

Destocking as an emergency drought mitigation measure: Lessons learned from the 2005 'Turkana emergency livestock off-take' intervention

David J Watson and Joep van Binsbergen, International Livestock Research Institute (ILRI)
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Introduction

This report describes an emergency drought mitigation program executed by the non-governmental organization (NGO) Vétérinaires Sans Frontières Belgium (VSF-Belgium) in Turkana District, northwestern Kenya, in early 2005. It consisted of purchasing drought-affected goats from pastoralists in the worse affected parts of the district and donating them to local schools and health centres, where the resulting meat was to be used to supplement the diet of students and in-patients. The International Livestock Research Institute (ILRI) was invited by VSF-Belgium to carry out an independent evaluation study of the intervention and to make recommendations for the improvement of future destocking programs. The evaluation study forms the core of this report.

Turkana District and drought

Turkana is the largest though least developed district in Kenya. Bordering Ethiopia, Sudan and Uganda, the district is classified as arid and semi-arid lands (ASAL). It covers 77 thousand km² and is home to around half a million people.^{1,2} With less than 3% of the land suited to growing crops, around two-thirds of the population depends on subsistence-oriented nomadic pastoralism for their livelihoods. Livestock—goats, sheep, camels and donkeys and, in wetter parts, cattle—are also central to local social and spiritual life. Some pastoralists who used to keep cattle no longer do so having lost them in previous droughts, such as the one that occurred in 1980.

It is widely believed that droughts are becoming both more frequent and more severe in the region: in recent years, droughts have occurred in 1992/93, 1996/97, 1999/2001 and 2005.³ Formerly, an array of traditional coping strategies were used to mitigate their impact, such as trekking to access distant water, graze and browse resources and preservation of grazing reserves for use only during extreme drought. Over the past 20

years or so, the survival of traditional nomadic pastoralism in the region has become increasingly threatened as these time-honoured drought mitigation strategies have been undermined. In addition to apparently more frequent and severe droughts, increased human population, decreased access to traditional rangelands, the spread of an alien invasive plant species (*Prosopis juliflora*) and increased insecurity are all considered to be exacerbating factors.

Previous destocking initiatives

There have been a number of previous destocking initiatives in Turkana. One of the first was undertaken by the World Food Programme (WFP) in 1990 and aimed to improve the ecological balance, increase pastoralists' purchasing power and improve food security amongst food insecure pastoralists. Agents working for the Kenya Government bought a total of 2768 sheep and goats at local auction sites and the intention was to sell them on to traders with the proceeds contributing towards a revolving fund. A subsequent review team identified a number of weaknesses in the project's design: most of the animals purchased were emaciated and unhealthy and many died before they could be sold on; animals were bought on a 'first-come first-served' basis, which tended to exclude the most vulnerable and needy; the price offered, intended to attract only the poorest and most desperate livestock pastoralists, proved to be high enough to be attractive to both small- and large-scale livestock keepers; and the scale of the project was too small to have any impact on stocking densities and hence the 'ecological balance'. Whilst the project was clearly not a model destocking intervention, it was concluded that destocking constituted a legitimate tool for the provision of emergency support directly to pastoralists.^{4,5}

VSF-Belgium first became involved in destocking activities in Turkana in the year 2000, during a prolonged drought, when they won a tender to execute a USD 120 thousand project funded by the European Union's Community Development Trust Fund. The objective was to enable pastoralists to salvage some capital from their animals by selling them before they died, drying the resulting meat and supplying this, along with some fresh meat, to vulnerable groups. In the process it was expected that this destocking exercise would relieve pressure on water and pasture resources. A relatively complicated remuneration system was devised which allowed for profit to be taken at several stages of the process. However, the project produced and distributed less than one-third of the amount of dried meat specified in the project proposal, partly because large-scale fraud in an associated intervention, which provided subsidies to transport livestock out of the district, diverted funds away from the destocking intervention. Although there was adequate community consultation, participation and involvement in the implementation phase of the destocking intervention, this was totally lacking in the planning phase. Suggestions made to improve future destocking operations included the need for a simpler and faster remuneration system and there was a strong

preference by the beneficiary community for fresh rather than dried meat.

The current intervention: The drought of 2005

A large-scale Drought Response Programme, funded by European Union Humanitarian Aid Office (ECHO), took place across nine districts of northern and northeastern Kenya in 2005. VSF-Belgium was involved in one component of the program which involved a small-scale destocking element in Turkana District. In return for livestock treatments, mainly dewormers, livestock owners paid in-kind: the resulting 2199 goats received by VSF-Belgium were donated to vulnerable school children and families in the district.

For Turkana District, several possible additional interventions were considered by the District Steering Group (DSG), including provision of water and subsidized transportation of goats, but eventually it was agreed that a limited destocking program, targeted at the parts of the district worst affected by the drought, was the only feasible option. The resulting Turkana Emergency Livestock Off-take (TELO) intervention was put out for competitive tender and VSF-Belgium was selected as the implementing agency.

The TELO intervention was carried out in January and February of 2005 with the stated overall goal to 'improve the socioeconomic status of the pastoral communities living in arid areas of Kenya by creating markets for their livestock and improving the nutritional status of identified target populations'. The intervention had six specific objectives, which were to:

- increase household cash income among pastoralists;
- reduce pressure on water and pasture resources;
- increase food security for vulnerable school children;
- improve utilization of assets with livestock owners gaining benefit from vulnerable livestock before the condition of the livestock deteriorates beyond the point of selling;
- increase access to funds made available to livestock owners for future restocking;
- use the money saved from school feeding programs for school fees and/or other relevant projects for pastoralists' school children.

The intention was that communities and traders would be sensitized to the intervention through community *barazas* (local meetings). A team of 336 traders, members of 29 local livestock marketing associations, were recruited and were expected to use their own money to buy specified numbers of 'drought affected, weak but healthy mature' goats from their owners in target divisions of the district for Kenya shilling (KES) 800* per goat. To ensure maximum spread of benefits, it was stipulated that only one goat should be bought from each owner. The details of purchases were recorded on goat purchase forms. The traders were then expected to transport the goats

* In 2005 the exchange rate was approximately USD 1 = KES 72.

to specified schools or health centres with in-patients (mostly tuberculosis patients undergoing treatment) where they were to be slaughtered and the meat used to provide additional protein in the diets of students and patients. Details of deliveries to the beneficiary institution, including date of slaughter, were to be recorded on a second form. On delivery of the completed forms to VSF-Belgium, the traders were paid by cheque at the rate of KES 1000 per goat, providing a margin of KES 200 per animal delivered.

Evaluation of TELO: The Actor Network Theory

VSF-Belgium, as the executing agency for the destocking intervention, invited ILRI to carry out an independent study to evaluate its efficiency and effectiveness and to make recommendations to improve similar interventions in the future.

ILRI scientists chose to evaluate the intervention using a conceptual framework based on Actor Network Theory (ANT) supported by neo-classical economics. ANT was used as a retrospective analytical tool: it did not inform the design or intervention of the destocking intervention.

ANT has been used by social scientists for the past 20 years to analyse interactions within networks, which are considered to be made up of people (actors) and things and concepts (known as actants).^{6,7} It attempts to explain how networks come together to act as a whole but recognizes that such networks are potentially precarious. ANT is used to explore how actor networks get formed, hold themselves together or fall apart. It makes a number of assumptions: the actors in a network take the shape they do because of their relations with one another; nothing lies outside the network of relations; there is no difference in the ability of technology, humans, animals, or other non-humans to act; and as soon as an actor engages with an actor-network, it too is caught up in the web of relations that form the network.

According to ANT, interactions between different actors are motivated by a goal, which involves the transference of some 'intermediary' (goats in this case) from actor A to actor B. Both actors are inscribed with certain properties which will assist in the transference, but these inscriptions also prescribe the ways in which the actors are allowed to interact. ANT describes the progressive constitution of a network in which both actors and actants assume identities, defined during negotiations between their representatives, according to the prevailing strategies of interaction.

ANT follows four basic steps: identification of problems and driving forces; identification of each actor's interests; enrolment, which involves collective deliberation of the most appropriate form of action to take; and mobilization, which consists of trying new technological and institutional practices.⁸

According to ANT, the 2005 destocking intervention primarily consisted of the enrolment of both actors (development

professionals, goat owners, traders, heads of schools) and actants (goats, drought, money) in order to achieve the objective. The destocking proposal formed the principal tool for guiding the destocking activity and, in conjunction with VSF-Belgium staff on the ground, for facilitating action at a distance. The proposal can be understood as a means of aligning heterogeneous elements (the actors and actants) to achieve the goals set out within the proposal. However, just because the destocking proposal and implementation protocols delineates the role of each actor, there is no guarantee that all, if any, actors will execute their roles accordingly.

In effect, two possible scenarios exist: the first is that, if properly enrolled, all actors and actants will play the role assigned to them; the second is that, if improperly enrolled, all, or some, actors and actants will deviate from their roles to a greater or lesser extent. Depending on the centrality of the actors and actants with regard to the success of the intervention, and on the extent of deviations, the unfurling of interactions between actors and actants will either substantiate the assumptions contained within the proposal or undermine them: the intervention will succeed or fail.

Methodologically the ANT inspired evaluation used two approaches, one based on 'following the actor' and the second based on examination of written records and other documentation.

The first approach involved the use of key informant interviews with individuals involved in the initial problem identification and the subsequent development and design of the destocking intervention, and also with representatives of the institutions that benefited by receiving free goats. Focus Group Discussions were also conducted with key groups of actors, such as pastoralists, livestock traders and members of livestock marketing associations, to compare the actual roles they played during the intervention with those that were assigned to them during the design phase. A stratified sampling frame was developed to enable *adakars* (loose cooperative units of up to five independent families, who live and herd their animals together and benefit from mutual protection against *ngoroko*, or cattle-raiders) situated within 20 km of a major arterial road to be selected on a pseudo-random basis to take part in the Focus Group Discussions.

The second approach involved a literature review of other destocking operations and close scrutiny of VSF-Belgium's destocking proposal and implementation protocol and of the records of 2638 goat purchase transactions and 379 deliveries of batches of goats to schools and health centres. The different sources of information were compared to validate the accuracy of information obtained.

Results of TELO

The TELO intervention had six specific objectives and the results are considered below in relation to each in turn. In addition,

the results are also considered in relation to the four stages of ANT, namely identification of problems and driving forces; identification of each agent's interests; enrolment of the actors and actants; and mobilization.

To increase household cash income among pastoralists

The off-take program resulted in the purchase of 6338 drought-affected goats from 2565 individual owners, an average of slightly under 2.5 goats per owner. The price prescribed by VSF-Belgium for purchase of goats was KES 800 each, representing a theoretical total average gain per owner of KES 1984. Assuming the prescribed price had been paid in all cases, the total purchase price of the 6338 goats would have amounted to KES 5,070,400.

However, the actual price paid to pastoralists varied. Both records kept by the traders and interviews held with pastoralists as part of the subsequent evaluation exercise revealed significant numbers of cases of underpayment. The records showed that nearly 17% of pastoralists had been underpaid. Individual pastoralists reported receiving as little as KES 300, less than half the amount laid down in VSF-Belgium's guidelines. Surprisingly, the records also show that 130 pastoralists apparently received more than the prescribed amount for their goats. In addition, a small number of pastoralists in areas where there were no traders sold their goats directly to local schools and thereby received KES 1000 per animal delivered.

When questioned, some traders admitted that the price actually paid depended on individual negotiations. It was also apparent that many pastoralists were unaware of the TELO initiative, did not know that a price had been fixed, and in any case were happy to accept lower amounts for animals they knew would soon die and for which there was no alternative market.

The traders were also, in most cases, pastoralists. The TELO intervention documents prescribed that traders should purchase goats for KES 800 and that they would receive KES 1000 on proof of delivery to the beneficiary institution. A total of 336 traders took part in the off-take program, so on average each trader bought 19 goats. Assuming the recommended purchase price was paid and no goats died between time of purchase and delivery to the schools and health centres, each trader would on average make a gross profit of close to KES 3800. Making the same assumptions, the total profit earned by all 336 traders would have amounted to KES 1,267,600.

The actual number of goats purchased by individual traders varied. In the northwestern zone of the district, the average was 42 and in the central zone 10 per trader. This may have been because there are more traders in the central zone and less in more remote areas, distant from Lodwar (the district capital), such as the northwest.

The traders were paid by cheque on delivery to VSF-Belgium of completed forms showing the goats had been delivered to the schools. This had several impacts on the traders' net profit. There was inevitably a delay, often of around 20 days, between

purchasing goats, delivering them to the schools and having the completed forms available for submission. Since the traders had to use their own money to buy the goats, this represented capital that was tied up for much longer than normal. The traders were expected to buy 'weak, drought-affected but healthy mature goats' and some traders experienced deaths amongst their animals between purchase and delivery; no compensation was paid in these cases and the full loss was borne by the trader. Finally, traders had to pay bank charges of between KES 100 and 400 to cash their cheques and they had to travel to major towns to do so, resulting in transport and board and lodging costs of up to a further KES 800 each. Some traders therefore ended up paying almost a third of their gross profit to cash their cheques and some even claimed to have lost money as a result of taking part in the off-take program.

A potentially longer-term benefit from the intervention in relation to increasing household cash incomes was that attendance at livestock markets increased during and in the months immediately after the destocking program. More pastoralists began selling their animals in the open market and new traders joined their local Livestock Market Associations and started to do business.

To reduce pressure on water and pasture resources

Prior to the intervention, the DSG's technical support group, made up of professionals from the district administration, NGOs and the private sector, recommended that the destocking program should target 10% of the goat population in those areas worst hit by the drought. However, the available funds did not allow this and the TELO intervention resulted in the purchase and presumed slaughter of 6338 goats.

This off-take is equivalent to about a third of one percent of the district's total goat population, estimated to be 1,956,200. The district's livestock population also consists of an estimated 140,800 camels, 193,600 cattle, 32,600 donkeys and 975,600 sheep. Expressed as Tropical Livestock Units, which is a convenient method of comparing livestock of different sizes, the destocking exercise accounted for just one-tenth of one percent of the total district livestock population. The scale of the operation is therefore very unlikely to have had any impact on water or pasture resources at the district-wide level, although it may have had some impact at local levels. A key assumption made by the intervention's designers was that the weak goats purchased would have otherwise died, in which case it could be argued that they would have been naturally 'destocked' without any external intervention.

To increase food security for vulnerable school children

The goats purchased during the destocking intervention were delivered to 90 institutions, 84 primary and secondary schools where the vast majority of the students were boarders, and six health facilities that had in-patients, mostly tuberculosis patients undergoing the lengthy treatment protocol necessary with this disease. Assuming each goat yielded 8 kg of meat, the

total amount of meat made available to the institutions was a little over 50 thousand kg. A TELO report suggested that 35,197 'very poor and poor' students and 327 in-patients benefited by receiving fresh meat; this is equivalent to around 1.4 kg of meat per beneficiary.

All institutions questioned reported that, as a result of the intervention, the amount of animal protein in the students' or patients' diets increased. The vast majority of schools reported that their boarding students normally received meat meals several times a week, often on Monday, Wednesday and Friday evenings, which supplemented largely cereal-based diets supplied through the on-going World Food Programme's School Feeding Programme. However the amount of meat offered was small—in one school approximately 64 grams per serving. The number of meat meals served was increased whilst the free goats were available; for example, several schools reported increasing the number of meat meals from three to five per week; another reported that, whilst it usually bought 28 kg of goat meat a week, during the intervention it received 30–35 kg weekly.

The guidelines for the intervention stated that traders would only be paid on submission of completed documentation. This included a form signed by the head of the beneficiary institution confirming that the correct number of goats had been received and that these had been slaughtered. In fact, less than half of the submitted forms included slaughter dates and some forms contained dates that were very hard to believe, for example, in some cases the slaughter date was prior to the date the goats were delivered to the institution; in other cases the forms suggested that large numbers of goats, 88 in one instance, were all slaughtered on the same day.

Goats were delivered to beneficiary institutions over a period of three to four weeks, although some extended the period over which the free meat was enjoyed by keeping the goats for up to two and a half months. In some cases the supply of meat exceeded the capacity of the recipient institution to consume it: one school reported that it gave away two of the seven goats it received daily for two weeks to the local health centre.

It is noteworthy that in most cases only boarding students benefited from free meat. Most day schools (of which there were reported to be relatively few due to the nomadic lifestyle of pastoralists) were excluded and in mixed day/boarding schools, only the boarders received the free meat. Head teachers observed that most day students were very rarely provided with meat in their diets by their families, unlike boarders who already regularly received meat meals. It could be argued that, by targeting boarders, the most 'vulnerable school children' mentioned in this objective, i.e. day students, failed to benefit from improved food security.

To improve utilisation of assets with livestock owners gaining benefit from vulnerable livestock before the condition of the livestock deteriorates beyond the point of selling

The off-take intervention targeted weak, drought-affected, healthy, mature goats, and the assumption was made that

otherwise these goats would soon die, in which case the pastoralists' only recourse would be to eat what little meat remained on the emaciated carcass. The intervention provided an attractive alternative: the offer of payment of KES 800 per goat. Generally, traders would not consider buying goats in such condition and in the rare situation where there was a willing buyer it was estimated that the price on offer would be just KES 200 per goat. The intervention price therefore was around four-times the 'market' price—although in most cases no market existed.

In addition to meat, two by-products became available when the goats were slaughtered: skins and offal. The project proposal specified that the skins should be collected by Local Off-take Community Committees, who were expected to sell them and use the proceeds for 'community activities'. In the event, the skins were sold by the beneficiary institutions and the proceeds reportedly used to buy a variety of inputs, such as salt, other kitchen items, examination papers, unspecified 'essential items', and in at least one case to pay the shepherd employed to look after the goats from the time they were delivered until they were finally slaughtered.

The fate of goat offal was largely unknown. Some intestines were condemned as unfit for human consumption by local authority meat inspectors or community animal health workers and in other cases they were given to shepherds, goat skinners and perhaps slaughterers in payment for services rendered.

To increase access to funds made available to livestock owners for future restocking

Without the intervention, the weak goats targeted would eventually die in which case the pastoralists' only option would be to eat the resulting meat. Many of the pastoralists interviewed as part of the intervention's evaluation process were unwilling to specify how they spent the money they received from selling their drought-affected goats. Some, however, reported buying maize meal and in one location, Kerio, the pastoralists insisted they had used the proceeds to restock when the long-rains arrived: KES 1000 was said to be enough to buy 'two replacement goats'.

The project proposal specified that only one goat should be purchased from each household, although in fact in most cases this rule was ignored. Whilst the 'one goat' rule was intended to ensure wide distribution of benefits to as many pastoralists as possible, since the price paid for one weak goat is likely to be less than the amount of money needed to buy a replacement female breeding animal, this could be regarded as an inherent weakness of the project design.

To use the money saved from school feeding program for school fees and/or other relevant projects for pastoralists' schools children

This objective arguably conflicts with the earlier one, 'to increase food security for vulnerable school children', as it implies that the goat meat will be used to substitute for rather than supplement

any meat that would normally have been made available. All the institutions questioned during the evaluation reported saving money through not having to purchase the usual quantities of goat meat for the duration of the intervention, which varied from around three weeks to two and a half months, confirming that the meat was used, at least to some extent, to substitute for meat that would have been bought anyway.

The amount of money saved was eroded by hidden costs associated with the intervention that had, apparently, not been foreseen. These included the cost of hiring shepherds to look after the goats until they were slaughtered, probably slaughter fees, although no institute heads actually mentioned these during interviews, and in some cases the cost of purchased feeds.

The schools reported using the savings for a range of purposes: paying for a night guard, buying salt, paraffin lamps, unspecified 'essential items' and, in one case—as specified in the project proposal—for the purchase of uniforms and bags for needy students.

Results in relation to the four stages of ANT

Identification of problems and driving forces

All stakeholders, including local experts and pastoralists, recognized that drought was the major problem and that this impacted on livelihoods by causing lack of water, grazing and browse, thereby severely limiting the productivity of pastoralists' livestock. However, community members were not formally involved in the problem identification or project design.

A key driving force in the development of the TELO intervention was provision of financial resources, made available by the World Bank through the Kenya Government's Arid Lands Resource Management Project (ALRMP). A total of KES 9 million (USD 125 thousand) was made available for the destocking intervention.

Identification of each agent's interests

The principal agents (or actors) involved in the intervention were local development professionals, pastoralists, goat traders, heads and members of institutions who received free goats and VSF-Belgium. The respective roles and the objective of the intervention were explained during a series of community dialogue meetings held in all 29 designated buying centres.

During these meetings, 108 Local Off-take Community Committees were elected who assumed responsibility to 'ensure pastoralists and their children benefited'. However, during the subsequent evaluation exercise it emerged that only a small number of pastoralists had actually been briefed through these meetings. Not all *adakars* were represented and those who attended did not always relay information to their fellow pastoralists. Some pastoralists learned about the intervention from traders or schools, while others sold their animals to traders without being aware of the intervention that made this possible.

Enrolment

In the context of ANT, successful enrolment of actors and actants is considered to include collective deliberation of the most appropriate form of activity. In the case of TELO, it was apparent that there was very good involvement of key development and emergency intervention actors in the design of the intervention, and even more peripheral actors, such as district public health officers, were successfully enrolled. However, there was no evidence of community level involvement: pastoralists, traders and heads of schools and health centres were simply assigned roles. At no point in the design, implementation or subsequent evaluation were the primary beneficiaries of the distribution of free goats—school boarders and in-patients—consulted.

Mobilization

The final stage of ANT involves operationalizing the intervention. As noted above, many key actors were simply expected to perform their assigned roles and many pastoralists remained oblivious both to the intervention and to the role they were expected to play.

It is apparent that the rules of the game, specified by VSF-Belgium and intended to be strictly followed, were very commonly flouted. Examples include: variations in the price paid by traders for goats; more than one goat purchased from the same owner; delivery of unhealthy goats, some not fit for human consumption, to recipient institutions; incomplete and inaccurate documentation being submitted by traders to VSF-Belgium. The scale of the latter problem was great. For more than half the goats delivered to school and health centres no slaughter date was provided and in numerous other cases information provided was clearly incorrect. The possibility of fraudulent behaviour by various actors cannot be excluded. In some cases, however, confusion rather than fraud is probably to blame. During the evaluation exercise some traders reported that they understood they were to purchase only 'female thin goats'. Many traders justified negotiating lower prices with pastoralists due to the risk of weak goats dying before they could be delivered to the designated schools and health centres.

Other issues and constraints

It is noteworthy that the rules of the destocking intervention, i.e. price fixed by external actors, was contrary to another VSF-Belgium intervention. This second intervention was concerned with promoting greater market-orientation amongst the district's pastoralists and was based on the normal market arrangement whereby buyers and sellers negotiate to settle on a mutually acceptable price. The ILRI team also argued that the principle of offering pastoralists an intervention price that was higher than the market price undermines the goal of institutionalizing 'timely sales to the market' as a coping strategy by pastoralists. To promote timely livestock sales to the market, market prices need to be more rewarding than intervention prices for weak goats that have suffered the drought for several weeks. Having

been exposed to such an intervention in the past, goat owners faced with a future drought may speculate by awaiting a possible intervention—rather than timely selling their goats to the market.

Although the intention of the intervention was to target benefits to the most needy, a number of biases may have reduced the accuracy of this targeting. Pastoralists reported that goats were purchased on a ‘first-come first served’ basis, which tended to benefit those who lived closest to markets and those with the best informant networks. In both cases this would tend to favour the less poor. In some cases poorer pastoralists living in more remote areas learned of the intervention too late—having trekked their weak goats to market in the expectation of selling them for KES 800 they were obliged to trek them back home. Some traders admitted targeting *adakars* that were close to boreholes or main roads, which again would tend to favour the less poor.

Traders had to purchase goats with their own money. They were reimbursed by cheque up to 20 days later—which meant their capital was tied up for longer than usual—and they then had to pay for expenses associated with cashing their cheques. Many Livestock Marketing Association members had little money and therefore were unable to take part in the intervention; again this would tend to exclude the poorer members. Focus Group Discussions revealed that key members of the Livestock Marketing Associations were reported to have captured the lion’s share of the benefits of the destocking intervention.

Students attending local boarding schools were the primary beneficiaries of the free goat meat. With a few exceptions, local day schools did not benefit and, at schools which had both day students and boarders, only the latter benefited. It is likely that the poorest students attend day schools, which at primary level are free, and therefore those who benefited from the intervention were students from less poor families.

The intervention offered a price above the market price for weak drought-affected goats and the evaluation team considered what impact this might have had on the market price for other grades of goats. They concluded that the intervention had no impact, since in general there was no market for goats in such poor condition; in effect the intervention created a parallel market. One perverse consequence of the creation of this parallel market was that some pastoralists perceived that the intervention constituted a ‘demand’ for their weak animals. Whilst normally they had no expectation of selling such animals, or if they did would be content to accept a low price, since the intervention was actively seeking their animals they reasoned that they were entitled to a fair price, which they defined as KES 900 to 1000.

Another consequence of the intervention was the effect it had on both enrolment and attendance at local schools. Head teachers of boarding schools suggested that enrolment at their schools increased during the period when the free meat was made available, with pupils defecting from local day schools,

but this effect was noted to be transient. The head teachers also reported that attendance during the intervention was exceptionally high.

The TELO intervention received USD 125 thousand in funding from the World Bank. The direct benefits received by the pastoralists and traders amounted to more than USD 88 thousand. By this admittedly crude measure, the intervention transferred more than 70% of the project funds to local pastoralists in direct cash payments.

Recommendations for improvement of future destocking programs

Focus Group Discussions were held with representatives of pastoralists and traders and interviews held with heads of the institutions that received free goats, during which suggestions were made as to how future destocking operations could be improved. In addition, LRI scientists who carried out the evaluation exercise also made a series of recommendations for similar programs in the future.

Both pastoralist goat owners and traders considered that the destocking operation was a good approach to drought mitigation. The pastoralists suggested that a higher price should be paid for animals; that animals should be purchased on a single day; that it would be more equitable if they sold their animals directly to VSF-Belgium; that 75% of weak animals should be destocked; and that other species, such as camels and cattle, should also be considered for off-take.

The traders suggested that a higher price be paid and a larger margin allowed or that the price should be negotiated freely with sellers; larger numbers of animals should be allocated to each trader; the program should be extended over a longer period, such as throughout the duration of the drought; and that payments should be made in cash, not by cheque, to avoid the expense associated with cashing the latter.

The heads of institutions that received free goats suggested that the activity should be spread over a longer period of time; that only healthy goats should be supplied; that the animals should be kept at a central holding area until the school was ready to slaughter; and that day schools should be included in the program.

The ILRI scientists made a series of detailed suggestions for future destocking interventions. These included the recommendation that, in conjunction with executive implementing agencies, local crisis committees should play a proactive role in the identification of free goat meat beneficiaries. Whilst schools and health centres should remain key beneficiaries of future destocking interventions, it was also recommended that local crisis committees and the executive implementing agencies should also consider providing free goat meat, and/or other key necessities, to the most vulnerable households, identified by the local crisis committees. On the spot slaughtering of goats at the

adakar level and the distribution of free goat carcasses to the most vulnerable households in the area would circumvent the constraints of caring for goats and transporting/trekking them to recipient institutions.

For schools, it was suggested that a higher nutritional impact could be achieved by targeting the day schools first, as these students do not usually have meat in their diets. Only after all day schools have been reached should boarding schools be considered. In conjunction with school heads and health centre managers, the crisis committees should also play an active role in devising the logistics of free goat meat deliveries in a transparent, verifiable and participatory manner. For example, it is essential that systems should be developed and strictly applied to better match free goat supply to consumption demand; ensure that free goat meat supplements, not just substitutes, usual animal protein intake; and adequately address the need for a holding area for goats and costs associated with feeding and caring for them. It was also suggested that goat skins should be sold by recipient institutions.

In addition, it was suggested that it is important that verification protocols in future destocking interventions are both comprehensive and are rigorously adhered to. Recipient institutions should provide verifiable accounts and explain how savings made due to suspension of usual goat meat purchases and income from goat skin sales were used. It was also considered to be imperative that clear and accurate records are kept for the number, condition, timing and slaughter of goats received, as well as verifiable details of their consumption. A system should also be devised for verifying school children's additional consumption of goat meat.

With regard to including the most vulnerable pastoralist households as beneficiaries in future destocking interventions, it was recommended that executive implementing agencies consider adopting a two-tier system. In this system, relatively less vulnerable households, with larger livestock holdings, would be encouraged to actively destock and receive salvage payments for their goats. Conversely, the most vulnerable households would become net recipients of free goat meat or key necessities. However, it would be important to couch this kind of intervention in efforts to promote, where possible, livelihood diversification for the most vulnerable households. In some cases, where better livelihood options exist, destocking could be used as part of a strategy for pastoralists to transit from pastoralism to other, more rewarding and sustainable livelihood activities.

In view of VSF-Belgium efforts to develop livestock markets and promote greater market-orientation of pastoralists in Turkana, the pricing of goats during a destocking intervention deserves more considered thought. It was not considered advisable to pay a higher than market price for weak goats, as this undermines the institutionalization of timely sales of livestock to market as a recognized drought coping strategy for pastoralists. Rather it was suggested that a reasonable salvage value is paid, e.g. KES

300, or anything below the lowest market price paid for the lowest grade of goats normally traded at conventional livestock markets. This would still serve as a safety net for those that did not sell in time, while not rewarding them for not having sold earlier in local markets. Conversely, once pastoralists become accustomed to selling their goats, they will be rewarded for doing so in a timely manner at the local markets. If goats were to be destocked at a lower price this would enable far more goats to be purchased during an emergency intervention and more meat would become available as relief food.

Another scale consideration is on the demand side: the more goats being destocked, the more vulnerable households or other beneficiaries would need to be identified. This, however, should not be the largest constraint as from TELO 2005 there is experience in working with schools and health institutions and these could always serve as a back-up plan. However, using those institutions will need some more thought in terms of the timing of deliveries and keeping of large numbers of goats. Also schools expressed the wish to receive goats over a longer period of time. But postponing the purchase of goats would affect their quality and disadvantage their owners, while temporarily keeping goats involves extra costs and does not reduce the pressure on water and pastures unless imported feeds are made available, which is an expensive option. Slaughtering goats on the spot—at *adakar* level—and redistributing the carcasses to nearby vulnerable households circumvents the whole transport constraints of providing goats to institutions.

The forms used during the TELO initiative need to be improved. The Turkana Emergency Livestock Off-take monitoring forms should be split into two different parts. One, to monitor the deliveries of goats to the institutes. Once the Livestock Marketing Association representative, LOCC official and the institute's representative have signed, the trader could proceed to receive his payment. A second form would be used to document the slaughtering of goats, which then could be recorded at any time after the delivery date (not under time pressure to close the books so the trader could be reimbursed). The slaughtering form could be complemented with a section in which the institute accounts for the use of the income from the goat skins, and/or other funds saved on meat purchases. Meanwhile the 'goat purchasing forms' could be improved by adding the dates of purchase for each transaction; the date of delivery to the schools; and adding the location of the *adakar* at the time of purchase.

Conclusion

Overall, the ILRI evaluation team considered that the intervention was a success: more than USD 88 thousand in cash benefits was distributed directly to the district's pastoralist community and 50 thousand kg of meat made available to local schools and health centres. There was, however, room for improvement in a number of key areas especially through active community participation in the design phase; better targeting of benefits to reach the most vulnerable; and better record keeping and greater accountability. There were also some unanticipated

negative consequences, such as hidden costs that had to be met by the recipients of goats and potential conflict with the objective of other initiatives in the district, such as promotion of greater market integration by pastoralists. The recommendations made by both the community members and the evaluation team could usefully inform the design and execution of any future destocking intervention. Several of these, however, reflect recommendations (such as the need to include local communities in the planning phase, the problem of weak animals dying before they could be utilized, a first-come-first-served approach to purchasing animals for destocking and the scale of the intervention being too small to have an impact on water and feed resources) made during post-mortems of previous destocking exercises undertaken up to 15 years earlier.

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