BHUTAN ANIMAL WELFARE STANDARDS AND GUIDELINES

First Edition | 2020

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Department of Livestock

Ministry of Agriculture and Forests, Bhutan

FOREWORD

(Hon'ble Secretary, Ministry of Agriculture and Forests)

Humans and Animals have shared a very special relationship since time immemorial. As much as the animals (especially livestock) provide us, it is equally important to take care of their basic necessities such as food, shelter and freedom, to enable them to lead a healthy and comfortable lives.

Today, economic growth and development around the world is leading to a rise in the demand for animal products and as such, welfare of farm animals has become an issue of global concern. The demand for animal-based proteins is increasing in the country; and with the change in lifestyle, the trend of livestock farming including pet keeping is rising steadily, which inadvertently leads to welfare problems.

Livestock farming plays a crucial role in the social and economic development of our country. As it continues to grow, it presents more opportunities to contribute to food self-sufficiency and income generation, especially to the rural farmers. However, livestock farming should not only be exclusively focused on commercial gain but also should consider the welfare needs of the animals. Studies have shown that sound animal husbandry practices based on welfare principles have positive impact on the health and productivity of the animals. It has been recognized that when the welfare of animal is compromised, animal's behaviour is different and production performances are affected. Livestock farmers and governments worldwide are also seeing the benefits with the shift to change in animal welfare policy directed towards ethical farming.

Therefore, it is imperative that we do our part to protect the animals within our own borders. In Bhutan, animals have enjoyed some level of welfare privileges compared to most parts of the world. It is important that we do not view animals as "commercial entity" only but as sentient beings capable of pain and suffering. Our aim should be a world where animals are appreciated and treated with respect according to their needs.

The Department of Livestock under the Ministry of Agriculture and Forests plays an important role in supporting the livestock industries to take a strategic approach to animal welfare management. The Bhutan animal welfare standards and guidelines is developed in pursuant to the Chapter IX and X of Livestock Act of Bhutan 2001; (*Zoonosis management & Welfare of animals*) and Chapter VIII and IX of Livestock Rules and Regulations of Bhutan 2017 (*Zoonosis management & Welfare of animals*). Bhutan is a member to the World Organisation for Animal Health (OIE) and has obligations to formulate and implement animal welfare related standards and regulations in the country to protect animals from cruelty and promote their welfare.

The development of this standards and guidelines is the result of ongoing work by the Department to uphold the welfare principles in farm and companion animals. It is adopted from various science based international standards especially from OIE (Terrestrial Animal Health Code) and Australian animal welfare standards which find relevance to Bhutanese context. This document will aptly complement the existing Livestock Act of Bhutan 2001 and Livestock Rules and Regulations of Bhutan 2017 and thereby, also assist in the efficient enforcement of the provisions laid thereunder.

This document covers the standard practices and requirements of farm and companion animals to ensure their welfare. It will serve as a guide and inform the stakeholders on the various rights of animals while laying out responsibilities towards these animals as their caretakers.

It will provide proper guidance to the farmers, pet owners, shelter managers including livestock officials while dealing with livestock and companion animals on a regular basis. This document will also enable the regulators to monitor various animal welfare provisions effectively. It is expected that minimum welfare standards laid down in this document will be abided by all the relevant stakeholders.

The current scope of this document is limited to priority livestock classes such as cattle, pig, poultry, draft animals including companion animals. Welfare standards for other species shall be included as and when required.

I would like to express deepest appreciation to the core members for their dedication and valuable contributions in drafting this document and especially congratulate Department of Livestock for taking lead in its development.

With best wishes!

(Rinzin Dorji)

ACKNOWLEDGMENT

Department of Livestock appreciates National Veterinary Hospital for taking lead in developing the first edition of the Bhutan Animal Welfare Standards and Guidelines. The Department also acknowledges the support and contribution from the following members:

1. Esteemed members of the RNR Gross National Happiness Committee (RNR-GNHC) members for providing positive feedbacks and endorsing the document.
2. Ex-Director General of the Department of Livestock, Dr. Tashi Samdup for his constant support and guidance throughout the development process of this document.
3. Animal Welfare Organizations (Bhutan Animal Rescue & Care, Maya Foundation, Royal Society for Protection and Care of Animals, Jangsa Animal Saving Trust) for their valuable feedbacks and comments.
4. Program Directors/ Veterinary Officers/ Farm managers and other field colleagues for providing necessary comments/ feedbacks.
5. Core group members (refer list of contributors).

LIST OF CONTRIBUTORS

1. Dr. Karma Rinzin, AHD, DoL, Thimphu
2. Dr. N Dahal, AHD, DoL, Thimphu*
3. Dr. Karma Wangdi, AHD, DoL, Thimphu
4. Ms. Hannah Lum, Australian Volunteer, DoL, Thimphu **
5. Dr. Kinzang Dukpa, NCAH, Serbithang
6. Dr. Hiruka Mahat, NDPM & RCP, NCAH, Serbithang
7. Dr. Yoenten Phuntsho, NCAH, Serbithang *
8. Dr. Kinley Dorji, NVH, Thimphu
9. Dr. Pema Tshewang, NVH, Thimphu ***
10. Dr. Jambay Dorji, NVH, Thimphu*
11. Ms. Tshering Yangchen, NVH, Thimphu
12. Dr. N.B. Tamang, NDRDC, Yusipang
13. Mr. Sonam Norbu, RPBC, Yusipang
14. Dr. SB Chamling Rai, NPRDC, Sarpang
15. Dr. Jambay Dorjee, RLDC, Zhemgang
16. Dr. Rinzin Pem, RLDC, Wangdue
17. Dr. Sangay Letho, RLDC, Kanglung
18. Dr. Tenzin Wangchuk, DVH, Paro
19. Dr. Kinley Penjor, BAFRA, Thimphu **
20. Ms. Tashi Payden Tshering, RSPCA, Thimphu
21. Mr. Sonam Norzin, JAST, Thimphu

*** Compilation, refinement and final edition of the document

** Compilation and refinement of the document

* Proof reading

TABLE OF CONTENTS

INTRODUCTION

Background

As a largely agricultural based society, animals have always been an important part of Bhutanese culture and have helped contribute to the socioeconomic development of the country, whether it be through the production of food and fibre, draft power, transportation or as part of the country's cultural identity. More recently in the larger urban areas, companion animal ownership of dogs and cats is becoming an increasingly common trend.

Although most people understand the basics of what constitutes humane treatment of animals (such as the provision of feed, water, shelter and health care/veterinary services, good animal husbandry, handling and so on), the concepts of animal welfare and the scientific principles behind it are often less well understood.

The World Organization for Animal Health (OIE) defines animal welfare as "*how an animal is coping with the conditions in which it lives"* i.e. the state of the animal or quality of the animal's life.

Good animal welfare requires not only the combination of good nutrition, good health, suitable living environment, good handling practices and a humane slaughter or death, but also the ability of the animal to express natural behaviours. Animal welfare thinking these days is now moving beyond the traditional 'Five Freedoms' which focus on the absence or minimization of negative states (e.g. hunger, fear, disease, pain), towards recognition of the importance in also providing opportunity for the animal to experience positive experiences such as comfort, pleasure, stimulation and satisfaction.

For animals that rely on human intervention and management for survival such as domesticated livestock or companion animals, the human-animal relationship is a large influencer of animal welfare. Good training, knowledge, attitude and understanding of our roles and responsibilities for animals under our care is paramount.

Guiding principles for animal welfare

The following has been taken from OIE Terrestrial Animal Health Code Article 7.1.2:

1. There is a critical relationship between animal health and animal welfare.
2. The internationally recognized 'five freedoms' (freedom from hunger, thirst and malnutrition; freedom from fear and distress; freedom from physical and thermal discomfort; freedom from pain, injury and disease; and freedom to express normal patterns of behavior) provide valuable guidance in animal welfare.
3. The internationally recognized 'three Rs' (reduction in numbers of animals, refinement of experimental methods and replacement of animals with non-animal techniques) provide valuable guidance for the use of animals in science.
4. The scientific assessment of animal welfare involves diverse elements which need to be considered together, and that selecting and weighing these elements often involves value-based assumptions which should be made as explicit as possible.
5. The use of animals in agriculture, education and research, and for companionship, recreation and entertainment, makes a major contribution to the wellbeing of people.
6. The use of animals carries with it an ethical responsibility to ensure the welfare of such animals to the greatest extent practicable.

7. Improvements in farm animal welfare can often improve productivity and food safety, and hence lead to economic benefits.

8. Equivalent outcomes based on performance criteria, rather than identical systems based on design criteria, be the basis for comparison of animal welfare standards and recommendations.

Key focus areas important for animal welfare

When you get down to the core details of what constitutes good animal welfare for a particular animal or species, the specifics will depend upon a number of factors such as the animal's level of domestication, type of production system (intensive vs extensive), behavior, anatomy and physiology, social structure, health status etc.

However, there are several key focal areas of welfare that are common amongst most animals including:

- ensuring people responsible for animals have the necessary knowledge, experience and skills
- ensuring access to appropriate nutrition for healthy growth and development
- managing welfare risks associated with natural disasters, extreme weather, disease and predation
- provision of adequate environment and housing/ shelter
- provision of sufficient space to perform natural behaviors and necessary biological functions
- social interaction and contact with others of the same species
- minimizing the risk of pain, injury, fear and distress, particularly during handling and routine husbandry procedures, transport and slaughter
- assessing the need to perform elective husbandry procedures (e.g. beak trimming, castration, tail docking) and employing alternative management strategies
- appropriate breed selection and management for the type of climate
- provision and of humane culling and slaughtering equipment and appropriate training as necessary

Purpose

The purpose of this document, The Bhutan Animal Welfare Standards and Guidelines, is to set out a minimum set of standards and guidelines for the welfare of animals in Bhutan.

It aims to inform, educate and guide those responsible for the care and management of animals including farmers, live animal transporters, veterinary professionals, livestock and agricultural workers, shelter managers, pet owners, policy makers, and researchers.

Scope

The Bhutan Animal Welfare Standards and Guidelines have been developed as provisioned in Chapter X, section 22.1 of the *Livestock Act of Bhutan 2001* and Chapter IX, Section 173 of the *Livestock Rules and Regulations of Bhutan 2017*. In addition, Bhutan being the member country to OIE, the OIE Terrestrial Code, 2014 requires all member countries to formulate its own Animal Welfare Standards and Guidelines which is science based.

This document applies to all those persons responsible for the care and management of animals in Bhutan. The standards and guidelines have been broken down into the following 6 sections:

- General Responsibilities
- Cattle (including domestic cattle, yak and buffalo)
- Poultry (including chicken and turkey)
- Pigs
- Draft Animals (including horses, mules, donkeys, yaks and bullocks)
- Companion Animals (cats and dogs)

The above were deemed the priority species to focus on at the time of writing this first edition.

Development Process

The development process for the drafting of standards and guidelines was led by the National Veterinary Hospital under the Animal Health Division of the Department of Livestock, Ministry of Agriculture and Forests.

This document was prepared by a technical working group (TWG) with expertise in various fields such as dairy, poultry, piggery and other species management. The TWG also included members with expertise in animal health, animal welfare, regulatory background and policy development.

The TWG thus, included appropriate representation from Department of Livestock (DoL), Bhutan Agriculture and Food Regulatory Authority (BAFRA) and civil society organizations (CSOs) working within the animal welfare sphere. During the drafting of the standards, the TWG was asked to review relevant scientific literature and existing standards and codes of practice from the international setting. This helped ensure the standards are scientifically valid and in line with the global initiative of improving animal health and welfare through the adoption of science-based animal welfare policies and guidelines. In addition, and for relevance to Bhutan, the specifics of the production systems and facilities currently available in the country have also been taken into consideration.

The final document will be made available to local government offices, regional offices, livestock and regulatory offices in the fields and animal welfare Civil Society Organizations. It will also be available to view and download via various websites under the Ministry of Agriculture and Forests website viz. www.moaf.gov.bt, www.dol.gov.bt, and www.bafra.gov.bt

Lastly, every effort was made to ensure these standards and guidelines reflect accepted best practices for animal welfare and are also relevant for the Bhutanese context. However, as animal welfare is an evolving science, this document will need to be periodically updated and reviewed going forward as new developments, technology and research become available.

Layout and Interpretation

The layout of this document across the 6 sections (general responsibilities, cattle, poultry, pigs, draft animals and companion animals) has been kept consistent throughout and is described below.

The first section entitled *General Responsibilities* provides information on the basic requirements and responsibilities of all people involved in the care and management of animals. As these basic requirements and responsibilities are similar across the different species and areas of animal use, and to avoid repetition,

the TWG felt it would be better to dedicate a separate section covering this topic.

For the remaining sections, the standards and guidelines have been divided into chapters covering the key topics of concern for that species (e.g. feed and water, husbandry, transport). Within each chapter, the following are included:

The Objective — a basic overarching statement describing the intended outcome of the standards and guidelines within the chapter

The Standards — the animal welfare requirements as prescribed in this document that must be met and which can be verifiable and transferrable into relevant legislation for effective regulation. All standards are enclosed in a box, start with the phrase 'A person responsible…' and use the word 'must'

The Guidelines — additional recommendations that build upon each of the standards to further promote and encourage good animal welfare outcomes. Guidelines use the word 'should' and are hence less rigid than standards

Important terms and definitions are provided in the *Glossary* at the end of the document.

The use of the phrase 'A person responsible…' at the start of each standard has been included in order to assign responsibility for the desired welfare outcome or action. It does not describe a specific person or job title who is responsible, but instead it applies to anyone who is directly involved with the care and management of animals.

Where necessary, tables and figures have been included and are attached to specific guidelines for additional direction and information. Where these have been sourced directly from other external existing documents, the table or figure are referenced accordingly.

These standards and guidelines should be considered in conjunction with Chapter IX and other relevant Chapters and sections of the *Livestock Rules and Regulations of Bhutan 2017*, relevant guidelines and specific disease prevention and control plans including:

- For companion animal welfare – Chapter VIII of the *Livestock Rules and Regulations of Bhutan 2017* and National Guidelines for Dog Population Management
- For farm animal welfare – Chapter II of *Livestock Rules and Regulations of Bhutan 2017*, herd health management guidelines, In-country Livestock Biosecurity Guidelines 2015 and Implementation strategy for farm bio-security
- For humane slaughter of animals: Chapter VII of *Livestock Rules and Regulations of Bhutan 2017*
- For disease prevention and control purpose: Chapter IV and VIII of the *Livestock Rules and Regulations of Bhutan 2017*, Animal Health Code for Import of Animals in Bhutan 2017; specific disease prevention and control plans (HPAI, FMD, Gid, Anthrax, Rabies etc)
- For breeding and management purpose: Chapter II and III of the *Livestock Rules and Regulations of Bhutan 2017* and Livestock breeding guidelines
- For research and teaching purposes: Research Coordination and Management Guidelines 2017

Cruelty and unacceptable animal welfare practices can be penalised as provisioned in Chapter IX of the *Livestock Rules and Regulations of Bhutan 2017* and can be prosecuted as provisioned in article 396 (d) and 397 of Bhutan Penal Code (2004).

GENERAL RESPONSIBILITIES

Objective

To ensure all persons responsible for the welfare of animals understand their duties and are competent to appropriately manage and care for animals with minimal risk to their welfare

1.1 Standards

1.1.1	A person responsible must take reasonable actions to ensure the welfare of animals under their care as reflected in this document
1.1.2	A person responsible for the management, care or handling of animals must be appropriately trained and competent in their required tasks

1.2 Guidelines

1.2.1 Fundamental responsibilities of animal management, care and handling should include the following:

- knowledge and understanding of these standards and guidelines for animal welfare
- provision of appropriate feed, water, bedding, shelter and enrichment in sufficiency quality and quantity
- regular inspection of animals including behavioral observations, evidence of disease or distress, unfavorable environmental conditions or any other factor than could negatively impact the welfare of the animal
- ability to identify and assess sick, distressed, weak, or diseased animals and subsequently take necessary action to address
- good handling methods suitable to the species and class of animal being cared for (including low stress handling while moving or transportation)
- basic facility and equipment design and maintenance (e.g. feeders, drinkers, heating or cooling equipment, proper shed/house design and management)
- limit the practice of painful husbandry practices by employing alternative management methods that promote good welfare
- having appropriate contingency plans in place in case of emergencies, natural disasters or disease outbreaks
- maintaining up to date knowledge of local and regional disease risks and recommended disease prevention methods
- appropriate use of medicines, antibiotics and other drugs used for treatment
- provisions for the humane culling and slaughter of animals by appropriate methods
- maintaining appropriate records and using this data for routine monitoring of herd production and health

1.2.2 All animal businesses or operations (e.g. farm, hatchery, animal shelter, animal hospital etc.) should have SOPs and appropriate monitoring systems in place to ensure good animal welfare practices are achieved as much as possible

1.2.3 Prior to commencing work at an animal operation all persons responsible for the management, care or handling of animals should complete an induction training program including competence and understanding of SOPs and daily operations

1.2.4 All the persons that are responsible for the care and management of the animals should be proactive in their daily activities in identifying situations, practices or environments that have the potential to negatively impact animal welfare. Early identification and management of these risks is important not only in terms of welfare but also to help improve efficiency and smooth functioning of the operations

END OF GENERAL RESPONSIBILITIES

WELFARE STANDARDS AND GUIDELINES FOR CATTLE

1. Feed and Water

Objective

To ensure cattle have adequate access to feed and water to minimize the risks to their welfare

1.1 Standards

1.1.1	A person responsible must ensure cattle have access to or provided with adequate water at all times
1.1.2	A person responsible must ensure cattle have appropriate access to or provided with feed based on body condition score (figure 1) and any extra requirements associated with their physiological conditions such as growth, pregnancy, lactation and prevailing weather conditions

1.2 Guidelines

General

1.2.1 Regular monitoring and assessment of the feed and water needs of individual cattle should be made in relation to both the quantity and quality required to maintain the health and welfare of the animal

1.2.2 Feeding troughs and water equipment/ infrastructure should be regularly inspected, cleaned and maintained to ensure provision of clean and safe feed and water

Feed

1.2.3 A body condition score system should be used as a guide for the monitoring and planned feeding program of cattle

1.2.4 Feed supplementation and stocking rates (for pasture based grazing) should be managed to maintain cattle in appropriate body condition. Feed supplements should be carefully assessed for suitability and safety prior to use

1.2.5 Major changes in diet should be introduced gradually over an appropriate length of time to minimize the risk of digestive upset. This is particularly important when increasing the proportion of grain or poor quality silage in the diet. Cattle should be closely monitored during this time

1.2.6 Spoiled or contaminated feed should not be fed to cattle. Appropriate measures should be put in place to prevent cattle accessing harmful substances including spoiled feed, toxic plants or poisonous chemicals

1.2.7 Feed and feed ingredients should be stored in a manner than minimizes risk of contamination or degradation of feed quality

1.2.8 Antibiotics should not be used prophylactically in cattle feed

Water

1.2.9 During hot weather:

- calves and lactating cows should have adequate access to water at all times
- other cattle should have access to water at least twice daily

1.2.10 Where water quality is known to be variable, it should be monitored regularly for harmful substances and managed to protect cattle welfare

1.2.11 Water facilities should be designed, constructed and maintained to ensure:

- adequate volume is provided for the size of the herd
- water temperature is maintained within a suitable range that encourages cattle to drink

For specific guidelines on feed and water management for calves, please refer to Chapter 7

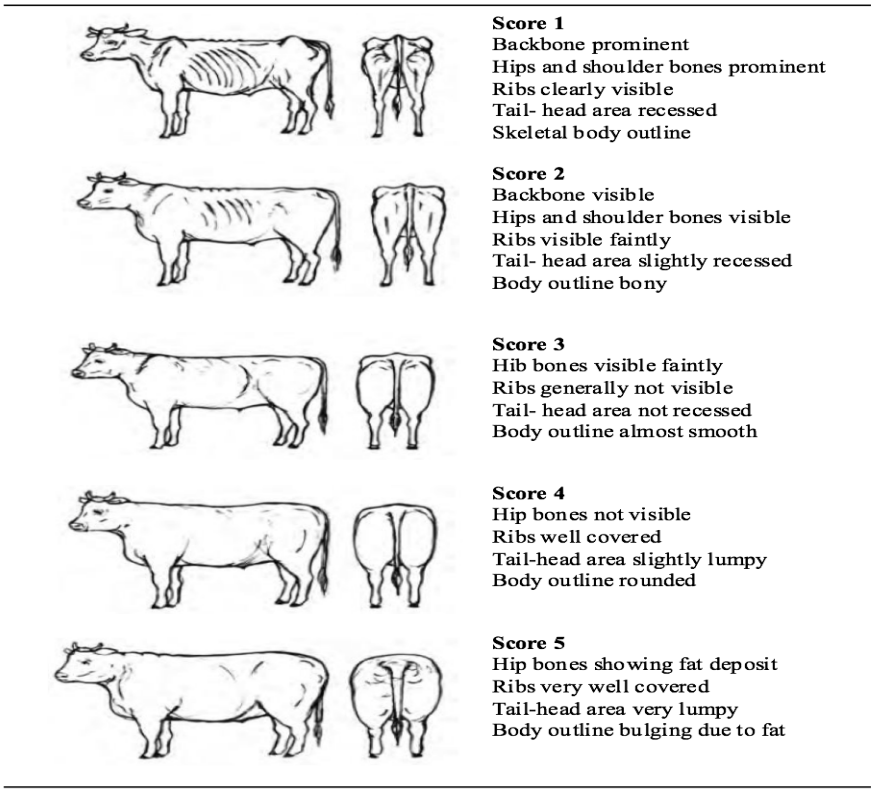


Figure 1: Body condition scoring system in cattle

(Source: adopted from Animal Health Update, South East local land services, May 2018, www.lls.nsw.gov.au)

2. Risk management of extreme weather, natural disasters, disease, injury and predation

Objective

To ensure appropriate management actions are taken to minimize the impact of extreme weather, natural disasters, disease, injury and predation to cattle welfare

2.1 Standards

2.1.1	A person responsible must provide adequate shelter to ensure the welfare of cattle from extremes of weather, natural disasters, and predation
2.1.2	A person responsible must ensure that appropriate treatment of injured or diseased cattle is provided as early as possible
2.1.3	A person responsible must ensure that the cattle vaccinated as per the prescribed vaccination schedule for notifiable diseases of the country

2.1 Guidelines

General

2.2.1 A disaster management plan should be in place and provide guidance on appropriate management practices during times of extreme weather events, natural disasters, disease outbreaks and predation

2.2.2 Cattle should be appropriately dewormed to prevent parasitic infestation

2.2.3 Unexplained disease and or deaths should be promptly investigated and appropriate control and preventive actions implemented

2.2.4 Appropriate veterinary advice on cattle disease diagnosis, prevention or treatment should be sought as required

2.2.5 Fire alarms and adequate firefighting equipment should be fitted and maintained in all indoor housing systems of the farms

Biosecurity and vaccination

2.2.6 Vaccines and medicines should be stored as per the provisions laid down in the Bhutan Medicines Rules and Regulations 2012

2.2.7 Adequate bio-security measures should be enforced to prevent incursion of diseases on the farm

2.2.8 Farmers should take adequate precautions to prevent unwanted contact from pests and predators through the:

- construction of fencing
- removal of weeds and wastes in areas surrounding cattle facilities
- removal of obvious food sources

3. Facilities, equipment and stocking density

Objective

To ensure appropriate facilities, equipment and floor space are provided to cattle in order to minimize risk to their welfare

3.1 Standards

3.1.1	A person responsible must take reasonable action in the design, construction, maintenance and operation of cattle facilities and equipment to minimize risk to their welfare
3.1.2	A person responsible must ensure cattle are provided with adequate floor space that meets their individual requirements when housed indoors

3.2 Guidelines

3.2.1 Facility design and construction should take into account:

- natural behavior of cattle
- topography and climate
- flood and fire risk
- purpose and length of confinement
- space requirements
- feed and water requirements
- shelter
- surface materials
- ease of cleaning and waste disposal

3.2.2 Cattle and calf shelters should be clean, dry and well ventilated. Sufficient bedding material should be laid down to provide a comfortable space for the animals and for sufficient absorption of waste

3.2.3 Facilities should be free of protrusions and obstacles that may cause injury

3.2.4 Where cattle are housed indoors, the indoor area should provide sufficient space for all animals to lie down at the same time, comfortably rise and lie without obstruction and move freely in the pen. As a guide, recommended minimum floor space for different classes of cattle are presented below in Table 1.

Table 1. Recommended minimum floor space for cattle

Class of animal	Minimum floor space per animal (m^2)
Bulls	12
Heifers and small milking cows	3.5
Milking cows and female buffalo	4
Young calves (< 30 days)	1.5
Calves up to 6 months	2

3.2.5 Passageways and entrances should be designed to reduce stress when moving cattle through facilities. Sharp turns, narrow or uneven passages, changes in floor level and poor lighting should be avoided

3.2.6 The floor surface of the cattle shed should be non-slippery to avoid the risk of lameness, slips and falls

3.2.7 Where concrete is used as the flooring base for resting areas, it should be covered with an appropriate depth of bedding material

3.2.8 Isolation pens/ shelters for sick or injured cattle should ensure a comfortable lying surface for animals to rest and recover

3.2.9 A normal diurnal pattern of lighting should be provided for stall fed cattle

3.2.10 Cattle should be provided with the opportunity for appropriate exercise daily

3.2.11 Where cattle are housed indoors, temperature and ventilation should be monitored and managed to maintain comfortable environmental conditions

3.2.12 Excessive levels of dust, odors and other pollutants including chemicals should be avoided

3.2.13 Housing, pens and equipment should be properly cleaned and disinfected to prevent cross-infection and environmental build-up of pathogens

3.2.14 Faeces, urine and uneaten or spilt food should be removed as often as possible to minimize smell and avoid attracting flies or rodents

4. Handling and husbandry

Objective

To ensure handling and management practices are appropriate to minimize risk to the welfare of cattle

4.1 Standards

4.1.1 A person responsible must employ good husbandry and handling practices to minimize the risk of disease, pain, stress and injury

4.1.2 A person responsible must not:

- lift cattle off the ground by only the head, ears, horns, neck or tail
- drop cattle except to land and stand on their feet
- strike, punch or kick
- drag cattle that are not standing, except in an emergency
- deliberately twist, jerk, dislocate or break the tail
- throw or spray water directly into the ear cavity of cattle
- poke with sharp objects to stimulate response or movement
- drive cattle to the point of collapse

4.1.3 A person responsible must use the most appropriate and least painful method to mark or identify cattle

4.1.4 A person responsible must seek treatment if he/ she observes any infection, injury, wound or parasitic infestation as soon as possible and appropriate control measures implemented to minimize the risk of future occurrences

4.2 Guidelines

Handling and inspection

4.2.1 Cattle should be handled in a calm and quiet manner and consideration should be given to their natural herding instinct and flight zones

4.2.2 Additional care and attention should be given when handling young calves, bulls, lame or injured cattle

4.2.3 Cattle should be regularly inspected for signs of disease, injury and abnormal behavior. The frequency of inspection should take into consideration; feed and water availability, class, pregnancy status, weather, disease status and or risk, and predator risk in the area

4.2.4 Cattle being moved should be rested or allowed to slow if they show signs of exhaustion

4.2.5 Where sticks or poles are used as a handling aid to control the movement of cattle, they should only be used to extend the handlers arm span and not be used to strike the animal

4.2.6 During extreme weather, unnecessary handling of cattle should be avoided

Health

4.2.7 Sick cattle should be segregated from the herd and treated without delay

4.2.8 Care should be taken when drenching cattle to avoid inhalation of the drench or bolus, and damage to the mouth and throat

4.2.9 Hoof trimming should be performed as often as necessary to prevent overgrowth and subsequent lameness issues. Any overgrown hoof should be trimmed by a competent person without causing damage to the soft underlying tissue

4.2.10 Any sick/ injured cattle if found without owner should be provided with necessary care/ treatment without delay and then handed over to the owner. If the owner cannot be traced, the cattle should be handed over to the animal welfare organization/ animal shelter

Calves

4.2.11 Weaning of calves should be done after they turn 8 weeks of age in an appropriate and secure area to minimize risk of injury and stress for both the calf and dam

4.2.12 Very early weaning of calves should be supported by a high protein diet

4.2.13 Calves should be regularly handled and trained to become accustomed to routine handling practices

4.2.14 Where dams are let out to range, young calves less than 30 days old should not be allowed to follow their dam as they may have not yet developed good following behavior and can also become easily fatigued

4.2.15 Calves that become sick should be segregated and treated without delay

Restraint, tethering and electric fences

4.2.16 Cattle should not be permanently tethered or restrained. Where tethering is necessary, the degree and duration of tethering should be kept to the minimum time needed to allow the procedure or activity to be performed efficiently and safety

4.2.17 A person tethering cattle should:

- ensure the tether is long enough to allow adequate exercise and grazing
- ensure the tether does not become entangled
- inspect the cattle at least once in a day
- not tether cattle by the leg or foot

4.2.18 Where electric fences are used, cattle should be given enough time to become accustomed to their use and space to move away within the given boundary

Identification

4.2.19 Ear tagging should be done in a way that minimizes risk of infection and tearing of the ear

4.2.20 Ear tagging instruments should be sharp and clean, with relevant hygienic techniques followed

4.2.21 Cattle should be properly restrained when fitting ear tags

4.2.22 If cattle are identified by hanging an object around their neck, care should be taken to minimize the risk of the animal becoming caught or entrapped

4.2.23 When temporarily marking cattle with paint or sprays, only non-toxic products should be used

4.2.24 Where herd dogs are used as a tool to manage migratory cattle:

- they should be under effective control at all times
- their use should be limited to the minimum time necessary
- they should be appropriately vaccinated and dewormed

5. Castration and dehorning

Objective

To ensure castration and dehorning, when deemed necessary, are conducted in a manner that minimizes pain and distress of cattle

5.1 Standards

5.1.1	A person responsible for the castration or dehorning of cattle must be competent and trained to perform the procedure or be under the direct supervision of a competent and trained person
5.1.2	A person responsible must make use of appropriate pain relief, tools and methods when castrating or dehorning cattle older than six months
5.1.3	A person responsible must use appropriate tools and methods when disbudding calves

5.2 Guidelines

General

5.2.1 Castration, dehorning or disbudding procedures should only be conducted when deemed necessary in order to benefit long term cattle welfare, improve management of the herd or to reduce risk of injury to the handler and/or other herd mates

5.2.2 Surgical procedures should be conducted using appropriate pain relief, handling techniques and methods that minimize pain and distress to cattle

5.2.3 Prior to performing castration or dehorning procedures, consideration should be given to the:

- age and health status of the cattle
- local weather and environmental conditions
- available facilities and equipment

5.2.4 Cattle should be monitored and inspected (with minimal disturbance) at regular intervals prior, during and after the procedure. Appropriate action should be taken if complications are observed during any stage

5.2.5 Good hygiene practices, including appropriate use of disinfectant and antiseptics should be used throughout the process to minimize risk of infection or environmental contamination. Muddy or dusty areas should be avoided

Restraint

5.2.6 Cattle should be suitably restrained to minimize unwanted movement and enable the procedure to be performed quickly and efficiently

5.2.7 Any equipment and or method used for restraint should ensure cattle are only restrained for the minimum time necessary and are not excessive to the point that increases the risk of injury or stress

5.2.8 Restraint equipment or materials should be in good working order

Castration

5.2.9 If castration of cattle is deemed necessary, it should be performed:

- between 2 days and 12 weeks of age (ideally as young as possible)
- before the calves are weaned

5.2.10 Calves less than two weeks old should be castrated by the rubber-ring method or Burdizzo method in preference to the cutting (surgical) method. Rubber-ring or high-tension band methods should not be used on calves older than 2 weeks

5.2.11 When using rubber rings or tension bands, the operator should ensure correct positioning (around the neck of the scrotum) and tension is achieved to effectively block the blood supply to the testes

5.2.12 When using the Burdizzo method, the clamp should be held in place for the appropriate time to ensure the vas deferens and blood supply to the testicles is crushed and to prevent hemorrhage after release

5.2.13 When using the cutting (surgical) method, the operator should ensure the cut is made in the correct position, length and depth to allow effective drainage and reduce the risk of infection

Dehorning and disbudding

5.2.14 Disbudding of young calves should be conducted in preference to dehorning of older cattle. The procedure, if deemed necessary, should be:

- performed on cattle as young as possible
- conducted using the hot-iron cautery method in preference to excision methods

5.2.15 If caustic chemicals are used for disbudding, they should only be used in calves less than 14 days' old that can also be segregated from the cow for 4 hours after treatment. The calf should also be kept dry for 12 hours after treatment

5.2.16 Horn regrowth that has a blunt horn end should not be dehorned or tipped

6. Breeding management

Objective

To ensure breeding management practices are appropriate to minimize the risk to the welfare of cattle

6.1 Standards

6.1.1	A person responsible for breeding management (natural and artificial breeding procedures) must be competent and trained or under the direct supervision of a person who is competent and trained in the procedures
6.1.2	A person responsible for breeding management of cattle must take necessary actions to minimize pain, distress and injury

6.2 Guidelines

General

6.2.1 A proper understanding of cow and bull reproductive physiology should be held by all persons involved in breeding management

6.2.2 Breeding management should be carried out in accordance with the Livestock breeding guidelines developed by the Department of Livestock

Cow and calf

6.2.3 Management practices should minimize stress on the cow throughout the gestation period. This is especially important in the last 6 weeks prior to calving to reduce risk of metabolic diseases

6.2.4 Cows should be provided with a suitable, well-drained and sheltered area to calf that allows for observation and monitoring by the farmer without unnecessary disturbance

6.2.5 Breeding and mating practices should be conducted with care and consideration to minimize the risk of calving difficulties. Some strategies include:

- ensuring heifers are of suitable size and weight prior to mating (this will vary depending on the breed)
- appropriate feed management of cows and heifers (avoid under or over feeding)
- increasing the frequency of inspection and monitoring in the time leading up to calving to allow early intervention if required
- bull selection for calving ease and appropriate birth weights suitable for the cow

6.2.6 Severe injury or distress as a result of calving should be treated without delay. Where needed, expert veterinary advice should be sought

6.2.7 Prior to weaning, body condition of the cow and calf should be considered to help determine the most appropriate age to wean

Induced calving

6.2.8 Induced calving should be avoided. It should only be conducted where the welfare of the individual cow or calf is at risk and should not be used as a routine herd management practice

6.2.9 Where induced calving is deemed necessary, the process should be overseen by a veterinarian or competent animal health professional

Bulls

6.2.10 Bulls should be monitored and inspected regularly for signs of injury, ill health or distress

6.2.11 When using teaser cattle to test the servicing ability of breeding bulls, the process should be closely monitored to ensure welfare of both bull and cow

7. Calf management

Objective

To ensure calves are appropriately managed to minimize the risk to their welfare

7.1 Standards

7.1.1	A person responsible must ensure calves are managed appropriately, provided with suitable shelter and a diet adapted to their age, weight and behavioral and physiological needs to promote good health and welfare
7.1.2	A person responsible must ensure that the calves are fed at least twice per day until they are weaned

7.2 Guidelines

Newborn feeding

7.2.1 Calves should receive adequate colostrum within 12 hours of birth, with the first administration occurring as soon as possible. The calf should receive at least 3 to 4 feeds of colostrum within the first 24 hours of birth

7.2.2 Where artificial feeding or cross suckling of newborn calves is required, close supervision of the cow and or calf should be conducted until the calf has successfully learned to self-feed or suckle. In situations where the cow is restrained for cross suckling, appropriate action should be taken if the cow is observed to become distressed

General feed and water

7.2.3 Calves should be provided with sufficient levels of iron in the diet to maintain an average blood hemoglobin level of at least 9 g/dl

7.2.4 Where calves are housed in groups with other calves, they should all be fed at the same time to reduce opportunity for competition

7.2.5 To help promote rumen development, calves should be provided with a daily ration of roughage/ fibrous feed (e.g. grass or other forage material) and concentrated feed (formulated feed ration) as early as possible and no later than two weeks of age

7.2.6 The amount of concentrates fed to calves should be increased gradually in the diet. It is important to ensure calves are eating an appropriate amount of concentrate per day prior to being weaned (the exact amount will depend on the age of weaning and the quality of concentrate being fed)

7.2.7 Weaned calves should be provided with appropriate energy and protein supplements

7.2.8 Water should be made available to calves as early as possible, ideally from day one. Care should be taken to keep water containers clean and free of contaminants like dust, dirt, feed and manure

Housing

7.2.9 Newborn calves should be housed in an environment that minimizes the risk of cold stress through appropriate temperate and ventilation management

7.2.10 There should be provision of soft and dry bedding in the calf pen

7.2.11 Calves should be grouped by size and age to reduce competition, and facilitate observation and management

7.2.12 Calf pens or shelters should be designed and constructed to enable calves to:

- turn around, lie down and fully stretch and extend their limbs
- stand and groom themselves without difficulty
- have visual and tactile contact with others outside the pen (i.e. solid walls should not be used)

Tethering of calves

7.2.13 Calves should not be tethered. Where tethers are deemed necessary as a calf management tool, they should be:

- of suitable material and design to not cause injury to the calves
- of appropriate length to allow the calf to move
- inspected and adjusted regularly to maintain a comfortable fit
- used for the minimum amount of time necessary

8. Dairy management

Objective

To ensure dairy cattle are appropriately managed to minimize the risk to their welfare

8.1 Standards

8.1.1	A person responsible must inspect lactating cows at least once daily and take appropriate action to minimize risks to their welfare

8.2 Guidelines

General

8.2.1 Equipment and/ or machinery used to milk cows should be maintained in good working order and regularly inspected for correct function

8.2.2 Good hygiene practices should be employed by all persons involved in the milking process

8.2.3 The milking process and technique used should minimize the risk of discomfort, injury and disease

Disease or injury

8.2.4 Routine inspection and assessment of hoof integrity, gait and willingness to walk should be undertaken in order to prevent and detect early signs of lameness. Affected cattle should be appropriately treated and managed without delay

8.2.5 A mastitis management strategy should be implemented and should include practices for prevention, early detection and effective treatment

8.2.6 If it is deemed necessary to remove extra teats, the procedure should only be done when it is in the best welfare interest of the cow and can be performed by a competent person

8.2.7 Dairy cattle kept on pasture for extended periods of time should be given access to a well-drained area for resting

9. Transport of cattle

Objective

To ensure cattle are transported in a manner that minimizes risk to their welfare

9.1 Standards

9.1.1	A person responsible for the transportation of cattle must take all reasonable action to minimize the risk of injury, pain, distress and undue suffering throughout the process
9.1.2	A person responsible must make necessary arrangements to minimize the length of time cattle are transported and restricted from accessing feed and water
9.1.3	A person responsible must not transport any animal that is unfit for travel
9.1.4	A person responsible must ensure that the mature cattle and calves are not transported for more than 36 hours and 12 hours at a stretch, respectively
9.1.5	A person responsible must ensure that cows with advanced pregnancy are not transported

9.2 Guidelines

General

9.2.1 Sick, injured or weak cattle and cows in late pregnancy should not be transported

9.2.2 Loading/ unloading facilities and transport vehicles should be designed, constructed, maintained and operated to minimize the risk of injury and distress throughout the transport process

9.2.3 Transportation time should be kept to the absolute minimum. Mature cattle should not be transported for more than 36 hours at a stretch. If the total journey time is expected to exceed 48 hours, cattle should be offloaded after 24 hours of travel and provided with feed and water and an adequate rest period prior to continuing the journey

9.2.4 Appropriate bedding or sand should be provided for long journeys

9.2.5 Cattle should be regularly inspected and monitored during the journey. Ideally, cattle should be inspected once in the first 30 minutes of travel and then every 2 hours thereafter

9.2.6 Cattle of different breeds, age, sex or cattle that are unfamiliar should not be mixed for transport in order to minimize the risk of fighting and injury

9.2.7 Bulls should be transported separately to other cattle. If this is unavoidable, they should be separated from others by a strong partition

Space allowance

9.2.8 The recommended floor area provided for cattle during transport, depending on their size and species, are presented in Table 3 below:

Table 3. Recommended loading densities for cattle

Mean live weight (kg)	Minimum floor area (m^2/head) for Cattle	Minimum floor area (m^2/head) standing for Yaks
100	0.31	0.47
150	0.42	0.58
200	0.53	0.69
300	0.86	0.86–0.89
400	1.05	1.05–1.09
500	1.23	1.23–1.28
600	1.47	1.47–1.55

Ramps and loading/ unloading

9.2.9 For easier and safe loading of cattle, ramps used for loading and unloading should:

- be made of non-slip material or have suitably spaced grooves for gripping
- be wide enough to allow cattle to walk and balance with ease
- have a flat area at the top of the ramp (level with the floor)
- not be sloped at excessive angles. A maximum of about 20 degrees and 12 degrees for adult cattle and calves, respectively, is recommended

9.2.10 The loading and unloading processes should be conducted in a quiet, organized and smooth manner. Cattle should be encouraged to walk slowly and safely in and out of the vehicle

9.2.11 Cattle should be provided with feed and or water as soon as possible after unloading. However, their feeding patterns should be closely monitored as hungry cattle may be prone to indigestion or plant toxicity if allowed to overgraze on lush pasture. The addition of hay or dry feed to the diet during this time may reduce this risk

Vehicle facilities

9.2.12 Vehicles used to transport cattle should:

- have smooth surfaces (e.g. floor, side walls) and be free of protrusions or sharp edges that could injure cattle
- have non-slip floor material to provide a suitable surface for cattle to grip
- provide enough height for cattle to stand without touching overhead structures
- have side walls, barriers or rails of adequate height to prevent cattle escaping
- be cleaned and disinfected after each journey

9.2.13 Gaps between railings or partitions should be of appropriate size and design to prevent the head or legs of cattle accidentally becoming trapped

9.2.14 Transport vehicles should be in good working order and checked prior to the commencement of the journey

Extreme weather

9.2.15 Additional measures or facilities should be put in place (e.g. tarpaulin or overhead cover, opening of side flaps for better airflow) to protect cattle from extreme weather conditions such as excessive heat, wind or cold

Calves and lactating cows

9.2.16 Transportation of young calves (less than 30 days old) should be avoided. If deemed necessary, calves should:

- be of minimum live weight of 23 kg and be in good health, alert and able to rise from a lying position
- have hooves that are firm and worn flat, and that are not bulbous with soft unworn tissue
- have a navel cord that is wrinkled, withered and shriveled and not pink or red coloured, raw or fleshy
- have been adequately fed milk or milk replacer on the farm within six hours of loading
- be provided with thick bedding and sufficient space to lie down
- be protected from cold and heat

9.2.17 If calves are transported without their dam, they should be fed a liquid diet as soon as possible after unloading at the destination

9.2.18 Lactating cows not accompanied by their calf should be milked every 12 hours at a minimum

Walking

9.2.19 If cattle are walked on foot as the means of transport, the maximum distance they should be moved in one day should not exceed 30 km

Air transportation

9.2.20 Where cattle are transported via air, consideration should be given to following in order to minimize risk to their welfare throughout the journey;

- design, size and material of the transport container
- stocking density, temperature and ventilation of the transport environment
- transporting in individual crates vs group containers
- estimated total travel time and provision of feed and or water

10. Humane culling/ euthanasia/ slaughter of cattle

Objective

To ensure when it is necessary to cull/ euthanize/ slaughter cattle, it is done so in a safe and humane manner to minimize the risk to their welfare

10.1 Standards

10.1.1 A person responsible must cull/ euthanize/ slaughter cattle using only humane methods that result in rapid death or loss of consciousness, followed by death while unconscious, and must take reasonable action to confirm the animal is dead

10.1.2 A person responsible must have the relevant knowledge, experience and skills to be able to humanely cull/ euthanize/ slaughter cattle or be under the direct supervision of a person who has the relevant knowledge, experience and skill

10.1.3 A person responsible must ensure that cattle suffering from severe distress, disease or injury that cannot be reasonably treated are humanely euthanized at the first reasonable opportunity

10.1.4 A person responsible must ensure that cattle are stunned prior to culling/ slaughter. Stunning equipment must be designed and maintained to deliver a consistent and effective stun

10.1.5 A person responsible must not employ restraining methods which work through electro-immobilisation or immobilisation by injury such as breaking legs, leg tendon cutting, and severing the spinal cord as they cause severe pain and stress in animals

10.1.6 A person responsible must not employ slaughter method of brain stem severance by piercing through the eye socket or skull bone without prior stunning

10.1.7 A person responsible must ensure that pregnant animals are not slaughtered

10.2 Guidelines

General

10.2.1 Cattle which are unable to walk or diseased and that lead to great suffering/ welfare issue should be culled/ euthanized without delay, unless a delay in culling/ euthanasia can be justified

10.2.2 Slaughter should only be considered for animals that are not in pain, freely able to stand and walk, capable of being transported and without disease, drug or chemical residue that might constitute a public health risk

10.2.3 Each slaughterhouse/ abattoir should have a dedicated plan for animal welfare. The purpose of such a plan should be to maintain good level of animal welfare at all stages of the handling of animals until they are culled/ slaughtered/ euthanized. The plan should contain standard operating procedures for each step of animal handling as to ensure that animal welfare is properly implemented based on relevant indicators

10.2.4 Cattle should be spared any avoidable pain, distress or suffering when being handled throughout the process. Consideration should be given to the following:

- class and breed of cattle
- individual behavioral tendencies and health status of the animal
- time since last access to feed and/ or water

10.2.5 If cattle are confined to holding areas prior to slaughter, mixing of unfamiliar animals should be avoided to minimize risk of fighting and injury

10.2.6 Painful procedures (including whipping, kicking, tail twisting, use of nose twitches, pressure on eyes, ears or external genitalia), or the use of goads or other aids which cause pain and suffering (including large sticks, sticks with sharp ends, lengths of metal piping, fencing wire or heavy leather belts), should not be used to move animals

10.2.7 For the routine slaughter of cattle intended for human consumption, ante-mortem inspection should be carried out as per the requirements prescribed in Chapter VII of the Livestock Rules and Regulations of Bhutan 2017

10.2.8 All cattle operations should have documented protocols on human culling/ slaughter including appropriate training of workers, current method(s) used (for both emergency situations and routine slaughter) and calibration and or maintenance of equipment

10.2.9 The Veterinarian should assess the condition of the animal to be euthanized and only upon the Veterinarian's recommendation, the euthanasia should be carried out

10.2.10 Life of an animal may be spared from euthanasia if there is reasonable probability that treatment would provide improvement to its health

10.2.11 Animal welfare organizations/animal shelters should be contacted to care for the animal before resorting to euthanasia

Recommended practice for slaughter/ culling

Stunning

10.2.12 Only appropriate and suitable methods of stunning that result in rapid loss of consciousness, which is maintained until death, should be used

10.2.13 Persons carrying out stunning should be properly trained and competent, and should ensure that:

- the animal is adequately restrained
- animals in restraint are stunned as soon as possible
- the equipment used for stunning is maintained and operated properly in accordance with the manufacturer's recommendations, in particular with regard to the species and size of the animal
- the equipment is applied correctly
- stunned animals are bled out (slaughtered) as soon as possible
- animals are not stunned when slaughter is likely to be delayed and
- backup stunning devices are available for immediate use if the primary method of stunning fails. Provision of a manual inspection area and simple intervention like captive bolt or cervical dislocation for poultry would help prevent potential welfare problems

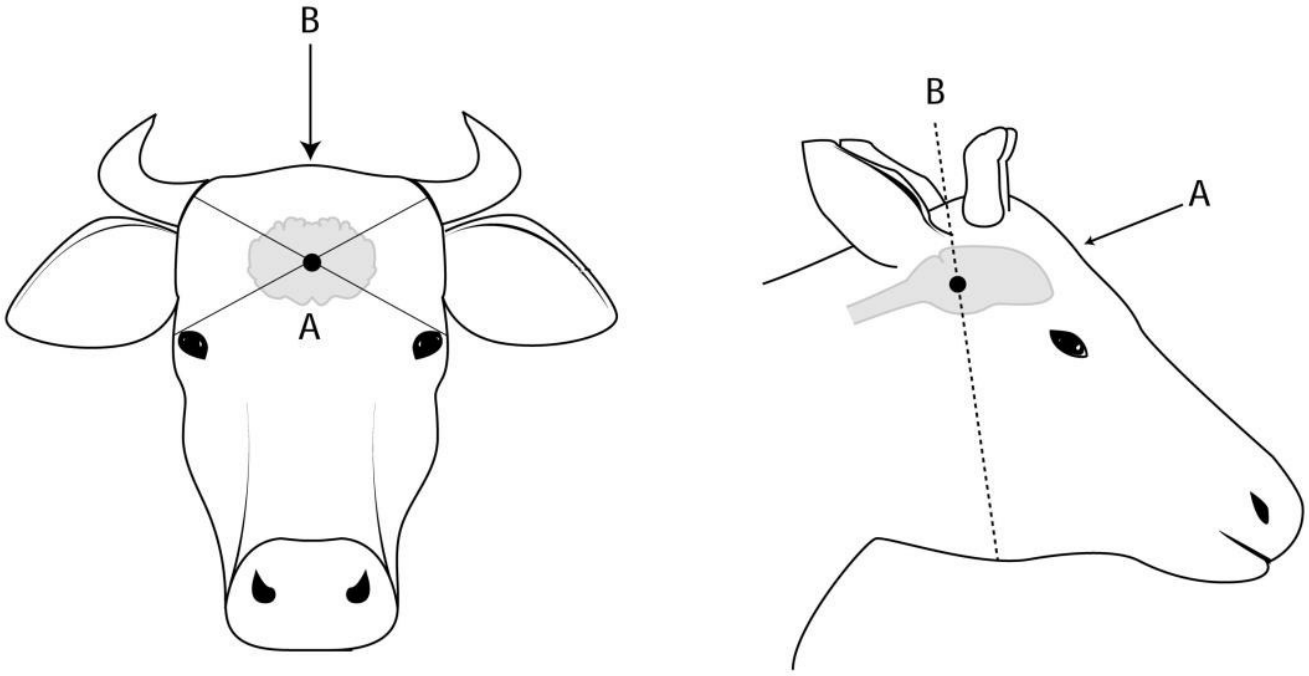
Mechanical stunning

10.2.14 The use of a penetrative captive bolt, delivered to the head, is the recommended method for stunning both calves and adult cattle. Where this device is used:

- it should be operated, stored and maintained in accordance with the manufacturers instruction and be stored under lock and key when not in use
- the cartridge should be the correct size for the class of cattle being stunned
- the animal should be suitably restrained to ensure minimal movement during the procedure

10.2.15 The blow should be delivered as per the recommendations shown in Figure 1. The frontal position, as represented by the letter 'A' should always be used in preference to the temporal position represented by the letter 'B'

Figure 1 Recommended position and direction for humane culling of cattle



Reference: Australian Animal Welfare Standards and Guidelines for Cattle Edition one, Version one (2016).

10.2.16 The device should be firmly pressed against the head of the cattle before being discharged

10.2.17 Signs of correct stunning using a mechanical device are as follows:

- the animal collapses immediately and does not attempt to stand up
- the body and muscles of the animal become tonic (rigid) immediately after the shot
- normal rhythmic breathing stops
- the eyelid is open with the eyeball facing straight ahead and is not rotated

Electrical stunning

10.2.18 Electrodes should be designed, constructed, maintained and cleaned regularly to ensure that the flow of current is optimal and in accordance with manufacturing specifications. They should be placed so that they span the brain

10.2.19 The application of electrical currents which bypass the brain is unacceptable unless the animal has been stunned

10.2.20 Electrical stunning equipment should not be applied on animals as a means of guidance, movement, restraint or immobilisation, and shall not deliver any shock to the animal before the actual stunning or killing

10.2.21 Electrical stunning apparatus should be tested prior to application on animals using appropriate resistors or dummy loads to ensure the power output is adequate to stun animals

10.2.22 The electrical stunning apparatus should incorporate a device that monitors and displays voltage (true RMS) and the applied current (true RMS) and that such devices are regularly calibrated at least annually

10.2.23 Appropriate measures, such as removing excess wool or wetting the skin only at the point of contact, can be taken to minimize impedance of the skin and facilitate effective stunning

10.2.24 Apparatus for electrical stunning should be provided with adequate power to achieve continuously the minimum current level recommended for stunning (1.5 amps for cattle and 1.0 amps for calves of less than 6 months' age)

10.2.25 Cattle should be bled out immediately after stunning using a clean, sharp knife suitable for the purpose. The cut should severe the main blood vessels at (i) the top of the heart (via the chest stick method) or (ii) the neck

10.2.26 After culling/ slaughter, the following should be checked to confirm that the procedure has been successful in causing death:

- lack of rhythmic breathing
- dilated pupil
- no corneal/ blink reflex (no reaction when the surface of the eye is touched)

10.2.27 Carcasses not intended for human consumption should be disposed-off as per the relevant waste management guidelines

Recommended practice for euthanasia

10.2.28 The acceptable methods of euthanasia in cattle include anesthetic overdose and the physical methods of gunshot and penetrating and non-penetrating captive bolt

10.2.29 Barbiturates and barbituric acid derivatives are recommended for administration by intravenous injection since they induce a smooth transition from consciousness to unconsciousness and death by causing depression of the central nervous system and respiratory centers in the brain leading to cardiac arrest

10.2.30 If necessary, animals in pain or agitation should be tranquilized/ sedated prior to barbiturate overdose

10.2.31 Pentobarbital sodium is the main agent of injectable commercial euthanasia solutions and should be injected at a dose of 100 to 120mg/kg

10.2.32 Some combinations of drug type and route of administration may be painful, and should only be used in unconscious animals

10.2.33 Unacceptable methods of euthanasia in cattle include:

- manually applied blunt force trauma (e.g., with a large hammer)
- injection of chemical agents or other substances not specifically designed or labeled for euthanasia (i.e. disinfectants, cleaning solutions, etc.)
- air injection into the vein
- electrocution
- drowning
- exsanguination of conscious animals

END OF CATTLE STANDARDS AND GUIDELINES

WELFARE STANDARDS AND GUIDELINES FOR PIGS

1. Feed and water

Objective

To ensure pigs have adequate access to feed and water to uphold minimum standards of welfare

1.1 Standards

1.1.1	A person responsible must ensure that pigs have daily access to adequate water at all times
1.1.2	A person responsible must ensure that all pigs are able to access the feed based on body condition score and other conditions associated with physiological requirements such as growth, pregnancy, lactation and prevailing weather conditions

1.2 Guidelines

General

1.2.1 Feed and watering equipment should be regularly cleaned and disinfected to minimize risk of contamination

Feed

1.2.2 Automated feeding systems should allow animals access to feed in a manner that minimizes intimidation, bullying and aggression from other pigs

1.2.3 Feed provided should be fresh, palatable, and free from known gross contaminants, physical or toxic substances and micro-organisms at levels that are known to cause harm

1.2.4 In case of supply failure or delays in delivery, there should be contingencies in place to provide an alternative means of obtaining and delivering feed

1.2.5 Feed should be properly stored to prevent contamination and mold growth. All farms should have a designated feed storeroom

1.2.6 Boars and pregnant sows should be given some bulky or high fiber feed to satisfy appetite. The feed provided for dry sows should satisfy their appetite without causing the sow to become over-fat

1.2.7 Antibiotics should not be used prophylactically in pig feed

Water

1.2.8 All watering systems, including automatic, nipple and trough systems should be checked daily

1.2.9 Medicated water should only be administered on recommendation from a competent animal health professional

1.2.10 Drinker allocation per pen or group should meet the water requirements for the specific class of pig being housed. Additional drinking space should be provided where pigs are observed to bully others away from the drinking points

2. Risk management of extreme weather, natural disasters, disease and injury and predation

Objective

To ensure appropriate management actions are taken to minimize the impact of extreme weather, natural disasters, disease, injury and predation to pig welfare

2.1 Standards

2.1.1 A person responsible must take reasonable actions to ensure the welfare of pigs from extremes of weather, natural disasters, disease, injury and predation

2.1.2 A person responsible must undertake regular inspection of pigs and ensure appropriate treatment for sick, injured or diseased pigs at the first reasonable opportunity

2.1.3 A person responsible must ensure that the pigs are vaccinated as per the prescribed vaccination schedule for notifiable diseases in the country

2.2 Guidelines

General

2.2.1 A disaster management plan should be in place and provide guidance on appropriate management practices during times of extreme weather events, natural disasters, disease outbreaks and predation

2.2.2 Internal and external parasites should be regularly monitored and action taken as and when needed to effectively control outbreaks

2.2.3 Steps should be taken to prevent and minimize the effects of heat stress in adult pigs during very hot weather (35°C or more). Practices such as water application followed by increasing airflow, mist sprays or provision of access to wallows for outdoor pigs should be provided.

2.2.4 Fire prevention measures and appropriate fire-fighting equipment should be in place on all pig farms. Staff should be adequately trained to use this equipment

2.2.5 Large houses should have adequate gates/ openings to allow pigs to escape in emergency situations such as fire or floods

Biosecurity and vaccination

2.2.6 Pigs should be vaccinated against infectious diseases including FMD, CSF and other emerging infectious diseases. Vaccines and medicines should be stored as per the provisions laid down in the Bhutan Medicines Rules and Regulations 2012

2.2.7 Adequate bio-security measures should be enforced to prevent incursion of diseases on the farm

2.2.8 Preventive measures should be implemented for protection of pigs from predators

3. Housing and stocking density

Objectives

To ensure pigs are provided with appropriate housing and floor space to minimize risk to their welfare

3.1 Standards

3.1.1	A person responsible must ensure that housing for pigs is designed, constructed, maintained and managed in a manner that minimizes risks to pig welfare
3.1.2	A person responsible must ensure pigs are provided with adequate floor space that meets their individual requirements
3.1.3	A person responsible must take reasonable action to maintain the house temperature and ventilation within the optimal range to provide a comfortable environment for the pigs and to prevent heat or cold stress

3.2 Guidelines

Housing and floor space

3.2.1 The minimum amount of unobstructed floor space provided for different classes of pigs should meet the requirements shown below in Table 1

3.2.2 Pigs housed in groups should be provided with sufficient space for each to sleep, defecate and access feed and water. A part of the total floor area should be solid, covered with a mat or be littered with straw/suitable material in sufficient area to allow pigs to rest together at the same time

3.2.3 Group housing of dry sows and gilts that allow freedom of movement, social interaction and suitable bedding should be encouraged over confinement to individual sow stalls or pens

Table 1. Minimum required floor space for pigs housed in groups and individual pen/ crate

Class of pig ***Commercial pigs classified by live weight*** ***Breeding pigs classified by name***	**Minimum floor space per pig (m^2)** ***(Excluding feed, water or other equipment)***
Up to 10kg	0.15
11 to 20kg	0.22
21 to 30kg	0.36
31 to 50kg	0.40
51 to 85kg	0.55
86 to 110kg	0.65
More than 110kg	1.00
Gilts	1.65

Sow (group housing)	2.25
Sow kept in a farrowing pen (loose farrowing systems)	5.6
Sows in farrowing crates (including creep area for the litter)	4 to 5
Boar	6.0

Note: The figures presented above in Table 1 should only be used as a guide. Pig behavior, health and welfare in addition to environmental conditions should be regularly monitored and stocking density adjusted where necessary to ensure the welfare of the animals

3.2.4 Dry sows and gilts housed in groups should be regularly monitored to ensure all pigs have equal access to food and no individual is subjected to persistent aggression from pen mates

3.2.5 Dry sows and gilts housed in individual quarters/pens should be separated by partitions that prevent injury from aggressive behavior, while still enabling them to see each other. Stall bars should be vertical rather than horizontal

3.2.6 Sows and boars housed individually in stalls should be able to:

- stand, get up and lie down without being obstructed by the bars and fittings of the stall
- lie with limbs extended
- stretch freely

3.2.7 Where farrowing crates are used, piglets should have sufficient space to be able to suckle without difficulty

3.2.8 Piglet protection devices such as farrowing rails, sloped walls or additional bedding should be used where sows are housed in loose farrowing systems to minimize risk of crushing or smothering

Temperature

3.2.9 House temperature should be maintained to provide optimal thermal comfort for pigs throughout all stages of production. Recommended temperature ranges for different classes of pigs are provided in Table 2

Table 2. Recommended ranges of temperature that provides optimum comfort for different classes of pigs

Class of pig	**Recommended temperature range**
Piglets – newborn	27–35°C
Piglets up to three weeks of age	24–30°C
Farrowing house	16–22°C
Weaners	20–30°C in first week
Growers	15–30°C
Finishers	15–30°C
Sows and boars	15–30°C

4. Facilities and equipment

Objectives

To ensure facilities and equipment are appropriate to minimize the risk to the welfare of pigs

4.1 Standard

Facilities

4.1.1 A person responsible must ensure the provision of adequate lighting to enable routine inspection of pigs

4.1.2 A person responsible must ensure adequate ventilation is provided to prevent accumulation of harmful gases

Equipment

4.1.3 A person responsible must inspect equipment, including that needed for the provision of feed, water and environmental needs of pigs, at least once a day and maintain equipment in good working order

4.1.4 A person responsible must take reasonable action to provide alternative ways of delivering feed, water and maintaining environmental conditions for pigs in case of breakdown or emergencies

4.2 Guidelines

Facilities

4.2.1 Shed and creep box temperatures should be recorded on a daily basis

4.2.2 Suckling piglets that are under three weeks of age and weaners should be provided with adequate bedding, insulation or supplementary heating that protects against cold

4.2.3 Natural or artificial light of at least 20 lux should be provided at pig level in all buildings for a minimum of 9 hours per day

4.2.4 Where pigs are confined to indoor houses, environmental enrichment (manipulable material) should be provided to meet their behavioral needs and reduce the risk of aggression and/ or tail biting in the herd. Examples of suitable enrichment include:

- straw and or hay bales
- plastic balls and toys
- wooden blocks and cardboard
- sticks/ branches or
- any other material that is novel, enables meaningful interaction and is non-harmful to the pigs

4.2.5 Adequate air exchange should provide fresh air for respiration, remove excess heat and waste gases, and minimize the effects of dust and excess moisture on pig and human health

4.2.6 Ammonia concentrations in enclosed houses should be routinely measured and appropriate action taken to improve ventilation where needed

4.2.7 The level of harmful gases detected in a pig house should not exceed the maximum recommended levels shown in Table 3

Table 3. Maximum recommended level of pollutants in pig housing

Pollutant	**Maximum recommended level**
Ammonia	11 ppm
Carbon dioxide	1500 ppm
Carbon monoxide	30 ppm

Equipment

4.2.8 Staff should be skilled in the correct operation of equipment (including backup systems) used to control the house environment including automated or mechanical feed delivery systems, fans or cooling systems and lighting

4.2.9 Equipment should be designed and maintained to:

- minimize risk of injury to pigs and
- enable thorough cleaning and disinfection

5. Handling and husbandry

Objective

To ensure husbandry and handling practices employed are appropriate and minimize the risks to the welfare of the pigs

5.1 Standards

5.1.1 A person responsible must employ good husbandry and handling practices to minimize the risk of disease, pain, stress and injury

5.1.2 A person responsible must inspect pigs at least once a day to assess health and well being

5.1.3 A person responsible for handling pigs must not:

- lift pigs off the ground by only the head, ears, neck or tail unless in an emergency
- drop pigs except to land and stand on their feet
- strike, punch or kick pigs
- drag pigs that are not standing except in an emergency
- deliberately dislocate or break the tail

5.1.4 A person responsible for performing elective husbandry procedures must be competent and trained in the procedure

5.1.5 A person responsible must not carry out or encourage tail docking in pigs

5.2 Guidelines

Handling

5.2.1 Pigs should be moved quietly, ideally by using a backing board or other non-injurious objects

5.2.2 Design of pig housing and loading facilities should be based on expert advice, to facilitate ease of pig movement and minimize stress

5.2.3 A person responsible for handling pigs should be able to recognize early signs of distress or disease so that prompt action is taken and or expert advice sought

5.2.4 More frequent and thorough inspections should be undertaken when there is an increased risk to welfare, including:

- during hot weather or disease outbreaks
- where behavioral vices are occurring
- prior to and during farrowing and
- when groups of pigs have been recently mixed

Elective husbandry procedures

5.2.5 If castration is necessary, piglets should be castrated prior to weaning, preferably between 2 to 7 days of age

5.2.6 Castration should not be performed over the age of 21 days unless the procedure is performed under anesthesia or analgesia and by an authorized animal health worker

5.2.7 All surgical procedures should be undertaken under strict aseptic conditions and with minimum restraint and pain inflicted on the animal

5.2.8 Post-surgical/treatment care should be provided to prevent avoidable complications

5.2.9 Non-invasive management practices should be undertaken to prevent and minimize the risk of tail biting incidences. This should include (but is not limited to):

- provision of adequate bedding material (hay, straw, wood savings)
- manipulable material (toys, chains, wood)
- adequate feed and watering points
- quality feed
- managing stocking density
- ventilation and temperature and
- not mixing unfamiliar pigs

5.2.10 If deemed necessary, clipping of needle teeth should be performed within three days of birth. Only the tip and no more than a quarter of the teeth should be removed

5.2.11 Nose ringing should be avoided

5.2.12 Where it is necessary to mark pigs for permanent identification, the ear may be tattooed (on day one), tagged or notched. Where ear notching is practiced, it should be carried out before the piglets are 7 days of age

5.2.13 If deemed necessary, tusk trimming of boars should be conducted by a competent person under proper restraint and anesthesia

Body Condition

5.2.14 Species-specific weight for age targets and an assessment of general health are more reliable indicators of nutritional adequacy rather than body condition score. As such, they should be used in preference to body condition scoring, particularly when assessing grower pigs

5.2.15 If body condition scoring is used to determine nutritional adequacy, health and productivity, it should only be used as a guide (Table 4). Recommended body condition score for different classes of pigs are listed below:

- 3 or above for growers, finishers and boars
- 3 to 3.5 for breeding sows at farrowing
- 2.5 or more for breeding sows at weaning

Table 4. Guidelines for body condition scoring of pigs

Body Condition Score	Pelvic Bones, Tail Head	Vertebrae	Loin	Ribs
1	Pelvic bones very prominent. Deep cavity around the tail head.	Prominent and sharp throughout the length of the backbone	Loin very narrow. Sharp edges on transverse spinal process. Flank very hollow.	Individual ribs very prominent
2	Pelvic bones obvious but some slight cover. Cavity around tail head.	Prominent	Loin narrow. Only very slight cover to edge of transverse spinal process. Flank rather hollow.	Rib cage less apparent. Difficult to see individual ribs.
3	Pelvic bones covered	Visible over the shoulder. Some cover further back.	Edge of transverse spinal processes covered and rounded.	Covered but can be felt
4	Pelvic bones only felt with firm pressure. No cavity around tail.	Felt only with firm pressure	Edge of transverse spinal processes felt only with firm pressure.	Rib cage not visible. Very difficult to feel any ribs.
5	Pelvic bones impossible to feel. Root of tail set deep in surrounding fat.	Impossible to feel vertebrae	Impossible to feel bones. Flank full and rounded.	Not possible to feel ribs

Reference: Primary Industries Standing Committee Model Code of Practice for the Welfare of Animals – Pigs (Third Edition 2008) CSIRO Publishing

6. Health and Management

Objective

To ensure health and routine management of pigs is managed to minimize risk to their welfare

6.1 Standards

Health

6.1.1 A person responsible for the care of pigs must be competent to recognize the signs of ill health and behavioral anomalies

6.1.2 A person responsible must take appropriate action to prevent, detect and respond to any illness or disease outbreaks in a timely manner

Farrowing and weaning

6.1.3 A person responsible must check all piglets within 24 hours of birth to ascertain that they are feeding on colostrum

6.1.4 A person responsible must ensure that piglets are fostered, weaned or hand reared in situations where:

- a sow dies prior to weaning or
- piglets are receiving inadequate nutrition from the mother

Boar management

6.1.5 A person responsible must ensure boar pens are sited and constructed to enable the boar to turn around, and to hear, smell and see other pigs

6.2 Guidelines

Health

6.2.1 A herd health program should be in place to manage the risk of disease

6.2.2 Sick, weak or injured pigs should be treated without delay and, if necessary, isolated and or humanely culled

6.2.3 Dead pigs should be removed from the house as soon as practicable. Appropriate methods of carcass disposal include incineration, composting or deep burial

6.2.4 Piglets housed under intensive farming systems should be administered with prophylactic doses of iron to prevent piglet anemia

6.2.5 Records of sick animals, deaths, treatment given and response to treatment should be maintained to assist disease investigations

6.2.6 Observation of abnormal behavior such as persistent ear, flank or tail biting should be followed by:

- investigation into the potential cause(s) of the behavior
- appropriate management to minimize the impact on pig welfare
- necessary action to prevent the behavior occurring again in future

6.2.7 Farms should avoid using growth hormones

Farrowing management

6.2.8 The farrowing process should be managed to minimize negative impacts on the health and welfare of the sow and piglets

6.2.9 Sows should be placed in farrowing quarters (crate, pen or hut) around 1 week before the litter is due to allow them to become accustomed to their surroundings

6.2.10 Loose farrowing systems, such as the use of farrowing pens, should be encouraged over conventional farrowing crates restrict natural nesting behavior and movement of sows

6.2.11 Sows should not be confined in farrowing crates for more than six weeks in any one reproductive cycle

6.2.12 Sows/gilts should be provided with sufficient quantity of a suitable nesting material in the week prior to farrowing unless it is not technically feasible for the slurry system used in the establishment

6.2.13 Manual intervention should be provided if a sow delays farrowing

Boar management

6.2.14 Where boar pens are also used for natural service, the floor area should be at least $10m^2$ and the pen should be free of any obstacles that could cause potential injury

6.2.15 Boars run in groups should be monitored daily and managed to ensure that young boars are not seriously injured or subjected to persistent aggression by other boars

6.2.16 Aggressive adult boars should be housed individually to prevent injury from fighting or be kept in compatible groups

6.2.17 Mating should be closely supervised and action taken where needed to prevent aggressive behaviors and injury to boars, sows and or gilts

6.2.18 Housing systems that provide boars with additional freedom of movement compared to conventional stalls should be encouraged, provided that such systems are well managed in terms of boar hygiene and safety, in addition to operator safety

6.2.19 Where boars are kept constantly in stalls they should be released for mating and or exercised at least twice per week

Piglet, weaner and grower pig management

6.2.20 Piglets should not be weaned from the sow before 35 days of age unless the welfare or health of the sow or the piglet would otherwise be adversely affected

6.2.21 Mixing of unfamiliar pigs should be avoided. Where mixing of pigs is necessary, it should be done at as young an age as possible, preferably before or up to one week after weaning

6.2.22 Where pigs are mixed, they should be provided with adequate opportunities to escape and hide from other pigs

6.2.23 Where possible, pigs should be provided with adequate litter substrate (e.g. straw or hay) for use as bedding, enrichment and to prevent tail biting

General pig management

6.2.24 Where pigs are kept in groups, measures should be taken to prevent fighting or aggression which goes beyond normal social behavior. When signs of severe fighting are observed, the causes should be immediately investigated and appropriate measures taken to address the issue. This may include:

- provision of plentiful straw or other materials
- removal of aggressive or targeted pigs from the group and
- provision of additional feeding/watering points

6.2.25 Particularly aggressive pigs or pigs at risk of attack should be kept separate from the group

6.2.26 Pigs should not be tethered due to the risk of injury and natural behaviour(s) of the animal

7. Transportation of pigs

Objectives

To ensure pigs are transported in a manner which will minimize risks to their welfare

7.1 Standards

7.1.1 A person responsible for the transportation of pigs must take all reasonable action to minimize the risk of injury and heat or cold stress throughout the process

7.1.2 A person responsible must ensure that the time off water does not exceed:

- 12 hours for lactating sows, piglets and weaners
- 24 hours for all other classes pigs

7.1.3 If pigs have been off water for the maximum time permitted, a person responsible must ensure pigs are provided with water, feed and rest for a minimum of 12 hours before starting another journey

7.1.4 A person responsible must not transport any animal that is unfit for travel

7.2 Guidelines

Fitness and space allowance

7.2.1 Pigs suffering from the following conditions should be considered unfit for transportation:

- lameness or downer pigs
- tail bite wounds
- fresh rectal, vaginal or perineal prolapse and
- other clinical conditions

7.2.2 Sows more than 80 days pregnant should not be transported. If transportation is necessary, it should be for short distance only. Sows should be provided with adequate space to lie down on the vehicle and appropriate access to feed and water

7.2.3 Lactating sows with piglets should not be transported. If transportation is necessary, lactating sows should be segregated from all other pigs and the piglets protected appropriately

7.2.4 The amount of space required per pig during transport will vary depending on climatic conditions, health status of the pigs, stress levels, vehicle facilities. As a guide, refer to Table 5 for the minimum space allowances per pig during transportation

Table 5. Loading densities with space allowances for pigs based on the standing position for transportation

Average live weight (kg)	Minimum space allowance during transportation (m^2/pig)
15	0.09
25	0.12
50	0.22
100	0.35

150	0.48
200	0.61
250	0.74
300	0.87

Reference: Australian Animal Welfare Standards and Guidelines Land Transport of Livestock Edition 1, Version 1.1 (2012)

Vehicle facilities

7.2.5 All surfaces of the vehicle coming in contact with the pigs (e.g. floor, side walls) should be smooth and free of protrusions that could cause potential injury

7.2.6 The height of the vehicle sidewalls should be high enough to prevent pigs jumping or escaping from the vehicle

7.2.7 An appropriate layer of bedding should be provided for all journeys

7.2.8 The floor of the vehicle should be of non-slip material such as rubber matting or bedding to provide a surface for pigs to grip and minimize risk of injury

7.2.9 The loading ramp should be appropriate for the type of transport vehicle being used and allow optimal movement of pigs onto the vehicle. The ramp should have grooves or use non-slip material

7.2.10 Transport vehicles should be in good working order and checked prior to the commencement of the journey

7.2.11 To protect pigs against sunburn, shade material should be fixed to the top of the vehicle. If short stops on route are necessary, vehicles should be parked in the shade or under large trees

Weather

7.2.12 When transporting pigs in hot weather, steps should be taken to minimize the risk of heat stress and avoid windburn and sunburn. These steps could include loading and transport during cooler parts of the day, use of cooling facilities or shade cloth, hoses/ water sprays and or reducing loading density

7.2.13 In cold weather, loading strategies that minimize cold stress should be considered for classes of pigs that are at higher risk (e.g. piglets). These strategies should include, but are not restricted to, using vehicles with enclosed fronts; covering sides of the vehicle with tarpaulins and providing bedding materials

Air transportation

7.2.14 Where pigs are transported via air, consideration should be given to following in order to minimize risk to their welfare throughout the journey:

- design, size and material of the transport container
- stocking density, temperature and ventilation of the transport environment
- transporting in individual crates vs group containers
- estimated total travel time and provision of feed and or water

8 Humane culling/ euthanasia/ slaughter of pigs

Objectives

To ensure when it is necessary to cull/ euthanize/ slaughter pigs, that it is done so in a safe and humane manner to minimize the risk to their welfare

8.1 Standards

8.1.1	A person responsible must only cull/ euthanize/ slaughter pigs using humane methods that result in rapid death or loss of consciousness, followed by death while unconscious, and must verify to confirm that the pig is dead
8.1.2	A person responsible must have the relevant knowledge, experience and skill to be able to humanely cull/ euthanize/ slaughter a pig or be under the direct supervision of a person with the relevant knowledge, experience and skill
8.1.3	A person responsible must ensure that pigs suffering from severe distress, disease or injury that cannot be reasonably treated are humanely euthanized at the first reasonable opportunity
8.1.4	A person responsible must ensure stunning equipment is designed and maintained to deliver a consistent and effective stun
8.1.5	Pigs must be stunned prior to culling/ slaughter
8.1.6	Specific guidelines in disease control contingency plans should be followed when culling for disease control purposes. However, the disease control contingency plans should address/ effectively cover the animal welfare issues

8.2 Guidelines

General

8.2.1 Pigs unable to walk or diseased and which is a source of great suffering should be euthanized without delay, unless the delay in euthanasia can be justified

8.2.2 Pigs should be handled in a calm and gentle manner prior to culling/ euthanasia/ slaughter to minimize distress and alarm

8.2.3 Pigs that are accustomed to being reared in groups should not be isolated or housed individually for long periods prior to culling/ euthanasia/ slaughter

8.2.4 For the routine slaughter of pigs for human consumption, ante-mortem inspection should be carried out as per the requirements prescribed in Chapter VII of the Livestock Rules and Regulations of Bhutan 2017

8.2.5 All pig operations should have documented protocols on humane culling/ slaughter including appropriate training of workers, current method(s) used and calibration and maintenance of equipment

Recommended practice

8.2.6 Only appropriate and suitable methods for stunning pigs should be used:

- for pigs above 7.5kg in weight - penetrative captive bolt or electrical stunning, followed immediately by bleeding to ensure death is recommended
- for piglets less than 7.5kg – blunt force trauma to the head using a hammer or solid heavy

object may be used to render the piglet unconscious but only in situations where there is no other suitable stunning equipment available

- the piglet should be bled out immediately after the blow to ensure death

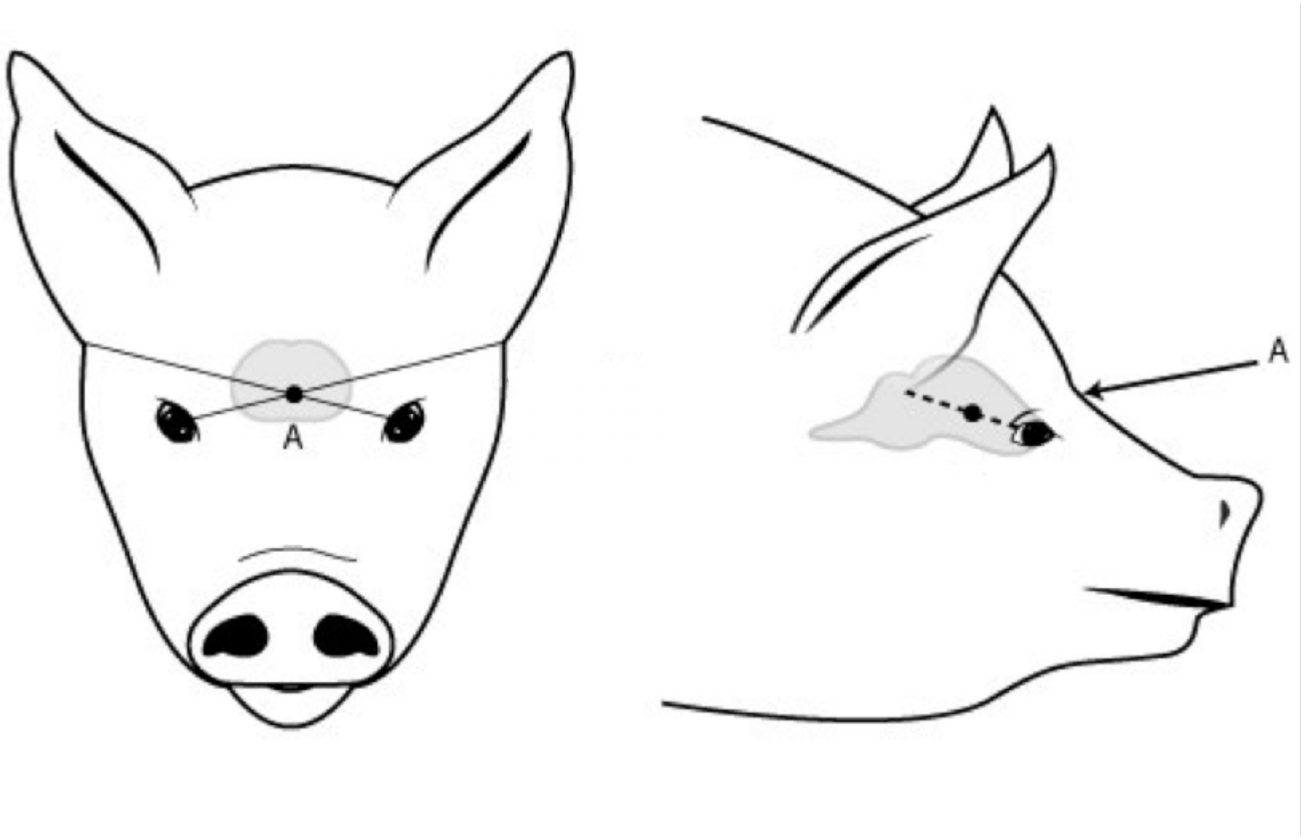
Note: Pigs are the most difficult animal to stun using captive bolt equipment due to the small target area and position of the brain deep within the head of the animal. Therefore, electrical stunning is the preferred method for the routine stunning of pigs for slaughter

8.2.7 Where penetrative captive bolt is used:

- the blow should be delivered in order to penetrate the cortex and mid brain of the pig (frontal position)
- the device should be operated, stored and maintained in accordance with the manufacturer's instruction and be secured under lock and key when not in use
- the cartridge should be the correct size for the size or class of pig being stunned

8.2.8 For captive bolt, the blow should be delivered as per the recommendations shown in Figure 1. The frontal position, as represented by the letter 'A' indicates the point of aim and direction for appropriate use of captive bolt on pigs

Figure 1 Recommended position and direction for humane culling of cattle



Amended from the figure provided in the Australian Animal Welfare Standards and Guidelines Land Transport of Livestock Edition 1, Version 1.1 (2012)

8.2.9 The captive bolt device should be firmly pressed against the head of the pig before being discharged

8.2.10 Where hand held electrical stunning are used:

- electrodes should be the correct size for the class of pig being stunned
- electrodes should be kept clean and free from dirt or debris
- the device should be stored in clean, dry environment to prevent corrosion and damage to the electrodes

8.2.11 Pithing should only be used in emergency situations or when culling pigs for disease control purposes. For routine slaughter of pigs, bleeding should be performed in preference to pithing

8.2.12 Pigs should be bled out within 15 seconds of stunning. The recommended method of bleeding out pigs is the 'chest stick'

8.2.13 After slaughter/ culling/ euthanasia, the following should be checked to confirm that the procedure has been successful in causing death:

- lack of rhythmic breathing
- sudden collapse of the animal
- dilated pupil
- no corneal/ blink reflex (no reaction when the surface of the eye is touched)

8.2.14 No other methods apart from the ones indicated above should be used to destroy pigs

8.2.15 Carcasses not intended for human consumption should be disposed-off hygienicall

END OF PIG STANDARDS AND GUIDELINES

WELFARE STANDARDS AND GUIDELINES FOR POULTRY

1. Feed and water

Objective

To ensure poultry have adequate access to feed and water to uphold minimum standards of welfare

1.1 Standards

1.1.1	A person responsible must ensure poultry are given reasonable access to adequate, clean and safe feed that meets the nutritional requirements of their breed, age (stage of production) and environmental conditions
1.1.2	A person responsible must ensure poultry are provided with potable water *ad lib* while on farm
1.1.3	A person responsible must ensure feeding and watering equipment are designed, positioned and maintained at a height that allows for easy and unrestricted access for the age of the bird
1.1.4	A person responsible must ensure day old chicks are given access to water immediately upon arrival at the farm

1.2 Guidelines

General

1.2.1 Feed and water equipment systems should be checked daily to ensure correct function

1.2.2 Feeding and watering equipment should be regularly cleaned and disinfected to minimize risk of contamination. Automatic drinker lines should be flushed regularly to avoid the buildup of biofilm

Feed

1.2.3 Raw materials used for feed formulation should be of high quality, from a clean source and free from foreign substances

1.2.4 Poultry farms should have a designated feed storeroom. Feed storage rooms should be well-ventilated, rodent proof and follow first in first out principles to minimize risk of spoilage, contamination and degradation of feed quality

1.2.5 Ideally, feed should not be stored on farm for more than:

- 2 weeks for commercial stock
- 1 week for breeding stock

1.2.6 If feed is stored on farm for longer than the timeframe stated above, it should be regularly inspected to ensure quality has not deteriorated

1.2.7 Any changes in diet or switching to different rations, should be done gradually (ideally over a period of three days minimum)

1.2.8 In the event of abnormal behavior or poor production performance, the quality of feed and the feed storage area should be investigated

1.2.9 Where shockers/ anti-perch wires are used to prevent birds perching over the feeders:

- they should only be used during initial stages of production to condition the birds not to perch on feeders
- be used for short periods if re-conditioning is needed
- adequate perching equipment should also be made available to the birds in the shed

1.2.10 Where broiler breeders are fed restricted diets to control their weight, the flock should be regularly monitored for abnormal behavior or signs of stress related to hunger

1.2.11 Crop fill checks should be regularly conducted during the first 72 hours after placement to assess whether chicks have found feed and water

1.2.12 Antibiotics should not be used prophylactically in poultry feed

Water

1.2.13 Where necessary, water should be appropriately treated to minimize risk of introducing pathogens to the farm. However, this should only be done under the direction from a competent animal health professional

1.2.14 All farms should have a backup water storage tank on site, with the capacity to provide a minimum of 24 hours supply to the flock in case of emergencies

2. Risk management of extreme weather, natural disasters, disease, injury and predation

Objective

To ensure appropriate management actions are taken to minimize the impact of extreme weather, natural disasters, disease, injury and predation to poultry welfare

2.1 Standards

2.1.1	A person responsible must take reasonable action to mitigate the welfare risks to poultry from natural disasters, extreme weather conditions, disease, injury and predation events
2.1.2	A person responsible must ensure that disaster, disease or injurious events are responded to in a timely and appropriate manner and reasonable action taken to manage the risk to bird health and welfare

2.2 Guidelines

General

2.2.1 A disaster management plan should be in place on all poultry operations and provide guidance on appropriate management practices during times of extreme weather events, fires, floods, disease outbreaks and predation

2.2.2 In the event of significant damage to shed infrastructure or equipment, immediate action should be taken to provide necessary shelter, feed and water to the birds

2.2.3 Any sick or diseased bird identified should be:

- immediately segregated from the flock and provided with treatment OR
- if no treatment options are available and it is in the best welfare interest of the bird, it should be humanely culled without delay
- the carcass should then be disposed of hygienically

2.2.4 If a large number of dead birds are found or an increased pattern of mortality is observed, post mortem examination should be conducted to identify the cause and appropriate control and preventative actions taken

2.2.5 Carcasses should be collected and hygienically disposed-off from the shed to minimize risk of spreading diseases to the rest of the flock

2.2.6 All poultry operations should have suitable firefighting equipment available on site

Extreme weather

2.2.7 During times of extreme hot weather, necessary action should be taken to maintain shed temperature within the birds' thermal comfort zone including:

- appropriate use of fans (ceiling and or exhaust) and or curtains
- sprinklers on the roof

- regular replacement of drinking water
- altering feeding schedules (to avoid feeding during the hottest parts of the day)

2.2.8 During times of extreme cold weather, necessary action should be taken to maintain shed temperature within the birds' thermal comfort zone including:

- appropriate use of heaters
- provision of additional litter thickness
- use of insulating materials (e.g. tarpaulins, bamboo mats, gunny bags)

Biosecurity and vaccination

2.2.9 Vaccines should be administered as per the recommended schedule developed by the Department of Livestock. Vaccines and medicine should be stored as per the provisions laid down in the Bhutan Medicines Rules and Regulations 2012

2.2.10 All farms should have a proper biosecurity plan and measures in place to ensure poultry welfare

2.2.11 Sheds and/ or farm boundaries should be constructed to prevent wilds animals, predators and unauthorized visitors from entering the premises

3. Facilities, equipment and stocking density

Objective

To ensure appropriate facilities, equipment and floor space are provided to poultry in order to minimize risk to their welfare

3.1 Standards

3.1.1 A person responsible must take reasonable action in the design, construction, operation and maintenance of poultry facilities and equipment to minimize risk to their welfare

3.1.2 A person responsible must ensure the number of birds housed in a poultry shed does not exceed the capacity of the shed infrastructure or management to be able to maintain adequate temperature and ventilation inside the shed

3.1.3 A person responsible must ensure layers, breeders and any other female poultry of breeding age is provided with suitable nesting area or nest boxes

3.1.4 A person responsible for poultry operations that rely on mechanically powered equipment to manage the shed or incubation environment must ensure that alarms and or back up power supply facilities are in place

3.2 Guidelines

Facilities and equipment

3.2.1 Facility design and construction should consider, among others, the following:

- Environment Impact Assessment (EIA)
- local climatic conditions, topography and wind patterns
- species of poultry to be raised (broiler, layer, breeder, turkey, native)
- road access for delivery of inputs and delivery of product to market
- available capital and ongoing costs
- size of the operation and expected growth
- waste disposal

3.2.2 Poultry sheds and equipment should be designed to minimize risk of injury, enable appropriate litter management and also thorough cleaning and disinfection of shed surfaces

3.2.3 Poultry facilities should ensure protection of birds from adverse climatic conditions, excessive noise, dust and gas pollutions and predators

Stocking density

3.2.4 The stocking density within a poultry shed should be routinely monitored and adjusted as needed to maintain optimal environmental conditions for the flock. The following should be considered:

- present age and breed of the bird
- predicted market age and weight (broilers and turkeys)

- air temperature, humidity and air quality
- litter quality
- access to feed and water
- behavioral needs of the birds
- presence of disease or abnormal behavior
- farmer/ management capability

3.2.5 If negative welfare outcomes are observed (e.g. heat stress, poor litter condition, feather pecking outbreaks), birds should be stocked at lower densities in future

3.2.6 If provided with optimal conditions, stocking density for various types of poultry should be maintained as per the Table 1 below:

Table 1. Recommended minimum space provided per bird

Type of poultry	**Minimum space required per bird**
Broilers	1 sq. ft.
Pullet Layer	1 sq. ft.
Layers	1.5 sq. ft.
Turkeys (adult)	4 sq. ft.
Guinea Fowl	2 sq. ft.

Perching and enrichment

3.2.7 All species of poultry should be provided with access to perching inside the shed. This is particularly important for layers and breeders

3.2.8 The design, construction and placement of perching inside the shed should:

- enable birds to mount/ dismount with minimal effort and stay perched using a firm grip
- be positioned at a height and location to minimize risk of vent pecking or faecal contamination of the feeders or drinkers
- avoid potential injury (e.g. toe/ feet or keel bone damage)

3.2.9 Environmental enrichment (in the form of pecking or manipulable material) should be provided throughout the poultry shed as a form of stimulation and to help prevent and manage feather pecking outbreaks

Nest boxes

3.2.10 The design, position and maintenance of nest boxes should provide a comfortable, dark and enclosed space for the hens to lay their eggs

3.2.11 The size/ dimension and number of individual nest boxes provided should be suitable for the type of poultry and number of birds housed. For layer hens, a minimum of 1 square foot per 5-7 birds is recommended

3.2.12 A clean, dry layer of bedding (e.g. sawdust) or nest box lining (e.g. artificial grass) should always be provided in the nest and be replaced as often as necessary to maintain a suitable nesting environment for the birds

Outdoor access

3.2.13 Where poultry are given access to outdoors, consideration should be given to the following:

- provision of overhead shade/ shelter for protection from predators and exposure to the elements
- positioning and design of shed openings to encourage birds to explore the outdoor area
- drainage and management of the outdoor area to minimize build-up of water and mud
- Poultry should be given daily access to the outdoor area (during daylight hours) once they have sufficient feather cover except during extreme weather events or when under veterinary advice

4. Lighting

Objective

To ensure poultry are provided with appropriate lighting conditions to minimize the risk to their welfare

4.1 Standards

4.1.1	From day two after placement, a person responsible must ensure poultry are provided with designated light and dark periods in each 24-hour period. Continuous lighting must not be used
4.1.2	A person responsible must ensure light intensity in the shed is maintained to allow for thorough inspection of the flock, stimulate activity and enable birds to find feed and water

4.2 Guidelines

General

4.2.1 Lighting, whether natural or artificial, should be evenly distributed across the shed floor to minimize dark spots and prevent overcrowding/ uneven distribution of the flock

4.2.2 Any broken or flickering bulbs should be replaced as soon as is reasonably possible

4.2.3 Shed lighting should be regularly checked and monitored throughout the life of the flock. Records should be kept of the following:

- regular checks of shed light intensity and light/ dark periods
- any changes in intensity and or light periods including when done to control feather pecking

Light/ dark pattern

4.2.4 Birds up to 7 days old should be provided with a maximum light period of 23 hours in each 24-hour period

4.2.5 After 7 days of age:

- broilers should be provided with at least 8 hours of continuous light and a minimum of 4 hours of continuous darkness in each 24-hour period
- turkeys should be provided with at least 8 hours of continuous light and a minimum of 8 hours' continuous darkness in each 24-hour period

4.2.6 For laying hens:

- after 7 days of age, the light period should be gradually increased to provide a minimum of 8 hours' continuous darkness by 3 weeks of age
- after 3 weeks of age, at least 8 hours of continuous light and a minimum of 8 hours of continuous darkness in each 24-hour period should be maintained

4.2.7 To reduce the risk of prolapse, light stimulation (whereby the light period is gradually increased to help bring the hen into sexual maturity) should only commence once hens have reached adequate body condition and weight. For laying hens this is usually around 16 weeks

4.2.8 For *breeders*, the breeding company growing manuals should be used as a guide to determine suitable light patterns for use throughout the life of the flock

Light intensity

4.2.9 Up to the age of 7 days:

- broilers should be provided with minimum light intensity of 25 to 30 lux
- Turkeys should be provided with a minimum light intensity of 50 lux
- layers hens should be provided with a minimum of 30 to 50 lux

4.2.10 After 7 days of age:

- broilers and turkeys should be provided with a light intensity of 20 lux on average across the shed floor
- for layer hens, no area of the shed floor should be lit at less than 10 lux

4.2.11 For *breeders*, the breeding company growing manuals should be used as a guide to determine suitable light intensity for use throughout the life of the flock

Changes to the light program

4.2.12 During times of extreme heat and if deemed necessary, lighting programs should be altered to control feeding patterns and encourage birds to eat during the cooler parts of the day

4.2.13 If light intensity is reduced as a method to control feather pecking, it should only be done temporarily and as a last resort. Other strategies and management practices aimed at preventing and controlling pecking outbreaks should first be employed

4.2.14 Sudden changes in light intensity when switching between light and dark periods should be avoided. This can be achieved via the use of dimming facilities, staged lighting or relying on natural dusk/dawn periods where applicable

5. Temperature and ventilation

Objective

To ensure temperature and ventilation are maintained at appropriate levels to provide for the welfare of poultry while on farm

5.1 Standards

5.1.1 A person responsible must ensure that shed temperature and ventilation are managed appropriately to maintain optimum environmental conditions for the birds. This includes minimizing the risk of heat or cold stress; build-up of dust and noxious gases and deterioration of litter quality

5.1.2 Shed temperature and ventilation should be monitored daily and if needed, immediate corrective action taken to maintain optimum environmental conditions such as:

- use of fans, foggers, sprinklers and evaporative cooling systems
- opening/closing windows and or curtain adjustment

5.2 Guidelines

General

5.2.1 All persons involved in poultry production should be trained to identify abnormal bird behavior and signs of stress related to inappropriate temperature or ventilation including:

- prolonged panting or wing extensions
- huddling, smothering or reluctance to move
- changes to eating and drinking patterns
- respiratory issues and breathing problems
- eye or nasal irritation

5.2.2 During times of extreme weather and at higher densities, temperature, ventilation and bird behavior should be monitored more frequently

Brooding

5.2.3 Brooder areas should be pre-heated to achieve optimal temperature of the air and litter surface prior to the arrival of day old chicks

5.2.4 Temperature, ventilation and chick behavior should be closely monitored and recorded throughout the brooding period and adjusted as needed to ensure adequate air exchange and thermal comfort for the chicks

Temperature

5.2.5 As a guide, environmental temperatures for each species should be maintained as per the following table (Table 2):

Table 2. Recommended environmental temperatures for poultry

Type of poultry	Temperature (at chick/bird height)	
	Brooding	**Post brood**
Broilers	Around 32ºC for first few days. Reduce by 1 degree every few days until reaching 20ºC	18 to 22ºC
Layers	Around 35ºC for first few days. Gradually reduce by 2ºC each week until reaching 21ºC	21 to 22ºC
Turkeys	Around 35ºC for the first week. Reduce by 1C every few days until reaching 21ºC.	21ºC
Guinea Fowl	Maintained at 37ºC for first 3 weeks. Reduce by 1ºC per day for next 2 weeks	22ºC

Note: This table should only be used as a guide. The birds themselves provide the best indicator of optimum temperature; therefore, bird behavior should always be monitored and used as a measure of shed temperature

Ventilation

5.2.6 Levels of dust and other air contaminants should be kept to a minimum

5.2.7 Relative humidity should be monitored and recorded regularly

5.2.8 Ammonia levels should be kept below 15ppm. Sheds should be regularly monitored for ammonia build up (via nasal detection, ammonia test trips or gas meter) and appropriate corrective action taken as and when needed to maintain air quality

5.2.9 Sheds that rely only on natural airflow/wind patterns to manage ventilation and air quality should:

- have adequately sized and well positioned openings (windows, vents)
- adjust, maintain and replace curtains as often as necessary

5.2.10 Sheds that use mechanical ventilation equipment (ceiling, circulation/ extraction fans or evaporative cooling systems) should:

- ensure the position, capacity, speed/ airflow and function of this equipment is suitable for the design/ size of the shed and number of birds housed
- have a backup power supply
- use alarm or warning systems to notify the relevant person in the event of malfunction or failure

6. Litter management

Objective

To ensure litter is provided in sufficient quantity and quality and condition is managed to provide for the welfare of poultry

6.1 Standards

6.1.1	A person responsible must ensure poultry are provided with suitable litter material at all times while housed in the sheds
6.1.2	A person responsible must ensure good quality litter is provided in sufficient quantity to meet the birds' requirements for maintaining body temperature and performing natural behaviors
6.1.3	A person responsible must take all reasonable actions to ensure litter is maintained in a dry and friable condition

6.2 Guidelines

6.2.1 Litter should not be re-used between batches

6.2.2 Suitable and effective litter material should be absorbent, non-toxic, available in sufficient volume and easily disposed off

6.2.3 Litter material should be sourced from reputable suppliers to minimize the risk of introducing pathogens to the shed. Prior to placement in the shed, litter should be inspected to ensure it is dry and free from foreign materials

6.2.4 In general, litter depth should be placed and maintained at a minimum depth of 5 to 10cm. Additional depth should be placed in cold climates to provide added insulation for the birds

6.2.5 Litter surface, depth and substrate should allow for the expression of natural behaviors including foraging, dust bathing, scratching and resting

6.2.6 Excessive caking, clumping, dampness and wet areas of litter should be avoided. If detected, corrective action should immediately be taken to restore these areas to dry and friable condition

6.2.7 Litter condition should be monitored at least once daily and action taken as necessary to maintain in a condition that provides for the birds' welfare

6.2.8 All farms should have access to suitable litter management equipment such as rakes, shovels, buckets and or wheelbarrow. Mechanical equipment such as tillers or rotary hoes may be used to help manage litter in large operations

7. Handling and husbandry

Objective

To ensure handling and husbandry practices employed are appropriate and minimize risk to the welfare of poultry

7.1 Standards

Handling, inspection and management

7.1.1 A person responsible must employ good husbandry and handling practices to minimize the risk of disease, pain, stress and injury on the birds

7.1.2 A person responsible must never strike, punch, kick or throw the birds

7.1.3 A person responsible must ensure poultry, including shed facilities and equipment, are inspected at least once a day and immediate corrective action taken as required to ensure their welfare

Beak trimming and other elective procedures

7.1.4 Where beak trimming is considered necessary, the following shall apply:

- only purpose made/ designed beak trimming equipment must be used
- beak trimming must be limited to the tip of the beak only

7.1.5 A person responsible must not perform any other invasive elective procedures on poultry unless under direct recommendation from an animal health professional. This includes desnooding, toe clipping, wing clipping, and dubbing

7.1.6 Induced molting must not be practiced

7.2 Guidelines

Handling, inspection and management

7.2.1 Birds should be handled regularly through the life of the flock for proper inspection and assessment of their welfare and to acclimatize them to being handled

7.2.2 Birds should be handled in a manner that minimizes risk of stress and or injury and is safe for both the bird and the handler. Table 3 describes the recommended handling techniques for different classes of poultry

7.2.3 Daily inspection and monitoring should be conducted for:

- signs of ill health and disease
- abnormal behavior
- bird comfort (thermal, air and environmental)
- assessment and adjustment of stocking density

7.2.4 During daily inspection, specific attention should be paid to the following:

- leg problems (lameness or reluctance to walk, hock and foot pad lesions, splayed legs) in broilers

- feather cover, pecking injuries and signs of aggression in layers and Turkeys
- faecal droppings (consistency, colour, presence of blood)
- respiratory distress (coughing, sneezing, gasping)

7.2.5 After handling/ inspection, poultry should be released by setting them down on their feet or from low heights that enable them to land normally on their feet. They should not be released in a manner or at a height that requires the bird to fly

Table 3. Recommended handling for inspection of poultry

Type of poultry	**Recommended handling technique (for inspection)** *See Chapter 10 for further recommendations on handling techniques when catching large numbers of birds prior to processing*
Chickens and small turkeys	• Securely place both hands over the wings • Next, slide one hand under the body to support the breast of the bird with the palm of the hand. With the same hand, hold the birds' legs in between your fingers • Use your other hand to hold the bird against your body and to control wing flapping *Additional method used to catch broiler breeders* • Securely grasp the bird at the base of wings (where the wings join the body) and gently lift the bird off the ground • Bring the bird towards your body for inspection
Turkeys (large)	***Method A*** • Secure both legs of the turkey from behind and gently lower the bird onto its breast • Next, slide your free arm over the wings and under the body. Lift and bring the bird towards your body (keeping the weight of the bird in the hand/arm under the body) • Transfer the legs into your hand holding the weight (under the body) and use this now free hand to control the wings ***Method B*** • Secure both legs of the turkey from behind and gently lower the bird onto its breast • Next, grasp the should of the wing furthest away from your own body with the other hand. Lift and hold the bird close to your body
Guinea Fowl	• Place two hands securely over the wings and lift the body with the legs handling free • Next, slide one hand under the body to support the breast with the palm of the hand and firmly hold the legs between your fingers • Use the free hand to hold the bird against your body and control the wings (if needed) *Note: Care is needed when handling these birds as there is a high risk of injury. Guinea fowl should not be caught by the legs*

7.2.6 Daily inspection and monitoring should be conducted for:

- signs of ill health and disease
- abnormal behavior
- bird comfort (thermal, air and environmental)
- assessment and adjustment of stocking density

7.2.7 During daily inspection, specific attention should be paid to the following:

- leg problems (lameness or reluctance to walk, hock and foot pad lesions, splayed legs) in broilers
- feather cover, pecking injuries and signs of aggression in layers and Turkeys
- faecal droppings (consistency, colour, presence of blood)
- respiratory distress (coughing, sneezing, gasping)

7.2.8 Entrapped poultry should be freed at the first reasonable opportunity and action taken to prevent this situation from recurring

7.2.9 If used, wing and leg bands should be checked regularly and loosened or replaced as needed

7.2.10 For breeder flocks, sex ratios should be monitored to ensure that there is not excessive aggression or domination

Beak trimming

Note: Hot blade beak trimming is the only method currently used in Bhutan so as such, no other methods have been covered in any detail. At present, and for the foreseeable future, infrared beak trimming equipment is not available in country

7.2.11 Alternative strategies for managing injurious (feather) pecking that minimize the need for beak trimming should be utilized at every opportunity. Routine reliance on beak trimming should be discouraged

7.2.12 If beak trimming is considered necessary, the recommendations below should be followed:

- the length of the trim should be limited to about one third of upper and lower beaks
- birds should be trimmed between 7 to 10 days and, only if needed, again at around 12 to 14 weeks
- there should be adequate contact time (approx. 2 seconds) to ensure appropriate cauterization of the beak
- blade temperatures should be monitored to ensure correct function of the equipment (follow manufacturer's instructions)
- a guiding plate should be used to ensure the trim is uniform and appropriate in length
- vitamins should be administered to the chicks the day before planned beak trimming practices
- cool environment is best (e.g. in early morning or evening)

7.2.13 If done correctly, beak trimming should only need to be performed once during the life of the hen

Wing clipping

7.2.14 Where wing clipping is recommended by an animal health professional, it should only be performed by competent and trained personnel. Birds should be closely monitored after the procedure

Hatching systems

7.2.15 Environmental conditions within the setters, hatchers, vaccination/sorting room and chick holding room should be recorded and monitored at regular intervals. Immediate corrective action should be taken as and when needed

7.2.16 After take-off, newly hatched chicks should be handled with care and regularly monitored for signs of thermal comfort and stress (e.g. during vaccination, sexing and counting)

7.2.17 In warmer climates, dispatching chicks from the hatchery to the farm should be avoided during the hottest parts of the day

7.2.18 Proper chick transport crates (either single use cardboard or reusable plastic crates) should be used to transport chicks from the hatchery to the grower farm

7.2.19 Unwanted male layer chicks, cull chicks and unhatched embryos should be humanely disposed of without delay

8. Poultry catching and transport

Objective

To ensure poultry are caught (in preparation for transport) and transported with minimal risks to their welfare

8.1 Standards

8.1.1 A person responsible must ensure the catching (in preparation for transport) and transport processes are conducted in a manner than minimizes risk of stress and injury to the birds

8.1.2 A person responsible must ensure that, for newly hatched chicks, the time from point of hatching to placement on farm in a suitable brooding environment does not exceed 72 hours

8.1.3 A person responsible must ensure, for poultry older than 72 hours (4 days), transport time does not exceed 12 hours unless the birds are provided with feed, water and suitable shelter

8.1.4 A person responsible must ensure birds are not transported in a vehicle uncontained. Transport containers must be:

- handled with care, especially during loading and unloading
- Suitable for the purpose of transporting poultry
- suitable for the size, age and species of poultry being transported
- stacked/positioned in the vehicle to ensure adequate airflow and minimize risk of heat or cold stress
- properly secured to the vehicle

8.1.5 A person responsible must ensure the amount of space provided for each bird during transport provides for their physical and thermal comfort

8.1.6 A person responsible must not transport any bird unfit for travel

8.2 Guidelines

Catching

8.2.1 Birds should be caught in a calm, smooth and quite manner

8.2.2 Birds should be caught under dim lighting to minimize risk of smothers and to prevent excessive movement around the shed. If the timing of transport and or processing can be coordinated, ideally birds should be caught at night or early morning

8.2.3 When catching small numbers of poultry in preparation for transport, the handling techniques described in Table 3 should be followed. Additional methods may be used when catching large numbers of poultry as per Table 4 below:

Table 4. Additional handling methods for catching large numbers of poultry

Type of poultry	**Additional handling methods for catching large numbers of poultry** ***See Chapter 7 for further recommendations on handling techniques for routine inspection of poultry***
Chickens	In addition to the methods described in Table 3 (page 69) commercial broilers and layers may also be caught by both legs, inverted and then brought close to the body. No more than four birds should be carried in each hand *Note: Care is needed when catching end-of-lay hens as their bones are often fragile and poor handling can result in injuries*
Turkeys	Turkeys less than 5kg can be caught by both legs, inverted and brought close to the body. Only 1 bird should be carried in each hand Turkeys greater than 5kg should be caught as per Method B described in Table 3 (page 83)

8.2.4 Low partitions should be used to segregate the flock into smaller groups for catching

8.2.5 Transport containers should be placed inside the shed or as close to the shed as possible to minimize the distance and time birds are handled/ carried

8.2.6 If feeders and/ or drinkers are removed as part of the catching process:

- withdrawal of feed should be coordinated with the processing facility to ensure birds are not off feed for more than 12 hours prior to processing (*broilers*)
- water should be made available up to the start of the catching

Transport, unloading and space requirements

8.2.7 To minimize the amount of time birds are contained in stationary containers:

- transport should commence immediately after the end of catching
- stops or breaks during transit should be avoided
- birds should be unloaded immediately upon arrival on farm or processed as soon as possible after arrival at the processing facility

8.2.8 Upon unloading at the farm:

- chicks up to 4 days old should be unloaded and placed into a suitable brooding environment immediately
- poultry older than 4 days should be provided with water immediately and be given access to food no later than 1 to 2 hours

8.2.9 The amount of space provided for poultry in transport containers should be suitable for the age, size and species of poultry being transported. Consideration should also be given consider the local climatic conditions and the estimated time to be spent in transit.

8.2.10 As a guide, space requirements for poultry during transport should be provided as per the following:

- 21 to 25 cm^2 per chick for day old chicks
- maximum of 57 kg/m^2 for broilers
- minimum of 320 cm^2 per bird for layer hens

8.2.11 All parties involved in the transport of poultry should maintain the following records for each consignment; number of birds caught and transported, date and time of departure and arrival and contact details of relevant person in case of emergency

Transport containers

8.2.12 Only purpose made and designed poultry transport containers should be used to transport exotic poultry breeds

8.2.13 For native poultry, handmade baskets should only be used to transport poultry if:

- the design, construction material and condition enable adequate airflow for the birds
- there is no risk of birds becoming entrapped
- they are only used to transport birds for short journeys.

8.2.14 The floor of the container should be non-slip material/design that will allow birds to grip and maintain balance and avoid potential injury during transport

Transport vehicles

8.2.15 Transport vehicles should be equipped with facilities to maintain suitable temperature and ventilation conditions for the birds

8.2.16 Environmentally controlled vehicles/ or an appropriately modified regular vehicle should be used to transport breeder day old chicks from point of arrival in country to the breeding farm

8.2.17 Transport vehicles should be in good working order and checked prior to the commencement of the journey

Extreme weather

8.2.18 Birds should not be transported during times of extreme weather

Air transportation

8.2.19 Where poultry are transported via air, consideration should be given to following in order to minimize risk to their welfare throughout the journey:

- design, size and material of the transport container
- stocking density, temperature and ventilation of the transport environment
- estimated total travel time and provision of feed and or water

9. Humane culling of poultry

Objective

To ensure when poultry are culled (for purposes other than processing) that it is done so without delay and in a humane manner

(Note: This chapter does not cover routine killing of poultry for slaughter, please see Chapter 10 - Poultry Slaughter for guidance on this process)

9.1 Standards

9.1.1 A person responsible must ensure there are provisions for the humane culling of poultry:

- suffering from severe distress, disease or injury that cannot be reasonably treated or which have no prospect of recovery
- unable to access feed or water

9.1.2 A person responsible must only cull poultry using humane methods that result in rapid death or loss of consciousness, followed by death while unconscious, and must take reasonable action to confirm the bird is dead

9.2 Guidelines

9.2.1 All poultry operations should have documented protocols on humane culling including appropriate training of workers, current method(s) used and calibration and or maintenance of equipment

9.2.2 For humane culling of poultry on farm, the following methods should be used:

- cervical dislocation
- electrical stunning (hand held devices)
- concussive stunning using a purpose made device such as captive bolt

9.2.3 When using electrical and concussive stunning devices, the bird should be suitably restrained to enable an accurate and effective stun

9.2.4 Unhatched eggs and cull chicks should be humanely culled and disposed as soon as is reasonably possible after take-off through the use of:

- controlled atmosphere stunning (gas stunning) OR
- maceration

9.2.5 Other methods not specified above should not be used as a method to cull poultry, including:

- blunt force trauma using a stick or pole
- hanging
- suffocation using a bag or sack
- using any device or equipment which crushes the neck (e.g. pliers), rather than dislocating
- any method which requires spinning the bird in the air

9.2.6 Where specialized equipment is used in the process of humane culling, it should be used as per the manufacturer's instruction and maintained in good working order to ensure effective operation

9.2.7 After culling, the following should be checked as confirmation that the procedure has been successful in causing death:

- loss of consciousness and deliberate movement (including eye movement)
- absence of corneal blink reflex when the eye is touched
- maximum dilation of the pupil
- absence of rhythmic breathing for at least 5 minutes
- presence of a skin gap between vertebrae in the neck area (cervical dislocation only)

9.2.8 If it is uncertain whether the bird is dead, the procedure should be repeated immediately

10. Poultry slaughter

Objective

To ensure routine slaughter practices, whether on farm or at designated processing plants, are conducted humanely and in a manner that minimizes risk to the welfare of poultry

10.1 Standards

10.1.1 A person responsible must ensure poultry are handled with care and in a manner than minimizes stress at all points throughout the slaughter process

10.1.2 A person responsible must ensure poultry are suitably restrained and stunned prior to slaughter

10.1.3 A person responsible must ensure restraint or shackling devices are designed and maintained to enable the delivery of an effective stun, minimize bird discomfort and prevent injuries

10.1.4 A person responsible must ensure stunning equipment is designed and maintained to ensure a consistent and effective stun is delivered. An effective stun must render the bird immediately unconscious and loss of consciousness must be retained until death

10.2 Guidelines

Live bird reception (off-farm processing)

10.2.1 The live bird reception area should provide protection from the elements and allow adequate inspection of the birds prior to processing

10.2.2 Ante-mortem inspection should be carried out as per the requirements prescribed in the Livestock Rules and Regulations of Bhutan 2017

10.2.3 Heating and/ or cooling facilities should be used to ensure adequate ventilation and maintain the environment within the birds' thermal comfort zone

10.2.4 Hourly checks of the holding area should be conducted including monitoring and recording of ambient temperature and bird behavior (activity, comfort level, vocalization)

10.2.5 First in first out principles should be employed to minimize the time birds spend in holding

10.2.6 The holding area should be dimly lit to provide a calming environment for the birds

Restraint and shackling

10.2.7 In order to minimize the time spent under restraint, birds should:

- be unloaded as close as possible to the restraint or shackling area
- only be placed in restraint devices once the operator(s) are prepared and ready to commence stunning

10.2.8 Birds should not be suspended on the shackling line for more than 60 seconds for broilers and 90 seconds for turkeys

10.2.9 The shackling area should be lit at a maximum of 5 lux

10.2.10 A breast comforter should be installed from the end of the shackling point to the stunner

10.2.11 Shackles should be the correct size and design for the type of the poultry being processed to enable an effective stun and minimize potential pain and distress

Stunning

10.2.12 Only acceptable methods of stunning poultry prior to routine slaughter (as listed below) should be used:

- electrical stunning (water bath and hand held devices)
- controlled atmosphere stunning (CAS)
- concussive stunning using a purpose made device such as captive bolt or cash poultry killer (often more practical and preferable for stunning large birds such as turkeys)

Note: Further guidance on controlled atmosphere stunning (CAS) for slaughter purposes has not been covered in these guidelines as it is currently not used and likely not be used in Bhutan for the foreseeable future

10.2.12 Where electrical water bath stunning is used:

- the equipment should be designed, function and maintained to prevent pre-stun shocks to the birds
- the height of the water should be appropriate for the size and type of the birds being processed
- the electrode should extend the entire length of the water bath

10.2.13 Where hand held electrical stunning is used:

- birds should be stunned immediately after being restrained
- electrodes should be the correct size for the type of poultry being stunned and span the entire brain area of the bird
- electrodes should be kept clean and free from dirt and debris
- the device should have the capacity to display (i) voltage and amperage and (ii) length of time the current was applied for each bird
- equipment should be stored in clean, dry environment to prevent corrosion and damage to the electrodes

10.2.14 Where concussive stunning (captive bolt) is used:

- the blow should be delivered to the correct position on the bird's head in order to cause immediate unconsciousness
- the equipment should be operated, stored and maintained in accordance with the manufacturer's instruction
- the cartridge used should be the correct size for the size/ age/ species of bird being stunned

10.2.15 A backup method of stunning should be available in case of equipment failure or breakdown

10.2.16 Cervical dislocation should only be used as a method to stun and slaughter birds for processing in emergency situations when it is considered to be the best welfare outcome for the birds

10.2.17 Birds should be checked for signs that the stun has been effective and immediately re-stunned if necessary

Bleeding out

10.2.18 Birds should be bled immediately after stunning (not more than 10 seconds after the stun)

10.2.19 Birds should be cut using a complete ventral neck cut that severs all major blood vessels in the neck, including both carotid arteries (and ideally, the jugular veins)

10.2.20 Birds should be checked to ensure they have been sufficiently bled out and are dead prior to entering the scalder:

- broiler birds should be bled for a minimum of 90 seconds
- turkeys should be bled for a minimum of 120 seconds

END OF POULTRY STANDARDS AND GUIDELIENS

WELFARE STANDARDS AND GUIDELINES FOR DRAFT ANIMALS

1. Feed and water

Objective

To ensure the draft animals have access to feed and water to minimize the risk to their welfare

1.1 Standards

1.1.1	A person responsible must ensure that the draft animals are given adequate access to clean and safe drinking water when they are put to work (e.g. regular water breaks) and reasonable access when put to rest
1.1.2	A person responsible must ensure that the draft animals with a body condition score of two and below are not used for draft purpose

1.2 Guidelines

1.2.1 Draft animals should be provided with adequate and balanced diet that contains minimum required roughage and concentrates

1.2.2 Draft animals should be fed three times in a day when they are put to work

1.2.3 During the times of feed shortages, the animal handlers or owners should ensure that the period of reduced feeding is as short as possible. They should ensure that appropriate mitigation strategies are implemented if welfare and health of draft animals are compromised

1.2.4 If supplementary feed is not available, steps should be taken to avoid starvation, abandonment, sale or relocation of the animals

1.2.5 Body condition score system should be used as guide for the monitoring and planning of feeding as well as evaluation of fitness for draft purpose

2. Risk management of extreme weather, natural disasters, disease, injury and predation

Objective

To ensure the draft animals are managed to minimize the impact of threats to their welfare including, extremes of weather, natural disasters, disease, injury and predation

1.1 Standards

1.1.1	A person responsible must provide draft animals with adequate shelter to minimize risks to their welfare during inclement weather and natural disasters
1.1.2	A person responsible must ensure that handling of draft animals is minimized during extremely hot and/ or cold weather

2.2 Guidelines

Weather and natural disasters

2.2.1 The drought strategies should be prepared in advance which may include strategies for relocation, supplementary feeding and segregation according to risk

2.2.2 To ensure the welfare of draft animals from threats, including extremes of weather, drought, natural calamities, injury and predation, appropriate measures should be undertaken

2.2.3 Draft animals should be inspected at intervals, and at a level appropriate to their working system

Disease and injury

2.2.4 Unexplained disease and deaths should be investigated to formulate appropriate remedial and preventive actions

2.2.5 Appropriate treatment for sick, injured or diseased draft animals should be sought at the first reasonable opportunity to minimize the risk to their welfare

2.2.6 Draft animals should be vaccinated to protect against likely infectious diseases if there is a significant risk to their welfare

2.2.7 Treatments should be administered in accordance with standard treament guideline and records of treatments maintained

Predators

2.2.8 Predator control programs should be implemented where predation is a significant risk to the welfare of draft animals

3. Facilities and equipment

Objective

To ensure facilities and equipment are appropriate to minimize the risk to the welfare of draft animals

3.1 Standards

3.1.1 A person responsible must take reasonable actions in the construction, maintenance and operation of facilities and equipment to ensure the welfare of draft animals

3.2 Guidelines

3.2.1 Appropriate shelter should be provided for draft animals both in the resting and working environments

3.2.2 Resting space should be dry, clean, free of protrusions and obstacles and large enough for the draft animals to lie down, get up and turn around easily

3.2.3 Heat stress is a common condition in draft animals and animal owners/ carers should provide appropriate shade or shelter along with sufficient drinking water

3.2.4 Draft animals should not be put to work during extreme high/ cold temperatures

3.2.5 Protection from extreme cold weather conditions should be provided when there is likelihood of serious risk to the welfare of draft animals. This can be done by providing extra bedding, blankets or shelter

4. Handling and management

Objective

To ensure that handling and management practices are appropriate to minimize the risk to the welfare of draft animals

4.1 Standards

4.1.1 A person responsible for draft animal welfare must handle the animals in a reasonable manner to minimize risk to their welfare

4.1.2 A person responsible must not:

- over work the animals beyond the specified working time
- over load the animals beyond the specified weight
- put the draft animals into work before attaining 2 years of age
- put the draft animals into work when they are sick or injured
- strike, punch or kick the draft animals in any manner
- drag the draft animals that are not standing or if they are reluctant to work
- use any inappropriate accessories for draft purpose that might cause bodily injuries

4.2 Guidelines

4.2.1 Draft animals should be put to work with use of proper equipment only

4.2.2 Draft animal handlers or owners should be trained/ experienced for better management of the draft animals

4.2.3 Draft animals should be provided proper housing and shelter to protect them from adverse weather conditions

4.2.4 Draft animals should not be worked under heat stress and other inclement weather conditions

4.2.5 Draft animals should not be kept confined indoors for long periods

4.2.6 Draft animals should not be tethered or hobbled continuously. When temporary tethering is necessary, the draft animals should be able to lie down, and if tethered outdoors, should be able to turn around and walk.

4.2.7 Mares in third trimester of pregnancy and three months after foaling should not be put into work

4.2.8 Draft animals should only be put to work for a maximum of 8 hours per day and given at least a day rest in every seven-day period

4.2.9 Draft animals should be provided adequate rest during the working periods

4.2.10 Draft animals should be provided adequate exercise when they are not working

4.2.11 Working equids should not be made to carry load weighing more than 50 kgs in horses and 60 kgs in mules at any given time. In case of riding horse, alternate horses should be used for human weighing more than 60 kgs

4.2.12 Draft animals should commence working only after attaining an age of two years. The retirement age should be at their geriatric age

4.2.13 Sick or injured draft animals should not be put to work and considerations should be given for treatment and due rest. Those draft animals which are under treatment should return to work only after the advice of the authorized animal health personnel

4.2.14 Saddle blankets used in working equids should be thick enough to prevent back sores and possible injuries

4.2.15 Yokes used in bullocks should be made of wood which is smooth and light enough to prevent yoke galls

4.2.16 Hoof trimming and shoeing of working equids should only be performed by a competent person

4.2.17 Owners and handlers should routinely clean and check the hooves of draft animals before and after work

4.2.18 Draft animals should be regularly de-wormed against gastro-intestinal parasites and vaccinated against major infectious diseases

5. Castration and dehorning

Objective

To ensure that castration and dehorning are done in a manner that minimizes the risk to the welfare of draft animals

5.1 Standards

5.1.1 A person responsible must have relevant knowledge, experience and skills, or be under the direct supervision of a person who has the relevant knowledge, experience and skill

5.1.2 A person responsible must ensure the use of appropriate restraining techniques, tools and pain relief when castrating, disbudding or dehorning in draft animal species

5.2 Guidelines

5.2.1 Surgical procedures should be done where deemed necessary to reduce behavioural aggression of the draft animals

5.2.2 Surgical procedures should be done under proper restraint using appropriate pain relief drugs and surgical tools

5.2.3 Surgical procedures should be planned with consideration of the health and age of draft animals, weather, staff availability and facilities, including the use of temporary or permanent sheds

5.2.4 Bleeding and infections from surgical wounds should be minimized by selecting an appropriate method

5.2.5 Draft animals which underwent surgery should be inspected regularly for signs of post-operative complications during the healing process, and appropriate action taken if and when needed

5.2.6 Castrated animals should be given a rest of atleast one week before they are put into work again

6. Transportation

Objective

To ensure transportations are appropriate to minimize the risk to the welfare of draft animals

6.1 Standards

6.1.1 A person responsible for transporting draft animals must ensure:

- transport time does not exceed 24 hours and
- animals are provided with an adequate rest period before commencing a new journey

6.1.2 A person responsible must ensure time off water does not exceed 24 hours during the transportation for all draft animals

6.1.3 A person responsible must ensure that the vehicles used for transportation of draft animals are designed as appropriate for the size and weight of the animals

6.1.4 A person responsible must ensure the use of secure and smooth fittings which are free of sharp protrusions to avoid injury to both animals and handlers during transport

6.1.5 A person responsible must not transport advanced pregnant, sick or injured draft animals

6.1.6 A person responsible must not transport draft animals by tying or tethering the animal to a moving vehicle and forcing it to walk or run alongside the vehicle

6.2 Guidelines

6.2.1 Adequate planning should be made prior to transportation of draft animals including animals to be transported, vehicle, animal handlers, feed and water and necessary documents to accompany

6.2.2 Draft animals should be inspected prior to intended journey to assess the fitness of the animals for transport

6.2.3 Vehicles should have adequate space and ventilation to minimise risk of heat stress and or injury of draft animals during transport

6.2.4 Vehicles should have appropriate bedding materials and the flooring surfaces should be designed to maximize grip and minimize slipping and falling

6.2.5 Draft animals to be transported should be segregated by appropriate internal partitions to minimize the risk to the welfare of transporting animals. Segregation should consider species, age and level of aggression

6.2.6 Vehicle drivers and handlers should ensure that the animals are properly loaded before the start of the intended journey

6.2.7 Drivers and animal handlers should be competent to transport the animals and ensure that the vehicle is driven smoothly and cautiously at all times of the journey

6.2.8 Draft animals should be transported only during favourable weather conditions. If it is unavoidable to transport during inclement weathers, necessary measures should be taken by the animal handlers to minimize the risk to welfare.

6.2.9 Journey time may be extended to 36 hours only if the animals have access to water and feed every 5 hours and the animals are fit for the remainder of the intended journey

6.2.10 Any animals which falls sick or gets injured during the journey should be immediately referred to the nearest animal health facility to receive necessary treatment and health care

6.2.11 Appropriate ramp should be used during loading and unloading of draft animals to prevent the likelihood of injury and the slope of the ramp aligning the vehicle should be about 20-degree angle

7. Humane culling/ euthanasia of draft animals

Objective

To ensure where it is necessary to cull/ euthanize draft animals which are diseased/ terminally ill, it is done safely and humanely to minimize the risk to their welfare

7.1 Standards

7.1.1	A person responsible must only use culling methods that result in rapid loss of consciousness followed by death while unconscious and cause minimal pain and suffering to the animal
7.1.2	A person responsible must have relevant knowledge, experience and skills to be able to humanely cull the terminally injured/diseased animals, or be under the direct supervision of a person who has the relevant knowledge/ experience/ skills
7.1.3	A person responsible must take reasonable action to confirm that the animal is dead after the culling/ euthanasia

7.2 Guidelines

7.2.1 Culling/ euthanasia of draft animals should apply only in cases of terminally injured, sick or diseased animals which otherwise cannot be treated and recovered

7.2.2 Culling/ euthanasia should be done in a safe, secluded and quiet environment

7.2.3 Culling method should be done humanely using stunning by captive bolt device followed by bleeding or use of any recommended chemical agents

7.2.4 Draft animals should be properly restrained prior to stunning and culling. However, if restraint is likely to cause significant stress or further injury to the animal, the animal handler should use their better judgement

7.2.5 Disposal of the carcass should be done by deep burial and covered appropriately to prevent access by scavenging animals

7.2.6 The disposal site should be at an appropriate distance from the human settlement and also avoid contamination in the catchment areas

END OF DRAFT ANIMAL STANDARDS AND GUIDELINES

WELFARE STANDARDS AND GUIDELINES FOR COMPANION ANIMALS

1. Food and water

Objectives

To ensure companion animals have access to food and water to minimize the risk to their welfare

1.1 Standards

1.1.1 A person responsible must ensure that the companion animals have continuous access to drinking water that is palatable, not harmful to health and available in sufficient quantities to meet their needs

1.1.2 A person responsible must ensure that all companion animals are provided with adequate food and nutrients relative to their species to enable each animal to:

- maintain good health
- meet its physiological demands (during pregnancy, lactation, growth, exercise and varying weather conditions)
- avoid metabolic and nutritional disorders

1.2 Guidelines

1.2.1 Companion animals should be provided with adequate food given at proper intervals of at least two times a day

1.2.2 Companion animals should be provided with a balanced diet. The diet provided should be based on different physiological conditions of the animals like pregnancy, lactation, body weight, age, disease condition, level of physical activities and prevailing weather conditions

1.2.3 Young ones under four months of age must be fed at least three times daily and they should not be kept without food for more than 12 hours

1.2.4 Young ones from four to six months of age should be fed at least twice daily

1.2.5 Companion animals of different breeds, age and sizes that are co-housed together must be monitored during feeding to ensure that each individual animal is able to eat sufficient food to meet their physiological needs

1.2.6 During hot weather, persons responsible for companion animals should ensure they have adequate access to water at all times

1.2.7 Food and water containers should be removed, cleaned and replaced immediately if found to be contaminated or spoiled

1.2.8 Spoiled and stale food should never be fed to companion animals and instead disposed-off immediately

1.2.9 Major changes in diet should be introduced gradually over an appropriate length of time to minimize the risk of digestive upset

1.2.10 Food and water containers should be readily accessible, and be positioned in such a manner as to avoid spillage or contamination by urine or faeces

1.2.11 Food preparation area should have a sink with hot and cold running water and a refrigerator

1.2.12 Food should be stored/ sealed in rodent-proof containers and food preparation areas should be kept as clean as if they were being used for humans

2. Shelter

Objectives

To ensure companion animals are provided appropriate shelter from extreme weather conditions and prevent possible trespassing and depredation of properties

2.1 Standards

2.1.1 A person responsible must ensure that the shelter for companion animals is designed and constructed in such a way as to minimize the exposure to adverse weather conditions and predators

2.1.2 A person responsible must ensure that shelter or housing is designed, constructed, and maintained such that it:

- provides for the good health and welfare of the animals
- minimizes the risks of transmission of infectious agents
- minimizes the risk of injury
- prevents the escape of animals and
- enables security against access from unauthorized people

2.1.3 A person responsible must ensure that animals which are incompatible in size, behaviour and temperament are not housed together in an enclosure

2.1.4 A person responsible must ensure that the sleeping areas are clean, hygienic and provide dry bedding to prevent thermal or other physical discomfort

2.1.5 A person responsible must ensure that the space provided by shelter/ enclosure adequately provides for the needs of the companion animal

2.1.6 A person responsible must ensure that animals in the shelter are cared for by a sufficient number of personnel, who possess the appropriate ability, knowledge and competence necessary to maintain their health and welfare

2.2 Guidelines

General considerations

2.2.1 The companion animal shelter/ house should provide for the thermal comfort of the animal at all times

2.2.2 The resting area should be comfortable with provision of a clean, dry bedding with no sharp edges

2.2.3 The floor area should be kept clean and dry. The floor should be cleaned at least once a day

2.2.4 There should be adequate space for the movement of animals and to express their natural behaviours

2.2.5 There should be provision of proper drainage for cleaning and disposal of waste

Private housing

2.2.6 Portable crates and the crawling spaces under a dwelling should not be used or treated as permanent housing for companion animals

2.2.7 Pet animals such as dogs and cats living together with their owners inside a house should be provided with a comfortable and clean bedding area to rest and/ or sleep on

2.2.8 Pet animals such as dogs which are kept outside the house should be provided with a house to rest, sleep and be protected from adverse weather conditions. The house should be big enough for the animal to comfortably turn, lie down or stand with proper roof cover and ventilation

Shelter housing

2.2.9 Animal housing should be fitted with a secure closing device that cannot be opened by the animals kept inside

2.2.10 Animal housing which is enclosed should be provided with ventilation which is sufficient to keep the area free of foul odours and dampness to maintain animal health

2.2.11 Enclosures in which dogs are ordinarily housed should meet the minimum enclosure specifications shown in Table 1 below. These are not applicable to dogs being transported or dogs under veterinary care receiving treatment

Table 1: Minimum enclosure size for different classes of dogs

Height of dog at shoulder	**Min floor area (m^2)***	**Min height (cm)****	**Min width (cm)**	**Maximum number of dogs**	**Increased floor area for each additional dog (m^2)**
Per dog (over 16 weeks of age) or up to 4 puppies under 16 weeks					
<40cm	1.5	180	90	1	1.0
40-60cm	2.4	180	100	1	1.2
>60cm	3.5	180	120	1	1.7
	Min floor area (m^2)*	**Min height (cm)****	**Min width (cm)**		**Increased floor area for each pup 8-16 weeks (m^2)**
Bitch with pups up to 8 weeks of age	3.5	180	120		0.4

**Minimum floor area includes the area allocated to bedding*

***Minimum height applies if the enclosure is roofed*

Reference: Adopted from discussion paper - proposed animal welfare standards for dogs, Department of Primary Industries, Tasmanian government, Australia, 2013.

2.2.12 For efficient operations, an animal shelter should ideally have the following provisions:

Floor

- it should slope toward drains to prevent the accumulation of water in the runs
- it should be made of concrete that has been sealed (making it nonporous) or some other nonporous material, such as sealed tiles that can be easily cleaned and disinfected
- it should not be slippery to avoid stress and injury to both the animals and caretakers

Wall

- walls between compartments should be solid from the floor to at least 1 metre (or more for larger animals) to prevent nose-to-nose contact through the mesh and the spread of diseases
- walls should prevent water and waste material from flowing from one room/ compartment to another

Drainage

- drainage and plumbing should be adequate to handle the heavy load of daily cleaning
- drainage for each run and the quarantine area should prevent cross-contamination of other runs by urine or faeces

Heating, Cooling and Ventilation

- ideally, heating, cooling and humidity-control systems should be used for the comfort of the animals, the staff and the visiting public
- a means of circulating the air should be in operation, even if this is just through use of simple electric fans
- comfortable temperatures should be maintained to provide for the health and welfare of the animals, as appropriate to the species. For this, a thermometer should be installed in areas best suited to monitor temperature changes

Lighting

- the duration and intensity of internal lighting should be as close as possible to natural conditions
- care should be taken to ensure that lights do not cause excessive heat and discomfort to the animals
- lighting should be installed safely and securely, and be inaccessible to animals

3. Handling and Management

Objectives

To ensure companion animals (including stray animals) are handled and managed in an appropriate manner to minimize the risk to their welfare

3.1 Standards

3.1.1 A person responsible for the handling and management of companion animals must consider and uphold the following needs of these animals:

- physiological needs – e.g. food and water, appropriate temperature/humidity, air and light conditions, shelter from environmental conditions
- social needs – preference for living in solitude, in pairs or in groups
- psychological needs – appropriate stimulation and activity to prevent boredom/ frustration
- environmental needs – suitable home, space and territory
- behavioural needs – e.g. climbing, digging and scratching along with interactions with carers/ owners

3.1.2 A person responsible must handle all companion/ stray animals with proper care to prevent them from unnecessary pain or distress. He/she must not:

- lift the animal off the ground by its head, ears, neck or tail
- strike, punch or kick the animal in any manner
- drag the animal that are not standing except in emergency cases but ensuring the animal is not injured or in pain during the process
- deliberately harm the animal in any manner

3.2 Guidelines

General

3.2.1 The person responsible should ensure companion/ stray animals are handled in a careful manner without causing undue stress or pain

3.2.2 Companion animals should be regularly inspected for signs of disease, injury and abnormal behaviour

3.2.3 Companion/ stray animals should not be subjected to any activity which might inflict physical or mental trauma

3.2.4 When training a companion animal, positive reinforcement in the form of rewards (e.g. treats, petting, toys or playtime) should be used rather than punishment (e.g. hitting, scolding, isolation).

3.2.5 Companion animals should be provided with environmental enrichment based on their individual needs (which can differ significantly with age, species, physiological status, rearing conditions, special needs etc) to ensure good health

3.2.6 Proper record of all the animals should be maintained. Ideally individual records should be maintained for different animals

3.2.7 Different categories of animals should be segregated in terms of species, breeds, age, sex, physiological conditions, temperament and health

3.2.8 Handling techniques or equipment deemed suitable for one situation or animal may not be appropriate for another. Each situation should be evaluated individually and each piece of equipment assessed for its potential to cause harm or increase stress

3.2.9 Additional care and attention should be given when handling young ones, pregnant, injured, lame or sick animals

Restraint, leashing and tethering

3.2.10 Owners/ carers should ensure that the companion animal, especially dogs are kept within their compounds and if taken outside, should be appropriately leashed

3.2.11 The leash and collars should be of suitable material and appropriate length to avoid causing injury and to allow the animals to move freely

3.2.12 If physical restraint of a companion/ stray animal is deemed necessary, the duration and intensity of restraint should be kept to the minimum

3.2.13 Companion/ stray animals should not be tethered to a stationary or moveable object in a manner that endangers them of hanging resulting in suffocation and death

Utility Dogs

3.2.14 Utility dogs should not be worked for more than 8 hours in a day

3.2.15 Utility dogs should be provided with a monthly health check up by a competent veterinary health professional

3.2.16 Utility dogs should not be put to work when sick or injured and should only resume work upon the advice of a competent veterinary health professional

3.2.17 Utility dogs should not be put to work if they show signs of abnormal behaviour or appear stressed

3.2.18 Utility dogs should be provided with a standard run area where they can move freely and exercise

3.2.19 Once reaching nine years of age, utility dogs should be retired and no longer put to work

3.2.20 The dog-handler should be well trained and certified from a recognized animal training institute

3.2.21 When working utility dogs in public places, the dog handler should take all necessary actions to ensure the safety and welfare of the dog, in addition to the safety of the public

Dog Shows

3.2.22 Dogs should not be trained continuously for more than one hour without a break

3.2.23 If dogs are collared or leashed, this equipment/material should not be heavy, abrasive, pointed/ sharp or excessively tight

3.2.24 Dogs should not be exposed to extreme weather conditions and adequate shelter should be provided

3.2.25 Dogs should not be decorated and/ or colored in an unreasonable manner

3.2.26 Surgical modifications as listed in 4.2.7 should not be performed

4. Animal health and veterinary care

Objectives

To ensure the companion animals have access to Veterinary care whenever necessary to maintain their health and minimize the risk to their welfare

4.1 Standards

4.1.1 A person responsible must ensure special attention and care is given to minimize risks to the health and welfare of companion animals which are:

- under 4 months of age
- in the last week of pregnancy
- lactating or
- recovering from illness or injury

4.1.2 A person responsible for the health and welfare of companion animals must be knowledgeable and able to identify abnormal behaviour or condition. Observations of the following activities must be made (but not be limited to):

- eating
- drinking (including suckling of milk)
- defecation
- urination
- behaviour
- physical movement
- coat condition

4.1.3 A person responsible must promptly report any adverse changes in the health status of companion animals to the nearest animal health center for appropriate action

4.1.4 A person responsible must ensure appropriate treatment is provided to sick and or injured companion animals at the earliest opportunity

4.1.5 A person responsible must ensure companion animals suspected of having infectious or unidentified illness are kept separately in an isolation room

4.1.6 A person responsible must ensure companion animals, whether privately owned or under the care of an animal shelter are vaccinated against Rabies and other infectious disease as recommended by animal health center and dewormed against important zoonotic parasites

4.1.7 A person responsible for companion animals must ensure that they are registered with the nearest authorized animal health center

4.2 Guidelines

4.2.1 Companion animals should be taken to the nearest animal health center for a routine health check-up at least twice a year

4.2.2 The owners/ carers should be able to differentiate between healthy and unhealthy behaviour of the companion animals and subsequently seek veterinary intervention if deemed necessary

4.2.3 Any observed infection, injury, wound or parasitic (internal and external) infestation should be treated as soon as possible and appropriate control measures implemented to minimize the risk of future occurrences

4.2.4 Companion animals should receive vaccinations and deworming against important diseases

4.2.5 Companion animals should be identified by use of appropriate identification system such as microchip or other available and approved devices

4.2.6 Companion animals (kept as pets) should be spayed/ neutered unless registered for breeding

4.2.7 Companion animals should not be subjected to any of the body modifications which involves (but not limited to):

- ear cropping
- tail docking
- devocalization/ de-barking, especially in dogs
- de-clawing in cats
- tattooing
- body painting
- canine tooth trimming

4.2.8 In case of vehicular injury (either accidental or otherwise), the driver or responsible person should take the animal to the nearest animal health center to seek emergency care

4.2.9 In circumstances where the owner of the animal is not traceable, the animal health professional should initiate necessary treatment in the interest of the animal without having to delay the treatment by waiting/ looking for the owner

4.2.10 If the owners are unable to provide adequate care for their pets, the pets should be handed over for adoption or to the animal welfare shelter to be looked after

5. Breeding management

Objectives

To ensure that companion animals used for breeding are managed in accordance with standard breeding procedures to minimize the risk to their welfare

5.1 Standards

5.1.1 A person responsible must ensure that the welfare of the companion animal is not compromised during breeding (mating, birthing and nursing)
5.1.2 A person responsible must ensure that companion animals are physically and mentally fit and free of diseases during the time of mating
5.1.3 A person responsible must not breed the companion animal if it is suspected of suffering from any health problems

5.2 Guidelines

Suitability for Breeding

5.2.1 A 'Fit to Breed Certificate' should be obtained from an authorized animal health center to ensure the companion animal is suitable for breeding (for commercial purpose)

5.2.2 A companion animal should not be bred under following circumstances:

- before attaining 12 months of age
- more than five times in her lifetime
- more than once in a year
- where there are incompatibilities between the male and female in terms of species and size
- if it is suspected of suffering from any health problems
- if it shows high level of aggression or mental instability
- been shown to display poor maternal instincts
- has a history of dystocia/ abortion/ miscarriage
- has a history of genetic diseases (e.g. hip dysplasia)

Breeding and Birthing

5.2.3 During mating and birthing, the animal should be undisturbed, remotely monitored and provided assistance only where necessary

5.2.4 The companion animal should be given special attention during the final two weeks of the pregnancy

5.2.5 A proper birthing area with clean and appropriate bedding should be provided

5.2.6 Adequate space should be provided to ensure comfortable movement of young ones and the mother

5.2.7 Continuous access to clean and safe drinking water as well as adequate source of clean food should be provided to the mother

5.2.8 Regular inspection of the young ones as well as the mother should be carried out to ensure they are healthy. Any poor health conditions should be attended to or referred to the nearest veterinary health center as soon as possible

Young ones

5.2.9 A person responsible should ensure that all young ones are suckling the first milk produced by the mother

5.2.10 Young ones should be periodically monitored to ensure that they are not accidently trampled or injured by the mother

5.2.11 The young ones should not be weaned before six weeks of age unless it is in the interest of the young one or the mother

5.2.12 Additional care and attention should be given to orphans

5.2.13 The first solid food should be given under strict supervision and monitored accordingly for change in body weight gain

5.2.14 Young ones should be given deworming medicines and vaccinations as advised by the competent animal health professionals

5.2.15 Young ones should be taken for periodic consultation with a competent animal health professional to check and screen for any diseases

5.2.16 Sick young ones should be isolated from the rest of the litter to minimize the risk of disease transmission and proper treatment and care given as needed

5.2.17 Young ones should never be abandoned based on the appearance, behaviour and/ or breed quality

Sale

5.2.18 Prior to sale or re-homing, young ones should be de-sexed (except those identified for breeding purposes) with proper identification

5.2.19 The sale of young ones should be accompanied with all necessary documents including details of parents, details of the animal being sold, their medical conditions if any, proof of vaccination and de-worming

5.2.20 Young ones should only be sold once they are of suitable weaning age (minimum 8 weeks) and have been appropriately weaned from their mother

6. Responsible Pet Ownership

Objective

To ensure pet owners are responsible for the proper care and management of their pets to minimize risk to their welfare

6.1 Standards

6.1.1	A person responsible must ensure all pets are registered and vaccinated against Rabies with the local animal health center
6.1.2	A person responsible must confine pets within their premises and must not allow them to stray or trespass into public/ private properties
6.1.3	A person responsible must leash their pets when they are taken in public places
6.1.4	A person responsible must ensure that the pets which are known to be aggressive are appropriately muzzled and leashed in public places to prevent harming people and other animals

6.2 Guidelines

(Adopted from American Veterinary Medical Association "Responsible Pet Ownership Guidelines")

6.2.1 Responsible pet ownership should ideally fulfill the following responsibilities:

- provide dedicated care, management and companionship throughout the life of the pet
- keep only the type and number of pets for which they can provide appropriate food, water, shelter, health care and companionship
- provide proper identification (microchip or collar or tags)
- prevent indiscriminate breeding and manage overpopulation by controlling their pet(s)' reproduction through breeding management including spay/ neuter
- ensure regular preventive (vaccinations/ parasite control) and therapeutic health care of their pets
- provide socialization and appropriate training for the pet(s) to facilitate their well-being as well as other animals and people
- prevent from negatively impacting other people, animals and the environment through proper waste disposal, noise control, and not allowing pet(s) to stray or become feral
- ensure the pet wastes (feces) are collected and disposed-off in a designated disposal bin/ area if it's in public area
- make provisions for routine exercise, mental stimulation and environmental enrichment appropriate to the pet(s)' age, breed, and health status
- include their pet(s) in the planning for an emergency or disaster
- make necessary arrangements for the care of pet(s) during the owner's absence
- ensure the pet is properly accustomed to the new environment and not neglected during the transfer of ownership

7. Transportation

Objective

To ensure that there is minimum risk to the welfare of companion animals during their transportation

7.1 Standards

7.1.1	A person responsible for the transportation of companion animals must take reasonable actions to minimize the risk of injury, pain, distress and undue suffering throughout the process of transportation
7.1.2	A person responsible must make necessary arrangements to minimize the length of time companion animals are transported and restricted from accessing feed and water
7.1.3	A person responsible must not transport any animal that is unfit for travel
7.1.4	A person responsible must ensure that companion animals are transported in a manner appropriate for their size, age and physiological status
7.1.5	A person responsible must ensure that incompatible animals are separated by a physical barrier during transport to prevent from harm or distress
7.1.6	A person responsible must ensure that the dogs are properly tethered or restrained when on the back of a moving vehicle or trailer, in a manner that prevents the dog from falling, hanging off the vehicle or being injured
7.1.7	A person responsible must ensure that vehicles used for transport have provision for adequate ventilation and shade to ensure good health and to avoid stress
7.1.8	A person responsible must ensure that companion animals are not left unattended in the vehicle during extreme weather conditions such as severe heat and cold

7.2 Guidelines

7.2.1 Prior to transportation, animals should be assessed by a competent person to confirm that they are fit to travel in the intended journey by getting a 'Fit to Travel' Certificate from the local Animal Health Centre

7.2.2 Companion animals should be accompanied with all relevant documents (such as registration, vaccination status) when transported between districts/ dzongkhags

7.2.3 A person responsible should provide safe and appropriate 'pet carrier' with provision for clean drinking water and food

7.2.4 A person responsible should ensure that the 'pet carrier' should:

- have enough space for movement and comfortable resting
- have adequate ventilation
- have easy and safe access for handlers
- avoid carrying any heavy load along with the pet carrier
- not carry more than one animal in the pet carrier

7.2.5 The duration of the journey should be limited to 8 hours per day. After which the animal should be fed, provided with drinking water and well rested.

7.2.6 A companion animal should not be transported if it is sick, unless transported for emergency treatment or recommended by the competent animal health authority

7.2.7 Pets should not be transported during the last trimester of their pregnancy or four weeks after delivery

7.2.8 Any vehicle transporting companion animals in large number should:

- be free from protrusions or sharp edges in the carrying area
- have non slip floors
- provide easy and safe access for handlers
- be well equipped to provide and maintain the thermal comfort
- protect against possible escape

7.2.9 Vehicles used extensively for the purpose of transportation should be cleaned between consignments of animals and appropriate measures taken to minimize the transmission of infectious disease agents

8. Euthanasia

Objectives

To ensure that the companion animals are euthanized humanely to minimize the risk to their welfare

8.1 Standards

8.2.1	A person responsible must ensure that companion animals suffering from severe distress, disease or injury that cannot be reasonably treated are humanely euthanized at the first reasonable opportunity
8.2.2	A person responsible must ensure that euthanasia is carried out only under the following conditions/ circumstances: • terminal illness with no scope of recovery • extensive traumatic injuries/ wounds which cannot be repaired and is a significant welfare concern • complete paralysis of all four limbs resulting in poor quality of life • senility leading to deterioration of major bodily functions resulting in severe impairment of the quality of life
8.1.1	A person responsible must have the relevant knowledge, experience and skills to be able to humanely euthanize companion animals or be under the direct supervision of a person who has the relevant knowledge, experience and skill
8.1.2	A person responsible must ensure only acceptable methods of euthanasia are used. The recommended method for companion animals is intravenous administration of a standard chemical drug recommended by a veterinarian
8.1.3	A person responsible must not employ unacceptable methods of euthanizing companion animals. This includes (but is not limited to) drowning, poisoning, strangulating or gassing

8.2 Guidelines

8.2.1 A Veterinarian with appropriate training and expertise should be consulted to evaluate and verify the condition of the animal before euthanasia is carried out

8.2.2 Any method used for euthanasia should quickly induce loss of consciousness followed by death, while ensuring the death is free from pain, distress, anxiety, or apprehension as far as possible

8.2.3 Prior to administration of euthanasia agent, animals which are aggressive, frightened or distressed should be properly sedated

8.2.4 After euthanasia, death should be verified by a competent person before the animal's body is disposed off

8.2.5 After euthanasia the owner or the registered shelter management should be advised on the proper disposal of the carcass to prevent contamination and potential spread of disease

END OF COMPANION ANIMAL STANDARDS AND GUIDELINES

GLOSSARY

animal welfare	the state of an animal and how well it is coping with the conditions in which it lives
appropriate feed or water	feed or water that is clean, safe and suitable for the species and class of animal
backing board	plastic/ wooden board which is used to safely handle, move and load the animals
bleeding out	loss of blood caused by cutting the major blood vessels, usually in the neck
beak trimming	a procedure performed (using specialized equipment) to remove the tip of a bird's beak resulting in a blunt or rounded end
boar	uncastrated male pig used for breeding
body condition score	describes the relative fatness or body condition of an animal through the use of a five-point scale
bullock	a male domestic bovine that has been castrated and raised for draft purpose
breeder (chicken)	parent stock of commercial broilers/layers
broiler	a chicken raised for meat
brooding environment	the provision of adequate feed, water, heat and bedding for chicks that are not yet able to regulate their body temperature
castration	the removal or disruption of the function of the testes by excision, or by constriction and/ or crushing of the testicular blood supply
cattle	all members of the genus *Bos* (including domesticated cattle, yaks including buffalos)
companion animal	any animal that lives with humans as a companion and is dependent on humans for its welfare such as dogs and cats
catchment area	an area from which water drains into particular lake or river
class	a group of livestock species defined by age, size or sex
crop fill checks	the process of feeling the chicks crop for presence of feed and or water
culling	removal of an animal from the herd or flock through selective killing during disease outbreak
dehorning	the process of removing the horns from the head of cattle once they have become attached the skull
disbudding	removal of the horn bud in young calves before it has become attached to the skull

dog show	a gathering of animals and their owners/handlers for the purpose of exhibition, judging and/or interaction with others
draft animal	any domesticated equine species (horse, mule and donkey), yaks or bullocks which are used for agriculture, transportation leisure and/ or income generation activities
drought	a severe feed and/ or water shortage following prolonged periods of abnormally low rainfall not expected in the seasonal cycles
emergency	a time where the animal welfare or human safety may otherwise be compromised
enclosure	designed specifically to enclose animals (e.g. kennel, cage, pen etc)
euthanasia	a humane, painless and rapid death aimed to end the pain and suffering of the animal
exsanguination	killing an animal by draining the blood
farrow	process of giving birth to pigs
farrowing crate	a small, metal-barred enclosure not much bigger than the sow's body size, where they are confined to farrow and up to the end of weaning
feather pecking	pulling out of feathers and or pecking around the vent area of flock mates, which can often lead to cannibalism
feed supplement	foodstuffs that supplement the normal diet to provide additional nutrients
flight zone	the flight zone is the distance within which a person can approach an animal before it moves away
gilt	female breeding pig who has not yet been mated or given birth to a litter of piglets
handing	activities including grooming, soft patting/ stroking, picking the animal up, turning the animal over, inspection or performing health examination activities and providing exercise, enrichment and human socialization
heat stress	when the response by animals to hot conditions is above their thermo-neutral limit (heat load) exceeds the ability of their behavioural, physiological or psychological coping mechanisms
herding instinct	the act of forming/ staying/ moving in a group
induced calving	the process of stimulating a cow to calve before the natural full term period of gestation, usually by administering hormones
induced molt	a practice that involves altering the environment inside the shed to force birds to shed their feathers, usually involving dietary restriction or changes to the lighting program

inspection	visual and or physical check of the health and welfare of an individual animal or group (herd/flock)
isolation	keeping sick animals separately from healthy ones to prevent spreading of infections
layer hen	a female chicken of egg laying age
leisure	it implies to use of draft animals for local sporting events or entertainment purposes
load	things or any goods (including human) carried by draft animals
muzzle	device used to cover the mouth and nose of the animal
operation (cattle, pig, poultry)	a farm, facility or business involved in the handling of live cattle, pigs or poultry including commercial farms, breeding farms, hatcheries, processing facilities, transporters etc
person responsible	any individual involved in the care and management of animal including the owner, farm manager, shelter incharge, researcher, transporter
pet	a domesticated or tamed animal, such as cats and dogs kept for companionship
pithing	physical destruction of the brain via inserting a rod or wire into the brain through the hole made from penetrative captive bolt
private housing	housing in the premises of the owners
shackling	the process of hanging a bird upside down by its shanks on metal shackles prior to electrical water bath stunning
shelter housing	housing in a registered animal shelter or a commercial breeding setup
SOPs	Standard Operating Procedures
slaughter	procedure which causes death of animals, intended for consumption
sow	female breeding pig who has given birth to at least one litter of piglets
sow stall	a small, metal-barred crate not much bigger than the sow herself used to individually house sows during pregnancy
stunning	the act of causing rapid loss of consciousness prior to killing
restraint device (poultry)	a device used to restrict movement of poultry prior to killing e.g. killing cone
tail docking	removal of a portion of an animal's tail
take off	the process of removing newly hatched chicks from the hatching machine

tether/ tethering	securing of an animal to an anchor point to confine it to a desired area with a rope or similar object
third trimester	final stage of pregnancy in an animal which usually comprise of last three months
utility dogs	the class of dogs which are used to perform specific function (which does not include sporting and working activities)
weaning	the process of gradually transitioning a piglet or calf from a diet of complete milk or liquid to eating solid feed
yoke	a wooden cross piece that is fastened over the necks of bullock and attached to the plough
yoke gall	localized acute inflammation of skin and sub-cutis on the neck of bullocks due to constant friction caused by the yoke
rest period (for draft animals)	the time period during which the draft animals are not put to work

END OF GLOSSARY

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Department of Livestock
Ministry of Agriculture and Forests
Thimphu, Bhutan