

Environmental Guideline on livestock rearing including cattle, goat and sheep (up to 20 cattle heads, 50 goat heads and 50 sheep heads)



Department of Environment

The purpose of this environmental guideline is to provide guidance to prospective developers to start livestock farming on the basis of self-adherence and to assist Local Authorities at the Building and Land Use Permit stage.



1.0 Background

Livestock farming involves the rearing of cattle, sheep and goat essentially for the production of meat, milk and manure. This activity is associated with several environmental impacts and sanitary nuisances which need to be mitigated through good husbandry practices and a proper farm management to avoid any inconveniences to the surrounding environment.

Major issues of environmental concern relate to:

- Zoning and site selection
- Solid waste
- Odour and sanitary nuisances
- Wastewater
- Health and safety aspects
- Energy and water consumption

2.0 Objectives of the guideline

This guideline is meant to ensure that prospective developers:

- adopt appropriate mitigation measures to safeguard the environment.
- comply with provisions of relevant laws/ regulations/standards.
- adopt eco-friendly practices to optimize use of resources.

3.0 Applicable Legislation

Livestock rearing including cattle, goat and sheep (up to 20 cattle heads, 50 goat heads and 50 sheep heads) does not warrant a Preliminary Environmental Report (PER) Approval. It requires a Building and Land Use Permit (as applicable) and a Trade Permit under the Local Government Act 2011. Livestock rearing has to be carried out in accordance with the provisions under the Planning Policy Guidance and Outline Planning Scheme.

Note:

- 1) *Any proposed development must comply with relevant provisions of the Local Government Act 2011, the Town and Country Planning Act 1954, the Building Control Act 2012, the Planning and Development Act 2004, as subsequently amended and all applicable guidelines and regulations.*
- 2) *“Rearing of more than 20 cattle heads, 50 goat heads and 50 sheep heads” warrants a Preliminary Environmental Report (PER) Approval.*

4.0 Location and siting

- The site shall be located at least 200 m away from settlement boundaries, sensitive land uses (schools, dispensaries, hospitals) any domestic borehole and slaughter house.
- The site shall be located in agricultural land and outside irrigation zones.
- Livestock farms should not be located within any Environmentally Sensitive Area (ESA) and its prescribed buffer zone as per ESA Study 2009 such as wetland, steep slope and in areas that are likely to be affected by hazards such as inland flooding, landslide and storm surges, amongst others.
- On site wastewater disposal facility such as septic tanks and absorption pits/leaching fields should be located not less than 30 m from any water course as per Rivers and Canals Act 1863.
- Existing natural drains and watercourses should not be tampered with on or in the vicinity of the site .

5.0 Mitigation of Environmental Impacts

5.1 Solid waste management

Livestock farms may generate domestic waste, bedding waste, waste feed, manure, packaging waste (feed, pesticides, insecticides and cleansing material), spoilt milk, unused/spoilt medications. These wastes require proper handling and disposal to avoid any impacts on the surrounding environment and sanitary nuisances such as odours, flies, rodents and pests.

5.1.1 Livestock bedding waste

Improper management and disposal of bedding waste contribute to odour and sanitary nuisances. Run offs from washing may contaminate surface and groundwater resources.

Mitigating measures include:

- Bedding from cleaning of the sheds shall be regularly collected and composted in a watertight pit before reuse (as fertilizers/manure) as per the recommendations of the Ministry of Agro Industry and Food Security.

5.1.2 Manure Management

Improper management of manure may contribute to odour and sanitary nuisances. Ammonia and other odour causing agents may impact on air and human health.

Mitigating measures include:

- Manure should be collected daily and carted away to a dedicated covered and/or roofed manure storage area with concrete floors for drying prior to transportation offsite as soil amendments/composting.
- Manure may also be used for production of biogas.
- Manure storage area should be located away from any water body.

5.1.3 Disposal of Dead Animals

Improper disposal of dead animals contributes to odour and sanitary nuisances attracting flies, rodents, pests, disease vectors. They may contaminate surface and ground water resources. Thus, they need to be properly disposed of to minimize impacts on environment and human health.

Mitigating measures include:

- All dead animals should be disposed of by deep burial with the application of quick lime in a dedicated site within farm premises to the satisfaction of the Sanitary Authority and the Ministry of Agro-Industry and Food Security.
- The burial area should have stable and low permeability soils.
- The setback between burial site and water courses/bodies should be to the satisfaction of the Sanitary authority and Water Resources Unit

5.1.4 Other solid wastes

Other wastes normally include domestic wastes, packaging wastes and feed wastes. These wastes also require proper handling and disposal as they may give rise to sanitary nuisances such as odours, flies, rodents and other pests.

Mitigating measures include:

- Solid wastes should be regularly collected in bins or waste handling receptacles and disposed of to the satisfaction of the Local Authority.
- Plastic bottles/containers used for vaccination should be disinfected and disposed of to the satisfaction of the Local Authority.
- Proper storage and handling of feed – feed should be kept in a dry and properly aerated store that is free from rodents, flies and pests to prevent spoilage.
- Minimal spillage during loading, unloading, storage and feeding.
- No waste of any type should be disposed in any watercourse including drains and canals.

5.2 Odour and sanitary nuisances

5.2.1 Odour management

Odour may be released from bedding/litter, manure and decomposing dead animals all of which require proper handling and storage to minimize nuisances on the surrounding environment.

Mitigating measures include:

- The farm premises should be kept clean and tidy at all times with good housekeeping.
- Proper handling, storage and disposal of manure, litter/bedding, dead animals and other materials.
- Manure should be stored in sheds with proper ventilation.

5.2.2 Sanitary nuisance (flies, rodents and pests)

Flies, rodents and pests are associated with manure, waste feed, animal droppings/litter, dead animals all of which require proper handling to minimize nuisances on the surrounding environment.

Mitigating measures include:

- The farm premises should be kept clean and tidy at all times with good housekeeping and husbandry practices.
- Proper handling, storage and disposal of manure, litter/bedding, carcasses and other materials.
- Frequent collection of manure/litter and storage of same under dry conditions in a dedicated covered and/or closed area, pending transportation offsite.
- Provision of wire nettings, traps, insecticides and pesticides to render the farm rodent and fly proof.
- Provision of a good drainage network to avoid water stagnation.

5.3 Wastewater Management

Wastewater from livestock farms arises from washing and cleaning of sheds. They may contain residual amount of droppings and waste feed. They therefore require proper handling and management to avoid impacts on the surrounding environment and any form of sanitary nuisances.

Mitigating measures include:

- Wastewater from washing and cleaning should be disposed of to the satisfaction of the Wastewater Management Authority.
- The litter should be scraped prior to flushing the sheds with water.
- No wastewater should be discharged either on the surface of the ground or into any watercourse.

5.4 Health and Safety Aspects

Livestock are susceptible to diseases and necessary measures should be taken to reduce the incidence of disease.

Mitigating measures include:

- Farmers should hire the services of the Veterinary Services to ensure that the animal is in good health conditions.
- Workers should be aware of proper livestock care so as to avoid incidence of physical injury and disease.
- Workers should ensure the implementation of biosecurity measures with control of farm animals, equipment, personnel and wild or domestic animals entering the facility.
- Sick animals should be segregated with proper established management procedures.

5.5 Other mitigating measures

- Necessary precautions should be taken to avoid disturbance to the neighbourhood by way of odour, dust, and noise.
- Livestock farms should be properly designed to the satisfaction of the Food and Agricultural Research and Extension Institute and should not be visually intrusive to impact on the landscape.
- Necessary precautions should be taken to avoid overgrazing and loss of vegetative cover to prevent land degradation.
- Provision should be made for adequate parking, loading and unloading facilities.
- Materials should be safely stored such as not to be intrusive in the street scene.
- Necessary measures should be taken for the evacuation of surface run-off so as not to cause flooding/water-logging of the site and adjoining areas to the satisfaction of the Local Authority.

5.6 Eco-friendly measures and sustainability

Prospective farmers are advised to adopt best environment friendly practices such as rain water harvesting for cleaning and washing purposes as well as irrigation of grazing land, solar PV for lighting and use of eco-friendly detergents and biodegradable products.

Note:

- The design of sheds, the stock density and vaccination to be as per the recommendations of the Ministry of Agro Industry and Food Security.
- All issues pertaining to bio-security risks should be to the satisfaction of the Veterinary Services of the Ministry of Agro-Industry and Food Security.
- Any unusual deaths and/or disease outbreaks should be immediately reported to the Veterinary Services of the Ministry of Agro-Industry and Food Security.
- No slaughtering activities should be undertaken on site.
- Relevant organizations need to be consulted including the Livestock Services of the M/Agro-Industry & Food Security with respect to any Land Conversion Permit

Copies of this guideline are available at the Department of Environment and on the website of the Ministry at <http://environment.govmu.org>; the government's portal at <http://www.govmu.org>, including the websites of Local Authorities.