

COMMONWEALTH OF DOMINICA

**MINISTRY OF BLUE AND GREEN ECONOMY, AGRICULTURE,
AND NATIONAL FOOD SECURITY**

**THE CONTINGENCY EMERGENCY RESPONSE COMPONENT (CERC)
UNDER**

**THE EMERGENCY AGRICULTURAL LIVELIHOODS AND CLIMATE
RESILIENCE PROJECT**

**ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN FOR
CERC ACTIVITY A.3 – SUPPORT TO Livestock Producers**

I. BACKGROUND

1. The Commonwealth of Dominica is faced with a global pandemic of enormous proportions unprecedented in recent history which is spreading rapidly. The Ministry of Blue and Green Economy, Agriculture and National Food Security (MBGEANFS) plans to utilize the resources under the CERC of the EALCRP to strengthen national food security to help manage the impending health, economic, humanitarian and food crisis, that is quite likely to unfold in the coming months, as the world grapples with the fall out of this pandemic.
2. Since December 2019, an outbreak of coronavirus disease (COVID-19) caused by the 2019 novel coronavirus (SARS-CoV-2) has been rapidly spreading across the world from Wuhan, Hubei Province, China to 88 countries. COVID-19 is one of several emerging infectious disease outbreaks that have emerged from animals in contact with humans in recent decades, resulting in major outbreaks with significant public health and economic impacts. As of April 6, 2020, the outbreak has resulted in an estimated 1.2 million cases and nearly 70,000 deaths globally according to the World Health Organization (WHO)¹. With nearly 34,000 cases in the Latin America and Caribbean (LAC) region as of April 6, 2020, the rapid spread of COVID-19 suggests that the outbreak will have a significant impact. Over the past 72 hours, the increase in cases in the LAC region has gone up by 33 percent.
3. Dominica has reported 15 confirmed cases of COVID-19 (as of April 7, 2020). In order to support the response efforts in Dominica, the CERC Component of the OECS Regional Health Project is being activated.
4. On 15 April 2020, at the request of the Government of Dominica, the Bank has activated the CERC, which allowed SDR 2.6 million (US\$3.6 million equivalent) to be used for addressing the urgent needs for strengthening the local food security and healthcare systems disrupted by COVID-19 Pandemic. The CERC resources are being used to : (i) ensure the continuity of supply of inputs to farmers, and enhance food security of vulnerable groups at household levels; (ii) minimize production disruptions due to agricultural labor shortage; and (iii) strengthen the local health institutions weakened by Hurricane Maria and COVID 19 Pandemics through provision of essential medicines, supplies, testing to laboratories and hospitals.
5. Eligible livestock producers have advocated the importance of animal feed as the most critical input to support livestock production and marketing to maintain market share in the local markets including supermarkets and hotels. This is critical for national food security to ensure protein availability amidst the COVID 19 crisis.

¹ <https://www.who.int/emergencies/diseases/novel-coronavirus-2019>

6. To respond to these needs, the CERC Action Plan consists of the following components and subcomponents:
 - A. Strengthening of National Agricultural Productive Base and Food Security Systems
 - A.1: Strengthening Micro-farms/Micro-garden systems
 - A.2: Strengthening Cropping systems
 - A.3: Strengthening Livestock systems
 - A.4: Strengthening the Division of Agriculture and PIU to deliver services mentioned in previous components.
 - B. Strengthening of National Health Systems Address COVID 19 Crisis
 - B.1: Supplies and Equipment to be procured for the Ministry of Health, Wellness and New Health Investments.

II. DESCRIPTION OF ACTIVITIES UNDER CERC SUB-COMPONENT A.3²

1. The Ministry of Agriculture and National Food Security has realized the need to secure animals' protein during the Covid-19 pandemic considering critical to focus on pork and poultry production to enhance the production of protein for the population in Dominica. Chicken is the main animal protein consumed by the population, approximately 900,000 pounds of poultry products are imported monthly. Due to the pandemic, most of the farms and hatcheries producing for export chicken and fertile eggs respectively, have either reduced, or shut down their operations. Consequently, there will be a projected reduction (shortage) in poultry production and subsequently chicken exports from Dominica. Pork comes in second place.
2. Therefore, it is critically important to facilitate feed support to cushion the impact of food insecurity of both poultry and pork. To achieve this objective the CERC plans to:
 - a. Source 18,000-day-old broiler chicks and the required feed to reach market weight and feed support producers
 - b. Feed support to pork producers, classified as medium scale (between 6 to 10 pigs) and large-scale producers (more than 11 pigs)
3. Eighty-five (85) livestock producers will be targeted; 45 poultry (broiler) producers and 40 pork producers. Livestock producers will express their interest through an online application questionnaire, geared to determine the applicant's suitability to raise chicks and pigs successfully.
4. Eligible broiler producers will be selected based on their capacity and ability to manage their flock. There are three categories for the poultry producers: small - housing between 100 to 299 birds; medium -housing between 300 to 599 birds; large - housing over 600 birds.

² As described in the CERC Action Plan.

5. Feed will be distributed through a voucher system where farmers will collect feed from local merchants. Each Beneficiary is expected to sign an agreement which will outline the terms and agreement to be kept while raising the broilers.
6. The successful broiler producer applicant will raise the birds for a five-week period with an expected weight gain of 5lbs per bird. The total expected chicken production for this operation is 61,740lbs (dress weight) an average of 10,000lbs per month. At this rate and all input to the producer chicken will be made available and affordable to consumers. In this regard broilers from these targeted farmers would be marketed at an affordable rate to the consumer for at least a six-month duration of the broiler support program.
7. Pork generated from the feed support program to pig producers will be approximately 10,500lbs (carcass weight), with this intervention pork prices can be reduced. Animals will be weighed at the abattoir and farmers will be paid through the existing arrangement between the farmers and The Ministry.
8. The management of the Abattoir will purchase all broilers and pigs under the livestock CERC program for slaughter and subsequently sale to consumers. Broilers producers would be paid a minimal fee to care and house the birds for approximately five weeks.

Environmental, Health and Safety Concerns on the Importation of chicks:

9. Importation and raising of chicks are not a new operation to broiler producers in Dominica. Special guidelines and protocols will be applied during this pandemic that will ensure that health and wellbeing of chicks and humans involved in the production of chicken are maintained. Environmental concerns will also be addressed to ensure that all waste generated throughout the supply chain will be handled and disposed of in a sustainable manner and human health is unaffected by the consumption of a healthy product.
9. The chicks will be imported from Gales Hatchery in Barbados. The importation of chicks requires an import permit to be issued by the Veterinary Officer, Ministry of Blue and Green Economy, Agriculture and Food Security. Imported broiler chicks will be accompanied by an export permit indicating health records to include date and type of vaccine administered. Broiler chicks will be shipped in cardboard boxes each containing 100 chicks, boxes will be further divided into four cubicles each containing 25 chicks for additional comfort and to avoid chicks from squeezing. The bottom of the box will be bedded with a layer of shredded paper to absorb waste from the birds. The top and sides of the box are perforated allowing for ventilation at the same time maintaining the warmth required for chicks.
10. Prior to loading, the chicks will be held in a well ventilated and sterile area. Approximately thirty (30) boxes will be loaded on each cargo plane for a one-hour flight to Dominica. Upon arrival in Dominica, the chicks will be handled with gloved hands and boxes will be decontaminated with 70% alcohol spray. The boxes will then be transported in a well-

ventilated vehicle to the farm, where they will be raised for 6 weeks. Broiler producers have the ability to manage their flock successfully to market weight with less than 2% mortality rate.

11. The National Abattoir has the capacity to process over 4,000 birds monthly and it is also equipped with a cold storage facility, if required. The Abattoir also has the ability to transport birds from the farm to the processing facility. Birds are processed under humane and hygienic conditions. Ante mortem inspection will be conducted by the Veterinary Officer, Ministry of Blue and Green Economy, Agriculture and Food Security prior to slaughter. All employees at the abattoir are equipped with the appropriate clothing, equipment and tools to maintain food safety practices, hygienic conditions, processing birds and packaging of products.
12. At the Abattoir all waste to include offal, head, hairs and features are burnt in a pit then covered with soil. Regular cleaning and storm water disposal are directed to the wastewater treatment plant. The abattoir is equipped with washroom and toilet facilities
13. Chicken are transported to the market in cold storage trucks, thus maintaining the quality and wholesomeness of the product.

1.1 At Dominica Airport upon arrival of the imported chick broilers

Airport protocols allows for live animals to be given the same privilege as humans. Birds will be unloaded first and immediately removed from the expose environmental. An Officer from the Livestock Unit will be present to facilitate the process. The birds will be one day old and as of such will have very little waste which will be absorbed by the threaded paper bedding the box.

1.2 During transport from Airport to farms

Approved Broiler producers will be contacted on their pick-up time and date. The chicks will be transported in closed vehicle; double cab trucks, cars or mini-busses in order to protected from adverse environmental condition of heat, cold or rain. The overall distribution of birds at the airport will be supervise by staff from the Veterinary Department. The farmer will be equipped with mask and alcohol spray for spraying after loading each box. The necessary personal protective equipment primarily mask and alcohol spray will be provided to all staff, including Custom Officer, Quarantine Officers and Port Workers and other airport staff involve in the distribution of the chicks. The maximum amount of chicks per farmer is 1000 chick equivalent to 10 boxes, in which the farmer can use a mini bus or a double cab pick -up truck for transportation. Smaller amounts of birds can be transported in cars. The maximum travel time from the airport to any farm is approximately one hour.

1.3 At producers' farms (broilers and pigs)

Waste management

Broiler production is conducted through the deep litter system, where all waste are contained in a dry environment. Waste generated from broiler farms are primarily organic in nature to include animal dung, minimal amounts of waste feed and occasional dead carcasses; inorganic waste include empty veterinary medical container, bags used to package feed and damage feeders or waterers. Feed are stored in a cool, dry and well-ventilated storeroom. Feed that exhibit signs of mold will be disposed of together with the composting material.

All packaging material use for transporting the chicks to include boxes, dead chicks and paper threading will be disposed of in the composting area

The waste management of organic waste goes into composting and manures. The organic waste from poultry is a compostable material comprising of wood shaven, poultry feces and a minimal number of feathers. At the end of the growing out period this waste can be further decamped and used as manures. Dead birds are disposed by burial. However, often there are accidental spillage of water on the litter and therefore must be remove immediately before harboring bacteria or promoting the growth of coccidiosis.

Pigs are house in a pen with concrete foundation, water nipple and a feeding trough. The pens are equipped with drainage system which diverts waste into a septic tank and soak-away. Pens are cleaned daily, where the solid are scoop up and place in a dry shed and the residues are wash into the drainage and waste systems. It is also traditional that farmers hose their pigs keeping them cool and clean.

In organic waste are disposed of in the landfill, there must be no burning of plastic materials.

Wastewater

Most livestock farms are equipped with rain water harvesting facilitates, which are used to provide water for the pigs and general cleaning functions. All roof and storm water are drained away from the pen into normal contour of the land (drainage regime). Erosion control measures are exercised to protect the soil and the livestock building.

Air emissions

Due to the dry nature of the poultry litter, farmers suffering from asthma would normally wear a dust mask for protection against dust. However, if the litter gets wet and is not cleaned immediately it will lead to the buildup of ammonia which can lead to impaired respiratory health of both workers and farmer. Farmer are knowledgeable of the proper composting procedures and as of such there is no odor from composting.

Hazardous materials

All hazardous materials, including batteries will be disposed of at the approved DSWMC landfill.

Animal diseases

Broiler production is based on an all-in all-out system and after each batch the pens are cleaned and sanitized. Bio-security measures used on farms include washing of hands, visitors are not allowed to enter livestock pen, new animals are monitored closely. Farmers building are secured to prevent the entry of wild animals. Special gauge and size mesh wire is used to avoid the entry of wild birds that may potentially spread of diseases.

Broiler production is at maximum a six-week operation and does not require medical care as it would require management. Chicks would be given their vaccination from the hatchery and starter feed is formulated with coccidiostat, vitamins and antibiotics that boost chick's immune system. Therefore, with proper management birds are not expected to experience any disease outbreak.

Any animals that show signs of ill health will be examined by the veterinary officer and treated accordingly.

Precautions to protect workers from contamination and propagation of COVID-19

Farm workers are following the guidelines from the Ministry of Health to include wearing of mask, regular hand washing and social distancing. Workers and farmers would at most be the only ones on the farm and may not need to employ such stringent approaches. Workers will be protected from hazardous materials, such as disinfecting agents, antibiotic and hormonal products.

Any medication for broiler must be prescribe by the veterinary officer with strick guidelines as to the withdrawal period. Farm workers are not required to administer injectable antibiotic

1.4 Risk Mitigation during transport from farms to National Abattoir

The day before pick-up the birds will be withheld from feed for 12 hours, this will reduce contamination of the meat, tools used for slaughtering and provide an outcome of a clean product free of feces from the guts. This will also prevent the birds being dehydrated during transportation the abattoir. The birds are transported early in the morning or late in the afternoon when temperatures are cool. The birds are gently loaded in crates at a space of 8 birds per crates to avoid squeezing of birds.

1.5 In National Abattoir

The National Abattoir is the certified institution to slaughter and process pigs and poultry for human consumption. The Abattoir in managed under the Livestock Development Unit, under the

Ministry of Agriculture and National Food Security. A Veterinary Officer is assigned to the abattoir to conduct antemortem inspection and An Environmental Health Officer, from the Ministry of Health is assigned to conduct inspection of the dress bird, carcass and the processing facility. All employees of the abattoir are certified by the Environmental Health Department with a Food Handlers Permit.

The birds are slaughter under humane conditions through electrical stunning, then an incision across the neck cutting the jugular vein to allow for a complete bleeding process.

Waste management

Prior to the processing day, broilers are withheld from feed for approximately 8 hours from the afternoon before slaughter day. Therefore, at the time of processing their guts are void of any feed contents. Solid waste generated during the processing poultry includes feathers, offal's, head and blood. All the solid waste from processing are disposed of by burring in a pit.

Wastewater

All wastewater generated from cleaning is drained into the waste water treatment plant where is undergoes a series processes by bacteria and then to a soak-away system before draining over land before entering the nearby stream.

Air emissions

No air emissions are emitted from the abattoir's operations.

Hazardous Materials Management

All Hazardous material is disposed of at the approved DSWMC landfill

Ecological impacts

There are no significant ecological impacts of the abattoir on the environment. All impacts identified are controlled through the applied mitigations measures and comply with the relevant environmental regulations.

Animal diseases

Antemortem inspection is done at the abattoir to detect any signs of disease prior to slaughter. All employees of the abattoir are equipped with the necessary PPE and alcohol and disinfectant sprays. Furthermore, the management of the abattoir has reduce the number of workers and the number of birds process daily and implement a work schedule that will allow for social distancing.

2.0 Policy, Legal and Regulatory Framework

The Ministry of Agriculture, Blue and Green Economy and National Food Security, through the Livestock Development Unit has established production management guidelines in order to increase productivity and reduce mortality of livestock. These guidelines also include adequate spacing; the required number of waterers and feeders to allow for adequate watering and sufficient feeding space per animal; proper housing designs with adequate ventilation for animal comfort thus maintaining animal health and welfare. The Livestock unit is also equipped with qualified staff to diagnose health and management problems that may be encountered during the grow-out period.

Physical Planning Act (2002)

Under the Physical Planning Division Any housing development (livestock structures) to be carried out the country must be done under and in accordance with the terms of a development permission granted prior to the commencement of the development. This Act details the application and approval process

Solid Waste Management Act (2002)

Under the Dominica Solid Waste Management Corporation (DSWMC) this act provide facilities for the treatment and disposal of biomedical and hazardous wastes; introduce measures to encourage recovery of recyclable items from solid waste

Environment al Health Services Act 1997

Under the Environmental Health Department, this act provides for the guidance to waste management associated with the construction of piggeries. The conservation and maintenance of the environment in the interest of health must be taking into consideration when doing any agricultural development.

Animal Disease Act

Under the Veterinary Unit, this Act controls the importation of animals, birds, reptiles and insects and to regulate the treatment and disposal of animals which are suffering or suspected to be infected.

Most Government Offices has adopted the Ministry of Health “Guidelines for Workplace Readiness for Corona Virus”. COVID Guidelines