The Livestock Industry in Guyana: Perspectives for Improvement

The South American Commission for the Fight Against Foot and Mouth Disease
INTRODUCTION
Introduction

• The Republic of Guyana is 216, 000 sq. Km.
• It is bordered on the north by the Atlantic Ocean, on the east by Suriname, west and northwest by Venezuela and south and southwest by Brazil.
Geographical Features and Main Ecological Regions

• Bio-geographically, Guyana may be divided into three major provinces namely:
The coastal bio-geographical province
The savannah bio-geographical province
The forest bio-geographical province
Geographical Features and Main Ecological Regions

• These bio-geographical provinces have been subdivided into twelve biotic communities based on vegetation
CLIMATE
The climate of the coastal plain and the Intermediate Savannahs is two wet and two dry seasons with an average annual rainfall of 1,500-2,000 mm.
The forest zone is marked by hotter days, cooler nights and heavier rainfall when compared to the coast and the Rupununi savannahs, where there is one main dry and one main wet season.
Human Population

• Guyana has a population of approximately 750,000 persons made up by six ethnic groups namely East Indians, Africans, Mixed, Amerindians, Europeans and Chinese

• About 90 percent of the population lives on the low coastal plain.
The Agricultural Sector
Primary Agricultural Sector

• Agriculture in Guyana accounts for approximately 50% of foreign exchange earnings, generates about 20.6% of the national GDP and employs approximately 40% of the labour force.
Primary Agricultural Sector

- The livestock sub-sector contributes approximately 13.6% of the agricultural GDP and 2.8% of the total GDP.

- This sub-sector is responsible for the production of poultry meat, eggs, beef, pork, mutton and milk, and with the exception of milk, Guyana could be considered to be self-sufficient.
Agricultural Contribution

Contribution of Sectors in Agriculture (2009)

- Sugar cane: 21%
- Rice paddy: 18%
- Other crops: 20%
- Livestock: 17%
- Fishing: 14%
- Forestry: 10%
Livestock Contribution

Performance of Livestock as a Percentage of GDP

- Livestock
- Other crops
Farming systems
Farming Systems

- large-scale, highly mechanized sugarcane and rice farms producing for domestic and export markets;
- extensive cattle ranching in the savannahs, producing beef;
- small-size family farms producing milk, poultry, small ruminants and pigs;
- small-size mixed farms producing livestock products as well as rice, vegetables, plantains and ground provision;
- small-scale shifting cultivation (slash and burn system) of both crops and livestock;
Animal Production Systems
# Animal Production Systems

<table>
<thead>
<tr>
<th>Animal type</th>
<th>Production System</th>
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<tbody>
<tr>
<td></td>
<td>Extensive</td>
</tr>
<tr>
<td>Beef cattle</td>
<td>✓ Yes</td>
</tr>
<tr>
<td>Dairy cattle</td>
<td>✓ Yes</td>
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<tr>
<td>Sheep</td>
<td>✓ Yes</td>
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<tr>
<td>Goats</td>
<td>✓ Yes</td>
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<tr>
<td>Pigs</td>
<td>✓ Yes</td>
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<tr>
<td>Poultry</td>
<td>✓ No</td>
</tr>
<tr>
<td>Horses</td>
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<tr>
<td>Buffalo</td>
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## Risk Factor

<table>
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<tr>
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<th>Drought</th>
<th>Flood</th>
<th>Larceny</th>
<th>Disease</th>
<th>Social Change</th>
<th>Quality</th>
<th>Access to capital</th>
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<td>Moderate</td>
<td>Low</td>
<td>Low</td>
<td>Low</td>
<td>High</td>
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<td>Low</td>
<td>High</td>
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<tr>
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<td>Moderate</td>
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<td>Moderate</td>
<td>Moderate</td>
<td>High</td>
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<td></td>
</tr>
<tr>
<td>Cattle</td>
<td>220,000-250,000</td>
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<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pigs</td>
<td>20,000</td>
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</tr>
<tr>
<td>Sheep</td>
<td>130,000</td>
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<td></td>
<td></td>
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<tr>
<td>Goats</td>
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<tr>
<td>Poultry</td>
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LIVESTOCK PRODUCTION SECTOR
THE POULTRY SECTOR
THE POULTRY SECTOR

• The poultry industry remains one of the single most important industries in the livestock sub-sector in terms of employment, contribution to GDP and production.

• The poultry industry is dualistic in both its spatial location and structure of production.

• Large-scale broiler processors are typically organized on relatively extensive areas that are highly mechanized.
THE POULTRY SECTOR

• There are an estimated 100 independent commercial broiler farms, varying in sizes from 95 m² – 1,600 m². With the large farms accounting for 4,700 m².

• A number of processors contract farmers to supply live birds and these ‘contract grower’ farms account for about 38,100 m² of farm space.

• In addition it is estimated that there are some 3,000 small ‘back yard’ farmers with average sizes of 25 m².
THE PIG SECTOR
THE PIG SECTOR

- There are approximately 2500 pig farmers, located mainly in Regions 2,3,4,5 and 6.
- The number of pigs reared in Guyana is approximately 200,000 head;
- Production is generally a ‘back yard’ type system, pursued mainly by small farmers as part of an integrated farming system.
- A few farmers practice large scale commercial swine production with over 100 head of pigs.
THE PIG SECTOR

• A wide range of local products and by-products are used for feeding pigs, these include commercial feeds, rice bran, copra meal, wheat middling, molasses, fish meal, shrimp meal, kitchen waste and swill.
In some areas pigs are also grazed on the side of the road and open fields.
THE SMALL RUMINANT SECTOR
SMALL RUMINANT SECTOR

• There are approximately 130,000 head of sheep and 79,000 head of goats

• Guyana is one of the countries with the greatest number of sheep within the CARICOM region; however, it is perhaps the country with the lowest production parameters.
SMALL RUMINANT SECTOR

• The carcass dressing weight and other production parameters lag behind those of its Caribbean counterparts.

• The local sheep stock is predominantly of the Barbados Blackbelly breed type, and the goats Creole
SMALL RUMINANT SECTOR

• There is an increased demand for breeding animals; consequently, farmers have been importing other exotic breeds of sheep such as the Katahadin and the Dorper, and there is also a programme for the introduction of the Texel.

• The use of the Boer breed has seen tremendous increases in the goat parameters
THE CATTLE SECTOR
THE CATTLE SECTOR

• Guyana is believed to have between 220,000 – 250,000 head of beef and dairy cattle.
• They are spread mainly in Regions 2, 3, 4, 5, 6, 9, and 10.
• The principal dairy producing Regions are 2, 3, 4, 5 and 6 while the main beef producing regions are Regions 3, 5, 6 9 and 10.
• A 2006 census revealed that the cattle populations of Regions 5 and 6 were 69,478 and 41,148 heads, respectively.
## PRESENT PRODUCTION PARAMETERS AND CATTLE CHARACTERISTICS

<table>
<thead>
<tr>
<th>TRAITS</th>
<th>VALUES</th>
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<tbody>
<tr>
<td>Population</td>
<td>220,000-250,000</td>
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<tr>
<td>Calving interval</td>
<td>18 months</td>
</tr>
<tr>
<td>Calving percentage</td>
<td>&lt;50%</td>
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<tr>
<td>Slaughter weight</td>
<td>136 kg</td>
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<tr>
<td>Slaughter age</td>
<td>&gt;4 years</td>
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<tr>
<td>Carcass yield</td>
<td>48%</td>
</tr>
<tr>
<td>Grazing daily gain</td>
<td>&lt;0.25kg</td>
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<tr>
<td>Breeding season</td>
<td>Continuous</td>
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<tr>
<td>Animal identification</td>
<td>None</td>
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<tr>
<td>recording system</td>
<td></td>
</tr>
</tbody>
</table>
Beef Value Chain

Guyana
- Farmer
- Butcher, buyer, middlemen

Guyana
- Abattoir/slaughter house
- Beef wholesaler/butcher

Guyana
- Specialized meat shops, supermarkets etc
- Local consumer
Emerging Beef Value Chain

Guyana
- Farmer
- Abattoir/beef processor

Grenada
- Exporter/distributor
- International importer

Grenada
- Grenada/ Brazil
- International consumer
HOW DO WE ACCESS THE EMERGING BEEF MARKET
THE FUTURE

Perspectives for Improvement
Vision for the Livestock Sector

• **Vision**: To make the Livestock Industry international competitive through the following activities:
  – Establish a comprehensive Animal Production/Health System.
  – Increase the capacity of government institutions to provide extensions services
  – Develop an Agriculture Business Development Unit
    • Provision of market intelligence to ensure production is demand led.
    • Provision of export marketing support
    • Value chain Analyses
  – Provide specific support to the beef sector to strengthen the production for export
    • Establish three breeding programme centres in the major beef producing areas of Guyana
    • Conduct scientific analysis of appropriate forage suited to local agro-climatic conditions and the breeds to be introduced
    • Promoting on a large scale improved quality forage in beef producing regions of Guyana
  – Establish credit facility for Non-traditional Exports
AGRICULTURAL EXPORT DIVERSIFICATION PROGRAMME
Agricultural Export Diversification Program (ADP)

Purpose

To establish services and institutions for a sustainable increase in the income from the export of non-traditional agricultural output in aquaculture, F&V, and livestock sub-sectors.

To enhance the protection of domestic consumers from illness, and domestic production from disease and contamination.
Cost and Financing

Total Cost
US$21,919,000 or G$4.4 billion

IDB: US$20,900,000 and
GOG: US$1,019,000
Main Components

1. Private Sector Entrepreneurship (US$6M)

2. Agribusiness Export and Facilitation Services (US$2.6M)

3. Agricultural Health and Food Safety (US$6M)

4. Drainage and Irrigation Rehabilitation (US$3M)
Private Sector Entrepreneurship (US$6M)

• G$580M for the development of 3 Agri-business clusters:

  (I) Vegetables and Fruits,

  (ii) Aquaculture

  (iii) Livestock
Private Sector Entrepreneurship

• This subcomponent aims at supporting the establishment of Working Groups (WGs) and the execution of activities for the promotion and consolidation of the three agribusiness clusters: (I) vegetable and fruits; (ii) livestock; and (iii) aquaculture.
Strategic Actions 1

- Improve on-farm management
- Marketing strategy
- Establish finishing lots
- Genetic Improvement Strategy
Strategic Actions 2

- Improve Meat Quality

- Invest in new abattoir and meat packaging and processing facility

- Research and Development requirements

- Strengthen human resources, training for staff etc.
Strategic Actions 3

• Technological missions aimed at upgrading agribusiness processors and farmers’ knowledge of modern technologies.

• Quality Improvement Program that will enhance food quality by introducing Hazard Analysis and Critical Control Point (HACCP) and quality assurance protocols

• Good Agricultural Practices
Strategic Actions 4

• Overhaul of agricultural health and food safety system by legislative improvement in the areas of:
  • A. Specific animal diseases such as tuberculosis, brucellosis, rabies and foot and mouth disease
  • B. Improving animal identification and registration to establish a good trace-back mechanism
THANK YOU