Destocking as a Drought-mitigation Strategy: Clarifying Rationales and Answering Critiques

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The idea of externally assisted emergency destocking of pastoralists has gained currency in recent years: increasing the incentives for pastoralists to sell animals, or removing the constraints to selling animals in the early stages of drought. We identify two separate rationales put forward by proponents of destocking: environmental benefits and purchasing power/welfare benefits. We consider whether specific recent critiques of ‘new range ecology’ and specifically of ‘tracking policies’ do in fact provide arguments against emergency destocking in pastoralist areas. We illustrate some of these themes with a case study of a successful destocking exercise in northern Kenya where a very specific form of support was requested and received by pastoralists themselves. The sorts of destocking that work are likely to have significant effects on pastoralist purchasing power at key points of the drought cycle, but minimal effects on the environment. Clarifying these points will make it easier to promote destocking as a drought-mitigation policy.

Keywords: destocking, Kenya, pastoralists, drought-mitigation strategies.

Introduction

The fundamental importance of drought to pastoralist economies in the arid and semi-arid regions has been increasingly recognised in recent years. According to this view, drought is not an occasional catastrophe for pastoralists but a risk inherent in the system to which traditional pastoralist economies adapted. For many authors, that adaptation has been weakened by external pressures on pastoralism and internal processes within it (for example, encroachment on grazing lands and increased commercialisation). The corollary is that governments and other external agencies must now intervene in the drought cycle to mitigate the effects of drought (Pratt et al., 1997; Blench and Marriage, 1999; Morton, 2001).

One intervention that has gained currency in recent years is the idea of externally assisted emergency destocking of pastoralists. This has been proposed either at the height of the drought cycle when animals are in very poor condition, which can be referred to as salvaging; or at the onset of drought. According to the latter idea, governments or other external agencies can act in various ways to increase the incentives for pastoralists to sell animals, or remove the constraints they face in selling animals in the early stages of drought. The effect will be to increase the overall number of animals sold, or to ensure that animals are sold sooner in the drought cycle,
Such strategies are analogues of the sorts of destocking practised by ranchers and commercial farmers.

We believe that discussion so far has failed to distinguish adequately between the environmental and the purchasing power benefits of externally assisted destocking during the onset of drought, and therefore has not always made its case as persuasively as it might. At the same time, advocacy of such interventions has to some extent been bound up with the increasing influence of the ‘new range ecology’ (Behnke et al., 1993; Scoones, 1995), and in particular with the terminology of ‘tracking policies’ used in some of this literature (Behnke and Kerven, 1994). Much of the scientific basis of the new range ecology has recently been criticised (Illius and O’Connor, 1999), and critics have gone on to assert the inefficiency of what they consider ‘tracking policies’, which include the sorts of externally assisted destocking we are discussing.

This article attempts three tasks. First, we aim to clarify two different rationales for destocking which have been put forward, sometimes separately, sometimes jointly, by its proponents: environmental benefits and purchasing power/welfare benefits. Second, we consider whether specific recent critiques of ‘new range ecology’ and specifically of ‘tracking policies’ do in fact provide arguments against emergency destocking in pastoralist areas. Third, we illustrate some of these themes with a case study of a successful destocking exercise in northern Kenya where a very specific form of support was requested and received by pastoralists themselves. We believe the sorts of destocking that are likely to work will have significant effects on pastoralist purchasing power at key points of the drought cycle, but minimal effects on the environment. Clarifying these points will make it easier to promote destocking as a drought-mitigation policy.

**Destocking and its rationales**

Oxby (1989), in a survey of NGO responses to drought, mentions destocking generally, and the specific experience of ACORD in Mali 1983–5, in the context of a discussion of restocking projects. She defines destocking as an intervention ‘appropriate at the height of a crisis, when livestock-keepers are being forced to sell animals at low prices in order to buy food at high prices’ (1989: 46). More recent contributions would lay the emphasis more on the onset of drought, and less on the height of the crisis, but the equation of destocking with an intervention in pastoralist purchasing power is clear. In Mali, demand for destocking was expressed by meetings of herders which ‘underlined the necessity of destocking their herds as rapidly as possible but at a price that would allow some purchasing power on the cereal market’. Existing cooperatives organised the purchase of animals and their conversion into dried meat, which was then bought by relief agencies for distribution elsewhere, an experience judged a great success by herders.

Toulmin (1995) also combines discussion of destocking and restocking, in the context of a three-phase model of the drought cycle involving fodder availability, livestock numbers and price effects on livestock and grain. In phase one of the drought cycle ‘rainfall failure leads to a fall in pasture production and a collapse in the number of livestock able to be supported’ (1995: 96). At the same time, particularly where the drought extends to cereal-growing areas but also because of increased demand from pastoral people, grain prices rise while livestock prices fall (prices both per kilogram of meat because the market is flooded, and per animal as animals lose condition).
Within this context, ‘strategies aimed at timely destocking and restocking of livestock numbers have the dual advantage of taking animals off the land sufficiently early in a drought to avoid causing long-term damage to vegetation and soils, and of reconstituting the livestock economy in the post-drought period’ (1995: 96). In phase one of the drought cycle, ‘the main imbalance to be addressed … is the excess of animal numbers over fodder availability’ (1998: 100). A clear environmental rationale for destocking is put forward here, but later in the article Toulmin uses both environmental arguments and welfare/purchasing power arguments. Destocking is seen as one of a range of options for overcoming this imbalance, including stock movement, subsidies on fodder and drought-proofing through cultivated fodder reserves or breeding hardiness into animals. Within the discussion of destocking, by contrast, two options are presented: selling animals still in good shape, and selling animals in very poor condition for salvage slaughter, which latter option, the animals being on the point of death, can have no environmental rationale. The examples given, NGO experiences from Mali and Kenya, concern support to ‘herders desperate to gain something from emaciated animals’ (1998: 101). We agree that this approach is too late. Rather the emphasis should be on the maximisation of pastoralist purchasing power, which may reduce the famine relief effort required while also aiding recovery post-drought. To achieve this, market interventions need to be made early in a drought before livestock prices decline.

A clear and high-profile, though summary, statement of the environmental rationale for destocking is made by de Haan et al. (1997) in a widely disseminated report of a multi-donor study on livestock and the environment. In discussing policy options to mitigate environmental impacts in arid area grazing systems, the authors state that:

irreversible land degradation in arid zones, if it occurs, originates as a result of high stocking rates during droughts. The appropriate drought management strategy is to destock as early and rapidly as possible, rather than seeking to maintain maximum stock numbers (1997: 23).

It should be noted, however, that the authors go on to discuss enabling policies for generally increasing voluntary offtake, such as infrastructure investments and grazing fees for communal areas, rather than the time-specific, project-level interventions we are discussing here. One of the co-authors of the above document is also co-author of a World Bank Technical Paper (Pratt et al., 1997) which recommends destocking in the following terms: ‘pre-emptive sales of livestock in advance of drought — before their condition worsens and value decreases — makes sense economically, and also makes it easier to nurture the livestock that remain’ (1997: 69). This is, thus, the purchasing-power rationale for destocking.

The two rationales are again mixed in a recent report on the project-level response to the 1999–2001 drought in Kenya (Aklilu and Wekesa, 2001). Of seven destocking projects and two ‘transport subsidy projects’ surveyed, two report environmental objectives: ‘to reduce environmental stress on the range through destocking of 4 per cent of cattle at risk’ and ‘to relieve pressure on scarce water and pasture resources’ (2001: 31–2). In the latter case it was noted that ‘the impact on saving the scarce water and pasture resources as initially envisaged was negligible’ (2001: 33). The other projects surveyed reported purchasing-power-related or welfare rationales.
There are then two rationales proposed by those who have advocated drought-time destocking as either an intervention to protect the environment or to boost pastoralist purchasing power (and thus welfare). The two arguments are sometimes mixed unsystematically. One problem with this approach is that the precise nature and force of the argument for supporting purchasing power is obscured when the idea of destocking is criticised on other grounds.

One argument against using externally assisted destocking is the sheer scale of intervention required to make an impact on the environment. It would be difficult under any project or policy design that guaranteed the essentially voluntary nature of destocking to effect the sort of percentage change in livestock numbers to mitigate overgrazing significantly. This is even more so the case for NGOs, with their limited resources, who have, up until now, been key pioneers in destocking. As we shall see, a far smaller percentage offtake, which itself represents a considerable organisational task, is sufficient to make a significant impact on purchasing power.

Tracking, modelling and destocking

The arguments for destocking examined above have been related in varying degrees to the so-called ‘new range ecology’. New range ecology, as the name implies, has been a shift in scientific thinking, as exemplified by the scientific papers collected in Behnke et al. (1993), but as Scoones (1995: 3) points out, had earlier roots in a profound shift in pastoral development models, led by social scientists, that took traditional pastoral institutions and knowledge seriously (see particularly Sandford, 1983). One of the publications cited above (Oxby, 1989) can be regarded as part of that shift, one (Toulmin, 1995) appears in a book devoted to the planning and policy implications of the new range ecology, and the two donor publications (Pratt et al., 1997; de Haan et al., 1997) both make positive, though not uncritical, reference to new range ecology.

The central arguments of new range ecology have been variously summarised by supporters and critics (e.g. Scoones, 1995: 2–3; Campbell et al., 2000: 414). To further paraphrase Scoones, there are three central propositions:

- Many grazing ecosystems are not at equilibrium, are affected more by rainfall fluctuations than by grazing pressure, making opportunistic or tracking strategies environmentally benign and economically efficient.
- Rangeland productivity is variable over space and time, necessitating flexible movement.
- African pastoralist systems have multiple objectives, making simplistic management tools and strategies unlikely to work.

In the last few years, there have been increasing scientific criticisms of what are seen as the sweeping assertions of the new range ecology (Illius and O’Connor, 1999; Cowling, 2000). As part of this body of work, two recent studies (Illius et al., 1998; Campbell et al., 2000), based on ecological (and in one case also economic) modelling, have criticised what they refer to as ‘tracking policies’ or ‘tracking management scenarios’ which involve drought-time destocking by pastoralists, and by implication the sort of government or donor assistance to this outlined above. To address these critiques properly, it is necessary to examine closely how the term ‘tracking’, and the
related term ‘opportunism’, have been used by the ‘new range ecologists’, their forerunners and their critics.

Sandford (1983: 38) contrasts ‘conservative’ and ‘opportunistic’ strategies as ideal types, recognising that ‘pastoralists are unlikely to pursue either of these strategies exactly’. A conservative strategy is one ‘in which a constant number of livestock graze an area through good and bad years alike’, and an opportunistic strategy one ‘in which the number of livestock grazing is continuously adjusted to the current availability of forage’. How this adjustment is managed is not made explicit in the definition, but it is clear throughout the book that Sandford is discussing marketing and mobility of livestock. Behnke and Scoones (1993) follow Sandford by using the term ‘opportunistic management’ and its corollary ‘opportunistic policy towards range management’ (such as a policy adopted by governments or donors). Opportunistic policy is clearly presented as having three components. One is livestock marketing: ‘Livestock sales are one obvious means to achieve rapid destocking, and livestock marketing would play an important role in an opportunistic policy towards rangeland management … attention would shift to the design of marketing systems which can accommodate massive and unpredictable shifts in levels of throughput’ (1993: 29).

The second component, clearly equally important, is herd movement and land tenure, and the authors refer to an ‘attempt to foster opportunism by maintaining livestock mobility’. This leads to the third component: the reform and devolution to pastoralists of administration.

The terminology of ‘tracking’ appears in the new range ecology literature with Behnke and Kerven’s paper of 1994, and Scoones’s (1995) and Toulmin’s (1995) chapters within a volume of papers on the planning and policy implications of the new range ecology. Within an overall ‘opportunistic’ approach to rangeland exploitation, Behnke and Kerven (1994) introduce tracking as one of two ‘indices’ of project success: ‘tracking refers to a biological phenomenon - the prompt realignment of livestock forage demands with fluctuating levels of primary production’ (the other index — ‘buffering — refers to the shielding of pastoral incomes from environmental fluctuations). Scoones (1995) is slightly more specific: ‘Tracking involves the matching of available feed supply with animal numbers at a particular site’ (our italics). Scoones lists four ways to achieve effective tracking:

- pastoral-agricultural links;
- livestock movement;
- physiological tracking by low-input animals; and
- livestock marketing.

Of livestock movement, he observes:

Movement of animals in response to spatial and temporal variation in resource availability is perhaps the most classic of all the tracking strategies … movement allows herders to track fodder across the landscape, making use of patchy grass production caused by uneven rainfall or variations in landscape topography (1995: 16).

Similarly, it is clear that Behnke and Kerven (1994) and Toulmin (1995) intend both livestock marketing arrangements and land tenure reform to maintain pastoral mobility when they refer to ‘tracking’. On the latter Behnke and Kerven state:
If adjacent grazing areas experience asynchronous productivity flushes and crashes, herd mobility, and the nonexclusive tenure arrangements that permit mobility, are a cost-effective way for animals to walk away from temporary, local imbalances in stock numbers and feed supply (1994).

These authors, and others (notably Abel, 1997) have compared such tracking strategies with conservative strategies (see the definition by Sandford above) and concluded that tracking brings higher economic returns while being no more environmentally damaging. Illius et al. (1998) and Campbell et al. (2000) both use modelling methodologies to criticise these claims. Both models are based on long-run climate, vegetation, animal population and in the case of Campbell et al., price data collected in communal areas of Zimbabwe.

Illius et al. (1998) compare a relatively high fixed stocking rate achieved by livestock owners selling all stock surplus to that rate once a year, with a range of tracking scenarios in which either livestock numbers are adjusted through sales in proportion to annual rainfall, or livestock are sold in proportion to livestock mortality. All scenarios used in the analysis include modest restocking by purchase after livestock population crashes.

Campbell et al. (2000) compare:

- an ‘opportunistic’ scenario, based on actual cattle numbers in two communal areas;
- a tight tracking scenario involving sales or purchases to keep cattle numbers at the ecological carrying capacity (as they themselves define it);
- a conservative tracking scenario, similar to the last but where cattle numbers do not go above 80 per cent of ecological carrying capacity, and purchases do not exceed 60 per cent of the deficit between numbers and ecological carrying capacity; and
- a conservative scenario where numbers are maintained at a fixed level — 66 per cent of average ecological carrying capacity.

Campbell et al. (2000) see ‘tracking’ as a range of new strategies, proposed by the new range ecologists, which livestock owners could adopt with external support, totally distinct from the ‘opportunism’ that they currently display. However, as we have seen the two terms are used largely synonymously in the new range ecology literature. Distinctions between existing strategies of livestock owners and policy implications are not always clearly made in the new range ecology literature, but a general policy orientation of supporting existing strategies is clear, which makes Campbell et al.’s distinction between opportunism and tracking doubly puzzling.

In addition, neither set of authors factors livestock mobility into their model. With Illius et al. this is explicit, despite the fact that they summarise Scoones (1995) on the range of tracking strategies, including mobility: ‘Policies designed to exploit spatial heterogeneity in vegetation conditions, such as transhumance or agistment, were not considered, because they are outside the scope of the present model’ (1998: 386–7). An underlying reason for both sets of authors is that their models are based on empirical conditions in the communal areas of Zimbabwe, where long-distance movement of livestock in response to environmental variations was massively reduced by colonial policy, placing African farmers and their herds in small circumscribed reserves, often bounded by commercial farmland or protected areas. Findings, empirical or modelled, from Zimbabwe are therefore of limited relevance to more
classically pastoral areas where much of the empirical work underlying new range ecology was done, and where many of its policy implications can be promoted.

Illius et al. (1998) entered their different scenarios into a detailed mathematical simulation of non-equilibrium rangeland dynamics including highly variable rainfall and a strong probability of drought, in turn affecting cattle reproduction, liveweight gain and mortality and evaluated them by the long-run sales (in kilogram liveweight per hectare) these conditions make possible. However, as the authors admit, ‘the model does not have an economic component’ (1998: 383) and does not include price changes. Their conclusion is that ‘there are no substantial differences in annual sales between any of the policies’ (1998: 392). They advance three explanations for the failure of tracking policies (including all but the fixed sales option). First, thoroughgoing destocking requires the sale of breeding females, which will weaken the capacity of herds to regenerate, in the absence of massive externally assisted restocking post-drought. Second and alternatively, tracking policies lead to sales of more but lower weight animals. Third, tracking by current season’s rainfall does not mitigate the effect of two-year droughts. The authors conclude that the most rigid variant of the fixed stocking policy is the most rational one for pastoralists, at least ‘in the absence of an ability to restock heavily after drought’ (1998: 396), which it is assumed ‘would require huge resources to be deployed’ (ibid.: 394). ‘For subsistence pastoralists, the traditional policies of maintaining the maximum number of breeding stock, and of hoping most of them will survive drought, may be as close as “opportunistic” management can get to dealing with drought’ (ibid.: 381). This judgement begs the question of how subsistence pastoralism is defined and whether true subsistence pastoralists exist, and whether maximum stocking at all times is indeed ‘traditional policy’.

Campbell et al. (2000) do factor in fluctuating livestock prices (although their model does not adequately cover all the price movements during drought in classically pastoral areas; see below), and express the results of their simulations in Net Present Values (NPVs). Their conclusion is that strategies based on conservative stocking rates would have higher NPVs than ‘opportunistic’ stocking rates except under ‘very special and peculiar situations’, while ‘tracking’ scenarios never emerge as having the highest NPVs. This is explicitly linked to a criticism of externally assisted destocking and restocking. ‘Some writers have suggested that government must put in place a system that can buy and sell cattle to farmers in order to maintain the close tracking. Our results suggest that government would have to be willing to provide sizeable subsidies, an unlikely event in these times of dwindling government subsidies’ (2000: 429).

Essentially, and despite differences in methodologies and the scenarios compared, both Illius et al. (1998) and Campbell et al. (2000) conclude that attempts to track environmental fluctuations, either through marketing strategies pursued by livestock owners, or by policies of governments and donors to support those strategies, are not economically worth it. These strategies and policies are compared adversely to (in the case of Illius et al.) constantly maximising herd numbers and bearing the costs of drought-induced crashes, or (in the case of Campbell et al.) maintaining relatively lower, and fixed, stocking rates. As part of larger arguments against ‘tracking’, these authors therefore argue against the sort of externally assisted destocking promoted by Oxby (1989), Toulmin (1995) and recent publications by major donors (de Haan et al., 1997; Pratt et al., 1997).

We would argue against such a judgement for the following reasons:
• In neither model is livestock mobility factored in, despite the fact that it is included as a component of tracking strategy and policy by the new range ecology authors. The comparison is therefore made with a truncated and weakened version of tracking. The possibility that external assistance to destocking could be selectively given in more extreme and geographically widespread droughts, while lesser and more geographically restricted droughts are mitigated by measures and policies that enhance livestock mobility, is not considered.

• While Campbell et al. (2000) factor in livestock price effects, they do not factor in fluctuations in grain prices during drought (which are less marked in Zimbabwe than in more arid regions) so underestimate the greater benefits to be gained from sales early in the drought cycle.

• In areas more arid than Zimbabwe, the increased use of veterinary drugs and diesel boreholes, when resources permit, are common pastoralist responses to drought; providing cash to enable effective use of such inputs early in the drought cycle enhances livestock survival rates.

• Much of the reason why pastoralists do not sell animals early in the drought cycle relates to the physical constraints of getting (often weak) livestock to market. Fodder and water on stock routes may be in short supply and only the best animals are able to make the long journey ‘on the hoof’ to market. By the time they reach market their condition will have deteriorated and their value greatly reduced. At the same time, market prices are also falling rapidly. Embarking on a long trek to market is therefore an extremely risky undertaking for pastoralists.

• Pastoralists, when given the chance, frequently and articulately ask for external intervention to ease the above constraints, and are prepared to take collective action themselves to complement such intervention.

The rest of this paper will see these points illustrated, and more generally the argument for destocking and support for pastoral household purchasing power, with a case study from northern Kenya. We believe this case to represent good practice in externally assisted destocking, designed clearly to intervene in purchasing power, implemented during drought onset, making use of community structures and gaining cost-effectiveness through intelligent use of private traders.2

Case study: DPIRP/ActionAid subsidies to livestock traders

This project-level initiative in livestock marketing as drought mitigation took place in Merti division of Isiolo District during the 1996 drought. Mean annual rainfall in the division is 250mm with long rains from March to May and the short rains from October to December. Merti division experienced a severe drought during 1996. Rains had failed in 1995 and further drought in 1996 depleted existing water sources. Many pastoralists resorted to killing calves to save cows, and many cattle moved to Moyale and Wajir districts in search of fodder.

Those pastoralists that remained in the division with their animals were gambling on rain arriving between March and May. When the rain did not arrive they were faced with destitution. Of the 3,455 households in the division, 1,380 had no livestock by April 1996 and were living in urban and peri-urban settlements. Cereal (maize flour) prices increased from KSh12–25/kg3 while cattle prices declined by half.
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The market intervention

In response to this crisis DPIRP (the Netherlands-funded Drought Preparedness, Intervention and Recovery Project) and ActionAid (a development NGO already present in the area) agreed, after consultation with the communities themselves and the livestock traders, to intervene to assist communities to market their stock. These consultations established that the communities were more than willing to sell livestock but lacked access to a market (water and fodder on the stock routes was in short supply). It also confirmed that traders were willing to purchase but did not have any information from producers about availability of cattle and that they were concerned about security, particularly in locations in which they had not traded before. The donors therefore set out to facilitate the private sector to purchase livestock.

The major objective of the market intervention was therefore to purchase stock while they were still in reasonable condition (and had value) while at the same time improving the purchasing power of pastoral households and reducing their dependence upon famine relief.

Earlier experience of market intervention in post-colonial Kenya (it had also been established policy during the colonial period to purchase stock from the range during drought) had involved the purchase of livestock by government agencies such as the Livestock Marketing Division (LMD) (Barton and Morton, 2001). This usually involved guarantees to buy any animal presented, which only succeeded in removing the poorest and weakest animals from the range. While this benefited pastoral households, it often proved impossible to recover much of the cost of these operations or to use many of the livestock purchased (for canning) as they died before they could be processed. There was also a general perception that these operations benefited the elders and senior members of the community and not necessarily those households in greatest need.

DPIRP and ActionAid therefore used a different approach and offered a transport subsidy to livestock traders to reduce their marketing costs and encourage the purchase of livestock in Merti division. They decided that as it cost KSh40,000 to hire a truck to travel with livestock from Merti to Nairobi, assistance would be provided in the form of a transport subsidy to cover 40 per cent of these costs. DPIRP provided the funds for the subsidy and ActionAid implemented the programme of facilitating stock purchase.

When the organisation of the market intervention was confirmed, ActionAid consulted local people who requested a rotating market. Ultimately eight markets were held in three locations, all possessing ActionAid-established ‘Settlement Development Committees’ (SDCs). Market days were chosen by the SDCs to coincide with existing markets for retail goods and miraa (the stimulant leaf better known internationally as qat). Two or three days notice was sufficient to publicise the date of the market. In some cases, marketing continued into the next day. It was assumed from the outset by traders, pastoralists and ActionAid that the markets would be for cattle, which traders wanted to buy and pastoralists wanted to sell as their condition was worse than that of smallstock. Had people wanted to sell smallstock and had a realistic chance of doing so, neither ActionAid nor DPIRP would have objected.

Meetings were organised by each SDC, but attended by other elders, and some women (but not by ActionAid, DPIRP or traders) at which people discussed and agreed ground rules and strategies for marketing. In one settlement, no one was allowed to sell more than two head of cattle, and sales under the scheme had to be for purposes of ‘subsistence’ only. In another community, the maximum sale was six head, and the
subsistence condition may have been weaker, as at least one beneficiary subsequently reinvested in livestock. Generally, all the SDCs gave some sort of priority to those bringing small numbers for sale. Guideline prices were agreed: while these were inevitably treated flexibly at the market itself, each individual negotiation had three parties: owner, trader and SDC representative, so that individual owners would not depart too far from guidelines set. SDC representatives also helped to ensure the security of the market, overcame communication barriers (and to some extent barriers of trust) between pastoralists and the Isiolo traders who were of other ethnic groups, and looked after animals left overnight. The marketing process was clearly labour intensive — some informants considered the three-way negotiation the reason some of the markets spilt over into a second day — for SDC members who worked voluntarily, so it is understandable that the SDC wished to ensure the equity and social benefits of the process.

**Outcomes**

During this operation in Merti division and a subsequent phase in Garba Tulla division approximately 3,000 cattle were removed from the range at an average price of KSh6,000. Therefore the gross benefits to households in Isiolo District was KSh18 million. This is equivalent to relief food (the alternative) for 36,000 adult months.\(^4\) The average subsidy, taking into account all administrative costs\(^5\) was approximately KSh850 for each animal bought under the drought relief scheme.

One or two traders who bought immature animals (for fattening) were not permitted to move them beyond the veterinary cordon (animals for slaughter are permitted to be carried directly to slaughterhouses around Nairobi).\(^6\) A local commercial farmer (north of the cordon) bought some immature stock and held them until they had tested negative for CBPP (three separate tests at six-week intervals). Some traders were therefore subsidised to move the animals only a few miles rather than the 300 kilometres to Nairobi.

The communities who were assisted by the marketing intervention benefited in the several ways. They were able to, for example, pay school fees (primary and secondary); meet medical expenses; settle debts incurred for foodstuffs before the sale of livestock; buy clothes.

Other indirect beneficiaries included wholesalers of foodstuffs who were able to sell to drought-affected families for cash rather than on credit. Sellers of cattle often invested in smallstock, which allowed poorer households to gain access to cash as a market developed for their sheep and goats. The communities much preferred having cash as there is often mistrust about how relief (the alternative) is managed and a widespread belief that some households benefit more than others.

The age and sex of animals sold was not agreed beforehand with SDCs. The pattern seems to have been that steers aged 2–3 years and cows aged 6–7 years were most popular, but individual decisions were made based on need and some fertile cows were sold. Some animals did not find a buyer, these were generally those in very poor condition, and dry cows may have been heavily represented among them.

Being able to sell animals without trekking to market was perceived to be an enormous benefit to households. Although thin animals did not command a high price, there was a demand for immature animals that can be fattened on commercial ranches. During droughts compensatory growth of livestock usually allows quick profits to be made by commercial farms.
There were compelling reasons to sell animals in Merti. First was the desire for cash to meet immediate food needs, and second was the desire to sell animals before they became completely unsaleable. Desire to preserve grazing did not feature as a rationale for offtake. However, as water was by that time supplied from the drought-relief borehole at Yamicha, some herd owners may also have been motivated by a desire to avoid borehole fuel costs.

Different communities had different perceptions of the traders who participated in the markets. There is widespread distrust of the livestock traders in Isiolo town — mainly Somalis and down-country Kenyans. Some informants felt that the Boran and Somali traders brought out for the market were a different sort from the usual Isiolo traders and were very happy to trade with them. Others clearly resented that more traders local to Merti were not involved. It is clear that the assumption made by ActionAid/DPIRP that only Isiolo traders would be involved was a mistake, but it was subsequently rectified and about five local traders were eventually involved.

A local trader interviewed in Merti confirmed that by the time of the subsidised marketing operation, his normal practice of buying animals and trekking them to Isiolo (in company with other traders and owners intending to sell) was impossible, both because of lack of grazing on the way and the poor condition of the animals. He and four other local traders had convinced ActionAid that local, as well as Isiolo-based, traders should be involved, and they had eventually bought about 15 lorryloads or 300 animals. The local traders had found buyers in Nairobi for all the animals bought but not necessarily at a profit. He claimed that local traders had lost money on the operation, but would participate again as they feel ‘part of the community’. Following the end of the marketing intervention local traders bought and trucked out another ten lorryloads of cattle, but have now reverted to trekking. In the rainy season of non-drought years, it appears that the condition of animals is better after trekking, and that even when herder and security costs are added, it is a cheaper way to reach Isiolo market. However, for rapid and direct access to more lucrative markets (Nairobi), lorry transport is essential but requires capital.

In general, perceptions of the marketing operation were extremely positive. The timing of the operation was critical, when cash needs were rising, trekking had become impossible but animals were still fit enough for trucking, and that was judged to be right. Prices were perceived as fair; indeed, in both communities visited, people said they would have accepted prices of KSh1,000 less. The positive effects on consumption and small business were welcomed. Pastoralists in Merti were disappointed that the operation could not continue longer (because DPIRP felt obliged to mount the same operation in Garba Tulla). Although none of the Isiolo traders continued buying in Merti once the transport subsidy was withdrawn, the operation appears to have stimulated local traders to make greater use of truck transport in the next few months.

In principle, the fact that people feel they would have accepted KSh1,000 less per head, more than the amount of the transport subsidy, suggests that the marketing could have taken place without the subsidy. However, at present, people in the Merti area do not see how they would attract the Isiolo traders to the area through their own efforts. One implication of this is that the external organisational input of ActionAid, and its position as a trusted intermediary with traders who might not have been trusted, was as important as financial subsidy, and ways to decrease the latter in future operations could be considered.
Prospects for scaling up

The removal of stock from Merti during the drought of 1995/6 was one of the first examples of a successful intervention to assist pastoralists to destock during drought in Kenya since the mass interventions of LMD during the 1970s. The value of the stock outweighed the cost of the operation by a factor of six. Perhaps the greatest contribution to the removal and sale of stock was the intermediary role paid by the development organisations. Pastoralists were willing to sell stock: traders were willing to buy but not initially to do so outside the district centre. There was a need to overcome barriers of distance and also of trust.

There are several factors which suggest that intervention in the marketing of livestock by acting as intermediary or providing transport subsidies may be feasible on a larger scale, especially in areas characterised by a semi-arid to arid climate, a relatively traditional pastoralist production system and spatial constraints on livestock marketing.

- Improving weather and drought forecasts which will allow pastoral communities to plan their disposal of stock most rationally (Sear, 2001).
- Improved early warning systems which forecast in a timely manner the potential impact of drought (Swift, 2001).
- Increasing interest in the marketing of livestock and the accumulation of savings in the form of cash as a household drought-contingency measure by pastoral communities (Ndofor, 1998; Buchanan-Smith and Barton 1999; Barton and Morton, 2001; Barton et al., 2001).
- Improvements to telecommunications, particularly cell phones in sub-Saharan Africa.
- Increasing recognition by politicians of the importance of self-reliance and the need to reduce dependence in the rangelands.

Ranged against the above, a number of factors may prevent the success of a wide-ranging drought contingency policy of stock removal. These can be grouped under: market conditions, especially the lack of a reliable terminal market for large numbers of stock; poor market infrastructure and market information; adverse enabling environment in terms of regulation.

In Kenya, for example, dealing with such factors would entail:

- The development or revitalisation of export markets for livestock and livestock products.
- The development of alternative market outlets for livestock (including smallstock and camels).
- Investment in infrastructure and market information systems to facilitate the southward flow of livestock.
- A review of the veterinary cordon sanitaire, with provision made for movement without extended quarantine during drought.
- An easing of regulations burdensome to traders, such as that forbidding livestock trucking at night.

Any attempt to intervene in livestock marketing during drought, whether through direct purchase, assisting traders by contributing to the cost of transport or simply acting as
intermediaries between sellers and buyers will require an element of subsidy, explicit or implicit. This is inevitable given the conditions and the environment in which pastoral communities raise livestock. However, this study had demonstrated that it should be possible for the private sector to remove stock from the range if subsidies are provided for transport, and that this subsidy will generate significant benefits for the national economy in terms of the production saved. An equally significant benefit will be significantly to reduce the need to provide relief for the communities affected. Subsidies are unfashionable and frowned upon by those charged with developing fiscal stringency and structural adjustment programmes. However, schemes to promote pastoral welfare in the face of drought may be cost-effective considering the likely cost of drought relief, either in the form of food handouts or food-for-work. Market-assisted destocking is a particularly promising example of such a scheme.

There are also likely to be knock-on effects for the local economy as the purchasing power of pastoral households improves which will benefit local shopkeepers and entrepreneurs as well as possibly providing employment opportunities. In the longer term improved purchasing power of pastoral households implies:

- The ability to restock post-drought.
- More dependence upon cash as a means of mitigating the impact of drought on the pastoral household.
- Greater interest by pastoral households in the commercialisation of livestock production.
- Fewer opportunities for absentee herdowners to acquire large herds during periods of stress.

In this discussion we have not covered the distinct and substantial literature on restocking (see, for example, Moris, 1988; Oxby, 1994; Heffernan and Rushton, 1998). In many pastoral situations, the promise of post-drought restocking may make the task of assisting destocking during the onset of drought easier. Major questions on restocking remain, on how pilot experiences can be cost-effectively scaled-up, and the place of restocking in rapidly evolving and diversifying livelihoods (see Heffernan et al., 2001). However, we believe that the form of externally assisted destocking discussed above can have important benefits to pastoral purchasing power and welfare even in the absence of externally assisted restocking.

**Conclusion**

We have attempted here to tease out two possible rationales for externally assisted destocking during drought onset, which are both cited by proponents of this form of assistance. Destocking exercises would have to be massive to have a positive environmental impact, but because of price trends during drought a purchasing power impact of timely destocking seems much more likely. It is this argument that must be promoted to maintain the impetus for governments, NGOs and donors to experiment with this powerful drought-mitigation measure.

Both rationales have been criticised as a by-product of wide-ranging critiques of ‘the new range ecology’ and ‘tracking’ policies in particular, but these critiques have used a restrictive definition of tracking that fails to consider the combined possibilities
of pastoral mobility and market action. Neither do these model-based critiques take into account the particular patterns of cash needs, marketing and distance constraints on marketing that can occur in arid zones such as northern Kenya. Experience is beginning to show that where destocking is a product of familiarity with a pastoral society and participatory diagnosis of its needs, it can be very effective.

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Notes

1. They continue ‘when compared at equal stocking rates’. In fact, one variant of the tracking policy resulted in significantly lower long-run average sales than the fixed stocking policy, but this was judged an indirect effect of the policy through stocking rates, rather than a direct effect through mortality, and factored out in re-analysis. This procedure does not affect our own disagreement with Illius et al.
2. The authors (together with Cary Hendy) conducted group and individual interviews with beneficiaries of this project in Merti, and ActionAid and DPIRP staff involved with its planning and implementation in Merti, Isiolo and Nairobi, as well as reviewing documentation, during July 1998, as part of a wider DFID-funded project entitled ‘Lessons for Drought Contingency Planning in the Pastoral and Agro-pastoral Livestock Sectors’.
3. US$1=KSh56 approximately during 1996.
4. This includes the cost of the food plus administration and transport estimated to be Ksh500/month, see Barton and Morton, 1999.
5. These included security for traders who carried cash to sales, administrative costs associated with organising and arranging markets and providing a CBPP test.
6. This cordon separates the northern rangelands from the high-potential highland areas of Kenya where many exotic dairy and beef cattle are kept. It was introduced during the colonial period and persists due to fears about the spread of CBPP to the commercial dairy and beef herd.

References


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