

Management of livestock during natural disasters

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A natural disaster is a major adverse event resulting from natural processes of the earth; examples are floods, hurricanes, earthquakes, tsunamis, and other geological processes. A natural disaster can cause loss of life and property damage. Disasters in India are a common phenomenon due to vast stretch of different type of topographical land. Along with care for human being, equal attention must be paid for caring livestock. There is a major role of animal husbandry department in caring and maintaining livestock during disaster.

Key words: Animal, Disaster, Farmers, Livestock, Strategies

THERE is an alarming situation across nation due to Kerala floods. Rescue and rehabilitation operations by Indian army, National Disaster Response force (NDRF) and state teams are in full swing. But there is no one to look after livestock reeling under flood. The impact of disasters are high on weaker sections of the farming community. In India, animals are reared mainly by marginal and landless farmers. This section of society largely depends on animals, for livelihood. It is apparent that even though animals are the main source of livelihood to the poorest of the poor, disaster management of animals does not appear anywhere in preparedness, mitigation or rehabilitation. In fact animals can play a major role in all the components of disaster management in these areas. Protecting and saving human life is the first priority of disaster relief. Protecting property is of secondary concern. Therefore, farmers should work with meticulous planning before a disaster occurs. They should remember that the care of and responsibility for all animals lies with themselves or designated care provider.

Animals lost due to disasters in past

Many states and Union Territories of India are vulnerable to some disaster or other. In Orissa cyclone (in India) during the 4 June 1982 there had been 11,468 cattle lost against 243 human deaths (loss of other animals are not being projected). Earthquake has comparatively less impact on animals; but in Uttarkhand earthquake, 3,100 cattle heads were lost as against 770 human lives. It is apparent that even though animals are the main source of livelihood to the poorest of the poor and to the landless, concrete steps towards disaster management of livestock and other animals are yet to be taken.

Significant role of animals during a disaster

It is assumed that animal can forewarn an incumbent disaster (limited to some hazards; not fully proved). Animals are specifically used for search and rescue operations. Animals are the means of transport of injured and invalid people when no other transport is possible. In flood duck rearing and fish farming help in clearing pests that can cause epidemics. Pigs clear garbage and

waste materials. During flash floods people escape holding on to animals; all animals are natural swimmers. Dogs (pets and community animals) keep the creeping reptiles and stray wild animals at bay or atleast forewarn the people during a disaster.

Drought

Drought is a condition in which shortage of precipitation for a sufficient longer period of time occurs. There is loss of water in ponds and streams. Drought results in shortage of feeds and fodders and the animal may remain in stress hence reducing their productivity.

Management during drought

- Early plans should involve veterinary healthcare institutions, water resources and disaster assistance to expand their services in times of need.
- Provision for additional water supply in times of water shortages through repair of tubewells, cleaning of tanks, preparing for harvesting rainwater in tanks or large ponds. If not, most sources of the water which may be unclean by human standards may be utilized.
- Explore the use of conventional

feed and fodder resources and encourage supply of molasses to cattle-feed plants. Dry fodder reserves, urea molasses licks, bricks made of fodder urea and molasses etc. can be part of the stock pile.

- Implementing measures to stabilize fodder resources by using seed reserves and planting alternative drought resistant fodder crops

Earthquakes

Earthquake can cause damage to buildings, infrastructures, bridges, dams, roads and railways. Beside the scarcity of feed and fodder, contamination of water through seepage of drainage water causes great discomfort to the people and animals.

Management during an Earthquake

- Identify the safest place for shelter so that the animals can survive for 2-3 days without any assistance
- All the farm tools and equipment and other objects that are heavy should be placed away from the wall and in rafters as they are likely to fall causing serious injury
- A bolt cutter should be present in order to open gates during emergency
- Seek for veterinary and medical advice in case of emergency.

Flood

Floods are one of the most common natural disasters causing extensive damage to property, livestock, crops and human life. But animals are natural swimmers; therefore can escape drowning if they are not tied or caged. The fear of outbreak of infectious diseases like tetanus, dysentery, hepatitis and food poisoning etc. becomes prominent with poor management.



Calf locked in mud due to landslide

Management during flood

- Evacuate the animals rapidly to higher ground and check for injuries to be attended by a veterinarian
- Prevent the outflow of manure pits into rivers or even drinking water
- All local ponds and canals should be inspected for any obstruction
- Ensure that the animals are vaccinated for all infectious diseases
- The animals should be brought to safer places if the forecast of a disaster is beforehand.

- Animals should be shifted to higher grounds
- Stocking of concentrates and medicines
- Vaccination of animals
- Make provisions for early disposal of carcasses

Managerial strategies during a disaster

- Evacuation is the best measure to prevent the animal from further suffering. Evacuation should be quick and rapid to rescue camps.
- Feeding and watering of animals should be adequate so that it meet the nutritional needs and reduces illness. Promotion of utilization of non conventional feed sources such as urea, molasses, feed blocks, silage feeding must be done.
- All injured animals should be promptly treated and antibiotics can be provided in case of susceptible illness. Care of pregnant animals,

Cyclones

Meteorologically, cyclone can be predicted with some accuracy. Hence, the loss can be avoided through better preparedness of an event.

Management during cyclones

- Cyclone shelters can be made to house animals away from the cyclonic area



Animals being rescued during Kerala flood

care of new-born and young animal is a must.

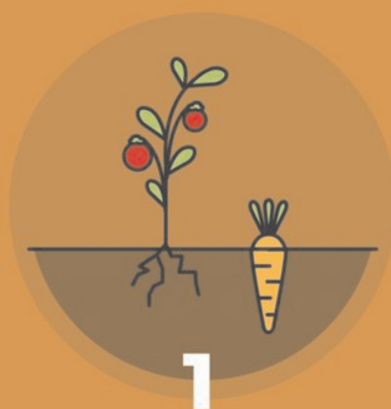
- Another issue is the animal waste disposal. Dung of animals can be either used as manure or caked and dried for fuel.
- Veterinary doctors, para veterinary staff and ancillary staff should help to set up temporary rescue camps in affected areas to reach to the sick, dying and injured animals. Control rooms are to be set up to exchange and co-ordinate veterinary support. Control rooms keep link with and co-ordinate supplies such as pain killer, sedatives, antibiotics, fracture equipments etc. from agencies. It is suggested that the nodal

agency of the Country in charge of disaster management (In India it is the Ministry of Agriculture and Farmers Welfare) should specifically draw its attention to disaster management in animals. A separate cell has to be established for the purpose in the department dealing with veterinary service. Disaster prevention measures and preparedness are to be organised by this department with the cooperation of their counterparts. Every state should involve them in forming a disaster management group through Animal Husbandry and Veterinary service department. The required field staff should be kept in constant

readiness especially throughout the vulnerable months of the year. During lean period, the team should undertake preparedness and relief exercise to test their efficacy and preparedness. This will help develop a well coordinated working system. Preventive actions taken or preparedness should be constantly monitored and lacunae thereof be frankly reported and corrected for future use.

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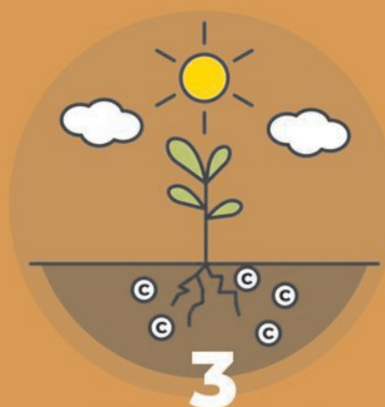
Benefits of healthy Soils



Are the basis for healthy food production



Host a quarter of our planet's biodiversity



Soils help to combat and adapt to climate change



Are essential for food security



Store and filter water



Food and Agriculture
Organization of the
United Nations

Working for #ZeroHunger