

1. INTRODUCTION

1.1 Historical Background

St Lucia had conducted its last Census of Agriculture in 1996. Previous Agricultural Censuses had been taken in 1946, 1961, 1973/74 and 1986. Therefore, the 2007 St Lucia Census of Agriculture is the country's sixth agricultural census.

Since the Census of Agriculture in 1996 several changes have occurred in the country, which have strongly impacted on the agriculture sector and the national economy in general.

1.2 Justification

The period prior to 1996 that is 1990 to 1995 agriculture contribution to GDP averaged 12.02%. The sector contribution to total domestic exports during that same period was 61%. The successive five (5) year periods from 1997 to 2001 and 2002 to 2006 reported GDP averages of 72% and 43% respectively, whilst, the contribution of agriculture to domestic exports was just over 62% and 43% respectively for the aforementioned five year periods.

Banana continue to be the dominant export crop of the island contributing over 70% of total agricultural exports for the 2002 – 2006 period. Banana contribution to total exports declined to a low of 27% in 2002 and attained a high of 46% in 2006, a decline from the average of 59% over the previous twelve (12) years.

As foreign exchange earnings and government revenue are linked to exports the impact of the overall performance of the agricultural sector affects not only the trade balances and economic growth rates but also government revenue.

It is envisaged that the results of the census will provide a comprehensive and up to date set of data for the agriculture sector which will guide policy formulation and development. It will also provide guidance and support to the monitoring and evaluation of agricultural projects, more so those intended to increase food production and exports, whilst reducing imports and the overall enhancement of the standard of living of the rural communities and the country as a whole. As the government continue to embark on its agricultural diversification strategy programmes, within the context of the medium strategy for the consolidation of the banana industry.

1.3 Objectives

The 2007 Census of Agriculture (CAF) had the following **main objectives**:

1. To provide data on the structure of agriculture, especially for small administrative units.
2. To provide data to be used as benchmarks for current agricultural statistics.

3. To provide frames for agricultural sample surveys.
4. To provide data to help monitor progress towards global development targets, in particular the Millennium Development Goals (MDG's).
5. To increase the capabilities of the Corporate Planning Unit in the Ministry of Agriculture, Forestry and Fisheries, to plan, design, collect, process, analyze and disseminate agricultural information.

It had the following **specific objectives**:

1. To provide information at national level, administrative district level and enumeration district level on:
 - i) Number, area, number of parcels and form of tenure of agricultural holdings.
 - ii) Legal status of holders.
 - iii) Agricultural land utilization.
 - iv) Sex, age, main occupation of individual holders and size of their households.
 - v) Proportion of household income from agriculture.
 - vi) Agricultural labour force.
 - vii) Holdings growing specific crops, area under these crops and the spatial distribution of crops.
 - viii) Number and type of livestock.
 - ix) Equipment and selected agricultural practices on holdings.
2. To feed with desegregated information the Geographic Information System (GIS) of the Ministry of Physical Development, Housing, Urban Renewal and Local Government.
3. To train technical personnel on census taking, data processing, sample surveys and data analysis.
4. To set the basis for:
 - i) The establishment of a system of "current" agricultural statistics on planted and harvested area, production, yield and forecasting at the Corporate Planning Unit (CPU) level.

- ii) The establishment of a system of “current” agricultural statistics on livestock at the CPU
 - iii) In-depth surveys on agricultural practices, costs of production, environmental conservation, agricultural labor force, marketing of agricultural products, credit, income, consumption and the living conditions of farmers and their families, the role of women in the agricultural sector, etc.
5. To provide information for studies on agricultural and agricultural-related projects.

The 2007 St Lucia Census of Agriculture was undertaken under the framework of the World Programme for the Census of Agriculture 2010 of the **FAO**¹

1.4 Census Legislation

The 2007 Census of Agriculture was conducted in accordance with the Statistical Act No. 13 of 1973, more specifically sections 6, 7, 8, 9, 10, 11, 12, 13, and 14. For this particular census the Cabinet of Ministers of the Government of St. Lucia approved a Censal Decree.

The Censal Decree established the following:

- i) year of census taking,
- ii) the reference year,
- iii) the main objectives of the census,
- iv) the main data to be collected,
- v) the coverage,
- vi) the office responsible for taking the census,
- vii) the official appointment of the National Census Advisory Committee and
- viii) the specific provisions of the Statistical Act 1973 applied to the census.

1.5 Scope

The scope of the 2007 St Lucia CAF is to measure the structure of the agricultural sector in the country. It covered the economic activities of Groups 011, 012 and 013 of the Industrial Standard International Classification (ISIC) of Economic Activities (2004). These groups are:

- i. **Group 011: Growing of crops; market gardening; horticulture.**
- ii. **Group 012: Farming of animals.**
- iii. **Group 013: Growing of crops combined with farming of animals (mixed farming)**

In particular, the 2007 St Lucia Census of Agriculture collected data on the following variables:

¹ A system of integrated agricultural censuses and surveys, Volume 1. World Programme for the Census of Agriculture 2010. FAO Statistical Development Series 11. FAO- Rome 2005.

- a) Identification and location of agricultural holdings;
- b) Identification and legal status of agricultural holders;
- c) Population and employment in agricultural holdings; Land on holdings;
- d) Total land, land tenure and land use;
- e) Number of trees by type of permanent/medium term crop;
- f) Area under compact plantation of banana, plantain and coconut;
- g) Number of holdings growing temporary crops by type of crop;
- h) Type of forests in holdings and production of non-timber forest products;
- i) Number of livestock by type;
- j) Type of machinery and equipment;
- k) Selected agricultural practices and facilities;
- l) Farm organizations membership;
- m) Proportion of household income coming from agriculture;
- n) Sex and age of persons responsible for the different farming activities;
- o) Whether or not other economic activities are carried out by members of the holder's household and their type;
- p) Whether or not remittances are received in the holder's household.

1.6 Coverage

The 2007 St Lucia Census of Agriculture covered all the island territory excluding the Government Forest Reserves (17000 acres) and all agricultural activities.

For practical reasons and according to the criteria followed in previous censuses as well as in other Caribbean countries a low minimum size limit was adopted for holdings to be included in the census. However all households were visited and a screening form was filled for every household. Those that fulfill the minimum size limit were enumerated by means of a censal questionnaire. Table A2 of this report contains the information about the agricultural activities of those households not attaining any of the minimal cut-off limits.

The minimum size limits adopted for this census are:

- ✓ One/eight of an acre of any temporary crop.
- ✓ 10 bearing trees of any tree crop.
- ✓ 100 mats of banana and/or plantain.
- ✓ One head of cattle.
- ✓ 2 pigs or 2 goats or 2 sheep or one head of any two.
- ✓ 12 poultry or 12 rabbit or 12 head of poultry and rabbits together.

Those limits are the same of the 1996 census and similar to those adopted in the census previous to 1996. Therefore, they allow for comparisons between the present and previous agricultural censuses.

1.7 Time References

The census reference year was the calendar year 2006, whilst specific items had the enumeration day as time reference: **Holding identification and location, identification and legal status of holder, holder's household composition, holding area, number of parcels, tenure, number of trees, area under compact plantation of banana, plantain and coconut, livestock, machinery and equipment owned, membership to farm organizations.**

Questions about average hours worked per day by household members referred to the previous six months. All other questions referred to the census reference year.

1.8 Enumeration Period

The field work was performed during the period January 22nd 2007 to March 15th 2007.

1.9 Type of Enumeration

The 2007 St Lucia Census of Agriculture was a complete enumeration exercise. All households in the island were visited. For every household a line of the screening form was filled. The screening form was designed to identify agricultural holdings to be enumerated. Once an agricultural holding above the cut-off limits was identified, an Agricultural Censal Questionnaire was filled. For purposes of enumeration the twelve Administrative Districts of the country were subdivided into 421 enumeration districts (ED). Every enumerator was charged with the enumeration of one or more Enumeration Districts.

1.10 Census Frames

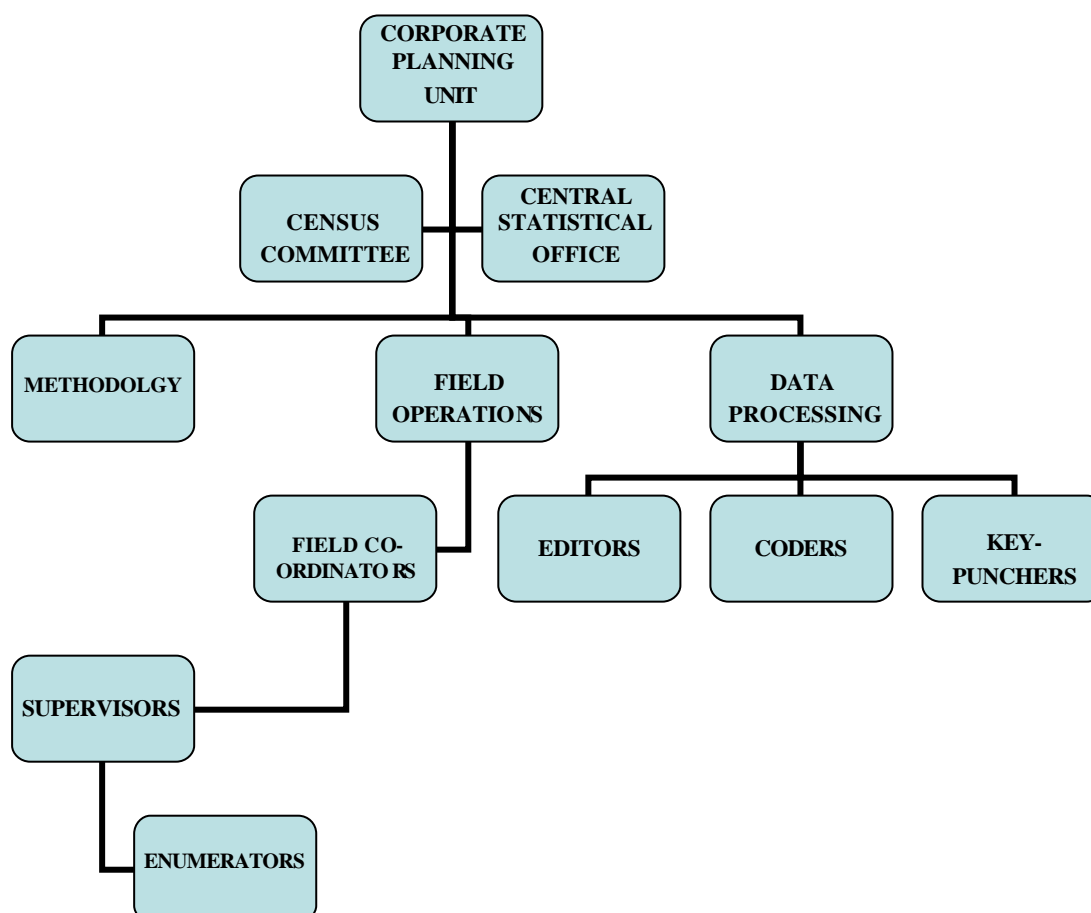
Data from the 2001 Population and Housing Census along with records from other sources (agriculture extension officers, farmer associations, etc.) served as censal frames. A list of farms of more than 25 acres, a list of farms with greenhouses, a list of poultry farms were compiled prior to the taking of the census to ensure complete coverage.

1.11 Cartography

The cartography of the Agricultural Census was the same used for the 2001 Population and Housing Census. The same Enumeration Districts were also used. This procedure allows for comparisons and geographical links between the two censuses.

1.12 Organization of the Census

The 2007 Census of Agriculture was organized on a hierarchical basis according to the following organization chart:



As far as the field work is concerned a total of 186 enumerators canvassed the country collecting information. They were supervised by 36 supervisors. Three field coordinators were appointed one for the northern part of the country, one for the central part and the other for the southern part of the island.

The data processing was done at the Corporate Planning Unit (CPU). Two (2) technicians of the Statistical Unit and 1 data supervisor were responsible for coordinating the work of 20 editors, coders and keypunchers.

1.13 Preparatory Work

Preparatory work for the 2007 Census of Agriculture started as early as January 2006 with the appointment of the National Census Advisory Committee. The definition of the census

methodology, a first draft of the censal questionnaire, tabulation plan and training manuals were prepared during the months of August to September 2006. During the week 14th to 18th August 2006, the first version of questionnaires was pre-tested. Ten questionnaires were delivered to extension officers to test mainly for its wording and suitability as a data collection tool. The user/producer workshop held on August 22nd 2006, was another medium used for accessing the suitability of the questionnaire, apart from the review of the Tabulation Plan.

The pilot census was conducted during the week of September 11th to 17th 2006. Adjustments to the Censal Questionnaire, data processing forms, tables and manuals were done immediately following the exercise.

Recruitment of field personnel and the preparation of censal materials and supplies were undertaken in the month of December 2006. Training of field coordinators, supervisors and enumerators were carried out during the period January 10th to 18th 2007.

A publicity plan was approved by the National Census Advisory Committee and the publicity campaign was undertaken from December 2007 up to the end of the field work, in March 2007. This campaign comprised press releases by means of the newspaper, radio and TV, banners, involvement of schools and of religious organizations and personal contact with farmers by extension officers of the Ministry of Agriculture, Forestry and Fisheries.

1.14 Post Enumeration Activities

During and after the enumeration phase several activities to ensure the quality of the censal data and the correct processing of information were carried out. About 10 holdings per Enumeration District were revisited by supervisors in order to check for the quality of data recorded by the enumerators. After the Enumeration District was completed and the field checks performed by supervisors, the manual editors/coders, edited and coded all questionnaires. When necessary, questionnaires were sent back to the field in order to verify and correct inaccurate recorded information.

Once all questionnaires in a batch were ready, they were entered in the database. The data entry program also allowed for another level of data verification. A validation program to detect inconsistencies was also run. Only after all databases were “cleaned” the final tables were produced. Preliminary tables were checked internally and with external data sources to guarantee the accuracy of the final censal data. Finally censal coverage and others quality checks were performed (see **Chapter 5**).

2. MAIN CONCEPTS AND DEFINITIONS

2.1 Holding or farm

An agricultural holding (or farm) is an **economic unit** of agricultural production under single management comprising all livestock kept and land used wholly or partly for agricultural production purposes, without regard to title, legal form or size.

Single management may be exercised by an individual or household, jointly by two or more individuals or households or by a juridical person such as a corporation, cooperative or government agency. The holding's land may consist of one or more parcels, located in one or more separate areas or in one or more Administrative Districts, providing the parcels share the same production means utilized by the holding, such as labor, farm buildings, machinery or draught animals. (The requirement of sharing the same production means should be fulfilled to a degree to justify the consideration of various parcels as components of one economic unit.)

Typically there are two types of agricultural holdings:

1. Holdings in the household sector: those operated by household members.
2. Holdings in the non-household sector: those operated by corporations, government institutions, church institutions, etc.

Economic units engaged solely in forestry and logging or agricultural services are not considered agricultural holdings because these economic activities are outside agriculture.

It is important to note that **the holding does not include lands which are rented out to other persons, but includes lands renting from others.**

2.1 Agricultural Holder

He/she is a civil person or a juridical person who exercises management control over the agricultural holding operations and who takes major decisions regarding resource use. The holder has technical and economic responsibility for the holding and may undertake all responsibilities directly, or delegate responsibilities related to day-to-day work management to a hired manager.

Every holding has a holder.

In most of the cases the holder is a person.

When two or more persons jointly operating a holding belong to the same household, if there is one person making the major decisions, he/she should be defined as the holder. If more than one person of the same household is involved in major decision-making is a joint holder. In the case of the 2007 St Lucia CAF they are included in the same category of holder: Individual/ Household.

It may happen that different persons belonging to the same household operate different(s) piece(s) of land and the production obtained is not shared for all members of the household, in this case, there is more than one holder in the same household and each piece of land becomes a farm. A different case is when they share the produce, for example, the man is the holder and his wife manages poultry and goats; in that case it must be taken as only one holding.

When two or more persons belonging to different households operate the same holding, each one will be considered as joint holder in the same questionnaire. This is the case of partnerships. In this case, the information about the holder's household will be collected for each household of the joint holders.

When a person, who has two or more households, is operating land for agricultural purposes in the different households with the same production means it will be considered as one farm and one holder.

A holder can operate land which is owned and/or rented from others and/or on a squatter basis and/or under any other form of land tenure. Besides, a holder can operate land without any rights to agricultural use of the land.

2.2 Household

A private household consists of one or more persons living together (i.e. sleeping most nights of a week) and sharing at least one daily meal. It is usually formed by a family group but it may consist of two or more families or a group of unrelated persons or a person living alone.

A household usually occupy the whole, part of, or more than one housing unit.

All persons belonging to one household are taken in the census as household members. Members of the holder's household also include the holder himself.

2.3 Parcel

A holding parcel is any piece of land of one tenure type, entirely surrounded by other land, water, road, forest, etc. not forming part of this holding or forming part of it under a different form of tenure.

A parcel may consist of one or more fields adjacent to each other. A field is a piece of land in a parcel separated from the rest of the parcel by easily recognizable demarcation lines, such as paths, and/or hedges. A field may consist of different plots. A plot is a part or whole of a field on which a specific crop or crop mixture is cultivated.

2.4 Land tenure

Land tenure refers to the arrangements or rights under which the holder operates the land making up the holding. The following definitions on **land tenure** were adopted:

- **Owned:** it is the area held with a title of ownership.
- **Family land:** it is a form of ownerlike possession which comprises the land held by hereditary tenure under conditions that enable the holder to operate it as if he/she were the owner although he/she has not a legal title of ownership.
- **Rented or leased:** it is the land which is rented by the holder from other persons, usually for a limited period of time. The rental agreement may take different forms: land rented by a fixed amount of money; land rented by a fixed amount of produce or land rented by sharing of produce (**For example:** at the end of the season, the owner of the land is paid with one fourth of the produce obtained from that land).
- **Squatting :** it is the land for which the holder lacks title of ownership and for which he/she does not pay rent even though he/she retains its total usufruct. This land is occupied without the consent of the owner, even though it is sometimes tolerated.
- **Other:** it comprises any other form of tenure not considered in the previous categories.

2.5 Land use

Land use refers to activities – such as growing crops, raising livestock or cultivating fish – carried out on the land making up the holding with the intention of obtaining products and/or benefits. The following definitions of **land use** are adopted:

- **Land under permanent or medium term crops :** it is the land that during the reference year was mainly planted with crops which occupy it for a long period of time and which do not have to be planted after each harvest. It includes all tree crops (bearing or not) banana, plantains, etc. In case of permanent crops inter-planted with temporary crops that land was reported here.