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Sustainable Agricultural Livelihood Restoration, Rehabilitation and Resilience in Kenya

Training Manual

2.4.10 SUB-MODULE 10: DESTOCKING AND RESTOCKING

Introduction

During calamities particularly drought in pastoral areas a substantial number of livestock perish thereby communities losing some or all of their animals. Recovery of herds after drought can take many years, during which time households remain dependent on local support mechanisms or external aid. Alternatively, after the calamity, restocking programmes may assist some households but are far more expensive than preserving key livestock assets during a drought. At a time when market prices for livestock can be falling, destocking aims to convert non-essential livestock into resources - mainly cash or meat - which people can use during the drought.

Destocking has been carried out in Kenya since the 1980s when UNICEF initiated destocking operations to provide relief meat to feeding camps in the ASAL areas of the country. Since then, a number of agencies, mainly NGOs, have carried out destocking in pastoral areas for slaughter and meat distribution. Such operations have usually been on smallscale, localised, and often implemented in an *Ad hoc* manner. More importantly, these interventions have nearly always started late in the drought cycle when substantial livestock mortality has already occurred, or when livestock had lost considerable body weight resulting in a sharp decline in prices. The value of animals salvaged in this way has generally been minimal although some useful lessons have been learnt that have the potential to support the design of more effective destocking programmes.

More recently, ‘commercial destocking’ (sometimes called ‘accelerated livestock off-take’) has been used in pastoral areas of Kenya, with government and NGOs facilitating linkages between livestock traders and drought-affected communities. There are two main approaches to de- stocking that can be used in Kenya, commercial destocking and slaughter destocking

Commercial destocking involves the engagement of livestock traders to boost livestock off-take from a drought-affected area so that they can be fattened and sold through terminal markets. This type of destocking provides pastoralists with cash, which they can use to buy other commodities and services they need, including items to protect their remaining livestock. This type of destocking should take place as soon as possible, at the onset of drought, before the livestock loose body condition and value.

Slaughter destocking programmes are based on the purchase of livestock by an aid agency, followed by immediate, local slaughter and the distribution of meat in either a wet or dry form. This type of destocking takes place later in a drought period, at a time when livestock traders are no longer purchasing livestock which are in poor body condition and immense loss of body weight.

One way to view destocking is as a cash-transfer mechanism. Commercial destocking is preferred because it results in pastoralists selling animals earlier in the drought period and receiving a higher price per animal. Even when livestock prices are falling and grain prices are rising during drought, the sale of only a few animals can provide a pastoral household with sufficient grain to sustain it for weeks or even months.

Supplementary feeding - the adequacy of feed resources for the animals that are retained after destocking needs to be considered and provision made for supplementary feeding as necessary. Ideally, if de- stocking is conducted early enough, private suppliers can provide at least some of the required feed.



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Veterinary support - destocking can reduce the risk of disease transmission by reducing animal density and the removal of sick animals. However, adequate veterinary care still needs to be provided for remaining animals. Again, if conducted early during the drought, veterinary care can be provided by private veterinary workers.

Water supply - adequate water for the needs of remaining animals' needs to be provided as well as that required to ensure hygienic practices during slaughter destocking operations.

In addition to these services, agencies need to be aware of food aid distribution and safety net provisions in a given area and where possible, integrate livestock interventions with these other types of assistance.

Although destocking is sometimes justified in terms of limiting pressure on grazing resources, in Kenya to date there is limited evidence to show the environmental impact of these interventions. It is possible that large-scale commercial destocking could have positive environmental impacts, and this is an area which requires evaluation in future.



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Advantages and disadvantages of destocking

- Allows purchase of livestock which otherwise would have died, thereby providing cash to households (commercial destocking), or, cash and meat to households (slaughter destocking); meat is a use-
- Full dietary supplement particularly for children and pregnant or nursing women.
- The cash derived from destocking - especially commercial destocking - is often used to support local markets and services, and to protect remaining livestock. This reduces the need for other interventions and helps to maintain the local markets and services needed for recovery.
- Commercial destocking can be very cost-effective as a large part of the financial burden is borne by participating traders.
- Slaughter destocking can augment other sources of food aid by redistributing meat within affected communities.
- If a substantial proportion of the livestock population in a given area is destocked, pressure on natural resources may be reduced.
- As part of an integrated emergency response, judicious destocking can be used to enhance the viability of other interventions aimed at preserving herds (e.g. supplementary feeding)
- If a longer term view is taken, destocking offers the opportunity to cull poorer quality or chronically diseased stock. These may be replaced with better animals during the recovery phase.
- Livestock prices can be rapidly eroded in emergency situations. Hence, commercial destocking initiatives have a narrow window of opportunity during which implementation is financially viable
- The interest of commercial traders will partly depend on factors such as the final demand for meat or live animals in terminal domestic or export markets, and the capacity of holding grounds or feedlots. Commercial destocking is therefore highly dependent on the state of live-stock markets during normal periods.
- Some traders may have insufficient capital to buy large numbers of animals. The provision of rapid loans during drought is currently problematic.
- Some pastoral communities are reluctant to consume meat from drought-stricken animals for cultural reasons. Careful dialogue with communities is needed to change attitudes.
- Commercial destocking by private traders partly depends on good infrastructure, especially roads, to access more remote communities
- Removal of livestock from a community is a drastic measure. Other interventions (e.g. relocation or supplementary feeding) will allow more rapid herd reconstitution during the recovery phase.
- Many NGOs are not used to working with traders during emergencies, or donors may not allow NGO support to traders.

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Guidance on the timing of commercial destocking

In Kenya various sources of early warning information are available to indicate that commercial destocking is required. In areas where early warning systems are not operational, field-level assessments by experienced practitioners can be used as early warning reports. In the case of early warning systems based on remote sensing, field-level verification of information is required.

Using the drought cycle management model, commercial destocking should take place in the alert and alarm stages of a drought. The indicators which inform a decision to support commercial destocking include:

Deviations in water availability and pasture production - rainfall failure or reductions in precipitation in the short and long seasons in any given year will generally lead to reduced pasture and standing water. In some cases, this could be a localised problem that can be resolved by indigenous responses.

Periodically however, drought may affect the entire ecosystem and extend to populations in neighbouring countries. The severity and extent of disruption in biomass availability is monitored by the online Livestock Early Warning System.

Consideration during destocking

Some specific issues which need to be considered during the rapid analysis and subsequent dialogue with traders include:

- The location and size of the drought-affected area(s), and therefore, an approximate estimation of types and numbers of livestock which might be available for sale
- The general body condition of different species and types of livestock, and their market value; while some traders may prefer to buy only animals in relatively good body condition, other traders may buy thin animals with a view to fattening them
- The demand for specific types of livestock and meat in various domestic and international markets
- The capacity of abattoirs, feedlots and holding grounds, and government commitment to making land available as temporary holding grounds if necessary
- The location of the drought-affected area(s) with respect to main roads, accessibility to communities who may sell livestock, and an understanding of the additional transaction costs required to reach more remote areas
- The capacity of local government and NGO actors to work with communities to create temporary markets, and to explain the commercial destocking approach to communities
- The commitment of the government to relax certain taxation issues or other bureaucratic procedures, thereby enabling rapid purchase and transport of livestock by traders
- Options for combining off-take of livestock with the provision of livestock feed to remaining animals, using the same vehicles.

Guidance on the design and implementation of commercial destocking

Most types of livestock interventions in pastoral areas during drought are very much under the control of government agencies and NGOs, and these actors can work with communities to design specific aspects of the intervention in question. In contrast, commercial destocking is largely shaped by market factors and the

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need for private traders to make a reasonable profit from their activities and minimise risks to their investment.

Design and implementation issues which can be influenced and facilitated by government and NGOs include:

Communication and liaison with communities - to explain the commercial destocking approach and to introduce livestock traders to communities e.g. through field visits arranged for the traders.

Identification of sellers - discussion with communities to agree which households should sell animals. The sale of only a small number of animals can enable a household to acquire sufficient grain to meet its nutritional energy needs for many weeks, or even months. In terms of relief assistance, it is therefore preferable to support an approach whereby many households have the opportunity to sell small numbers of livestock, rather than a few households selling many livestock.

Support Measures - through a strong, central coordination body government and NGO actors can help to ensure that various support measures are in place to facilitate commercial destocking. These measures include:

Health inspection of purchased livestock - by government veterinary public health officers.

Temporary holding grounds – the coordination body should support implementing agencies by liaising with regional, zonal authorities to secure temporary holding grounds where traders can assemble purchased animals until they are fit for transportation. Traders may also require additional land close to feedlot centres in order to accommodate increasing numbers of animals.

Provision of water and feed - the national coordinating body should coordinate the provision of feed to livestock purchased by traders on a full cost recovery basis. These animals should also be given access to existing water points in the operational area.

Veterinary services - liaising with the Department of Veterinary Services will ensure that recommended vaccines and drugs can be supplied for livestock assembled by traders by veterinary professionals.

Fuel availability - the national coordinating body should take measures to ensure the availability of fuel along major destocking routes.

Security - coordination with local authorities will be needed to make sure that accessible sites are safe and secure enough for commercial destocking.

Taxation - the national coordinating body should negotiate with federal and regional customs offices to exempt livestock traders from paying transit taxes when moving livestock across regions in times of emergency.

Transport - the use of options, such as government owned vehicles, should be explored to alleviate transport shortages for moving livestock. Support should also be provided by the Road Transport Authority in order to minimise unnecessary delays.

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Control measures - a number of control measures need to be implemented to minimise the likelihood of unscrupulous individuals capitalising on the situation for personal gains. These measures are particularly important in the case of transport subsidies and as such subsidies are not a preferred option for destocking, they will not be commonly applied. In the event that transport subsidies are used, purchased livestock need to be marked (tagged or tattooed) and local officials need to ensure that their departures (date, time, vehicle particulars and operators etc.) are properly documented. Inspection officers receiving animals at fattening centres can then verify that the livestock have been properly transported by checking against the original documents. In general, payments should only be made after ensuring that purchased stocks have arrived at the fattening centre.

Selling arrangements - working with communities and traders to agree on issues such as the location and timing of purchase areas and temporary markets. Agencies need to identify target locations for destocking programmes based on both need and feasibility. Access problems can be a major issue limiting the geographical coverage of commercial destocking. Households wishing to sell livestock may be scattered within villages, and villages may be some distance from each other. Therefore, commercial destocking may tend to benefit people in villages that are relatively close to major roads at the expense of people living in more remote areas. To some extent, this problem may be addressed by adopting a rotational operation in which isolated communities are reached by specifying fixed, temporary market days for different locations. Purchase sites and timing of markets should be determined in consultation with local communities. They should generally be existing villages or temporary settlements to avoid the need for lengthy trekking of weakened animals.

Monitoring arrangements - so that livestock purchases by type and price can be recorded and assigned to specific households. This is a key role for NGO or government actors, and can greatly assist evaluation and assessment of the destocking at a later stage.

Aspects of commercial destocking may be heavily influenced, if not determined by the traders included:

Types of livestock for purchase - the species, age and sex of livestock to be purchased, and the preferred body condition. Traders know the best end-markets for purchased livestock and will select animals accordingly. As a general rule, young adult or adult male animals in good body condition will be bought, although in some situations traders will also buy very thin livestock knowing these animals can be fattened and sold at a later date. To some extent, trader preferences will match pastoralist's preferences, because pastoralists will tend to retain adult breeding females to assist herd recovery after drought.

The price of livestock - the prime motivation for traders is profit. Traders realise this profit as a result of low prevailing purchase prices for drought-affected animals. When animals are thin, a rapid weight gain is possible when they are returned to an adequate plane of nutrition.

A significant element of profit maximisation for traders is the minimising of costs including road access, provision of water, feed and security. As a result, traders will opt to purchase animals that are in better condition (for the price) and closer to roads.

Slaughter destocking

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Slaughter destocking is a less preferred option compared with commercial destocking, because it usually takes place when livestock traders are no longer willing or able to buy livestock from drought-affected areas. Therefore, slaughter destocking occurs during the emergency phase of a drought when livestock condition is very poor and unless purchased and slaughtered, large numbers of animals are likely to die without any benefit (or only very minor benefit) to their owners. Slaughter destocking usually requires the use of funds from aid agencies and therefore is limited in terms of the numbers of animals which can be purchased.

Compared to commercial destocking, there is much more experience in Kenya with slaughter destocking and in part, this is because slaughter destocking usually takes place later in a drought.

Guidance on the timing of slaughter destocking

Although slaughter destocking is less preferred to commercial destocking, it is still an intervention which can offer a rapid way of reducing the burden of livestock upon peoples' livelihoods under the extreme conditions of an emergency situation. At the same time, it can deliver tangible benefits to affected households by providing meat or cash, and can also provide short-term employment for a limited number of community members.

The decision to conduct slaughter destocking or not should be informed largely by information on the stage of a drought and the behaviour of livestock traders. Therefore, slaughter destocking should take place when:

A drought has entered the emergency stage in terms of drought cycle management

Traders are no longer willing to buy livestock due to factors such as the poor body condition of animals (and therefore, high mortality during transportation) or the inaccessibility of communities due to poor roads or other reasons. At this time, sharp drops in livestock prices resulting from loss of condition are evident.

It can be noted that some areas may be viewed by traders as inaccessible during the alert or alarm stages of a drought and in these situations, slaughter destocking could be considered before the emergency stage.

Guidance on the design and implementation of slaughter destocking

In slaughter destocking, drought-affected livestock are purchased by an aid organisation. Purchased livestock are then slaughtered locally and either fresh or dried meat is distributed to targeted households. Within communities there are various distinct groups of actors and beneficiaries who need to be recognised and involved in the intervention. These community-level actors and beneficiaries are:

Local or traditional leaders or decision-making groups

- Livestock sellers
- Meat handlers
- Meat recipients

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It can be useful to work with local or traditional leaders to establish a ‘meat relief committee’ (MRC) or similar local body. An MRC can be of considerable value for helping to identify beneficiaries, overseeing the operation and ensuring that distributions reach the intended recipients. The formation of MRCs can also help to distribute power that might otherwise be monopolised by other ‘Food Relief Committees’ and share some of the general responsibilities of the implementing agency. Other specific roles for an MRC include:

- Assigning responsibilities to different community groups
- Assisting with the identification of beneficiaries
- Organising groups for slaughtering and meat distribution
- Distributing live animals for slaughter
- Supervising slaughter, meat distribution and the collection of hides and skins from the beneficiary groups for the intended purpose, if needed.

Slaughter destocking: key design issues

Ideally, a participatory approach should be used during all stages of design and implementation with frequent use of open meetings in communities in which people can hear and contribute to discussion.

Selection of livestock sellers - this should be based on clear, commonly understood criteria for identifying the most vulnerable households. Wealth ranking or similar techniques can assist this process, and the actual selection method should be sensitive to local culture and avoid compromising the dignity of the families involved. As the extent of livestock purchases is likely to be finite and defined by budgetary considerations, it is likely that not all drought-affected animals available for purchase can actually be purchased within a given community. Therefore, decisions will need to be made on who is eligible to sell animals and receive cash payments. Ideally, livestock sellers in a slaughter destocking intervention should comprise as many of the most vulnerable households as possible, with due emphasis on female-headed households.

Types, number and prices of livestock to be sold - depending on the available budget, an agency will need to work with communities to carefully define the number and type of livestock which can be purchased from each household. The greater the number of animals purchased from each household and the higher the price per animal, the fewer the number of households which can be targeted. Again, discussion and decisions on these issues can take place in open meetings so that it becomes commonly known how decisions were reached. The amount of cash to be received by each household from livestock sales during slaughter destocking, needs to be sufficient to make a substantial contribution to household income during the anticipated drought period. If too little cash is received, households will continue to rely heavily on other forms of assistance, whereas if too much cash is received, fewer households will be reached.

As a general rule young, reproductive female animals should be excluded from slaughter destocking programmes as they will form the foundation stock for herd re-establishment during the recovery phase. Old male animals, surplus young males, non-reproductive females and ailing stock (excluding any that may pose a disease risk to the people who eventually consume them) may be used for slaughter destocking. Often it will be sound practice for less drought tolerant species (cattle and sheep) to make up the bulk of the animals to be destocked.

Excessive differences in the purchase price of animals for slaughter destocking within and between neighbouring geographical areas can lead to resentment and harassment of staff working for lower paying

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agencies. Strong coordination within and between areas can help to overcome these problems. The coordinating body should assess the prevailing livestock market prices in various localities to determine a uniform purchase price for each type of species, which should be adhered to by all implementing agencies in the same geographical area.

Types of meat for distribution - dried meat processing can be a complex and costly process that involves skinning, cutting, slicing, salting, cooking, drying, storing and guarding the meat. It is important that proper hygiene procedures are applied and that plenty of water is available for processing and cleaning. Local rituals, beliefs and taboos relating to animal slaughter may need to be taken into account with guidance from local NGOs or other agencies with long-term development experience in the particular area. Fresh meat distribution is a far less complex process once purchasing and distribution systems have been put in place, but has the disadvantage that fresh meat is more perishable than dried meat. Overall, fresh meat distribution is relatively simple and cheaper than dried meat distribution.

Amount of meat to be distributed - in order to represent a useful dietary supplement to vulnerable individuals, the amount of meat distributed should be sufficient to make a good contribution to daily protein requirements, for a sufficient number of days (Table 2.62).

Table 2.62. Fresh and dried meat as per the approximate body weight (kg)

Livestock species and type	If drought-stricken	Of fresh meat in carcass	Of dried meat from 1 animal
Camel adult male	250–300	88–105	22–26
Cattle, adult male	120–150	45–60	9–12
Sheep, adult male	10	5–6	1
Goat, adult male	10	5–6	1

Selection of meat recipients - the people selected to receive meat should include the most vulnerable families in the community and particularly those with many children, pregnant or nursing mothers, widows and the aged. For cultural reasons, it is likely that targeted households will share the meat with non-targeted households in pastoral and agro-pastoral settings. If this is the case and sufficient quantities of meat are available, distributing meat more widely in the community will help to avoid resentment. Distribution may also include community-level facilities such as schools, hospitals or prisons that would otherwise go without direct supplies of food.

Hygienic slaughter and meat distribution - the capacity for the programme to implement hygienic slaughter and meat preparation practices needs to be considered at the design stage. Slaughter destocking should include pre and post mortem inspection by livestock or public health officers. Environmental contamination can be reduced by slaughtering on concrete slabs with effective drainage systems or if such facilities are not available, by changing the slaughter sites as frequently as possible. Allowing beneficiary families to do their own slaughtering and distribution of fresh meat can reduce risks of disease. Proper disposal of inedible offal, blood and other wastes and hygienic meat preparation practices can be encouraged by providing rapid, basic training to community members. Locally-acceptable practices relating to the slaughter and skinning of animals and the preparation of dried meat must be observed and understood. These may be based on religious or cultural grounds, or in some cases may simply be associated with taste preferences. For example, in some areas meat may be boiled first before drying while in other areas meat may be salted and dried, or, not only salted but also sprinkled with pepper before drying.

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Slaughter destocking: key steps in implementation

Procurement - the programme may purchase animals directly from owners or contract-out the procurement process to community-based groups such as women's groups or cooperatives. As well as reducing the burden on the implementing agency, this approach can provide financial benefits for the groups involved. It may also help to increase the geographical coverage of the initiative as contractors can be engaged at each of the locations where the programme will operate. Transparency in pricing is important and community members should be made aware of the fixed prices that they will receive for their livestock and the prices at which the animals will be sold on to the implementing agency.

Slaughtering - slaughter and distribution operations need to be scheduled in order to minimise wastage. In the case of fresh meat distributions the meat produced at each slaughtering should not exceed the quantity that beneficiaries can consume within a few days. Depending on the type of meat distribution and the species being killed, slaughtering may take place on a bi-weekly, weekly or fortnightly basis in order to ensure continuity of supply to beneficiaries for the duration of the operation. Salt may be distributed along with fresh meat.

Fresh meat distribution - needs to be frequent and regular, preferably once each week. The consent of communities should be sought in advance to ensure that they will be able to slaughter and distribute fresh meat amongst themselves, on this basis, with minimal external supervision.

Dried meat processing and distribution - dried meat operations need more equipment and other materials compared with fresh meat handling. A list of basic materials required, and requirements should be assessed at the planning stage. Some equipment may be available locally but other materials may need to be brought in from commercial centres close to the operational area. Water availability should also be considered as it is crucial for dried meat processing. Dried meat may be distributed as a component of a relief food ration (assuming that food aid is being provided in the area) or on its own. Integration with existing food aid requires weighing and packing of meat so that it contributes to the delivery of recommended dietary allowances for protein. Otherwise, distribution may take place on an ad hoc basis as deemed necessary by local MRCs and other community representatives; MRCs should be involved in deciding the most appropriate approach at each location.

Selection of meat handlers and incentives - ideally, families that will receive meat from the programme should be organised into groups that will carry out slaughter and distribution amongst themselves in order to minimise costs to the implementing agency and maximise the number of households which can be restocked. In some situations, agencies may also choose to employ some local people temporarily. For example, youths might be employed for slaughtering, flaying and guarding the meat. Vulnerable female-headed households may be prioritised for employment in preparation of dried meat as they usually possess the necessary skills already.

Coordination of meat distribution and distribution of other types of food - where possible, meat distribution should be synchronised with relief food distribution for maximum impact.

Pre and post mortem inspection arrangements – ante and post mortem inspection should be conducted to minimise the risk of disease transmission to humans through meat consumption or contact with animals. The programme should seek the services of animal or public health specialists working in close proximity to the operational area.

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Disposal of hides and skins - all fresh hides and skins should be dried properly after slaughter under the supervision of the MRC. Ideally, this should be carried out on wooden frames, indoors at designated locations. Income generated from the sale of hides and skins can be used to pay the wages of community members involved in the operation or to support more disadvantaged people. Community members involved in slaughtering should be properly trained in techniques for flaying and drying hides and skin

Livestock restocking

A restocking programme aims to rebuild a productive livestock holding for pastoralist households that have lost most of their animals as a result of an emergency, and have no means of their own to recover. Restocking may be appropriate after various types of disasters, such as drought, flood or conflict. Almost by definition, restocking takes place after an emergency although in the case of a slow onset emergency, some degree of forward planning may be possible. Relative to most other types of interventions, restocking is an expensive option because it requires the replacement of livestock. It follows that in most restocking projects the number of recipient households is very much determined by project budget.

In agro-pastoral communities, households are less dependent on livestock than pastoralists and so relatively fewer animals are provided. These communities may also be less mobile than pastoralists, thereby making monitoring of households easier. For pastoralists, restocking is more difficult due to the larger number of animals that will be required to establish a viable herd size and the mobile nature of the affected communities which makes delivery of animals and monitoring the success of the initiative complex.

Pastoralists use various indigenous strategies during drought to try to avoid losses of livestock, especially breeding females. These strategies include:

- Extending the movement of herds and flocks beyond commonly used areas in order to locate better pastures at more distant locations
- Undertaking supplementary income generating activities locally
- Out-migration of some household members to earn additional income and to reduce demands on the household asset base
- Modifying herd structures: specifically replacing large stock (cattle, camels) with small stock (sheep, goats) that will reproduce rapidly in order to re-establish viable herd sizes
- Gifts or loans from less severely affected clan households to poorer households, as practised by the Boran, Somali communities and other pastoralists.

Externally-supported restocking is needed when these traditional mechanisms break down. Programmes may be implemented with the aim of rehabilitating herds or flocks in the short-term or as long-term development projects, and various types of repayment and credit systems can be used. External interventions should always attempt to complement and build upon indigenous approaches rather than to replace them.

Restocking programmes should not be carried out in isolation from other rehabilitation efforts directed at both the human and livestock populations of the affected areas. Other interventions are needed because it usually takes several months or longer for herds to become sufficiently productive to make a substantial contribution to livelihoods. For example, a new herd of breeding goats will need to deliver new offspring and these offspring will have to become young adults before sales are possible. Therefore, restocked

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households may require food aid, safety net support, basic household items and veterinary care. These diverse inputs require good coordination between agencies.

Advantages and disadvantages of restocking

Advantages

Can allow rebuilding of the asset base of affected communities in a manner that is compatible with traditional means of securing livelihoods.

Restocked herds should be sustainable in the long-term without the need for further intervention – at least in the absence of further emergencies arising.

Other development interventions that might offer similar long-term benefits – such as the establishment of irrigation agriculture – are too costly, high maintenance and unacceptable to potential beneficiaries.

After severe droughts, surplus grazing is available. Restocking allows this to be used effectively before its quality declines and the risk of bush encroachment develops.

Can help to reduce dependency on feeding camps and food aid more rapidly.

Helps to restore the personal dignity of affected individuals by supporting a rapid return to traditional lifestyles.

Disadvantages

Restocking is time-consuming and labour- intensive compared with other post-emergency interventions.

Planning can be complex and, particularly in drought situations, future threats due to unpredictable rainfall can threaten long-term viability.

Costs, particularly initial costs, are very high per household. It is important that financial provisions are adequate to ensure that the programme can be implemented equitably in affected areas.

The most-severely affected families are often in remote areas that are difficult to access. The costs of restocking these areas may be unacceptably high.

The following threats should be avoidable if a restocking programme is planned effectively:

There is a risk of overgrazing if the carrying capacity of grazing areas is not properly assessed;

The species composition of herds may change limiting their contribution to the traditional livelihoods' asset base; Restocking efforts can erode traditional coping mechanisms if not properly built upon and complementing indigenous approaches.

Needs assessment and planning

As restocking with pastoralists in Kenya has usually been used after drought, there is often more time available for assessment and analysis relative to interventions used earlier on in the drought. Agencies should take advantage of this time to conduct proper assessments to inform the need, feasibility and design of restocking. The following key questions need to be considered when restocking interventions are under consideration and a supporting checklist is provided below.

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Local acceptability of restocking

For many pastoralist households after drought, restocking is probably the most acceptable route back to a traditional way of life. Other interventions may involve a major departure from pastoralism resulting in the loss of the skills and knowledge needed for the successful management of livestock in fragile environments. These alternative interventions include more settled agricultural production, but this livelihood option is also highly dependent on rainfall. Although alternative livelihood strategies are now attracting increasing attention from aid organizations, to date experiences have been small-scale and where benefits have been measured, these have reached only a small proportion of a population.

In summary, it seems that restocking will be the preferred recovery option for some pastoralist households, while others may prefer to move out of the pastoral sector and receive other kinds of support.

The cost of restocking

The major costs to be taken into account when considering a restocking programme include:

- Operational costs of managing the scheme including transport and accommodation of personnel
- Cost of procuring the animals
- Costs of veterinary inputs
- Cost of food aid
- Overhead costs, including maintaining holding facilities, animal losses, administration etc.
- Monitoring and impact assessment costs
- From previous project evaluation, the success of restocking programmes will depend on how many households to restock, and how many animals to be provided.
- In terms of overall cost, restocking generally compares favourably with alternative development initiatives although initial expenditure may be considerably higher because of livestock purchases. However, these costs need to be set against the potentially self-sustaining nature of restocking programmes in the longer term and their capacity to build household wealth. Even for agencies which have used restocking extensively, there can be tension between administrative staff or programme managers who wish to see a high number of households with fewer animals for a given budget, and technical staff who have better understanding of viable herd size and traditional restocking strategies. It is possible that restocking with sub-optimal numbers of animals contributes to low success rates and repeated bouts of restocking almost on a yearly basis, although this issue requires further research.
- One way to reduce the costs of restocking might be to agree to an in-kind contribution from communities, so that the costs are shared between an agency and the community. In some ways, this approach can build on traditional restocking practices. Cost-share arrangements have been tried in pastoralist areas of Kenya, but have not yet been fully evaluated.

Community participation

Restocking schemes can only succeed if the affected community is involved in the design, implementation and assessment of the project. Given that most pastoralists already have traditional systems for re-stocking,

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community participation should play an important part in the selection of recipients, defining the types and numbers of animals for restocking, purchase of stock, community in-kind contributions of livestock, overall management of the project and impact assessment.

This is particularly important if the constraints facing affected households and the capacity that the community and its members can contribute to the establishment of a successful restocking programme are to be addressed effectively.

Environmental issues

Early proponents of restocking assumed that restocked households would move away from drought centres or IDP camps with their animals and therefore, environmental degradation around such areas would be reduced. However, the relatively short duration of many restocking projects meant that environmental impacts were often not measured or attributed to restocking.

Consequently, the potential environmental benefits of restocking are not well recorded. At the stage of planning a restocking intervention, it is necessary to consider where the animals will be grazed and assess potential environmental impacts. Such assessment can be conducted with communities, using methods such as participatory mapping.

Timing of restocking

The decision on when to implement a restocking programme needs to address the inevitable trade-off between the immediate needs of the affected population and the viability of the programme. Implementing restocking too early will result in unacceptable levels of risk to the introduced animals whilst unnecessary delays may limit the capacity of targeted households to benefit from the livestock.

At the household level, restocking may start to be considered as a viable intervention when livelihood assets have fallen below the minimum survival needs to sustain households. It has been suggested that, at the community level, this point is indicated when at least 30% of the community has been materially affected by the emergency.

The following indicators may be helpful in determining the timing of a restocking intervention:

- Restocking should be carried out as soon after the disaster as possible to facilitate quick re-establishment of a pastoral way of life for those families who wish to return to pastoralism.
- It is unwise to introduce large numbers of grazing animals into an area at a time when resource availability is limited (e.g. during the dry season in an arid environment). It is also important to be sure that the crisis is over before restocking. If the immediate consequences of the emergency are still apparent, livestock introduced into the area will face increased difficulty in adapting and their survival prospects may be compromised by competition for feed and water.
- After drought, wet conditions are often associated with increases in the incidence of certain diseases, particularly parasitic diseases. It follows that restocked animals need to receive preventive veterinary care and restocking should only take place if such care can be provided.

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- Restocking is not a long-term intervention. Ideally, it should start at an appropriate time and continue only as long as is necessary for the effective re-establishment of pastoralism in the target area. These considerations should be built in at the planning stage and the following issues need to be taken into account when determining the point at which restocking should be discontinued:
- At the community level, disengagement of restocking schemes should depend largely on the achievement of predetermined objectives and milestones. In the crudest sense, all the selected recipients should have received the minimum number of animals specified by the scheme before disengagement is considered.

Market analysis

Terms of trade for livestock deteriorate dramatically during drought, and rise after the rains. This means that livestock prices are usually high at the time when restocking takes place. Agencies should take account of price fluctuations when planning restocking, and assume that demand and prices for breeding females will be relatively high. Similarly, if it is known that an aid agency is about to purchase livestock, prices can increase even further.

If a large-scale programme is envisaged, an assessment of the availability of breeding females in local markets will also be needed. This kind of assessment can include a review of market sales volumes in previous years, and informal discussions with traders. In the event that animals have to be purchased from distant markets, relevant transport and other costs should be included in the project budget.

Areas for restocking

In order to make effective use of the finite financial resources available for restocking programmes, inputs should be targeted at the most seriously affected geographical areas and vulnerable households in these areas.

Restocking operations can be implemented at community, village or household level. The decision on the most appropriate scale of operation needs to involve target beneficiary communities as well as other stakeholders. Experience and operational logic suggest that for restocking to succeed, the focus should be on individual households within selected communities. However, the possibility of targeting the community at large, particularly if implementation is designed to complement traditional support mechanisms, should not be ruled out.

Design and implementation of restocking

Selection of individual beneficiaries

- The selection of appropriate beneficiaries has been widely recognized as key to the success of community-based programmes in general and as a major challenge in restocking initiatives. In this respect, the mechanisms by which traditional restocking takes place may provide useful indicators for an exogenous programme to aid the selection of recipients. Community leaders and a broad spectrum of representatives of the target community should be involved in the selection process. It is important that the criteria for selection of beneficiaries is established and applied publicly to allay any concerns within the community.

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- As mentioned above, a key issue affecting selection is the preferred livelihoods strategy of households and a clear desire to resume a pastoral way of life. With the current pressures on pastoralism, it is possible that some people will opt to try other ways of making a living. For those households wishing to be restocked, there should also be an assessment of their capacity to manage livestock in terms of factors such as labour requirements.
- Therefore, not all of the most vulnerable households are necessarily good candidates for restocking. For example, it is possible that disabled or elderly people should receive other forms of assistance.

Types of livestock for restocking

- Determining the appropriate number, species, sex and age of animals to be distributed is an important part of any restocking programme. Whilst the options here will be limited, to some extent, by what is available in the market, making the right choices can have a large impact on the ultimate success or failure of the programme. Where possible, restocking programmes should draw on indigenous restocking practices as these practices reflect local interests and objectives.
- Small ruminants will often be the first choice for restocking initiatives, at least in the early stages of recovery. They are less affected by limited feed quality and availability, are relatively easy to get to market and reproduce rapidly, facilitating further rebuilding of viable flocks.
- This should not, however, rule out the possibility of restocking with large ruminants whenever there is a strong demand expressed by the community and there are adequate resources available in flood and conflict areas, for example, where pasture availability is not a major concern.
- Provision of pack animals might also be considered in response to a request from the community. Pastoral families, when offered the choice, will generally tend to opt for combinations of sheep and goats. In some pastoral societies in Kenya goats may be preferred to sheep as they are more drought-tolerant, produce more milk and sell at higher prices. On the other hand, sheep may be preferred due to their higher social or cultural value and for their more fatty meat.
- Under normal circumstances, animals for distribution should consist mainly of mature or young breeding females to promote flock or herd re-establishment and household milk supplies. Young kids without their mothers should be avoided as they are likely to suffer high mortality before reaching maturity, and recipients will not, in any case, gain an immediate benefit from them.
- Pregnant females may be desirable if available and if they do not have to trek long distances. To support good reproductive performance in goats and sheep flocks, a practical ratio of breeding males to breeding females of 1: 20 is to be preferred.
- As a general rule, restocking interventions should use indigenous types of animal because:
 - These animals are likely to be well-adapted to local feed sources, climate and disease challenges
 - Beneficiaries are already familiar with the management required by these animals and can therefore be expected to take care of them properly
 - They are more widely available than introduced genotypes and are normally less expensive
 - Local purchasing of livestock can have knock-on benefits through the injection of cash into the local economy.
- Preservation of well-adapted but threatened indigenous livestock types is a global concern. Promoting the conservation of indigenous livestock genetic resources for current and future generations is likely to deliver future benefits in terms of the capacity of pastoralists to cope with and recover from similar emergencies.

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Number of animals provided

- Due to resource constraints, no restocking initiative will support replenishment of all losses. Finances are also unlikely to be available to support implementation across all affected communities. A more realistic strategy is to focus on reinstating the minimum number of animals required to initiate normal reproduction of animals in the beneficiary households with a view to securing household food supplies in the next season.
- This minimum number should also allow the pastoral society to split their flocks and continue normal mobility after restocking. If this cannot happen, the pastoral households are likely to remain in their settlement areas with subsequent over-utilization of the rangeland resources around them.
- There is no standard minimum number of livestock to be provided in a restocking program, and following the principle of community participation, this should be discussed with the community to agree on the right number in a given context.
- Using some examples, 30 breeding sheep and goats were provided with reasonable impact, although it was recommended after evaluation that 50-70 animals would have been better. Due to the high cost per household, it can also be possible to use a 'cost-share' arrangement in which the community agrees to provide some of the animals from their own herds.

Purchasing arrangements

- Choice of markets - ideally, livestock should be purchased from local markets as these animals are most likely to be adapted to local environmental conditions and diseases, and transport costs will be minimized. If local markets are used, it also means that beneficiaries can be present at the time of purchase, and even select the animals they prefer.
- Alternatively, they can select a community member or relative to select animals on their behalf. Purchase of livestock for restocking from cross-border markets should be avoided where possible in order to reduce the disease spread.
- A disease of particular concern in pastoral sheep and goats is Peste des petits ruminants and it is known that the transmission of this disease commonly occurs through livestock markets.
- Livestock inspection – livestock should be inspected for signs of ill-health at the time of purchase by a trained veterinary worker such as a veterinarian or animal health technician.

Complementary interventions: veterinary care

- Evaluations of restocking programs show that losses due to disease can be dramatic. Outbreaks of diseases such as contagious caprine pleuropneumonia can cause high mortality in sheep and goats, but are preventable using relatively inexpensive veterinary inputs.
- Other health problems, such as worms and ticks can also be prevented or treated. During the initial assessment for restocking, pastoralists can identify and prioritise diseases which need to be addressed by the program.
- Veterinary care can be considered at two main stages during a restocking program:
- At the time of livestock purchases – livestock should be inspected for health problems, and given a one-off treatment with anthelmintic and/or acaricide as needed. A first dose of relevant vaccines might also be administered at this point. The one-off treatments can be provided by local, private veterinary workers with the implementing agency covering costs.

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- After livestock distribution – recipient households should have access to basic veterinary care from CAHWs or other recognised veterinary workers. In areas where no CAHWs are present, the establishment of a CAHW system should be considered as a means to improve veterinary services for both restocked households and non-restocked households. A voucher scheme for restocked households, for say one year, may be one approach but this would have to be designed and accepted by the community as a whole.
- Monitoring, Evaluation and Impact Assessment
- Livestock for restocking should be distributed to beneficiaries in a relatively short time but it will take considerably longer to determine the impact of the program. Even so, without an investment in effective regimes for monitoring, evaluation and impact assessment, the opportunity to learn valuable lessons for implementing similar programs in response to future emergencies will be missed.

Some useful indicators for restocking programs include:

- The extent to which dependence on food aid has been reduced and the time-scale over which this has been achieved
- Changes in the size of the household's herds and flocks and whether these are adequate for providing for the family
- Subsequent perceptions of standards of living before and after the emergency
- Indications of the extent to which a normal, pastoral way of life has been resumed following the restocking intervention
- Direct consumption of livestock products e.g. use of goat milk to feed children.
- This process can take three or four years to achieve and ideally will include repeated monitoring of restocked families to facilitate the identification of trends and subsequent risk factors.
- The information needed relates both to operational difficulties and to evaluating socioeconomic impacts. Operationally, there is a need to monitor animal health and other husbandry practices to alert all stakeholders and perhaps organize assistance if large numbers of animals are lost due to disease, drought, or raiding.
- Data on herd or flock dynamics (births, deaths, sales and exchange of restocked animals as well as family movements) can be costly to collect but offer valuable insights into performance after restocking.

Checklist for planning restocking projects

- Should we consider restocking?
- Can adequate funds be made available for a reasonable coverage of affected households in the target area?
- Is the carrying capacity of the area sufficient to allow re-establishment of viable herds or flocks by recipient households?
- Are there any alternative responses that could result in a better developmental outcome for the community as a whole?
- What are the constraints and capacities that will influence a restocking program?
- Are there procedures in place for full community consultation regarding the implementation of restocking?
- Have potential beneficiaries been consulted about their objectives in restocking?
- Is there any evidence of the following trends that may hinder the re-establishment of a pastoral way

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of life:

- Reduced access to former grazing areas?
- Reduced access to water sources in traditional grazing areas?
- Reduced access to transhumance routes?
- Disappearance of traditional markets?
- Loss of traditional arrangements with sedentary populations?
- Do early warning systems or other intelligence suggest an elevated risk of further disruption within the next two years?
- Are households sufficiently intact to provide adequate labour for managing herds and flocks?
- Do the requisite institutions and managerial skills required for re-establishing a pastoralist lifestyle still exist within the target community?
- Are local governments and other institutions engaged in the process?
- When should we restock and when should we stop?
- Can we identify a point at which the emergency no longer poses an immediate threat to restocked animals?
- Does this point occur sufficiently early in the recovery phase to meet the needs of affected communities?
- Do we have time to put in place effective arrangements for disease management or provision of supplementary feed and water for restocked animals?
- When should we make purchases of livestock for restocking so that we make the optimum use of available financial resources?
- Does our initiative include the assessment of indicators that will determine when disengagement will take place?
- Have we made arrangements for post-restocking activities (e.g. supplementary feeding, veterinary care, cost recovery)?
- Where and who should we restock?
- Have we conducted an assessment of the most severely affected areas?
- Have we linked this to an assessment of the communities that will derive the greatest developmental benefit from restocking?
- Have we determined an appropriate scale for restocking (household versus community)?

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