poverty on the other. Carter and Barrett (2006) derive a positive relationship between household income (or utility) and assets showing how the former depends on "livelihood-generating" assets. Using an "asset poverty line" (first introduced by Carter and May, 2001), they show how a loss of assets or a fall in returns on existing assets could bring about a "structural" shift of households into a state of "chronic" poverty (Carter and Barrett, 2006: 182). Similarly, Carter et al. (2007) indicate how environmental shocks have had long-term detrimental effects on poor households in Ethiopia and Honduras, largely because of an inability to utilise asset smoothing and other costly coping strategies. In developing countries, livestock constitutes an important asset owned by farmers with the corresponding returns consisting mainly of milk, wool and mohair. The latter can either be consumed by the owners and their families or exchanged in the market place for other goods and services. Other returns on (livestock) capital derive from the use of horses, donkeys and mules for transport purposes as well as the use of cow dung as fuel for cooking and warming the house. A closely related return is the fact that livestock provides non-human power to poor farmers who cannot afford modern means of ploughing their fields (Otte et al., 2005).

Livestock, especially cattle are used for ploughing the fields while livestock manure is still very much used to enhance soil fertility by farmers who cannot afford expensive chemical fertilizers. Utilising livestock in this manner enables farmers to plant vegetables, fruit and other food products, for own consumption or exchange in the market place, thus diversifying their farming activities. Similarly, in the absence of smoothing practices (as follows), households may deplete their capital by

slaughtering livestock to satisfy their need for meat and hides or sell the proceeds in the market place. The value added by livestock farming goes beyond the consumption and sale of animal products and other food products using livestock or dung as an input. Livestock can be used to diversify capital portfolios. Households may sell livestock and use the proceeds to build or extend a dwelling or acquire capital equipment for farming purposes. Livestock can thus be viewed as a capital asset that provides a form of insurance to poor households who for various reasons do not have access to formal financial services. Similarly, there is evidence showing that the proceeds from selling livestock are often used to pay for health expenses (Holmann et al., 2005) and school fees (Cornelis et al., 2001). In these instances livestock clearly serves as a source of human capital investment. Livestock, like maize and other crops also serves as a buffer asset in the sense that poor households tend to apply (consumable) asset smoothing, albeit to a limited extent (Lawson, 2010; Morduch, 1995). In the face of an income shock such households cut back on their present consumption whilst preserving their assets for future consumption. Thus livestock evidently needs to be managed in such a way as to ensure an adequate supply of food and non-food produce for consumption purposes over time.

With little or no other sources of income, such asset smoothing could become a critical condition for coping with and even surviving poverty. But saving for a rainy (or dry) day may be difficult if not impossible if there is little or nothing to save, due for example to a loss of assets caused by livestock theft.

## IMPACT OF STOCK THEFT ON HOUSEHOLD POVERTY: AN ILLUSTRATION

From the previous section on the value-adding role of livestock, it is quite apparent that stock theft could affect the livelihoods of rural households very adversely. To illustrate, let the standard household utility function be extended as follows:

$$U = f(C^o, F^m, N^m, W) \quad (1)$$

where  $C^o$  represents goods consumed from the household's own resources;  $F^m$  and  $N^m$  are the quantities consumed of food and non-food products acquired in the market place; and  $W$  is a measure of the household's wealth.  $W$  is assumed to enter the utility function both directly as an independent variable and indirectly through its impact on other independent variables. For example  $C^o = C^o(W)$  with  $C^{o'}(W) > 0$  and similarly for  $F^m$  and  $N^m$ .

Household utility can thus be simply defined as:

$$U = g(W); g'(W) > 0 \quad (2)$$

The corresponding budget constraint is given by:

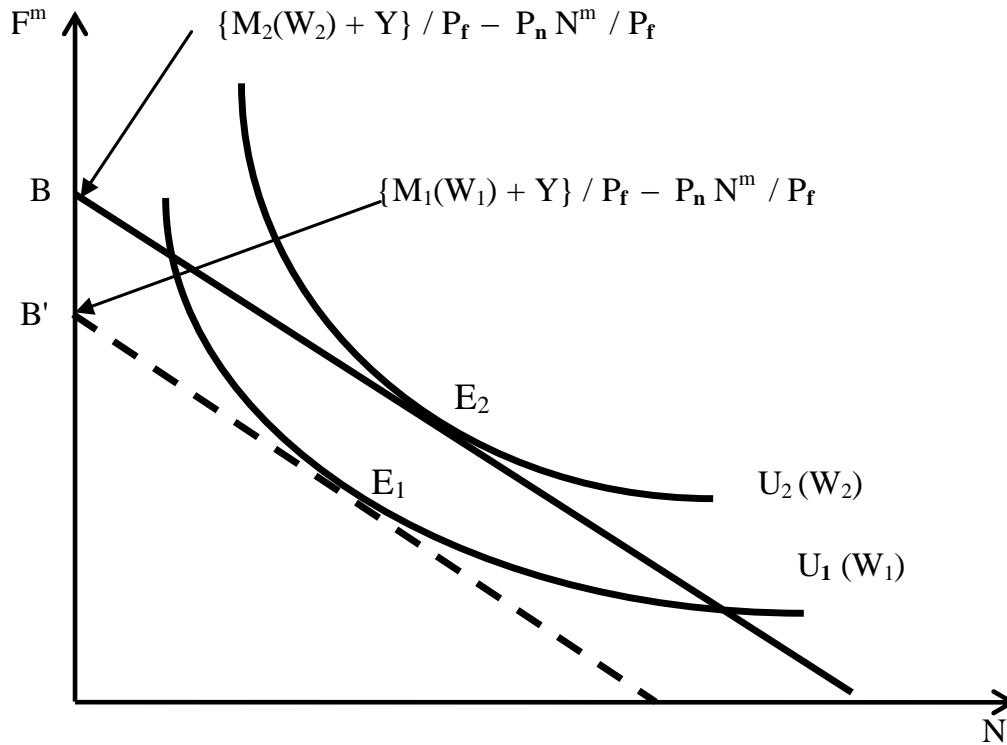


Figure 1. The effect of stock theft.

$$M(W) + Y = P_f F^m + P_n N^m \tag{3}$$

$$\text{Or } F^m = \{M(W) + Y\} / P_f - P_n N^m / P_f \tag{4}$$

Where M is income earned from the sale of livestock-produced products – assumed to be a function of W; Y is income in the form of wages and transfer payments; and  $P_f^m$  and  $P_n^m$  are prices paid for food and non-food products in the market.

The effect of a stock theft is shown in Figure 1 where a decline in wealth from  $W_2$  to  $W_1$  causes an inward shift of the budget line and lowers household utility from  $U_2$  to  $U_1$ . The extent of livestock theft in Lesotho (Dzimba and Matookane, 2005) may well have caused widespread chronic poverty and effectively destroyed the ability to apply asset (or consumption) smoothing on the part of rural households. The entire wealth and livelihood of some households have been wiped out in one attack and experience has shown that chances of recovery are quite minimal, if not non-existent (Kynoch and Ulicki, 2000). In terms of the aforementioned model, a loss of livestock through theft means that the affected household loses the benefits from own consumption as well as the earnings that it used to receive from the sale of livestock (or the capital asset) itself and from the products produced by (or the returns to) livestock. The FAO (1997) states that there are some very poor households that managed to

earn income or accumulate some livestock from hiring out their sons as herd boys to other households that can afford them. But many of these relatively rich households have also been impoverished as thieves have stolen a large part of their livestock. This suggests that stock theft affects poor households in two different ways: firstly, they lose their own stock through theft and, secondly, they are no longer able to hire out their services to the rich who are also victims of stock theft.

Kynoch and Ulicki (2000) show that rural-urban migration has increased as affected rural household members have had to find new jobs. This is in response to an increase in agricultural unemployment which is attributable to stock theft among other factors. Members of some households have been able to find work in the urban parts of the country. These are mostly young female members who have been employed in the textile industries (Dzimba and Matookane, 2005). Some work as nannies and domestic workers and are in most cases paid wages that are below the (official) minimum wage. As mentioned earlier, livestock theft may also deprive affected households of the opportunity to invest in human capital. Referring to the South African case, Black (2004: 424) contends that “many parents invest in the education of their children on a *quid pro quo* basis, expecting them eventually to return the favor by reinvesting part of their adult earnings’ towards furthering the well-being of surviving parents and other older members of the

household". This also applies to Lesotho where in addition the older educated child is also expected to assist in the education of other younger members of the family. The inability of parents to invest in the human capital development of their children means that even these intergenerational transfers are lost. Dzimba and Matooane (2005) indicate that as a result of stock theft, many children leave school early because parents cannot afford to pay for their schooling. Due to the policy of free primary education in Lesotho, which now covers the entire primary school system, every Lesotho child can complete primary education. The problem is at the secondary and high school levels, where government partly subsidizes school fees but parents still bear a relatively large share of the total costs.

Moreover, every child who completes high school successfully and obtains an admission into tertiary institutions in Lesotho and South Africa instantly qualifies for government sponsorship which covers all the costs. Those whose parents cannot afford paying for their secondary and high school education are not able to benefit from this opportunity. The loss of income due to stock theft also has important health implications. Holmann et al. (2005) point out that households would normally sell their animals to raise money to pay for the medical bills of sick household members. This is relevant to HIV/AIDS stricken developing countries and Lesotho in particular. Booyesen (2002) finds that in South Africa, to cope with increased medical care expenses, HIV/AIDS affected households use their savings and often resort to selling their livestock and other assets. When these assets are depleted they may borrow from friends and relatives. But Wason and Hall (2004) indicate that very few households in the rural areas of Lesotho own physical assets such as radios, televisions, stoves, agricultural equipment and vehicles. Thus, stock theft leaves these households with limited strategies for coping with the effects of the HIV/AIDS pandemic. Other coping mechanisms include diversifying agricultural activities and entering the (urban) informal sector. But changing from livestock to crop farming may not be feasible because of a lack of water and low soil quality. Similarly, Kingdon and Knight (2004) contend that entry into the informal sector by the poor could be deterred by such factors as a lack of skills, experience and the necessary capital, and in some cases a lack of government support in providing infrastructure and preventing crime.

Borrowing from informal money-lenders is notoriously expensive while (as a last resort) doing crime carries a high risk (Black, 2004).

## **POLICY IMPLICATIONS**

Evidence suggests that livestock theft is largely caused by persons who have been impoverished by extraneous factors including retrenched miners and drought stricken

crop farmers; while it also has the effect of (further) impoverishing stock farmers. Policy should thus ideally be directed at both the cause(s) of the problem and its consequences. Attacking the source of the problem calls for an intensification of government's efforts at addressing the problem of poverty in the country as a whole. Rapid and sustainable growth that could lead to increased employment is essential for poverty reduction and its ultimate eradication. But this is clearly easier said than done, especially in a time of prolonged recession. Sustained economic growth can at best be viewed as a long term objective. There is therefore a need to consider short to medium term measures aimed at helping affected rural households to survive. These could include increased state unemployment benefits and other forms of social security; an increase in the subsidy on secondary and high school education, or providing it freely to the poor through an appropriate means tested system; and better policing of the rural areas generally and livestock farming in particular. Given Lesotho's level of economic development, however, such measures are bound to be too costly and difficult if not impossible to implement.

A case may thus be made for securing foreign aid aimed specifically at eliminating livestock theft in Lesotho.

## **Conclusion**

The literature indicates that livestock plays a significant role in the livelihoods of the rural poor in developing countries. Lesotho is no exception and in this paper we have argued that livestock constitutes an important asset capable of producing high returns in the form of animal products such as milk, wool and mohair. In the absence of livestock theft, households could apply asset (or consumption) smoothing as a means of saving for the future.

Alternatively, livestock can be sold and the proceeds used for investment in human capital, thus swapping one asset for another. Livestock theft, which has taken on alarming proportions in Lesotho has exacerbated the problem of poverty, especially among rural households. The effects of stock theft on households include a loss of household wealth, and an enforced cut back in own consumption and in the sale of animal products. Stock theft also reduces the production of other agricultural products among households that use livestock for ploughing purposes and animal dung as a means of fertilising the soil.

Alarming, livestock theft reduces the ability of household heads to invest in the human capital development of their children and also results in a deterioration of the household's nutritional status adding to health expenses. In short, the loss of livestock limits the coping strategies available to poor households including those affected by HIV/AIDS.

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