



Emergency livestock interventions in crisis and post-crisis situations

IFAD has been involved in post-crisis situations since the early years of its operations. Its involvement has focused on helping its target group regain agricultural productivity and on supporting the resumption of rural development processes to help the affected population back on the path of sustainable development. Livestock plays a significant role in these dynamics.

The loss of livestock during an emergency situation disrupts the livelihoods of affected households and has long-term effects on both their current and their future income.¹

Key principles

1. Protecting and rebuilding livestock assets has a significant impact on reducing vulnerability
2. Each stage of a crisis needs appropriate livestock interventions
3. Rapid identification of affected households and rapid assistance can quickly restore household food security and lessen vulnerability

Key design issues

Defining appropriate interventions in emergency situations is not an easy task. Livestock species are affected in different ways by different emergencies because of variations in vulnerability to specific types of disasters and in recovery capacity.

The design of equitable and effective service delivery requires an understanding of (i) livestock ownership and use by the range of socio-economic groups within a disaster-affected population (e.g. types of livestock owned and main health problems affecting these

animals) and (ii) gender roles and responsibilities and the implications for planned activities.

Key questions to be asked when designing interventions are:

1. What types of livestock systems have been affected by the disaster and how?
2. Which groups are most affected or vulnerable, and what are their priority needs?
3. Which livestock intervention is the most appropriate (considering the types of problems and target group)?

Analysis of the affected system and identification of vulnerable population

Livestock interventions should always be based on a thorough understanding of the affected system. The vulnerability of livestock owners to emergency situations will vary according to their lifestyle, i.e. whether this is pastoral (nomadic or semi-nomadic) or incorporates crop production as part of a mixed-farming system. Clearly, conditions change significantly across regions and communities.

Moreover, it is important to understand the economic and cultural roles of livestock in the community, the various gender roles played in the management of the animals, and the extent to which livestock contributes to household food security and income throughout the year. The severity of livestock loss suffered by each community must be examined to ascertain what level of loss allows for the maintenance of viable herds.

Identification of problems

Livestock-related problems and the associated impact on the household are wide-ranging: lower livestock prices and thus reduced income from sale of animals; loss of livestock through increased sales and deaths; loss of livestock products (milk, meat, fat and ghee); reduced mobility due to death of transport animals; increased workload as a result of grazing areas being far from water points; loss of employment from herding; loss of house-making materials (hides and skins); inability to access key livelihood resources (firewood, water, pasture); reduced access to pasture and water; increased exposure to disease; and limited access to health care.

Emergency destocking

When:

Livestock are unable to find adequate fodder and grow weak and die from malnutrition or disease. Availability of supplementary grain and fodder on the local market decreases. As a result, livestock prices drop too low – and the price of grain climbs too high – for pastoralists to earn sufficient profit to purchase what they need.

How:

Emergency destocking programmes allow for the removal of animals from a region before they die. These programmes involve buying farmers' livestock at a fair price (or offering healthy animals or goods in exchange), arranging for immediate slaughter and the distribution of dry or fresh meat.

Destocking may be carried out alongside a veterinary or feed supplement programme where the money from livestock sales can be used to buy veterinary drugs or fodder for the remaining stock.

Advantages:

- Relieves pressure on natural resources to the benefit of the remaining stock: livestock numbers are reduced, leaving more grazing for the other breeding animals
- Provides source of food for crisis-affected families
- Creates employment opportunities in slaughtering and meat preparation, thereby providing cash that can be used to cover immediate household needs
- Helps create markets in isolated areas
- Can be implemented by communities, women's groups, private sector traders or directly by local organizations
- Generates income that can be used to maintain remaining stock, meet basic needs or invest in business activities and trade

Disadvantages:

- May interfere with local market dynamics
- May be unsustainable: agencies are essentially buying stocks from people just to give them back meat, which actually interferes with traditional destocking mechanisms.
- Destocking is a method of transferring income to maintain the purchasing power of the pastoralists; a transfer of grain instead of cash can be made in exchange for animals, but this removes the power of choice from the pastoralists

Emergency veterinary and animal health support

This type of support is needed when:

- Animal health systems are absent and livestock is as an important capital asset
- There is the risk of sudden loss of livestock due to acute diseases with high risk of mortality and which increase livestock's vulnerability to disease.
- Veterinary care is needed to limit the impact of chronic diseases, which may affect production (e.g. milk)

How will the support reach the target group?

Initially, primary clinical veterinary services will be made available to farmers (e.g. for examination and treatment of individual animals or herds, or mass treatment or vaccination programmes). Then, public sector veterinary functions will be strengthened (e.g. veterinary public health and disease surveillance) so that farmers can protect their livestock and maintain the benefits of livestock ownership or access. These services should be accessible, affordable, and of sufficient quality.

Advantages:

Viable private or decentralized animal health systems encourage greater efficiency and sustainability without creating dependency because they improve the capacity of local communities to care for their animals. These systems also prevent the spread of disease, and hence further loss of livestock.

Disadvantages:

Improving animal health care just before the occurrence of a disaster may unintentionally worsen overall animal health since competition for resources will be greater. Animal health interventions should therefore be linked to off-take or marketing interventions where possible.

Emergency feeding and supplementary nutrition

When:

- Access by livestock to feed has been affected and feed supplies must be ensured in order to protect and rebuild the key livestock assets among crisis-affected communities.
- A minimum of external inputs are needed to re-establish and maintain an adequate level of nutrition in livestock populations or to

guarantee the productive functions of affected animals.

How:

- Aggregate or relocate livestock by bringing together groups of livestock belonging to different owners and moving herds to areas where resources are more abundant
- Increase livestock feed availability, simply, through local (or regional) purchases of fodder or transportation of this fodder to pastoral zones.
- Use multi-nutrient blocks (i.e. urea-molasses) specially formulated to provide energy, nitrogen, and important vitamins and minerals to enable animals to survive until pasture conditions improve.

Advantages:

- Reduces environmental degradation by bringing cattle feed from an area outside the normal foraging area.
- Provides herders with long-term benefits. In most cases, feed security is more important to pastoralists than food security, since keeping animals alive ensures that their families will be able to survive beyond the drought or disaster.
- Can prevent further death of livestock. For example, the use of multi-nutrient blocks can be formulated to include antihelmintics to prevent further livestock death when rains start. The blocks themselves have a long shelf life, so they can be strategically pre-positioned in sanctuaries or zones of refuge prior to drought. The roughage component of the animals' diet can then be increased as necessary.

Disadvantages:

- Introduction of pests, diseases and vectors: when feedstuffs are transported from outside an affected area, there is a risk that crop or animal diseases, pests and disease vectors may be imported with them. Proper phytosanitary management is crucial in minimizing the risks of this happening.
- External support may ignore the strategies that communities have developed for themselves.
- Where large herds are involved, emergency feeding may not be enough. Parallel destocking programmes may also be needed to maintain the ecological balance of the affected region.
- Transporting feedstuffs into an affected area

may disrupt local markets and therefore should not be considered until the possibility of local sourcing has been ruled out.

- Urea-molasses blocks or salt blocks are often unavailable locally, making them expensive and difficult to procure. Moreover, they induce thirst in animals, so additional water would be necessary to maintain the herds.
- Aggregation or relocation of livestock, if used, leads to large herds. This complicates the task of finding a location with adequate feed and water and could allow infectious diseases to spread more widely through the population as a result of closer contact.

Livestock refuges and shelters

When:

- It is necessary to protect livestock from harm (bad weather, ill-health or predation) and preserve the current and future livelihood assets of beneficiary communities.
- Before an emergency occurs.
- During periods of environmental stress (e.g. drought).
- In cold winters, when shelter is a critical factor for the protection of livestock assets.
- In cases of flooding, where livestock may be stranded and need access to safe, dry ground.
- To avoid co-habitation of people and animals for sanitary reasons (to control disease and vermin).

How:

A core number of animals from each herd are allowed into the refuges, where they receive food, water and shelter.

Advantages:

- Provides protection against adverse climatic conditions, theft and predators.
- Well-ventilated and draught-free accommodation safeguards animal health.
- Herd management is more convenient and crop damage is prevented: refuges are located near water boreholes and nutrient blocks can be stockpiled, allowing pasture to grow and rejuvenate.
- Ensures that a certain amount of livestock is kept safe during emergency and post-emergency situations.

Disadvantages

(related to access and use of the refuges)

- Access and stocking rates could be difficult

to regulate, especially during times of severe drought.

- Conflict and unrest could result if the refuges are unable to meet the needs of all herders in a region.
- In addition, leaving grazing lands ungrazed for long periods of time may reduce the quality of the forage and lead to a less productive pasture in the long term.

Provision of alternative water sources

When: More water resources are needed because existing water systems cannot support a large number of livestock and people. In an emergency, the provision of water for livestock is necessary for the survival of the animals.

How: Water may be available from a range of sources and deliverable by a number of methods. The most appropriate, cost-effective and sustainable option should be selected. (e.g. distribution points or water trucking).

Gender roles in the provision of water for livestock should be taken into account. For instance, there may be risks for poorer women and girls who have to travel some distance to collect water for livestock. There are also potential problems related to inequitable access to water. Existing and indigenous management systems for local water points must be taken into account in the provision or establishment of water sources during an emergency, in order to ensure equitable access, avoid conflict and establish sustainable management for the future.

Advantages:

- In many mountainous or hilly areas, water harvesting reduces erosion from highlands to lowlands, improving productivity in both areas.
- Water harvesting can allow for some low-input agricultural production if the land itself is suitable for agriculture.

Disadvantages:

- New boreholes can be disastrous for the surrounding environment. (Livestock owners try to stay close to water sources with their animals, so the area around the new water source often becomes severely degraded).
- In some cases, water management can have severe social and political impacts on a society, depending on the culture.
- Aquifer capacity must also be addressed or the long-term impact can be devastating (e.g. drying of aquifers, subsidence).

- Livestock owners may become dependent on boreholes, and abandon the nomadic lifestyle that is appropriate for the environment in which they live.

Herd reconstitution and restocking

When: Restocking is necessary to supply livestock owners with breeding animals to rebuild their herd (which has been lost or decimated) over time. It is a method of asset-building aimed at families who have recently lost most of their stock, providing high-quality livestock-derived foods, such as milk or eggs, while helping them reconstitute their economic assets. Restocking is most appropriate for pastoralist and agro-pastoralist communities who rely heavily on livestock as a source of food, income and social well-being.

How: Restocking with local animals has proved the most successful approach: these animals are accustomed to the local conditions, there is no risk of introducing new diseases, and the local economy also benefits.

Important issues for the success of restocking interventions

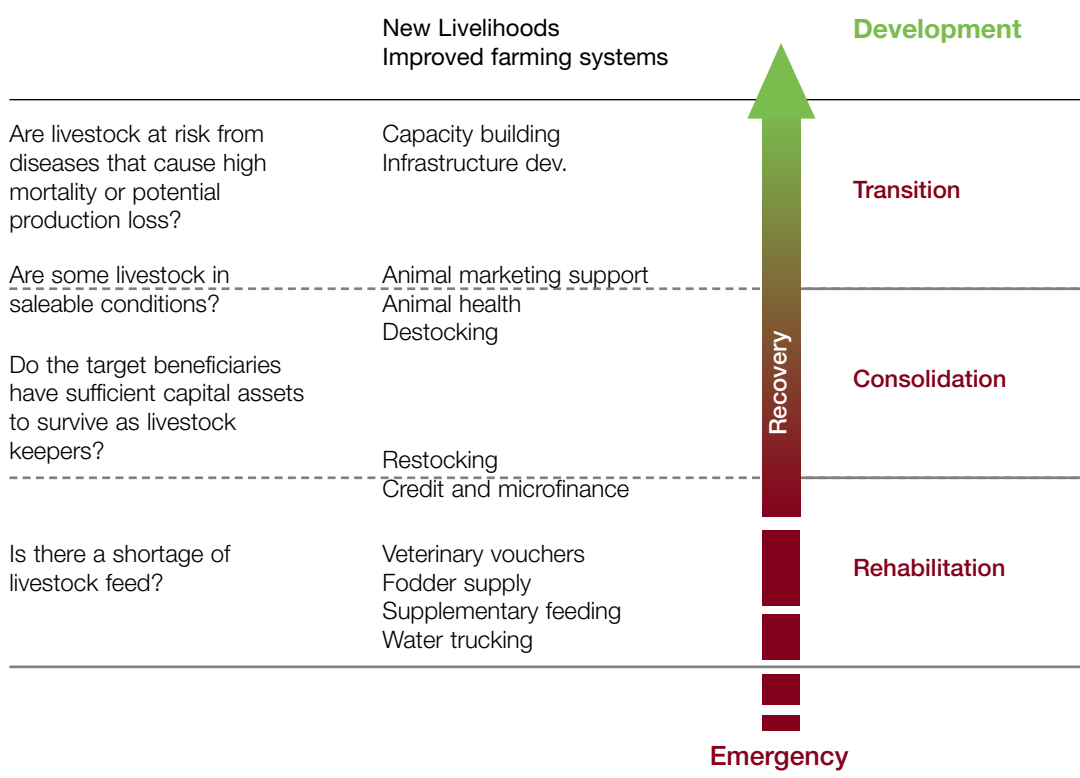
- Timing, cost benefits and environmental impact
- The species to be used to restock the herds of livestock owners (and their disease profiles)
- Provenance of the stock, and suitability for the region of destination
- Targeted population (who will receive animals)
- Need for other interventions and availability of necessary inputs
- Impact on local markets and community systems already in place.

Advantages:

- In the post-disaster recovery phase, herd reconstitution plays significant role in rebuilding the livelihoods of affected people. Replacing livestock assets in some quantity or distributing livestock in smaller quantities to replace lost stock is also an instrument to provide food and income.

Figure 1

Defining livestock interventions



Box 1

Lessons from the field

Restocking activities after the Indian Ocean tsunami

The destruction caused by the Indian Ocean tsunami had an impact on domestic farm animals (poultry, sheep, goats and, to a lesser extent, cattle and water buffalo), affected livestock-related infrastructure (barns, stores, processing facilities) and seriously compromised the animal feed resource base (crop residues, straw and affected pastures inland).

- The rehabilitation of animal production through restocking activities, veterinary services and reconstruction of related infrastructure has been the key vehicle for supporting household economy and consequently restoring livelihoods to pre-crisis standards.
- Restocking (replacement with animals from other villages or regions) was successfully combined with the restoration of the public veterinary services to deal with outbreaks of highly infectious diseases arising from movements of animals, humans or animal food products and losses due to stress-related animal diseases.²

Livestock-related interventions in Kenya

A large programme of livestock-related interventions was carried out in Kenya in 2000/01 supported by Oxfam and 31 organizations involved with 21 projects targeting drought-affected pastoral areas.

Successful experiences included:

- Destocking in response to strong community interest and involvement.

Pastoralists were willing to sell animals in times of hardship and sales directly benefited the local economy. Fresh meat was easier to handle and was preferred by beneficiaries, providing a source of protein that could be distributed more cheaply than beans.

- Providing feed concentrates was more cost-effective than restocking after the drought was over.
- The transport subsidy was effective where traders had been transporting animals during non-drought years, and where the implementing agency worked closely with the traders.
- The animal health component was successful because of the involvement in both planning and implementation of local communities, the Kenyan Government's veterinary department and community-based animal health workers.
- The cross-border operation enabled pastoralists to use resources across international borders as a result of an ongoing initiative that was stepped up during the drought. Movement and migration, including cross-border utilization of water, pasture and markets were the key to the pastoralists' survival.

2 Food and Agriculture Organization of the United Nations (FAO), (date accessed: January, 2008), FAO Tsunami Needs Assessment (available at <http://www.fao.org/ag/tsunami/assessment/animal.html>)

Disadvantages:

- Restocking is expensive and requires a good understanding of the carrying capacity and resilience of the environment in which the animals will be placed. Restocking programmes that are not carefully reviewed and well-planned not only will fail, but may also have a strong negative impact on the environment in which the livestock owners reside.
- Restocking needs to form part of a broader, long-term approach to strengthen the capacity of livestock-dependent

communities to face disasters and challenges. (e.g. increasing the potential for market-orientated production through the development of market opportunities and capacity-building).

Other interventions

- Financial services: For many risk-prone and marginalized livestock keepers, access to credit is almost impossible. Financial interventions would include the provision of credit to livestock owners and a system

Box 2

Gender roles in emergency livestock activities

The potential impact of any intervention on women's access to and management of resources – in particular livestock and livestock products – needs close attention.

During a crisis or post-crisis situation, it is particularly important that interventions are based on a sound understanding of women's role in livestock care and production because disasters affect women and men in different ways.

Therefore, a pre-intervention assessment of gender roles and responsibilities is needed within the affected community to examine the impact and extent of the emergency and the implications of the planned activities. In some pastoralist communities, for example, women may be responsible for young but not adult stock, or they may have control of livestock products (such as milk, butter, hides and skins) as part of their overall control of the food supply, while men have disposal rights (e.g. sale, barter or gift) over the animal itself.

Ownership and control of livestock as a livelihood asset are the main issues determining the development of specific interventions.

Within this framework, the following **lessons learned** should be considered at the design stage:

- *Identifying and supporting the roles and decision-making capacities of women* as livestock owners, animal health care providers, feed gatherers and birth attendants, and as users of livestock products is central to the effective implementation of gender-responsive interventions.
- *Gender roles and norms should be taken into account when planning destocking operations.* In many livestock-based societies, cash is controlled by men while food is the responsibility of women. In such cases, meat distribution may help to support women's role in securing the family food supply, while cash purchase of livestock may increase male heads of household's spending power, over which women may have little control.
- *Women's safety.* Gender roles in the provision of water and feed for livestock should be considered, particularly in the case of poorer women and girls who may risk, for example, violent assault if they have to travel distances to collect water for livestock.
- *Women and animal health.* Women (and girls) are often responsible for small and/or young stock, including the diagnosis and treatment of diseases. They should therefore be involved in animal health interventions and training.
- *Social and cultural norms.* The design of veterinary services needs to take account of local social and cultural norms, particularly those related to the roles of men and women as service providers. (For example, in some communities it is difficult for women to move around freely or travel alone to remote areas where livestock might be kept).
- *Women's workload.* Milking of dairy and dual-purpose animals and cleaning of animal housing are often tasks that fall disproportionately upon women members of the household. In addition, feed collection and management may mean particularly onerous duties for women and girls. For this reason, during design particular care should be taken to ensure that the planned activities do not compromise the interests of women in affected communities.

for safeguarding assets, which could involve grants, loans, cattle banks or cooperative savings accounts.

- Diversification of assets: Diversification of assets can be important in areas that are chronically vulnerable to disasters and in pastoral territories where women have some degree of autonomy (to allow them to participate in women's groups and other community groups). Such interventions would allow herders and their families to earn income without relying solely on their livestock. Retraining

herders in other trades and skills can also help them to provide for their families during times of hardship.



Contact

Antonio Rota
Senior Technical Adviser on
Livestock and Farming Systems
Technical Advisory Division
Tel: +39 06 5459 2680
a.rota@ifad.org

Authors

Antonio Rota
Senior Technical Adviser on
Livestock and Farming Systems
Technical Advisory Division
a.rota@ifad.org

Silvia Sperandini
Consultant, Technical Advisory
Division
s.sperandini@ifad.org



International Fund for
Agricultural Development
Via Paolo di Dono, 44
00142 Rome, Italy
Telephone: +39 06 54591
Facsimile: +39 06 5043463
E-mail: ifad@ifad.org
www.ifad.org
www.ruralpovertyportal.org

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These materials can be found on IFAD's website at www.ifad.org/lrkm/index.htm