

# Sectoral Guideline No. 2: Content of a Preliminary Environmental Report (PER) on Poultry Rearing above 15,000 birds (Revised)



**SEPTEMBER 2020**

**DEPARTMENT OF ENVIRONMENT**

This guideline is not a legal document. It serves as an environmental guidance and provides a template for the preparation of a comprehensive PER. Copies of this guideline are available at the Department of Environment and on the website at <http://environment.govmu.org>

## *Preface*

Preliminary Environmental Report (PER) is an approach to identify, evaluate and predict the environmental impacts of a proposed development or activity and enables the provision of appropriate mitigating measures to offset these impacts. It is therefore essentially based on the precautionary principle and aims at the protection of the environment at the very inception stage of a project. It should not be perceived as an obstacle for economic development.

The preparation of a PER document in a professional manner can be an intricate process in the absence of proper guidance. This sectoral guideline on the content of a PER concerns **Poultry Rearing above 15,000 birds** and is designed to assist proponents and consultants in the preparation of a comprehensive PER document. It is not exhaustive but provides the essential structure and the detailed requirements of the PER.

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## 1.0 INTRODUCTION

### 1.1 Background

Preliminary Environmental Report (PER) is a short form of an Environment Impact Assessment (EIA) and applies mostly for common projects which are of a less polluting nature. The PER document shall be in conformity with **Section 16 of the Environment Protection Act (EPA) 2002 (as amended)**.

Poultry rearing essentially involves the rearing of broilers for the production of meat and rearing of layers for egg production. It is associated with several adverse environmental impacts such as odour, solid wastes and wastewater disposal as well as proliferation of flies. It requires good husbandry practices and a proper farm management to mitigate the impacts on the surrounding environment. The siting of a poultry farm is a very important factor. No slaughtering activities are allowed on poultry rearing sites.

Under Clause 16 of the COVID-19 Act (2020), poultry rearing of **up to 15000 birds** does not require a PER approval. The activity has to be carried out in compliance with the self-adherence revised Environmental Guideline No.1 on Poultry Rearing up to 15,000 birds prepared by the Ministry of Environment, Solid Waste Management and Climate Change (MESWMCC). The above environmental guideline is available on the Ministry's website at <http://environment.govmu.org>.

The **rearing of poultry above 15,000 birds** is a listed undertaking under item No. 22 of Part A of the Fifth Schedule of EPA 2002, (as amended) and warrants a PER approval.

Application for a PER approval should be made on the National Electronic Licensing System (NELS) platform via <https://business.edbmauritius.org>. At time of application, one (1) hard copy of the PER document should be submitted at the Department of Environment (*Environmental Assessment Division, 2<sup>nd</sup> Floor, Ken Lee Tower, Barracks Street, Port Louis*). A processing fee of Rs. 3,000 is applicable at time of the application.

### 1.2 Objective of PER Guideline

The objective of this guideline is to assist proponents and consultants in the preparation of a comprehensive PER document that contains the necessary information, while addressing all the environmental aspects to enable a proper assessment. It also aims to encourage a consistent approach for a timely processing without the necessity to request for additional information.

***Note:** This guideline is by no means exhaustive and should be complemented with other relevant documents such as the Planning Policy Guidance (PPG) of the Ministry of Housing and Land Use Planning, Outline Planning Schemes of the concerned Local Authorities, guidelines on broiler and egg production of the Ministry of Agro- Industry and Food Security and the relevant acts and regulations.*

## 2.0 Site Selection Criteria

Prior to embarking on poultry rearing, due consideration has to be given to the site selection criteria which are as follows:

- (i) The site should not be located within a gazetted Irrigation Zone;
- (ii) The site should be at a minimum distance of 200m from the limits of settlement boundary, any nearest residential building outside settlement boundary and other sensitive land uses (including residential, education and health facilities); any domestic borehole and slaughter house;
- (iii) The site should be at least 200m from any slaughter house and any domestic borehole;
- (iv) Poultry houses, components of the poultry rearing activity (such as burial pits, amongst others) and on-site wastewater disposal facility such as septic tanks and absorption pits/leaching fields, should not be located at less than 30m from any watercourse, river and canal as per Rivers and Canals Act 1863.
- (v) The site should not be located within a priority quarry area for Mineral Resources and its 200m buffer zone from its quarry boundary. Rearing of poultry outside the 200m buffer zone and up to 1 km from a priority quarry boundary as well as within a potential mineral resource site and its 1km buffer shall be on a temporary basis, subject to necessary permits and licences being obtained from the relevant authorities.
- (vi) Poultry farms should not be located within any Environmentally Sensitive Area (ESA) such as wetland, steep slope and their prescribed buffer zones and in areas that are likely to be affected by hazards such as inland flooding, landslide and storm surges, amongst others.

**Note:**

- *The location of priority and potential quarry sites has been indicated in the Outline Planning Schemes and these are available at the Local Authorities.*
- *For land classified as Agricultural Land, as defined in the Sugar Industry Efficiency (S.I.E) Act, a Land Conversion Permit/Land Conversion Clearance from the Ministry of Agro-Industry and Food Security, is required.*

### **3.0 Structure and Contents of the PER**

The PER could be prepared according to the following proposed outline:

#### **Outline of a typical PER document**

- Cover Page
- Table of Contents
- Non-Technical Summary
- Chapter 1: Introduction
- Chapter 2: Policy, Legal and Administrative Framework
- Chapter 3: Site Description and the Surrounding Environment
- Chapter 4: Environmental Baseline Information
- Chapter 5: Project Description
- Chapter 6: Environmental and Other Impacts - Evaluation and Mitigation
- Chapter 7: Identification and Analysis of Alternatives
- Chapter 8: Conclusions
- Expertise of Consultant/Consultancy Team
- Appendices and Supporting Documents
- References

#### **Cover Page**

The cover page should clearly indicate:

- (i) The title of the proposed project, as stated in Part A of the Fifth Schedule of the EPA 2002 (as amended);
- (ii) Location of the project;
- (iii) Name of the proponent; and
- (iv) Date.

On a second page:

- (i) Contact details and address of the proponent;
- (ii) The person responsible with contact details: address, phone/mobile, email and fax number;
- (iii) The main Directors, the Company Registration Number/Business Registration Number;
- (iv) The team responsible for the PER, name of the consultant/s or consultancy firm, as applicable;
- (v) Qualification of consultant and expertise in the field; and
- (vi) Signature of the proponent or his duly appointed legal representative.

## Table of Contents

The Table of Contents should indicate the different chapters and sub-chapters with their respective page numbers. It should also indicate the tables, figures, appendices, acronyms among others.

## Non-Technical Summary

The Non-Technical Summary should provide a concise overview of the report in a simple language. It should be about one or two pages focusing primarily on the location, distance from sensitive land use, the scale, the main impacts associated with the project and measures envisaged to mitigate same.

## Chapter 1 - Introduction

The introduction should highlight the main features of the project, its objectives and justification. It should also encompass the project costs, experience in similar projects (if any), benefits, employment opportunities, the market for the broilers, eggs and manure, as well as the technical, economic and environmental features essential to the project. The consultant(s) should be fully versed in the subject matter with adequate experience in good husbandry practices, biosecurity aspects and mitigating measures to abate nuisances arising from animal rearing.

## Chapter 2 - Policy, Legal and Administrative Framework

This section of the PER should indicate compliance of the project with the relevant plans, policies, national laws, standards, guidelines and regulations, and the protection of sensitive areas and how these are being addressed. These include, inter alia:

- (i). The EPA 2002, the National Environmental Standards, Guidelines and Regulations;
- (ii). The Town and Country Planning Act, Planning and Development Act, Building Control Act, Wastewater Management Authority (WMA) Act, Public Health Act, Ground Water Act, Rivers and Canals Act, Central Water Authority Act, Local Government (Amendment) Act 2018, Local Government (Dumping and Waste Carriers) Regulations 2003, Forest and Reserves Act; and
- (iii). Planning Policy Guidance (PPG) and Outline Planning Schemes.

## Chapter 3 - Site Description and the Surrounding Environment

The site description should provide a detailed investigation of the site, the surrounding environment and the sensitivity of the site. It should include, inter alia, the following:

- (i) **Proof of land ownership:** Copy of Title Deed if the promoter is the owner of the land where the development is being proposed or where the proponent is not the owner of land, by a Lease Agreement or written registered evidence of the

authorisation of the owner, or a certificate issued by a notary expressing his opinion as to the owner's title.

- (ii) **Exact land extent and project location:** The site should be indicated on a legible coloured **Context Map** or on an **aerial photograph of scale 1:10,000 or any appropriate scale;**
- (iii) A comprehensive legible **Site Location Plan, drawn to scale 1: 5,000 or as appropriate,** should be provided. The plan should be **duly certified by a Sworn Land Surveyor** with appropriate landmarks as reference points, indicating the distances of the site boundary to the limits of settlement boundary, the nearest existing residential building, **the** site boundaries of nearby poultry farms or other farms, any environmentally sensitive area (ESA), mineral resource area, designated site of interest, water body, natural drain, canal, wetland, borehole, other critical habitat and existing development in the surrounding environment within a radius of 500m. The prevailing wind direction should be indicated on the plan. The Location Plan should clearly indicate whether the site is affected by any ESA or any consideration given to all the site selection criteria listed at Section 2.0;
- (iv) Site characteristics in terms of site location (GPS coordinates of the boundaries delimiting the site), landform, topography (supplemented by 1.0 m interval contour map in case the site is slopy), geology, soil type and characteristics, presence of any watercourse or water body, boreholes, any ESA, mineral resource area, sensitive habitats of ecological importance, present and past land use, vegetation cover, flora and fauna, amongst others;
- (v) Accessibility of site, indicating the width of access roads;
- (vi) Archaeological, cultural and heritage value of site, if applicable; and
- (vii) Indication of similar projects and other forthcoming projects in the surroundings.

## **Chapter 4 - Environmental Baseline Information**

The purpose of the baseline information is to determine the state of the environment prior to the implementation of the proposed project. It is primarily a benchmark to measure environmental changes due to the proposed development. The baseline information should provide a description of the existing environmental status with emphasis on those aspects likely to be affected by the project proposal. The baseline information should include, inter alia, the following:

- (i) Prevailing climatic conditions (as applicable), such as rainfall, temperature, relative humidity, wind direction;
- (ii) Position of water table; and
- (iii) A geotechnical report including description of subsurface strata up to 3m deep, maximum level of water table and results of percolation test as per BS 6297 MSB



as applicable. The geotechnical report shall be certified by a Civil Engineer registered with the Council of Registered Professional Engineers (Mauritius) or a Soil Scientist.

- *Note: The onus of requesting a geotechnical report/percolation test rests with the Wastewater Management Authority (WMA), which may request for same on a case-to-case basis, depending on the sensitivity of the site. Proponents/consultants are therefore advised to consult the WMA in order to ascertain whether a geotechnical report is required or not. The percolation tests must be witnessed by an officer from the WMA.*

## Chapter 5 - Project Description

The project description should include, inter alia, the following:

### a). Project type, including inter alia:

- (i) Description about whether the farm is meant for meat production (broiler farm) or for egg production (layer farm) or both;
- (ii) A detailed description of all activities to be undertaken;
- (iii) The maximum number of birds to be reared and the flock density should be as per Annex1
- (iv) Number of workers.

### b). Farm layout, including inter alia:

- (i) Size, number and design of pens, plot coverage and gross floor area;
  - (ii) A legible **Site Layout Plan, drawn to scale of 1:200** or as appropriate, indicating the site boundaries, the proposed or any existing building, the pens, mess rooms, watchman's quarters, stores for feed and equipment, space provided for heaping and composting of manure and other organic solid waste, wastewater disposal system, drainage system for the collection and evacuation of storm water, burial pit for dead birds, parking spaces, loading and unloading bay and the access road to the site;
  - (iii) Legible detailed **Building Layout Plans, drawn to scale of 1:100** or as appropriate, indicating floor layouts, elevations and architectural plans;
  - (iv) Any landscaping work, growing of decorative and other plants, enhancement of the aesthetic, visual impact of the farm and provision for fencing or boundary wall.
- *Note: All plans should be drawn on a legible scale and preferably on A3 or A4 size.*

**c). Details on the method of rearing, including inter alia:**

- (i) Source and supply of chicks;
- (ii) Method of rearing (deep litter system and/or battery system) and the feeding regime;
- (iii) Details on the battery systems, the number of battery units and the arrangements in the pens;
- (iv) Number of birds to be reared per cycle, number of cycles per year and the flock density;
- (v) Type, source of feed and means of storage;
- (vi) Type, source, quantity and availability of bedding materials;
- (vii) Mode of artificial heating and the details on storage facility in case of gas (LPG);
- (viii) Details on transportation of chicks, feed, adult birds and eggs to and from the site;
- (ix) Details on the method of waste collection and removal;
- (x) Details on the pen structure, including the type of ventilation system (specification of wire netting to be used) and the lighting system; and
- (xi) Details on husbandry practices and on any provision to cater for proper animal welfare.

**d). Details on egg production (as applicable), including inter alia:**

- (i) Expected number of eggs on a daily basis;
- (ii) Details on the egg collection, any washing, inspection, grading and packaging;
- (iii) Storage facility for eggs and need for any cooler room; and
- (iv) Marketing/sale of eggs.

**e). Health control, including inter alia:**

- (i) Vaccination programme - services of Veterinary;
- (ii) Sanitary measures;
- (iii) Use of disinfectant at entrance of farm and pens;
- (iv) A Preliminary Response Guideline in case of any disease outbreak;
- (v) Steps to be taken to immediately inform the Ministry of Agro-Industry and Food Security in case of outbreak of disease; and

(vi) A dedicated site within the farm should be identified for burial or incineration of dead birds

**f). Animal Health, Production and Welfare:**

**(i). General conditions for ensuring biosecurity:**

- The proponent shall adhere to animal health guidelines issued by the Division of Veterinary Services.
- The farm should be surrounded by a security fence to prevent the entry of unwanted animals and people. A sign indicating restricted entry should be posted at the entrance to the farm.
- Presence of foot dips at gate.
- No animal movement between farms without approval of Ministry of Agro-Industry and Food Security.
- All farms to have a pest control programme in place (rodent and fly control) as well as measures to prevent contact with wild birds.
- Farms should be free from unwanted vegetation and debris that could attract or harbour pest.
- Dead birds should be removed from poultry houses as quickly as possible but at least daily. These should be disposed of in a safe and effective manner.
- When a poultry house is depopulated, it is recommended that all faeces and litter be removed from the house and disposed of in a safe manner to minimise the risk of dissemination of infectious agents. (OIE Terrestrial Animal Health Code 2019)

**(ii). General conditions for ensuring optimum production:**

- The design of the farm (including layout and infrastructure) should be as per the guidelines of the FAREI.
- Poultry farms should be designed and constructed (preferably of smooth impervious materials) so that cleaning and disinfection can be carried out effectively. Ideally, the area immediately surrounding the farm should be paved with concrete or other impervious material to facilitate cleaning and disinfection.
- Farms should be designed to house a single species and a single production type. The design should also consider the 'all-in all-out' single age group principle. If this is not feasible, the establishment should be designed so that each flock can be managed as a separate unit.
- Stocking density for broiler chicken reared under commercial conditions.

Type of system	Stock density (in kg live weight per m <sup>2</sup> )	Specific Conditions
Naturally ventilated farms	≤ 28 kg live weight per m <sup>2</sup>	
Tunnel or other extractive systems capable of 1 air exchange per minute as minimum requirement	≤ 40 kg live weight per m <sup>2</sup>	The farm should put in place such sensors and systems to automatically detect and record the level of ammonia, carbon dioxide, temperature and humidity. Such records should be made available to the Ministry for the purpose of monitoring and should be conserved for at least three months after the batch of broiler is slaughtered.
Mechanically-ventilated systems (such as with stirring fans)	≤ 36 kg live weight per m <sup>2</sup>	The farm should put in place such sensors and systems to automatically detect and record the level of temperature and humidity. Such records should be made available to the Ministry for the purpose of monitoring and should be conserved for at least three months after the batch of broiler is slaughtered.

**Note:** In case of any disease outbreak such as the Avian Flu, the disposal site for dead birds should be approved by the Ministry of Health and Wellness, the Ministry of Agro-Industry and Food Security and the Water Resources Unit.

**g). Notification at commencement of activities:**

The farmers should inform the Animal Production Division of the Ministry of Agro-Industry and Food Security by way of letter of:

- (i) Farmer name (with copy of ID card)
- (ii) Farm location (complete address)
- (iii) The date at which the farm proposes to start its operations
- (iv) The proposed number of birds that shall be on site.

**h). Training with the Food and Agricultural Research and Extension Institute (FAREI)**

The farmer shall be in the presence of a training certificate on poultry production and rearing from the FAREI in order to ensure that the he is able to grasp the importance of good animal husbandry practices.

**i). Availability of utilities, including inter alia:**

- (i) The expected daily water requirement and the source of water supply;
- (ii) Provision for water storage tanks and capacity;
- (iii) The expected daily electricity requirement and the provision for its supply;
- (iv) Any provision for a standby generator in case of power failure; and
- (v) Provision of fire extinguishers.

**j). Sustainability aspect of the farm, including inter alia:**

Details on measures envisaged to enhance the sustainability aspect of the farm such as:

- (i) Alignment of pens to maximise natural ventilation;
- (ii) Composting of organic solid waste;  
Furthermore, it is advised that the poultry litter be treated in accordance with the specifications set out in the standards formulated in the MS 196: 2018 to treat manure from farm animals. Techniques to be used could include sanitisation such as drying methods and solarisation.
- (iii) Production of biogas; and
- (iv) Best practices envisaged for solid waste management, water and energy saving.
- (v) Use of renewable energy sources such as photovoltaic solar panels.

**k). Time Schedule**

- (i) Proposed schedule of works for project implementation.
- (ii) Hours of operation.

## **Chapter 6 - Environmental and Other Impacts – Evaluation and Mitigation**

The potential significant adverse environmental impacts should be assessed in terms of its magnitude and significance during the site preparation, construction, operation and decommissioning (if any) phases of the project. For each impact identified, appropriate mitigating measures should be proposed.

### **A. SITE PREPARATION AND CONSTRUCTION**

- (i) **Site preparation** – excavated soil and debris, felling down of trees, generation of noise and dust.
- (ii) **Construction phase** – Noise, traffic, generation of construction waste and wastewater.

Appropriate mitigating measures should be provided for each impact identified.

The report should also include:

- Necessary precautions to be taken to preserve and reinstate any natural drain on site;
- Detailed designs, specifications and layouts of surface drains for evacuation and final disposal of storm water;
- Embellishment/environmental enhancement and any landscaping work; and
- Precautionary measures to prevent any risk of soil erosion and flooding.

## **B. OPERATIONAL PHASE**

### **(i) Solid Waste Management**

- Expected volume of poultry litter on a daily/weekly/per cycle basis, the frequency of its removal, onsite storage and the methods of disposal. In case composting is envisaged, details on the composting methods and final disposal should be provided;
- Disposal of damaged and rotten eggs;
- Method of disposal of dead birds and details on burial pit, incinerator or co-composting;
- Sources, types, expected volume of other solid wastes generated such as empty feed bags, domestic wastes, empty vials and packing materials, on a daily or weekly basis, mode of collection, on-site storage facilities and final disposal; and
- Any proposal for reducing, reusing and recycling solid wastes.

### **(ii) Wastewater Management**

- Frequency of washing of pens. The expected volume of wastewater to be generated and the method of its disposal;
- The expected volume of domestic wastewater and the method of its disposal;
- Wastewater disposal structures should be at a minimum distance of 30m from any existing water course/body, rivers and canals; and
- Any proposals for water conservation and wastewater reduction.

### **(iii) Odour management**

- Identification of all sources of odour such as the manure heap, composting site, drainage system for wastewater and burial pit amongst others; and
- Details on the proposed measures to mitigate odour nuisances including good husbandry practices, proper ventilation system (natural or induced), removal of any crack and crevice in the walls, regular cleaning and disinfecting of farm premises, prompt disposal of wastes, good housekeeping, and any provision for aromatic (fragrance) plants.

#### **Note:**

Excessively wet litter is the most likely source of offensive odour. Excessive odour from decaying litter and manure usually signals a breakdown in management practices. Prompt

action should be taken to remedy the situation. The litter should be "friable and moist". Management practices should prevent caking, wetness and stickiness of the litter.

Litter/manure moisture content can be managed by:

- Preventing water from rain, irrigation sprinklers and surface water from entering poultry sheds and storage facilities;
- Preventing overstocking in sheds (not exceeding recommended bird stocking densities);
- Regular turning of litter in sheds;
- Covering litter with fresh wood shavings;
- Removing wet patches of litter/manure;
- Ensuring drinker nipples do not leak;
- Adjusting drinkers regularly to suit the height of the birds;

Other methods for attenuating odour include:

- Keeping dust levels low, as odours are absorbed and carried by dust particles;
- Ventilation that achieves the maximum possible dilution of odour strength during shed cleanout.

#### **(iv) Flies and rodents**

- Details on the measures taken to control flies and rodents' proliferation. These could include amongst others provision for wire mesh netting of appropriate size and regular cleaning of same, proper storage of poultry feed and controlled application of pesticides and insecticides; and
- Mitigating measures can also include the use of baits, traps and soliciting the service of a pest control company.

#### **(v) Chemicals**

- List of chemicals such as sanitary products, medicines, growth hormones, pesticides, or insecticides, that are likely to be used, their respective quantities and storage facilities; and
- Details on the mode of disposal of empty vials, chemical containers and expired chemicals.

#### **(vi) Environmentally Sensitive Areas (ESAs)**

In case the development will be affected by any ESA or sensitive land use, an assessment will have to be undertaken to evaluate the degree of adverse impacts and the mitigating measures envisaged. No development will be allowed in Category 1 ESAs.

#### **(vii) Risk of fire outbreaks**

In case LPG is being used for heating of day old chick, the LPG storage area should be well equipped with necessary firefighting equipment as per the recommendations of the

Mauritius Fire Rescue Service. Moreover, necessary measures should be taken to prevent LPG leakage.

**C. The Other Impacts and Mitigating Measures Required, Inter Alia:**

- (i). Identification of the cultural and heritage sites (if any) that may be affected by the proposed development and proposed measures to mitigate any adverse impact. On a case to case basis, proponent may be requested to submit a full Heritage Impact Assessment (HIA).
- (ii). Measures envisaged to ensure the protection of important scenic landscape. The development should blend with the landscape and landform character. Appropriate use of green hedges may have to be considered so that the farm is not visually intrusive from public road.
- (iii). Socio-economic impact should consider how the project would influence the social and economic conditions of people and communities. For instance, the number of employment created directly and indirectly by the development and the advantages and weaknesses of the project on neighbourhood. The PER should indicate the ways and means to reduce any adverse impact. Any initiative for Corporate Social and Environmental Responsibility (CSER) from the proponent may be included in this section.

## **Chapter 7 - Identification and Analysis of Alternatives**

Alternatives taken into account in developing the project should be documented such as alternative site, alternative process and zero development option.

## **Chapter 8 - Conclusions**

The final chapter of the report should provide the main findings and conclusions, which justify the acceptability of the proposed project in relation to the proposed mitigating measures. Appropriate conclusions should be drawn and summarised in a series of brief statements with focus on significant impacts and mitigating measures proposed.

## **Expertise of Consultant/Consultancy Team**

The preparation of a PER demands a multidisciplinary approach and expertise in different fields. The responsible team should demonstrate wide experience in relevant fields such as animal husbandry.

## **Appendices and Supporting Documents**

These should include information, which would cluster to the main body of the text, such as site photographs and maps, press releases, written responses to the project.

Any additional technical information, a list of reference materials, copy of Certificate of Incorporation for Company, copy of Business Registration Card, names, addresses and



qualifications/expertise of the PER consultants, copies of clearances/ permits obtained or applied (if any) from authorities and proof of land ownership, may be included.

## **References**

The bibliographies that have been used for the preparation of the PER document.

***Note: Section 16 (8) of the EPA 2002 (as amended) makes provision for the Minister of Environment to revoke a PER Approval, where a PER contains any false or misleading information or any material omission.***

## ANNEX 1:

### Addendum to Section 5.8.2 (stocking density)

The following environmental conditions should be maintained within a poultry shed in order to guarantee bird health, welfare and optimum production.

- i. Ammonia level: 15 ppm at bird level
- ii. Carbon dioxide: 3000 ppm (0.3%)
- iii. Shed relative humidity: 80%

The farmer should state the age he intends to send his birds to slaughter (in days). Alternatively, if the birds are transferred to another facility for finishing, the age at which such transfer will be effected should be indicated.

The farmer to state the breed to be used and submit performance objectives as per the guidelines of the supplier from day 1 to the stated age at slaughter.

The Maximum Allowable Stock Density is obtained by the following conversion:

$$\text{Stock Density} = \frac{G}{P}$$

#### Where

*G is the maximum authorised live weight per square meter for the system being used (naturally ventilated, mechanically-ventilated or tunnel ventilation) (in grams)*

*P is the body weight performance objective of the chicks at the latest age the chicken will be kept on site (in grams)*

*Stock Density is in number of birds per m<sup>2</sup>*

#### *Illustration for calculation of stock density*

For conversion of kilogram live weight to number of birds, the performance objectives of the breed being reared will be used. For example, for Ross 308, the conversion would be as follows:

Day	Body weight (g) (Performance objective given by supplier)	Stock density		
		≤ 28 kg live weight per m <sup>2</sup>	≤ 36 kg live weight per m <sup>2</sup>	≤40 kg live weight per m <sup>2</sup>
30	1680	16 birds per m <sup>2</sup>	21 birds per m <sup>2</sup>	24 birds per m <sup>2</sup>
35	2144	13 birds per m <sup>2</sup>	17 birds per m <sup>2</sup>	19 birds per m <sup>2</sup>
40	2620	11 birds per m <sup>2</sup>	14 birds per m <sup>2</sup>	15 birds per m <sup>2</sup>

## Appendix I

### Checklist for accepting PER Application for Rearing of Poultry above 15,000 birds

SN	Particulars	Tick
1.	The project title as per the Fifth Schedule of the EPA 2002 (as amended)	
2.	Name and address of proponent	
3.	Person responsible: name, address and contact details	
4.	Name and address of consultant/consultants/consulting firm	
5.	Qualifications of consultant	
6.	Expertise of consultant/consultancy team in the field	
7.	PER duly signed by the proponent or his duly appointed legal representative	
8.	Letter of appointment of legal representative	
9.	Proper binding	
10.	Submission of 1 printed copy	
11.	Document is in conformity with outline in the Sectoral Guideline No. 2 - Content of PER for Rearing of Poultry above 15,000 birds.	
12.	Proof of land ownership - Copy of Title Deed /Notary Certificate/Lease Agreement /Registered Letter of Authorization	
13.	Non-technical Summary	
14.	Objective of project	
15.	Project justification	
16.	Zoning and compatibility of site	
17.	Description of site and surrounding environment	
18.	Present land use	
19.	Flora and fauna	
20.	Distance of site from settlement boundary and residential development	
21.	A legible Context Map or an aerial photograph of scale 1:10,000 or any appropriate scale	
22.	A legible Location Plan drawn to scale 1:5,000 or as appropriate and duly certified by a Sworn Land Surveyor indicating the distances of the site boundary to the limits of settlement boundary, the nearest existing residential building, the site boundary of nearby poultry farms or other farms etc.	
23.	Legible Site Layout Plan of scale 1:200 or as appropriate indicating the different components of the project	
24.	Architectural Building Layout Plan of scale 1:100 or as appropriate	
25.	Environmental baseline information	
26.	Project description	
27.	Scale of project	
28.	Flock density	

SN	Particulars	Tick
29.	Method of rearing	
30.	Details on all activities to be undertaken	
31.	Size, number and design of pens	
32.	Vaccination aspects	
33.	Number of workers	
34.	Availability of statutory services and requirements	
35.	<b>Environmental impacts during site preparation phase</b>	
	Mitigating measures	
	Noise	
	Dust	
	Disposal of solid waste	
36.	<b>Environmental impacts during construction phase</b>	
	Mitigating measures	
	Noise	
	Dust	
	Disposal of solid wastes including construction debris	
	Wastewater generation and mode of disposal	
37.	<b>Environmental impacts during operation phase</b>	
	Mitigating measures	
	Solid wastes from rearing activity and domestic sources	
	Wastewater from cleaning/washing of pens and domestic sources	
	Odour	
	Noise	
	Flies/rodents	
38.	<b>Sustainability aspects of the project</b> Measures to be undertaken amongst others: <ul style="list-style-type: none"> <li>• Water saving, conservation, rainwater harvesting and also on wastewater minimisation</li> <li>• Eco-friendly measures</li> <li>• Solid waste – reduce, reuse and recycle</li> <li>• Use of natural ventilation and lighting</li> </ul>	
39.	Alternatives to the project	
40.	Implementation schedule	
41.	Permits and clearances already obtained	
42.	Land Conversion Permit (if applicable)	