

Animal Welfare, Care and Water

Livestock performs optimally under ideal health, welfare and care management. Livestock care includes all animal-related activities, such as feeding, watering, stable management, breeding, health care and milking. Livestock care also involves sanitation and hygiene measures to avoid diseases from spreading among animals and to humans. Water is an essential element in livestock production, and needs special attention at a time of limited resources, contamination and climate change. Animal well-being includes minimising pain, stress, suffering and deprivation, while also providing for physiology and behavioural needs. For instance, keeping poultry in cages disrupts their natural behaviour patterns. Hens need space to stretch, preen their feathers, flap their wings and move around; hens also like to choose where they spend their time, which makes space, perches, litter and nesting boxes a necessity.

Animal welfare

When people keep animals they are responsible for the animals' well-being. This means minimising suffering, stress and pain, and preventing diseases. It also means providing for the animals' needs by giving them enough space, company, rest, feed and water. An animal might be healthy but uncomfortable, which implies that certain of the animal's needs are not met. Many countries have animal welfare laws designed to protect animals from mistreatment. The [World Animal Health Organisation \(OIE\)](#) member countries, which include Afghanistan, mandated the organisation to take the lead on animal welfare internationally and, as the international reference organisation for animal health, to draw up recommendations and guidelines covering animal welfare practices, reaffirming that animal health is a key component of animal welfare. The Islamic religion teaches that Allah has given humans power over animals; hence to treat animals badly is to disobey Allah's will. Muslims believe that the world belongs to Allah and that people answer to Him for how they behave towards animals¹ (Szücs et al. 2006).

Animal care

Daily livestock care includes daily activities such as watering, feeding, milking and stable management. **Special livestock care** includes activities at certain animal reproduction stages or when farm animals are sick, pre- and post-foaling management, the treatment of sick animals, etc. (see the summary in Table 1 below).

Table 1: Livestock care in Afghanistan: the roles and responsibilities of different family members (HELVETAS Swiss Intercooperation, 2014)

	Daily care	Special care
Sedentary animals	<ul style="list-style-type: none"> Animal grazing (FC, MC) Feeding and watering (MA, MC) Milking (FA) Stable management (FC) Backyard poultry (FA) 	<ul style="list-style-type: none"> Vaccination (MA) Care of sick animals (FA, MA) Calf/lamb/kid care (FA, MC, FC) Reproductive management (MA)
Migratory animals	<ul style="list-style-type: none"> Animal grazing, feeding and watering (MA, MC, FC) Milking (FA, FE) 	<ul style="list-style-type: none"> Buying/selling animals (MA) Social organisation (MA) Vaccination (MA) Calf/lamb/kid care (MA, MC, FC) Shearing wool (FA, MA, MC, FC)

Note: FA = Female Adult; FE = Female Elder; FC = Female Child; MA = Male Adult; ME = Male Elder; MC= Male Child

Table 1 also shows that women play an important role in livestock husbandry in Afghanistan. They are involved in many activities around livestock keeping, especially in milking, and milk and wool processing. Moreover, the labour-intensive work is mainly done by women and children, whereas men exercise control over the marketing and selling of animals and animal products, and they are the main decision-makers in the household. Yet

¹ Consequently, it is wrong to hunt merely for pleasure, to sew animal skins, to cause animals to fight each other, to incite them to act unnaturally or to molest them unnecessarily.

women control milk and milk products (cattle, goats) and poultry. Moreover, all work requiring physical strength and most work outside the home is performed by men (grazing and fodder collection) (AKA Foundation and Terre des Hommes, 2008).

Care for newborns (or newly hatched chicks)

The better newborns are taken care of, the higher the productivity of the adult animals. Thus when a female calf has stunted growth due to poor care, it will never become a good milk producer. It is therefore better to rear one calf properly than to keep four without being able to provide the necessary care. The young animal is vulnerable to disease from birth. It is completely dependent on the mother for food, and if the mother dies the orphan will need a foster mother to survive. However, chicks can be raised in a brooder, and calves and kids can be separated from the mother so as to allow milk off-take for consumption. It is very important that kids, lambs and calves drink enough of the mother's first milk within the first 48 hours. This milk is called colostrum and contains antibodies that make the newborn resistant to prevalent diseases. The development/growth stages (newborn until maturity) of the various farm animals are crucial, and so the necessary husbandry practices must be carried out at each stage (feed, housing, protection, disease prevention, etc.).

Milking and hygiene

Sanitation and hygiene are crucial in milking. If the udder is injured or infected, milk production can stop. Mastitis is caused by a germ and spreads easily in bad hygiene conditions. Box 1 gives a guide to recognising mastitis. Goat milk needs special attention, because the milk may not show a change in colour.

To stop mastitis or reduce the chances of infections the following is crucial (FAO, 1994):

- The hands of the milker should always be clean;
- The udder should be washed with warm water and dried before the animal is milked;
- Any animal with mastitis (or other disease) should always be milked last;
- Treatment of mastitis will be successful if it is started early.

Appropriate animal housing

Animal housing is an important, though often overlooked aspect of animal care. Sedentary farmers in Afghanistan overwinter their cattle, sheep and goats inside stables. Cattle, sheep and goats are usually kept in separate stables (AKA Foundation and Terre des Hommes, 2008). Stables offer adequate shelter at night and from the harsh winter weather. A stable should be easy to manage with regards to manure and urine, as well as allowing the animals as much free movement as possible (FiBL, 2011). Ventilation, for example via a window, protects animals from damp and cold conditions. Moreover, sanitary and hygiene measures are crucial to animals' health and well-being. Last but not least, access to fresh and clean quality water is crucial. Appropriate animal housing provides (Rahim et al. 2012):

- Proper space for animals;
- Ventilation allowing fresh air and light to enter;
- Bedding providing warmth, insulation and comfort;
- Water availability (in cold winter warm water may be provided).

Box 1: How to recognise mastitis

- The milk is not clean, the colour is different and there may be lumps in the milk.
- The udder is hot, painful and swollen.
- The skin of the teats is cracked.
- The animal may stop eating.

Source: FAO, 1994



Figure 1: Traditional cattle stable (above) compared to an improved cattle stable (below) (Pictures: Dutch Committee for Afghanistan)

Table 2: Appropriate animal housing (adapted from FiBL, 2011)

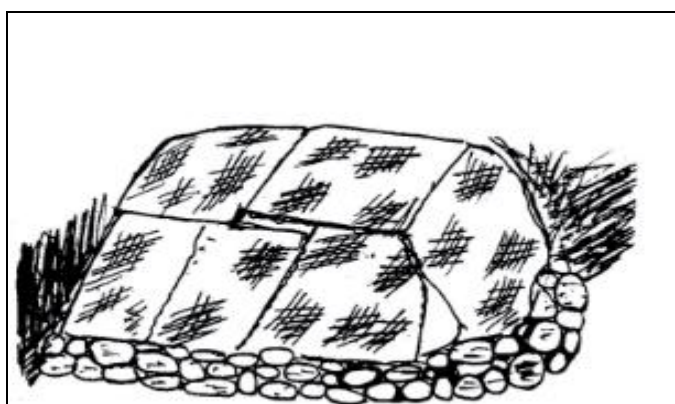
Cattle	Sheep and goats	Poultry
<ul style="list-style-type: none"> • Enough space • Sloping floor for drainage of urine 	<ul style="list-style-type: none"> • Feeding on suspended forage • Bedding off the ground • Enough space 	<ul style="list-style-type: none"> • Perching rails • Dust baths • Dark, secluded nests • Access to open ground

Figure 1 shows a traditional cattle stable compared to an improved cattle stable. In the improved stable, there is better hygiene and sanitation, which contributes substantially

to the animals' wellbeing. Moreover, Table 2 presents aspects of appropriate animal housing for cattle, sheep and goats as well as poultry.

Manure management

Farmyard manure is an important fertiliser input in mixed farming systems, but in Afghanistan cattle dung in particular is often collected and used as fuel. However, manure management in the stable is crucial for health and hygiene. It includes the following measures:



Cover made of plastic sheets or gunny bags (jute sacks)

Figure 2: Improved farmyard manure decomposition (ICIMOD, 2008)

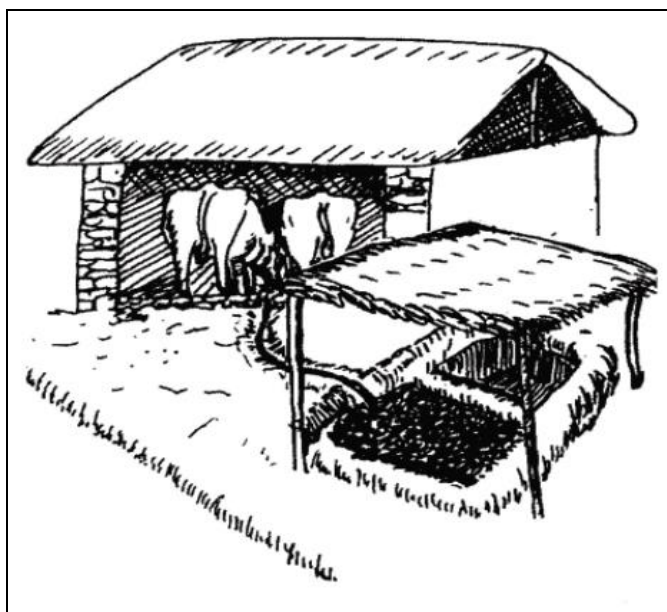


Figure 3: Improved stable with outside urine collection (ICIMOD, 2008)

Animal bedding with litter

Wheat straw or other crop residues not only substantially improve animal housing, but also absorb manure and especially urine. Animal manure can be easily collected in a stable if it has been absorbed by the litter. A high proportion of litter gives more solid manure, whereas water and little litter result in more liquid manure (slurry). Chopped and mashed straw is the most absorbent litter.

Farmyard management

Manure is either stored in the stable itself or outside the stable in heaps or pits. One simple rule is to avoid sun, wind, rain and stagnant moisture. A roof or tree provides good protection. Moreover, it is preferable to choose a site on a slight slope. This allows the liquid manure to flow out and be caught in a slurry pit. The best surface is compressed soil (clay) or concrete (see ICIMOD, 2008).

Adequate farmyard manure management improves decomposition and with it the quality of the product (see Figure 2). For more information, refer to the concept note *AGR3B Organic Fertilisers*.

Urine collection

Urine is a good source of nitrogen to use as fertiliser and it should therefore be collected in the stable, either by a urine pit or drum (see ICIMOD, 2008). Figure 3 presents an improved stable with outside urine collection.

Appropriate housing and manure management contribute directly to animal health and well-being - and indirectly to human health and well-being. A stable has to be kept clean. This involves proper manure and urine management, as well as managing any excess feed and fodder. Moreover, the water source must be kept clean to avoid water being contaminated with manure and urine.

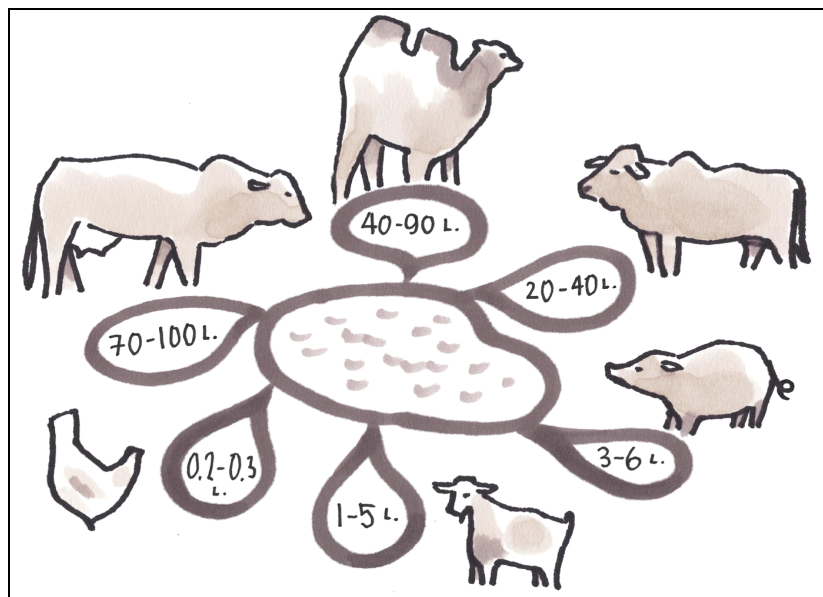


Figure 4: Daily water requirement of livestock (ILEIA, 2010)

Water and livestock care

Water is an essential part of animal production, as it is the most basic feed ingredient, but is nonetheless often forgotten. The daily water requirements of different farm animals are shown in Figure 4. However, the exact amount of water varies according to breed, the climate, feed resources, the development and reproductive stages, and the functions the animal performs. Ideally, animals should have unlimited access to water at all times. Yet this is very difficult to achieve, especially in dryland areas (ILEIA, 2010). Access to water is often one of the most limiting factors in livestock production in Afghanistan.

Streams and ponds are the main sources of water in rangelands, along with lakes and groundwater through deep wells. The decisive characteristic is

the high seasonal variety in water availability (rainfall, snow and glacier melt, etc.). Animal ponds in rangelands are often trampled and contaminated with manure, making them a source for animal diseases. Water-borne diseases (e.g. liver fluke) present a big risk for animals and humans. **Water pond management** is crucial for achieving better hygiene and sanitation and reducing the risk of unsafe water. The same is true of water sources near the homestead, especially for sources that are shared by humans and livestock.

Further readings- and references

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