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2014 Census of Agriculture

TCP/MAR/3403 – Support to Census of Agriculture

Rodrigues Report

By

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CONTENTS

	Page
ACKNOWLEDGEMENT.....	3
ACRONYMS.....	4
SYMBOLS.....	4
LIST OF TABLES.....	5
LIST OF FIGURES	6
1. EXECUTIVE SUMMARY.....	7
2. INTRODUCTION	8
2.1. GENERAL INFORMATION	8
2.2. IMPORTANCE OF AGRICULTURE IN RODRIGUES	8
2.3. AGRICULTURAL DEVELOPMENT IN RODRIGUES	8
2.4. NEED FOR BASELINE AGRICULTURAL DATA.....	9
3. METHODOLOGY	10
3.1. OBJECTIVES OF CA2014	10
3.2. SAMPLING FRAMES	10
3.3. POPULATION AND SAMPLING	10
3.4. DATA COLLECTION AND QUALITY ASSURANCE	10
3.5. APPROACH FOR DATA ANALYSIS.....	11
3.6. DISSEMINATION of the Report	11
4. ANALYSIS OF RESULTS	12
4.1. AGRICULTURAL HOLDINGS (FARMS).....	12
4.1.1. Number and total area of farms.....	12
4.1.2. Analysis of farms by farming type and sector	13
4.1.3. Land Use	13
4.1.4. Land Tenure	15
4.1.5. Land Parcel	15
4.1.6. Main purpose of production.....	16
4.1.7. Paid employees	17
4.2. PROFILE OF HOUSEHOLD FARMS	18
4.2.1. Farmers	18
4.2.2. Farmer’s household members	20
4.2.3. Farmer’s household members (excluding farmers) working on farm.....	20

4.2.4.	Agricultural households	22
4.2.5.	Constraints	22
4.2.6.	Farmer’s Registration.....	23
4.3.	CROP SECTOR.....	24
4.3.1.	Farms involved in crop production only	24
4.3.2.	Vegetable and cereal crops	24
4.3.3.	Selected vegetables (beans, chillies and onion)	26
4.3.4.	Fruits and nuts production.....	27
4.3.5.	Selected fruits (lemon, litchi and mango)	28
4.3.6.	Horticultural products	28
4.4.	LIVESTOCK & POULTRY	29
4.4.1.	Livestock farms & Populations.....	29
4.4.2.	Cattle	30
4.4.3.	Goats	30
4.4.4.	Sheep.....	31
4.4.5.	Pigs.....	31
4.4.6.	Milk Production	32
4.4.7.	Poultry.....	33
4.4.8.	Eggs production	35
4.5.	APICULTURE.....	36
4.5.1.	Number of bee farms.....	36
4.5.2.	Analysis of bee farms by region	36
4.5.3.	Honey production by sector	37
4.6.	AGRICULTURAL AND MARKETING PRACTICES, AND CONSTRAINTS	38
4.6.1.	Agricultural Practices.....	38
4.6.2.	Marketing Practices.....	38
5.	CONCLUSIONS.....	40
6.	RECOMMENDATIONS	41
7.	REFERENCES	42
	APPENDIX I - DETAILED TABLES	43

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Lastly, I would like to thank my family for their support during the conduct of this assignment.

ACRONYMS

CA2014	2014 Census of Agriculture
FAO	Food and Agricultural Organization of the United Nations
MAIFS	Ministry of Agro Industry and Food Security
NC	National Consultant
PSUs	Primary Sampling Units
RRA	Rodrigues Regional Assembly
SFWF	Small Farmers Welfare Fund
SM	Statistics Mauritius
TCP	Technical Cooperation Programme
TOR	Terms of Reference

SYMBOLS

ha	hectare
MUR	Mauritian Rupee
Mn	Million
-	Nil
...	Negligible
„000	thousand

LIST OF TABLES

Table	Title	Page
1	Number and area of farms by sector, July 2013 - June 2014	12
2	Land use by region (Household sector), July 2013 - June 2014	14
3	Distribution of land parcels by region (Household sector), July 2013 - June 2014	15
4	Distribution of farmer's household members (excluding farmers) working on farm by age group, July 2013 - June 2014	21
5	Distribution of farmers by main constraint (Household sector) , July 2013 - June 2014	23
6	Distribution of farms by membership organisation (Household sector), July 2013 - June 2014	23
7	Distribution of farms involved in crop production only by region (Household sector), July 2013 - June 2014	24
8	Number of farms, harvested area and production by vegetable and cereal crop, July 2013 - June 2014	25
9	Distribution of harvested area of selected crops by size of plot, July 2013 - June 2014	26
10	Distribution of farms by selected crop and region (Household sector), July 2013 - June 2014	27
11	Number of farms and area under fruits and nuts by fruit type, July 2013 - June 2014	27
12	Distribution of farms of selected fruits by region (Household sector), July 2013 - June 2014	28
13	Number of farms and harvested area by horticultural product, July 2013 - June 2014	28
14	Livestock population and number of farms as at 30 June 2014	29
15	Classification of livestock farms by type and size, July 2013 - June 2014	29
16	Distribution of livestock farms by type and size, July 2013 - June 2014	30
17	Distribution of small pigs farms by size, July 2013 - June 2014	32
18	Dairy farms, cow keepers and milk production, July 2013 - June 2014	32
19	Distribution of poultry & breeders by poultry type, July 2013 - June 2014	33
20	Distribution of poultry farms by type and size, July 2013 - June 2014	33
21	Distribution of small poultry farms by type and size, July 2013 - June 2014	34
22	Distribution of poultry farms by poultry type and region (Household sector), July 2013 - June 2014	35
23	Number of layers reared and eggs sold by sector	35
24	Distribution of apiaries and productive beehives by size of farm	36
25	Distribution of apiaries by size and region (Household sector) as at 30 June 2014	36
26	Number of hives and honey production by type of farm	37
27	Distribution of farms by agricultural practice, July 2013 - June 2014	38
28	Distribution of main marketing channel by main agricultural produce, July 2013 - June 2014	39

LIST OF FIGURES

Figure	Title	Page
1	Percentage distribution of farms by farming type and sector, July 2013 - June 2014	13
2	Percentage distribution of agricultural lands by farming type, July 2013 - June 2014	14
3	Percentage distribution of farms by main purpose of production and farming type, July 2013 - June 2014	16
4	Percentage distribution of paid employees by sector and gender, July 2013 - June 2014	17
5	Percentage distribution of farmers by age group and gender (Household sector), July 2013 - June 2014	18
6	Percentage distribution of farmers by employment type and gender (Household sector), July 2013 - June 2014	19
7	Percentage distribution of farmers by farming type and gender (Household sector), July 2013 - June 2014	20
8	Percentage distribution of farmer's household members (excluding farmers) working on farm by age group and gender, July 2013 - June 2014	22

1. EXECUTIVE SUMMARY

Rodrigues has not undergone that major shift from an agriculture-based economy to an industrial/manufacturing one. Agriculture is still offering the main source of products for local market and export. Subsistence farming plays an important role for provision of basic food requirements in many Rodriguan households and thus ensuring food security.

Prior to the 2014 Census of Agriculture (CA2014), the frame used in the current statistics system did not give a complete picture of agriculture in Rodrigues as agricultural activities in household farms was only partly covered. Updated structural data on the agricultural sector which allows long-term strategic planning, were not available. For instance, the profile of farmers engaged in each agricultural activity, the size of their land parcels, land tenure, land use, agricultural inputs, harvested area for temporary and permanent crops, were non-existent.

In order to effectively plan for higher production of agricultural products, aiming at higher export and boosting the agro-processing industry, more reliable and timely data were needed. The CA2014 bridged the data gap by providing structural data on the agricultural sector, benchmarks for current agricultural statistics and a frame for agricultural surveys. The main results of the CA2014 conducted from July to December 2014, are summarised as follows:

- Number of farms: 5,106 (5,083 household farms and 23 agricultural businesses);
- Number of farmers: 5,888 (57% males and 43% females) and 3,553 farmer's household members (46% males and 54% females) working on household farms;
- Number of paid employees: 4,551 (65% males and 35% females) working on all farms;
- Area of vegetables and cereals harvested: 1,625 ha of which Maize covered 675 ha and beans, 256 ha;
- Area under fruit and nut trees: 110 ha (Mango, banana and water melon are the three most common fruits);
- Area of flowers harvested: 0.3 ha (Rose, gerbera and anthurium are the three most common flowers);
- Livestock & poultry populations: 11,000 cattle, 19,000 goats, 10,000 sheep, 16,000 pigs, 76,000 broilers, 16,000 layers and 126,000 local poultry;
- Number of beehives: 2,790 of which 2,225 are productive beehives from which 27 tonnes of honey was produced;
- Some 27% of farms produced mainly for own consumption (subsistence farming);
- Mechanisation and organic fertilisers used by 18% and 81% of farmers respectively;
- Main constraints of farmers is "Pests/diseases" (88%) and "Unavailability of water" (70%).

2. INTRODUCTION

2.1. GENERAL INFORMATION

Rodrigues is a 108 square km autonomous outer island of the Republic of Mauritius in the Indian Ocean, about 560 kilometres east of the Island of Mauritius. The island which used to be referred as the tenth District of Mauritius, gained its autonomous status on 10 December 2002, and is governed by the Rodrigues Regional Assembly. The capital of Rodrigues is Port Mathurin. As at 1 July 2014, the number of private households and population of Rodrigues were estimated at 12,300 and 41,669 respectively. Its economy is based mainly on fishing, farming, handicraft and a developing tourism sector.

2.2. IMPORTANCE OF AGRICULTURE IN RODRIGUES

In 2014, the “Agriculture, forestry and fishing” industry group in Rodrigues, predominantly agriculture, was the sector which absorbed the highest number of workers (6,050 persons), representing 34% of total employment.

Most of the commodities exported by Rodrigues to the Island of Mauritius in 2014 were from agriculture, namely cattle, goats, sheep, local poultry, honey, local red beans (dried), small chillies, onions and lemons. Thus export of agricultural products is an important source of revenue for the Island.

It is worth noting that honey, local red beans (dried), small chillies and lemons, either in the form of primary products or processed ones, were sold to some 55,000 people visiting Rodrigues in 2014, thus representing another important source of revenue for the island.

2.3. AGRICULTURAL DEVELOPMENT IN RODRIGUES

Recently the Rodriguan agriculture adopted a new approach in terms of development strategy for the agricultural sector. The strategy which puts much emphasis on revitalisation, modernisation and professionalization of the agricultural sector, was one of the most important focus of the last two financial budgets of the RRA.

Some of the major areas of intervention to implement the strategy are:

- Provision of professional and applied agricultural training for the youth;
- Allocation of starter package to encourage the youth to invest in agricultural activities;
- Support packages to boost production of high value cash crops;
- Promote off season production of selected food crops;
- Backing water use efficiency in agriculture; and
- Encourage development of organic farming for bio products.

2.4. NEED FOR BASELINE AGRICULTURAL DATA

In light of encouraging the implementation of the new approach in agricultural development in Rodrigues as well as reviewing current ones, policy makers and stakeholders need updated and reliable agriculture statistics. The latter need to be conducive for consistent and informed decision making for the future of agriculture, food security and eventually for the economy at large. The CA2014 provided the baseline data.

3. METHODOLOGY

3.1. OBJECTIVES OF CA2014

The main objectives of CA2014 were to:

- (i) Provide important information on the organisational structure of farms at geographic level for better and informed decision making (e.g farm size, land use, land tenure, crop area harvested, irrigation, livestock populations, farm labour as well as the number of holdings with each crop and livestock types);
- (ii) Improve estimates on the contribution of agriculture for the economy;
- (iii) Give information on the household sector including subsistence farming which is important for food security; and
- (iv) Better the completeness of existing sampling frame that will be used as the base for sample selection for future agricultural surveys.

3.2. SAMPLING FRAMES

The frames used in CA2014 for Rodrigues were constructed from the following sources:

- Commission for Agriculture of the RRA; and
- 2011 Housing Census.

3.3. POPULATION AND SAMPLING

Regarding the agricultural businesses (non-household sector), 23 were identified and all were covered during the census. Out of the 5,465 household farms in the frame, some 2,332 farms were selected for interviewing. Concerning the household survey, 7 out of 41 clusters (PSUs) of private households were selected for the survey.

3.4. DATA COLLECTION AND QUALITY ASSURANCE

Data collection was done in three phases as follows:

- Phase I covering agricultural businesses;
- Phase II covering household farms; and
- Phase III covering private households.

Phase I was carried out by mail by SM and follow up was done with the help of Statistics Unit of RRA whereas Phases II and III were done through face-to-face interviews. Interviewers, supervisors and senior supervisor, all Rodriguans, were selected and trained by SM before the start of the census. Most of the training sessions were done in Rodrigues by resource persons of SM.

Data collected by the interviewers were 100% edited by their respective supervisors followed by some reinterviews to ensure integrity of interviewers under the guidance of the senior and chief supervisors. The chief supervisor also edited a sample of two completed questionnaires from each interviewer and did some reinterviews to ensure quality and integrity. All completed questionnaires were sent to SM for editing, coding, data capture and analysis. At the editing and coding stage at SM, some farmers were contacted on phone to verify and confirm information supplied by them.

3.5. APPROACH FOR DATA ANALYSIS

The FAO recruited a Rodriguan national consultant under the TCP Project to do a thematic report on Rodrigues using the census data. Data analysis for this report was done based on the TOR of the national consultant. During a one-day dissemination seminar, held on 18 November 2015 in Mauritius, three NCs presented the findings of their respective thematic reports (gender analysis, land analysis and livestock analysis). Coupled with the outcomes of this seminar, a meeting was held on 19 November 2015 at SM during which the general analytical approach for the Rodrigues Report was elaborated.

During the first week of December 2015, informal meetings were held with heads of units of the Agricultural Services in Rodrigues to discuss and take on board any analyses they were expecting from this report.

Based on the above approach, a draft Conceptual Framework for data analysis was developed and submitted to FAO and SM for their views and comments.

3.6. DISSEMINATION OF THE REPORT

The NC for the Rodrigues Report presented his main findings to major stakeholders of the agricultural sector during a dissemination workshop held in February 2016 in Rodrigues. The final report will be disseminated by SM in September 2016.

4. ANALYSIS OF RESULTS

4.1. AGRICULTURAL HOLDINGS (FARMS)

4.1.1. Number and total area of farms

Based on the CA2014 data, the number of agricultural holdings (farms) was estimated at 5,106. Out of these, 5,083 (99.5%) were household farms and 23 (0.5%) were non-household farms (agricultural businesses). Household and non-household farms are classified in the household and non-household sectors respectively.

Total area of land used by agricultural holdings was estimated at 1,767 hectares with the vast majority (99.3%) occupied by household farms. The average size of holding for household and non-household farms worked out as 0.3 and 0.6 hectare respectively (**Table 1**). It is to be noted that around ten years ago, the total area of arable land suitable for crop production in Rodrigues amounted to 2,000 ha.

Table 1: Number and area of farms by sector, July 2013 - June 2014

Item	Household Sector	Non-household Sector	Both sectors
Number of holdings	5,083	23	5,106
%	99.5	0.5	100.0
Area of holding (hectares)	1,755	12	1,767
%	99.3	0.7	100.0
Average area of holding (hectares)	0.3	0.6	0.3

Some 2,030 (or 40%) farms had an area of less than 100 perches and another 2,400 (or 48%) ones had an area between 100 and less than 500 perches in the household sector. More details on number and area of farms are found at Table A2.1 of Appendix I.

4.1.2. Analysis of farms by farming type and sector

Figure 1 shows that farmers in the non-household sector are mostly involved in the rearing of „livestock/poultry only“ as compared to the household sector who were mostly engaged in growing of „crops only“ or carrying our mixed farming.

Details on area of land used by farmers are presented in Table A2.2 of Appendix I.

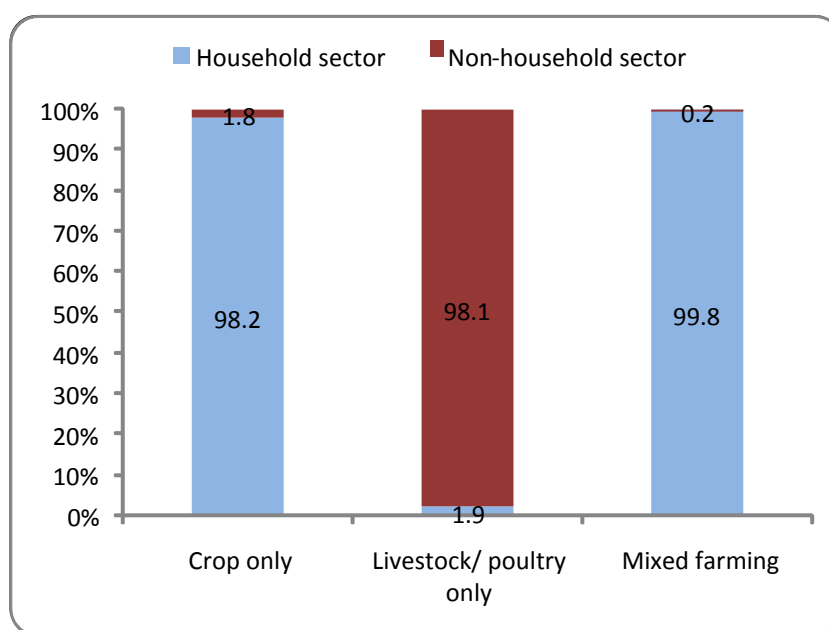


Figure 1: Percentage distribution of farms by farming type and sector, July 2013 – June 2014

4.1.3. Land Use

Based on CA2014 results, agricultural land under temporary crops was estimated at around 1,168 ha, under permanent crops at 155 ha and under permanent meadows and pastures at 185 ha. More details on land use are found at Table A2.3 of Appendix I.

4.1.3.1. Analysis of Land Use by sector

Regarding land use, 95% of the agricultural lands occupied by the household sector were used for farming. The corresponding estimate for the non-household sector stood at 88%.

The majority of the lands used were under temporary crops (mainly vegetables) in both sectors: 66% for household sector and 58% for non-household sector.

Lands under permanent crops (mainly fruits) were as follows: 9% for household sector and 2% for non-household sector.

4.1.3.2. Analysis of Land Use by farming type

Figure 2 depicts that the vast majority (97%) of the agricultural lands used by all farms were meant for mixed farming. More details on land use by type of farming given at Table A2.4 of Appendix I.

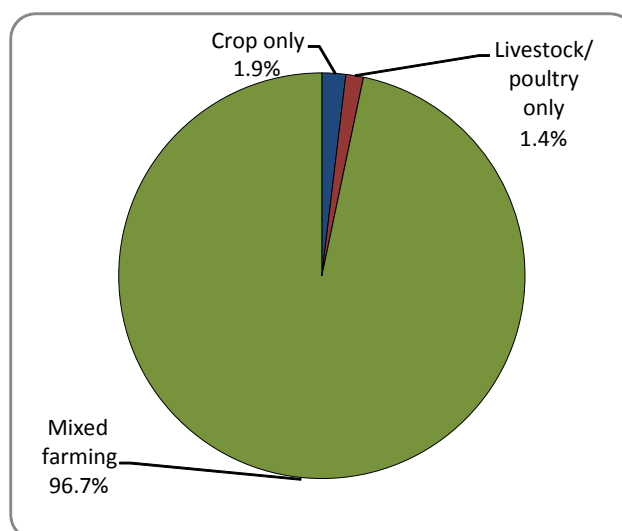


Figure 2: Percentage distribution of agricultural lands by farming type, July 2013 – June 2014

4.1.3.3. Analysis of Land Use (household sector) by region¹

An analysis of land use by region reveals that “La Ferme” had the highest portion (592 ha or 33.7%) of agricultural land, followed by “Grande Montagne” (343 ha or 19.5%). The smallest portion (117 ha or 6.7%) was found in “Baie aux Huitres” (Table 2). More details on land use by size and region are provided at Table A2.4 of the Appendix I.

Table 2: Land use by region¹ (Household sector), July 2013 - June 2014

	La Ferme	Maréchal	Saint Gabriel	Baie aux Huitres	Port Mathurin	Grande Montagne	All regions
Total area of holdings (ha)	592	232	275	117	196	343	1,755
%	33.7	13.2	15.7	6.7	11.2	19.5	100.0

¹ Rodrigues is divided into six regions namely: La Ferme, Maréchal, Saint Gabriel, Baie aux Huitres, Port Mathurin and Grande Montagne

4.1.4. Land Tenure

In the household sector, 46% of agricultural lands were leased from Government and 2% from others; 6% were owned by farmers and the remaining 46% were other types of land tenure. The high percentage of other types of land tenure is explained by the fact that farmers who were interested to lease a plot of agricultural land from the government were given permission to occupy the earmarked lands pending approval of their requests.

However, in the non-household sector, 23 % of agricultural lands were owned by the agricultural businesses and the remaining 77% were leased from government.

More details on land tenure are found at Table A2.5 of Appendix I.

4.1.5. Land Parcel

The number of land parcels² operated by household farms was estimated at around 7,550 over the period July 2013 to June 2014.

4.1.5.1. Analysis of land parcels (household sector) by region

An analysis of land parcels by region reveals that the region of “Grande Montagne” had the highest number of parcels (1,930), followed by “Saint Gabriel” (1,630). On the other hand, the region with the smallest number of parcels was “Baie aux Huitres” (650).

Table 3: Distribution of land parcels by region (Household sector), July 2013 - June 2014

	La Ferme	Maréchal	Saint Gabriel	Baie aux Huitres	Port Mathurin	Grande Montagne	All regions
Number of parcels	1,350	1,140	1,630	650	850	1,930	7,550
%	17.9	15.1	21.6	8.6	11.2	25.6	100.0

² A land parcel is a piece of land entirely surrounded by other land, water, road, forest or other features not forming part of the holding

4.1.6. Main purpose of production

Overall, the majority (73%) of farms produced mainly for sale and the remaining 27% produced mainly for own consumption.

Analysis of main purpose of production by farming type reveals that out of the farms involved only in crop production, 49% produced mainly for own consumption. On the other hand farms involved only in livestock and poultry production were all producing mainly for sale. (Figure 3).

More details on the distribution of farms by main purpose of production and farming type are available at Table A2.6 of Appendix I.

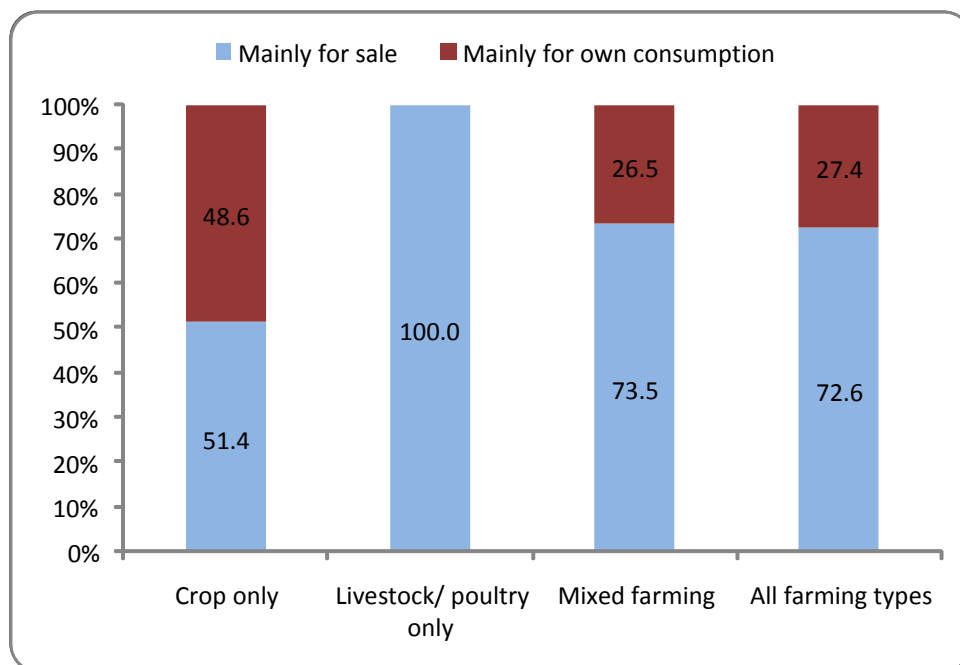


Figure 3: Percentage distribution of farms by main purpose of production and farming type, July 2013 – June 2014

4.1.7. Paid employees

The number of paid employees working on farms was estimated at 4,392 for the period July 2013 to June 2014. The household sector engaged 4,277 paid employees compared to 115 for the non-household sector. In the household sector, a vast majority (4,075 or 95%) were working on a part-time basis while only 5% were on a full-time basis.

4.1.7.1. Analysis of paid employees by sector and gender

An analysis of paid employees by sector and gender reveals that both sectors had more males: household sector (67%) and non-household sector (52%) (Figure 4.)

More details on the distribution of paid employees by sector and sex; and employees (household sector) by employment type and sex are presented at Table A2.7a and A2.7b of Appendix I respectively.

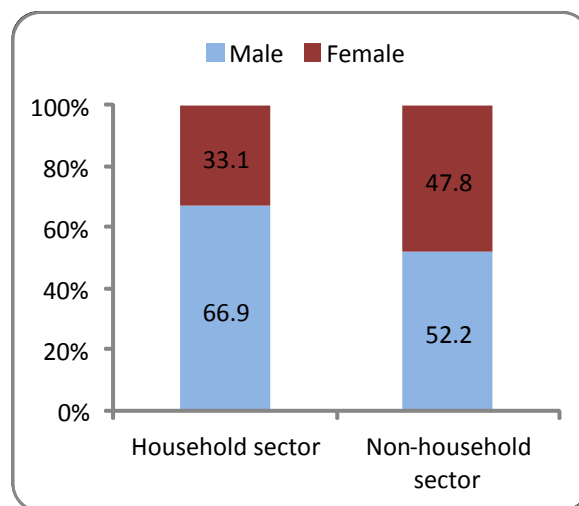


Figure 4: Percentage distribution of paid employees by sector and gender, July 2013 – June 2014

4.2. PROFILE OF HOUSEHOLD FARMS

4.2.1. Farmers

4.2.1.1. Number, Age and Gender

Some 5,888 farmers³ were estimated in the household sector for the period July 2013 to June 2014 and there were more males (57%) than females (43%).

Regarding the age structure of the farmers, it is worth noting that 44% of the farmers were aged between 30 and 49 years and another 27% were aged 60 years or more (**Figure 5**).

More details on the distribution of farmers of the household sector by age and gender are found at Table A2.8 of Appendix I.

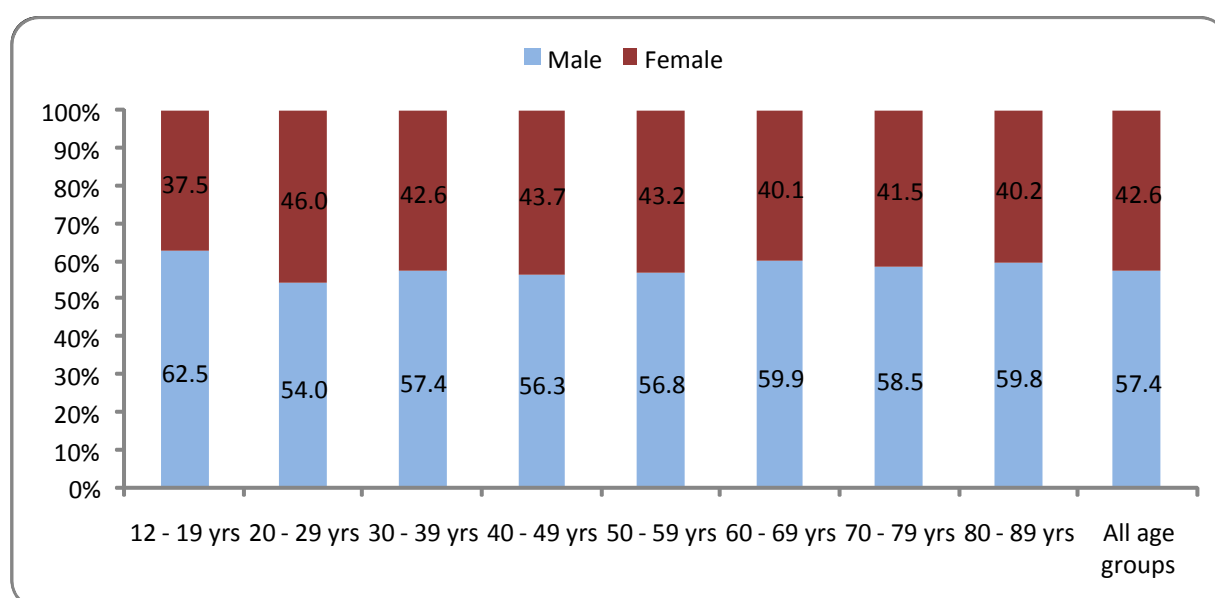


Figure 5: Percentage distribution of farmers by age group and gender (Household sector), July 2013 – June 2014

³ A farmer is defined as the civil or juridical person who makes the major decisions regarding resource use and exercises management control over the farm operation. He/She has technical and economic responsibility for the farm and may undertake all responsibilities directly, or delegate responsibilities related to day-to-day work management to a hired manager.

4.2.1.2. *Analysis of Farmers by employment type and gender*

Figure 6 shows farmers in the household sector were predominantly working on a full time basis irrespective of their sex with females (76%) higher than males (71%).

More details on the distribution of farmers of the household sector by employment type and gender are found at Table A2.9 of Appendix I.

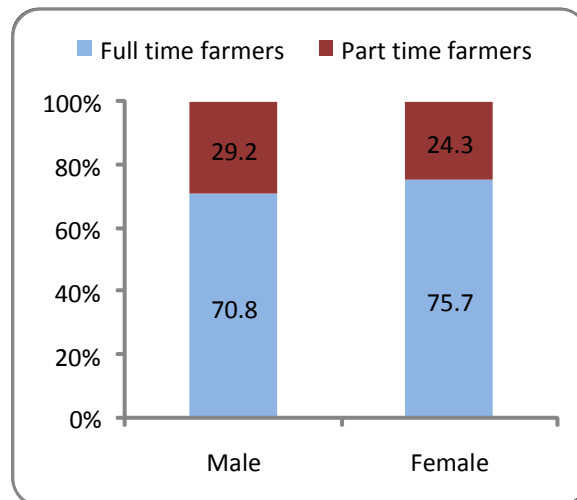


Figure 6: Percentage distribution of farmers by employment type and gender (Household sector), July 2013 – June 2014

4.2.1.3. *Analysis of Farmers by farming type and gender*

Generally, farming is divided in three major types of broad activities namely crop, livestock/poultry and mixed farming (both crop and livestock). The vast majority (95%) of farmers were engaged in mixed farming that is doing both crop and livestock activities. It is to be noted that farmers were predominantly males irrespective of the farming type (**Figure 7**). This tendency can be explained by climatic conditions prevailing on the island and the frequent droughts during a year. In such situations, farmers tend to diversify their agricultural activities and thus, generally go for a mix of crop and livestock. More details on the distribution of farmers of the household sector by farming type and gender are found at Table A2.10 of Appendix I.

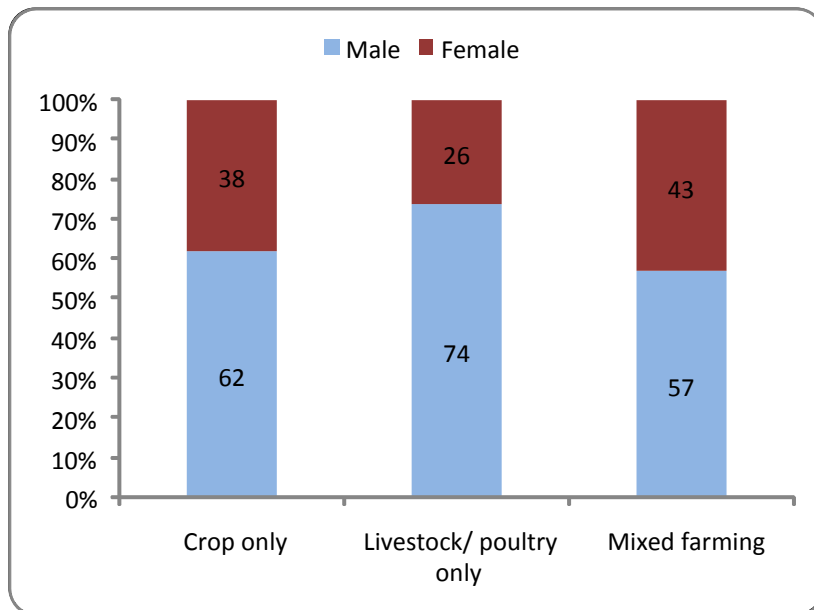


Figure 7: Percentage distribution of farmers by farming type and gender (Household sector), July 2013 – June 2014

4.2.2. Farmer’s household members

The number of household members in the 5,106 household farms of Rodrigues was estimated at 18,727. The average size of these households worked out to 3.7 persons compared to a figure of 3.4 for all private households as at 1 July 2014.

An analysis by gender reveals that as at 1st July 2014, on average, a farmer’s household comprised 49.3% males and 50.7% females.

4.2.3. Farmer’s household members (excluding farmers) working on farm

For the period July 2013 to June 2014 the number of farmer’s household members, excluding farmers, working on the 5,083 household farms was estimated at 3,553 and the average number of members per household farm was estimated at 0.7 (**Table 4**). Among these workers, 15.5% were working on a full time basis and the remaining 84.5% were part timers.

More than three out of four agricultural workers from the household farms aged between 12 and 49 years. This is a good age structure for the sustainability of agriculture in Rodrigues. On the other hand, only around 10% of the agricultural workers were aged 60 years or more. This low figure could be explained by the fact that, in Rodrigues, agricultural work is quite demanding in terms of physical effort and as members grow older they are less likely to continue working on their family farms.

Table 4: Distribution of farmer's household members (excluding farmers) working on farm by age group, July 2013 – June 2014

Age group (in years)	Number	%
12 - 19	576	16.2
20 - 29	791	22.3
30 - 39	751	21.1
40 - 49	617	17.4
50 - 59	475	13.4
60 - 69	236	6.6
70 - 79	103	2.9
80 - 89	4	0.1
90 - 99	-	-
All age groups	3,553	100.0

4.2.3.1. Analysis by age and gender

Figure 8 reveals that farmer's household members (excluding farmers) working on farm and aged between 12 and 29 years were mostly males (more than 60%). On the other hand, those aged between 30 and 79 years were mostly females (more than 60%). It is worth noting that household members aged at least 80 years and working on their family farms, were all males

More details on the distribution of farmer's household members (excluding farmers) working on farm by age group and gender are found at Table A2.11 of Appendix I.

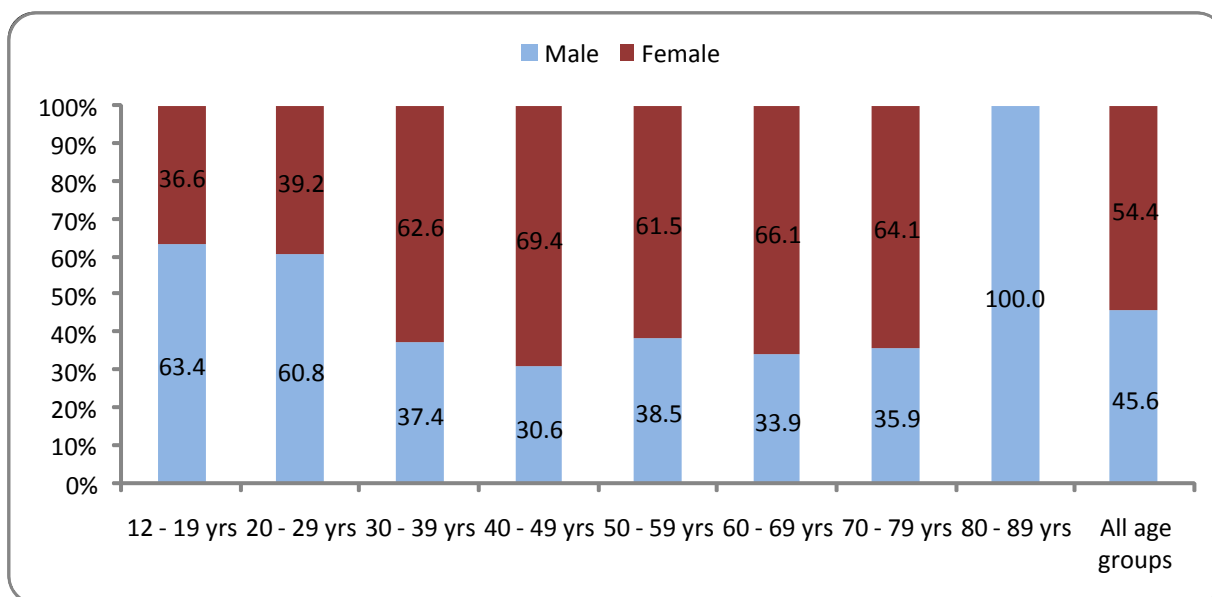


Figure 8: Percentage distribution of farmer's household members (excluding farmers) working on farm by age group and gender, July 2013 – June 2014

4.2.4. Agricultural households

CA2014 revealed that 20% of the private households in Rodrigues were “agricultural households⁴”.

4.2.5. Constraints

Amongst the major constraints which farmers of the household sector were facing in 2014, pests and diseases emerged as the top one (88%), followed by unavailability of water (70%) and natural disaster (64%).

The crop sector is facing attacks of fruit flies and mealy bugs causing severe loss in production. There is also the problem of citrus canker which is affecting mostly lemon orchards around the island. The pests of this sector are mainly stray dogs and ruminants wandering around neighbouring farms which usually have no fencing. Bats also are causing important losses to fruit production. Thus “pests and diseases” was the main constraint as perceived by most farmers.

Water has been a restraining factor for the farming community for many decades and it was still a major problem in 2014.

⁴ An agricultural household is a household whose largest source of income consists of income derived from agricultural production.

*Table 5: Distribution of farmers (Household sector) by main constraint,
July 2013 – June 2014*

	Pests/ Disease	Unavailability of water	Natural disaster	High price of inputs	Marketing
Number of farmers	5,180	4,120	3,770	1,470	1,180
%	88.0	70.0	64.0	25.0	20.0

4.2.6. Farmer's Registration

Table 6 shows that the majority (72%) of farmers of the household sector were not registered, 13% were registered with Agricultural Associations and another 8%, with the Small Farmers Welfare Fund.

*Table 6: Distribution of farms (Household sector) by membership organisation,
July 2013 – June 2014*

Membership organisation	Number of farms	%
Small Farmers Welfare Fund	425	8.4
Agricultural Cooperative Society	156	3.1
Agricultural Association	640	12.6
Other membership	220	4.3
None	3,642	71.7
Total	5,083	100.0

4.3. CROP SECTOR

4.3.1. Farms involved in crop production only

Based on the results of CA2014, there were some 209 farms which are engaged solely in the production of crop⁵.

4.3.1.1. Analysis by region

The regions of “Baie aux Huitres” had the highest proportion (28%) of farms involved in crop production only while “Grande Montagne” is the one with the smallest number (9%) (Table 7).

Table 7: Distribution of farms involved in crop production only by region (Household sector), July 2013 – June 2014

Region	No.	%
La Ferme	28	13.4
Maréchal	24	11.5
Saint Gabriel	43	20.6
Baie aux Huitres	58	27.7
Port Mathurin	37	17.7
Grande Montagne	19	9.1
All regions	209	100.0

4.3.2. Vegetable and cereal crops

Total area harvested for vegetable and cereal crops was estimated at 1,625 ha over the period July 2013 to June 2014. Maize (675 ha) beans (256 ha), sweet potato (95 ha), onion (82 ha) and cassava (70 ha) were the five most common crops accounting for nearly three quarters (72%) of the area harvested. Details on other crops are provided at Table 8.

Maize is well adapted to the dry climate of Rodrigues. The dried parts of the plant can be used as fodder, for mulching and in making compost.

Usually, staple crops are very important in mixed farming production system for they have multifunction in both food crop and livestock productions. The popularity of staple crops has been revealed by CA2014 with large areas of maize, sweet potato and cassava harvested in Rodrigues over the period July 2013 to June 2014. The same tendency is confirmed by the number of farms involved in these productions. It is to be noted that a farm, on average, produces more than one vegetable and cereal crop and thus the total number of farms in

⁵ Crops are vegetables, cereals, fruits, nuts and flowers

Table 8 is very much higher than the actual number of farms involved in vegetable and cereal crops production.

Local red bean (dried) is usually grown in rotation with maize in Rodrigues and thus over 256 hectares of beans were harvested during same period.

Table 8: Number of farms, harvested area and production by vegetable and cereal crop, July 2013 - June 2014

Crop	Number of farms	Harvested area (ha)	Production (tonnes)
Maize	2,782	675	2,360
Dried-Beans	1,190	256	410
Sweet Potato	1,686	95	950
Onion	793	82	985
Cassava	1,561	70	910
Groundnut	763	65	200
Pumpkin	1,677	63	895
Leafy vegetables (Brede)	1,471	42	540
Calabash	1,414	42	340
Cucumber	1,067	42	410
Tomato	589	38	540
Carrot	961	25	230
Chillies	819	22	50
Brinjal	915	16	250
Cabbage	338	16	300
Beetroot	487	10	85
Lettuce	366	11	90
Potato	84	9	150
Other vegetables	2,760	46	370
All crops		1,625	10,065

4.3.3. Selected vegetables (beans, chillies and onion)

4.3.3.1. Analysis of harvested area by size

The three main agricultural cash crops grown in Rodrigues were local red beans, chillies and onion. Table 9 shows the distribution of the harvested area of these crops by size of plot. The majority of the harvested plots for beans (79%), chillies (68%) and onion (45%) productions had size between one and four acres.

Table 9: Distribution of harvested area of selected crops by size of plot, July 2013 - June 2014

Crop	Size of plot (ha)						All sizes
	<0.02	0.02 - <0.1	0.1 - <0.2	0.2 - <0.4	0.4 - <2.1	2.1 - <4.2	
Beans (dried)	...	1.8	7.0	26.4	195.4	16.6	247.1
%	...	0.7	2.8	10.7	79.1	6.7	100.0
Chillies (small)	0.2	0.5	0.4	3.2	13.2	2.0	19.5
%	0.8	2.7	2.3	16.5	67.6	10.1	100.0
Onion	0.1	6.9	8.0	21.7	44.7	0.4	81.8
%	0.1	8.4	9.8	26.5	54.7	0.5	100.0

4.3.3.2. Analysis of farms by region

An analysis of farms involved in beans, chillies and onion by region reveals that most of the farms involved in growing of beans and chillies were found in the region of “La Ferme” whereas for onion they were mostly grown in region of “Grande Montagne” (Table 10).

Beans and chillies are mostly grown in rain fed regions of Rodrigues. These crops can be grown in all the six regions. Onion plantations need supplementary irrigation practically throughout the crop cycle and water for irrigation is more available in valley’s bottom and flat lands with low water tables. Thus onions are mostly grown in the two regions (72%) of “Grande Montagne” (45%) and “Saint Gabriel” (27%).

*Table 10: Distribution of farms by selected crop and region (Household sector),
July 2013 - June 2014*

	La Ferme	Maréchal	Saint Gabriel	Baie aux Huitres	Port Mathurin	Grande Montagne	Total
Beans (dried)	405	158	233	70	89	235	1,190
%	34	13	20	6	7	20	100
Chillies (small)	250	79	99	13	58	197	655
%	32	12	15	2	9	30	100
Onion	77	80	211	39	31	355	793
%	10	10	27	5	4	45	100

4.3.4. Fruits and nuts production

4.3.4.1. Area under fruit and nut trees

There were 110 hectares of land which were under fruit and nut trees over the period July 2013 to June 2014 and the three most popular fruits in terms of area were mango (22 ha), banana (18 ha) and watermelon (17 ha).

Table 11: Number of farms and area under fruits and nuts by fruit type, July 2013 - June 2014

Item	Mango	Banana	Watermelon	Lemon	Pineapple	Pawpaw	Mandarin	Others	Total
Number of farms	2,369	2,409	185	2,138	435	2,170	1,102	7,905	
Area under fruit & nut trees (ha)	22	18	17	15	9	6	5	18	110
%	20	16	15	14	8	5	5	16	100

4.3.5. Selected fruits (lemon, litchi and mango)

4.3.5.1. Analysis of farms by region

Most of the farms involved in growing of lemon, litchi and mango trees were found in the region of “La Ferme” whereas litchi trees were mostly grown in the region of “Baie aux Huitres” (Table 12).

Table 12: Distribution of farms of selected fruits by region (Household sector), July 2013 - June 2014

Fruit	La Ferme	Maréchal	Saint Gabriel	Baie aux Huitres	Port Mathurin	Grande Montagne	All regions
Lemon	555	307	288	274	281	433	2,138
%	26	14	13	13	13	20	100
Litchi	88	52	100	120	80	115	555
%	16	9	18	22	14	21	100
Mango	641	442	396	366	256	268	2,369
%	27	19	17	15	11	11	100

4.3.6. Horticultural products

The estimated harvested area of horticultural products produced mainly for sale was 0.3 hectare over the period July 2013 to June 2014 (Table 13). The three most popular flowers based on total production were rose (64%), gerbera (23%) and anthurium (9%).

Table 13: Number of farms and harvested area by horticultural product, July 2013 - June 2014

Item	Rose	Gerbera	Anthurium	Others	Total
Number of farms	6	3	19	39	67
Harvested area (ha)	0.05	0.04	0.06	0.19	0.34
%	14.7	11.8	17.6	55.9	100.0

4.4. LIVESTOCK & POULTRY

4.4.1. Livestock farms & Populations

The population of livestock in Rodrigues as at 30 June 2014 and the estimated number of farms engaged in each type of livestock is shown in Table 14 below. Livestock breeders in Rodrigues tend to favour production of small ruminants (goats and sheep) with some 29,000 heads (or 52% of total livestock population). This is mainly explained by the fact that rearing of small ruminants in Rodrigues is linked with the climatic conditions and the low productivity of the pastures which has been estimated around 1 tonne of dry matter per hectare of land (Agricultural Services, 1999). The majority of small ruminants graze on the mountainous sloppy pasture lands and this allows the breeders to be involved in other activities.

Table 14: Livestock population and number of farms as at 30 June 2014

Item	Cattle	Goats	Sheep	Pigs	Total
Number of heads (in ,000)	11	19	10	16	56
%	19.6	33.9	17.9	28.6	100.0
Number of farms	1,358	1,442	426	3,026	6,252
%	21.7	23.1	6.8	48.4	100.0
<i>Average number of heads per farm</i>	8	13	23	5	

4.4.1.1. Analysis by farm size

Livestock farms have been categorised as small, medium and large for analysis purpose at the census. Table 15 summarises the criteria used for this classification.

Table 15: Classification of livestock farms by type and size, July 2013 – June 2014

Livestock type	Farm size		
	Small	Medium	Large
Cattle	< =10 heads	11- 19 heads	>=20 heads
Goats/Sheep	< 20 heads	20 - 49 heads	>= 50 heads
Pigs	< 50 heads	50 – 99 heads	>= 100 heads

Based on the above classifications, an analysis of the livestock farms reveals that the livestock sector is dominated by small (95%) farms for all animal types and this could be explained by limitation in agricultural land. Medium and large livestock farms represented 4% and 1% respectively (Table 16).

Table 16: Distribution of livestock farms by type and size, July 2013 – June 2014

Animal type	Farm size			Total No. of farm
	Small	Medium	Large	
Cattle	1,267	65	26	1,358
%	93.3	4.8	1.9	100.0
Goats	1,306	100	35	1,442
%	90.6	7.0	2.4	100.0
Sheep	316	86	24	426
%	74.2	20.2	5.6	100.0
Pigs	3,019	5	2	3,026
%	99.7	0.2	0.1	100.0
All types	5,908	256	87	6,252
%	94.5	4.1	1.4	100.0

4.4.2. Cattle

The population of cattle as at 30 June 2014 was around 10,700 and 77% of them were meant for meat production and only 23% for dairy. The total number of cattle sold over the period July 2013 to June 2014 was 2,040. The population of 3,102 non-milking cows sustain this sale figure. It is to be noted that 1,497 cattle heads were exported to Mauritius in 2014 and this represents 73% of total production.

More details on populations of cattle by type and purpose of production and also the production measured by number sold are found at Table A2.12 of Appendix I.

4.4.3. Goats

The population of goats as at 30 June 2014 was around 19,400 and some 41% of them were meant for meat production and 59% for breeding.

With a herd of 6,357 kids and a sale of 5,515 heads for the period July 2013 to June 2014, there is a good balance between kidding and sale of goats. It is to be noted that 3,994 goat heads were exported to Mauritius in 2014 representing 72% of total production.

More details on populations of goats by type, purpose of production and number sold are found at Table A2.13 of Appendix I.

4.4.4. Sheep

The population of sheep as at 30 June 2014 was around 10,200 and some 28% of them were meant for meat production and 72% for breeding.

With a herd of 3,315 young lambs and a sale of 2,070 heads for the period July 2013 to June 2014, there is a good balance between lambing and sale of sheep. It is to be noted that 1,908 sheep heads were exported to Mauritius in 2014 and this represents 92% of total production.

More details on populations of sheep by type, purpose of production and number sold are given at Table A2.14 of Appendix I.

4.4.5. Pigs

Pig farming is quite popular in Rodrigues. The population of pigs as at 30 June 2014 was around 16,000 and some 63% of them were meant for meat production and 37% for breeding.

In Rodrigues, slaughtering of pigs within home premises is very common throughout the year, particularly during festive periods. Statistics on „home“ slaughtering is not compiled by Statistics Unit of Rodrigues. This most probably explains the difference between the official figure (1,786) for number of pigs slaughtered, published in the Digest of Statistics on Rodrigues 2014, and that estimated (20,001) from CA2014 data for the period July 2013 to June 2014. The sale of 20,001 pig heads would be equivalent to the consumption of an average number of 1.6 pigs per household in Rodrigues during same period. It is to be noted that only 4 pig heads were exported to Mauritius in 2014.

4.4.5.1. *Analysis of small pig farms*

Table 17 gives a breakdown of small pig farms. It is worth noting that the majority (85%) of the small farms had less than 5 pigs and 37% had only one pig as at 30 June 2014. This confirms the saying that “there is at least one pig per household in Rodrigues” and also that the Rodriguan household consumes, an average 1.6 pigs in one year.

Table 17: Distribution of small pig farms by size, July 2013 – June 2014

	1 pig	2 pigs	3 pigs	4 pigs	5-9 pigs	10-19 pigs	20-49 pigs	Total
Number of farms	1,106	832	432	190	277	162	20	3,019
%	36.6	27.6	14.3	6.3	9.2	5.4	0.7	100.0

More details on populations of pigs by type, purpose of production and number sold are found at Table A2.15 of Appendix I.

4.4.6. Milk Production

Table 18 below demonstrates that there were 1,260 dairy farms in Rodrigues during the period July 2013 to June 2014 with a production of around 213,000 litres of milk for the same period. This gives a yearly average production of around 170 litres of milk per farm.

During the reference period there were 113 milking cows, producing an average of 198 litres of milk per cow per year, which is not significant. Given that the Agricultural Station of the Agricultural Services had around 25 milking cows, the remaining 88 milking cows would be from the household farms and this confirms that the latter are not keen in producing milk.

Table 18: Dairy farms, cow keepers and milk production, July 2013 – June 2014

Item	Number
Dairy farms	1,260
Cow keepers	1,373
Milking cows	113
Milk production (,000 litres)	213

4.4.7. Poultry

Poultry farming is common among farmers. From Table 19 below, it is evident that among the poultry types which were reared by poultry breeders, production of local fowl was the most popular as it was accounting for around 54% of the total heads of poultry kept in 2014.

The popularity of local fowl lies in the quality of their meat due to their free range production and the breed which is relatively slow growing. The average number of local poultry per household works out to around 10 in 2014 and this confirms that Rodriguan households, by tradition, like rearing a few of these local poultry.

Table 19: Distribution of poultry & breeders by poultry type, July 2013 – June 2014

Item	Broiler	Layer	Local poultry	Duck	Other poultry
Poultry heads: household sector	40,000	6,000	126,000	14,000	...
Poultry heads: non-household sector	36,000	10,000	-
Poultry heads: both sectors	76,000	16,000	126,000	14,000	< 1
Number of farms	1,279	3,529	3,549	750	162
<i>Average number of heads per farm</i>	<i>60</i>	<i>5</i>	<i>35</i>	<i>19</i>	<i>3</i>

The distribution of the different types of poultry by sector is shown in Table 19 where we can observe this close relationship of the local poultry production and Rodriguan household farms.

Table 20 confirms that livestock production in Rodrigues, as revealed by CA2014, was dominated by small farms. It is to be noted that 100% of the poultry farms were classified as small.

Table 20: Distribution of poultry farms by type and size, July 2013 – June 2014

Poultry type	Small (<=1000 heads)	Medium (1001 - 4999 heads)	Large (5000 heads and above)
Poultry - broiler	1,275	-	-
Poultry - layer	3,524	-	-
Poultry - local	3,549	-	-

4.4.7.1. *Analysis of small poultry farms by poultry type*

Table 21 presents a breakdown of small poultry farms by type and size. It is worth noting that nearly two thirds of the small poultry farms had less than 20 heads, irrespective of the poultry type. Only around 2% of the poultry farms had 100 or more heads.

An analysis by poultry type shows the majority of „broiler“ (75%), „layer“ (90%) and „local poultry“ (62%) farms had less than 20 heads.

Table 21: Distribution of small poultry farms by type and size, July 2013 – June 2014

Poultry type	<10 heads	10-19 heads	20-39 heads	40-99 heads	100-199 heads	200-1000 heads	Total
Number of „broiler“ farms	482	468	222	72	8	23	1,275
%	37.8	36.7	17.4	5.7	0.6	1.8	100.0
Number of „layer“ farms	2,452	711	272	54	26	9	3,524
%	69.6	20.2	7.7	1.5	0.7	0.3	100.0
Number of „local poultry“ farms	1,017	1,178	861	431	50	12	3,549
%	28.7	33.2	24.3	12.1	1.4	0.3	100.0
All types	3,951	2,357	1,355	557	84	44	8,348
%	47.4	28.2	16.2	6.7	1.0	0.5	100.0

The various types of poultry farms were moreover equally distributed in the regions of “La Ferme”, “Maréchal”, “Saint Gabriel” and “Grande Montagne” (Table 22). “La Ferme” had the highest number of poultry farms, representing 23% of all regions.

On the other hand, “Baie aux Huitres” and “Port Mathurin”, which are generally urban-like regions, had relatively fewer poultry farms than the other four regions.

Table 22: Distribution of poultry farms by poultry type and region (Household sector),

July 2013 – June 2014

Poultry Type	La Ferme	Maréchal	Saint Gabriel	Baie aux Huitres	Port Mathurin	Grande Montagne	All regions
Poultry-broiler	294	249	265	73	110	284	1,275
Poultry-layer	833	590	685	388	468	560	3,524
Poultry-local	821	598	695	372	393	670	3,549
All types	1,948	1,437	1,645	833	971	1,514	8,348
<i>%</i>	<i>23.3</i>	<i>17.2</i>	<i>19.7</i>	<i>10.0</i>	<i>11.6</i>	<i>18.2</i>	<i>100.0</i>

4.4.8. Eggs production

Production of layers for sales is generally done on non-household farms as depicted in Table 23. The high number of head of layers in household farms may be due to layers of local fowls which are meant for the production of chicken for meat production. Eggs production from July 2013 to June 2014 based on the number of eggs sold, amounted to 432,000 units.

Table 23: Number of layers reared and eggs sold by sector

	Non-Household sector	Household sector	Both sectors
Number ¹ of layers (heads)	9,784	22,734	16,488
Number ² of eggs sold (,000 units)	396	36	432

¹ as at 30 June 2014; ² covers the period June 2013 to July 2014

4.5. APICULTURE

4.5.1. Distribution of bee farms

Table 24 gives the distribution of bee farms (or apiaries) and the number of productive beehives by size as at 30 June 2014. The majority (36%) of the apiaries were small, that is they had less than 20 beehives.

However, in terms of productive beehives (or production), the majority (57%) came from large farms which have more than 50 beehives. On the other hand, the 86 small farms had only around 11% productive beehives. There was an average of 9 productive beehives per apiary.

Table 24: Distribution of apiaries and productive beehives by size of farm

	Small (<20 hives)	Medium (20 - 49 hives)	Large (>50 hives)	All sizes
Number ¹ of farms	86	71	81	238
%	36.1	29.8	34.1	100.0
Number ¹ of productive beehives	236	717	1,272	2,225
%	10.6	32.2	57.2	100.0

¹ as at 30 June 2014

4.5.2. Analysis of bee farms by region

Table 25 gives the distribution of apiaries by region. The region of “Saint Gabriel” had the largest number (27.3%) of apiaries. An analysis of the number of productive hives by region would have been very interesting as “La Ferme” is reputed on field for honey production.

Table 25: Distribution of apiaries by size and region (Household sector) as at 30 June 2014

Size of apiary (beehives)	La Ferme	Maréchal	Saint Gabriel	Baie aux Huitres	Port Mathurin	Grande Montagne	All regions
Small	55	29	65	22	44	19	234
Medium	-	-	-	-	2	1	3
Large	1	-	-	-	-	-	1
All sizes	56	29	65	22	46	20	238
%	23.5	12.2	27.3	9.3	19.3	8.4	100.0

4.5.3. Honey production by sector

The distribution of apiaries and production of honey by sector is shown in Table 26. Productive beehives were predominantly in the household sector (95%) and the production of honey (93%) as well.

Table 26: Number of hives and honey production by type of farm

Item	Household sector	Non-household sector	Both sectors
Number of productive beehives ¹	2,111	114	2,225
Number of non-productive beehives ¹	518	47	565
Production of honey (tonnes) ²	25	2	27

¹ as at 30 June 2014; ² covers the period June 2013 to July 2014

4.6. AGRICULTURAL AND MARKETING PRACTICES, AND CONSTRAINTS

4.6.1. Agricultural Practices

Agricultural practices are important for the future of agriculture in Rodrigues and also the impact of inputs on environment.

Table 27 shows the distribution of farms by agricultural practice. Some 81% of farms were using organic fertilisers. However, more than 50% of farms were also making use of herbicides and pesticides and no mention has been made if these are organic products. Use of irrigation and mechanisation were relatively low, 9% and 18% respectively.

Up to now agricultural production system is generally extensive in Rodrigues with minimal investment in mechanisation. Additionally, most plantations, whether cash crops or not, are seasonal and rain fed and thus irrigation was still unpopular in 2014.

Table 27: Distribution of farms by agricultural practice, July 2013 – June 2014

	Agricultural Practice						
	Irrigation	Mechanisation	Chemical fertilisers	Organic fertilisers	Pesticides	Herbicides	Seeds
Number of farms	460	925	1,120	4,140	2,825	2,490	2,500
%	9.0	18.1	21.9	81.1	55.3	48.8	49.1

4.6.2. Marketing Practices

Based on CA2014 results, there were three main marketing channels through which farmers could dispose their agricultural products, namely consumers, retailers and wholesalers. Apart from these three channels, farmers could also consume their own products partly or wholly.

Table 28 gives the distribution of main marketing channel by main agricultural produce. Vegetables were primarily sold directly to consumers (39%) and fruits were generally produced for own consumption (41%). Cattle, goats and sheep were mainly sold live to wholesalers (around 50%) and were meant for export to Mauritius. Pigs and honey were mainly sold directly to consumers (both 43%).

*Table 28: Distribution of main marketing channel by main agricultural produce,
July 2013 – June 2014*

Agricultural Produce	Main marketing channel	%
Vegetables	Consumers	39
Fruits	Own consumption	41
Flowers	Consumers	74
Cattle	Wholesalers	53
Goats	Wholesalers	47
Sheep	Wholesalers	53
Pigs	Consumers	43
Poultry meat	Retailers	51
Eggs	Retailers	98
Honey	Consumers	43

5. CONCLUSIONS

The 2014 Census of Agriculture provides benchmarks to the current agricultural statistics of Rodrigues. Current agricultural statistics system does not consider plantations under cover and also in backyard gardens.

Regarding total agricultural land, it is worth noting that CA2014 did not consider land in use for free grazing and pastures for cut-and-carry in the livestock sector. Thus the figure for land use in agriculture would have been greater than the figure of 1,767 hectares estimated from CA2014.

CA2014 provides some insight on subsistence farming in Rodrigues.

Dairy farming is not quite popular in Rodrigues for various reasons like availability of quality fodder throughout the year, access to good breeds, and artificial insemination among others. Also Rodriguans need to be encouraged to consume liquid milk produced locally.

CA2014 shows that the current agricultural production system relies greatly on rain fed agriculture and only 8% of farms are mechanised. It also highlights the major problems farmers were facing such as pests and diseases and unavailability of water.

CA2014 makes provision for a frame for future agricultural surveys. The registration of Rodriguan farmers will be very important for analysis and monitoring agricultural production. The SFWF, which has as objective to provide support to the farming community, is not quite popular in Rodrigues for the following reasons:

- (i) SFWF is located in Mauritius and thus not readily accessible to Rodriguan farmers;
- (ii) The registration procedure is tedious and;
- (iii) Registered farmers have claimed not receiving enough support from it.

6. RECOMMENDATIONS

This report has come up with a series of recommendations that could be considered by the Commission for Agriculture and they are as follows:

6.1. To review current agricultural statistics system in place to bridge the data gaps.

6.2. To collect additional demographic characteristics of farmers, namely:

- (i) Education level;
- (ii) Ability to read and write and;
- (iii) Access to information technology.

6.3. To address important issues like:

- (i) Reasons why a farmer opted for a particular type of farming;
- (ii) Study the impact of climate change on farming from farmers' perspective;
- (iii) Yield of strategic agricultural products by region;
- (iv) Collect price statistics of main agricultural products; and
- (v) Registration of farmers for assessing and monitoring agricultural production.

7. REFERENCES

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APPENDIX I - DETAILED TABLES

Table A2.1: Distribution of farms by sector and farming type, July 2013 - June 2014

Sector	Crop only	Livestock only	Mixed farming	All farming types
Household	547	595	3,941	5,083
%	10.8	11.7	77.5	100.0
Non-household	10	6	7	23
%	43.5	26.1	30.4	100.0
Both sectors	557	601	3948	23
%	43.5	26.1	30.4	100.0

Percentages are row ones

Table A2.2: Land used (Household sector) by farming type, July 2013 - June 2014

	Crop only	Livestock only	Mixed farming	All farming types
Area (ha)	30	22	1,703	1,755
%	1.7	1.3	97.0	100.0

Percentages are row ones

Table A2.3: Agricultural land use by sector, July 2013 - June 2014

Item	Household sector		Non-Household sector	
	Area (ha)	%	Area (ha)	%
<u>Land in use</u>				
Land under temporary crops	1,160.5	66.1	7.2	56.7
Land under temporary meadows and pastures	38.8	2.2	-	0.0
Land fallow	121.4	6.9	1.0	9.4
Land under permanent crops	155.3	8.8	0.2	1.6
Land under permanent meadows and pastures	181.5	10.3	2.5	19.7
Forest or wooded land	13.5	0.8	0.1	0.8
<u>Total in land use</u>	1,671	95.1	11.0	88.2
<u>Land not in use</u>				
<i>Suitable for agriculture</i>	<i>67.8</i>	<i>3.9</i>	<i>-</i>	<i>0.0</i>
<i>Built up areas</i>	<i>4.4</i>	<i>0.3</i>	<i>1.1</i>	<i>8.7</i>
<i>Other land (e.g. wasteland, land under water, etc)</i>	<i>11.5</i>	<i>0.7</i>	<i>0.4</i>	<i>3.1</i>
<i>Total land not in use</i>	<i>83.7</i>	<i>4.9</i>	<i>1.5</i>	<i>11.8</i>
Total	1,754.7	100	12.5	100

Table A2.4: Land use by holding size and region (Household sector), July 2013 - June 2014

Size (hectares)	La Ferme	Maréchal	Saint Gabriel	Baie aux Huitres	Port Mathurin	Grande Montagne	All regions
<0.02	...	1	1	1	1	-	4
0.02 - <0.11	4	7	12	7	7	13	50
0.11 - <0.21	12	13	24	5	10	18	82
0.21 - <0.42	58	54	51	24	31	79	297
0.42 - <2.11	476	152	184	72	139	224	1,247
2.11 - <4.22	42	5	3	8	8	9	75
All sizes	592	232	275	117	196	343	1,755

Table A2.5: Distribution of agricultural holdings by land tenure and sector, July 2013 - June 2014

Land tenure	Household sector		Non-Household sector	
	Area (ha)	%	Area (ha)	%
Land owned	108	6	2	23
Land leased from Government	812	46	10	77
Land rented/ leased from others	28	2	-	-
Other types of land tenure	807	46	-	-
Total	1,755	100	12	100

Percentages are column ones

Table A2.6: Distribution of farms by main purpose of production and farming type, July 2013 - June 2014

Main purpose of production	Crop Only		Livestock Only		Mixed Farming		All farming types	
		%		%		%		%
Mainly for sale	114	51.4	28	100.0	3,570	73.5	3,712	72.7
Mainly for own consumption	108	48.6	-	-	1,286	26.5	1,394	27.3
Total	222	100.0	28	100.0	4,856	100.0	5,106	100.0

Percentages are column ones

Table A2.7a: Distribution of paid employees by sector and sex, July 2013 - June 2014

Sex	Household sector	Non-Household sector	Both sectors
Male	2,860	60	2,920
%	67	52	66
Female	1,417	55	1,472
%	33	48	34
Both sexes	4,277	115	4,392
%	100.0	100.0	100.0

Table A2.7b: Distribution of paid employees (household sector) by employment type and sex, July 2013 - June 2014

Employment type	Male	Female	Both sexes
Full-Time	146	56	202
%	5.1	4.0	4.7
Part-Time	2,714	1,361	4,075
%	94.9	96.0	95.3
All types	2,860	1,417	4,277

**Table A2.8: Distribution of farmers (household sector) by age group and sex,
July 2013 - June 2014**

Age group (Years)	Male		Female		Both sexes	
	No.	%	No.	%	No.	%
12 - 19	11	...	6	...	17	...
20 - 29	147	4	125	5	272	5
30 - 39	619	18	458	18	1,077	18
40 - 49	854	25	661	26	1,515	26
50 - 59	812	24	618	25	1,430	24
60 - 69	532	16	355	14	887	15
70 - 79	328	10	233	9	561	10
80 - 89	76	2	53	2	129	2
90 - 99	-	-	-	-	-	-
All Ages	3,379	100	2,509	100	5,888	100

**Table A2.9: Distribution of farmers (household sector) by employment type and sex,
July 2013 – June 2014**

Employment type	Male	Female	Both sexes
Full-Time	2,391	1,900	4,291
%	70.8	75.7	72.9
Part-Time	988	609	1,597
%	29.2	24.3	27.1
All types	3,379	2,509	5,888

Table A2.10: Distribution of farmers (household sector) by farming type and sex, July 2013 – June 2014

Activity	Male		Female		Both sexes	
	No.	%	No.	%	No.	%
Crop only	123	3.6	86	3.4	209	3.5
Livestock only	32	0.9	20	0.8	52	0.9
Mixed farming	3,224	95.4	2,403	95.8	5,627	95.6
Total	3,379	100.0	2,509	100.0	5,888	100.0

Table A2.11: Percentage distribution of farmer's household members (excluding farmers) working on farm by age and gender, July 2013 – June 2014

Age group (Years)	Male		Female		Both sexes	
	No.	%	No.	%	No.	%
12 - 19	365	22.5	211	10.9	576	16.2
20 - 29	481	29.7	310	16.0	791	22.3
30 - 39	281	17.3	470	24.3	751	21.1
40 - 49	189	11.7	428	22.2	617	17.4
50 - 59	183	11.3	292	15.1	475	13.4
60 - 69	80	4.9	156	8.1	236	6.6
70 - 79	37	2.3	66	3.4	103	2.9
80 - 89	4	0.3	-	-	4	0.1
90 - 99	-	-	-	-	-	-
Total	1,620	100.0	1,933	100.0	3,553	100.0

Percentages are column ones

Table A2.12: Cattle herd size by type and purpose, and number sold

Cattle type	Number as at 30 June 2014			Number sold, July 2013 – June 2014		
	Meat	Dairy	Total	Live	Slaughtered	Total
Breeding bulls			454	273	3	276
Non-breeding bulls	1,618		1,618	962	34	996
Milking cows		113	113	14	-	14
Non-milking cows	3,102	1,145	4,247	356	9	365
Young heifers	1,234	284	1,518	98	8	106
Adult heifers	552	156	708	102	14	116
Male Calves	906		906	139	-	139
Female Calves	879	265	1,143	28	-	28
Total	8,291	1,963	10,708	1,972	68	2,040

Table A2.13: Distribution of goat by type as production and sale purposes

Goat type	Number as at 30 June 2014			Number sold, July 2013 – June 2014		
	Meat	Breeding	Total	Live	Slaughtered	Total
Buck	2,837	1,390	4,227	3,541	80	3,621
Doe	1,797	7,006	8,803	1,447	3	1,450
Male Kid (up to 1 yr)	1,983	952	2,935	275	7	282
She Kid (up to 1 yr)	1,306	2,116	3,422	162	0	162
Total	7,923	11,465	19,388	5,425	90	5,515

Table A2.14: Distribution of sheep by type as production and sale purposes

Sheep type	Number as at 30 June 2014			Number sold, July 2013 – June 2014		
	Meat	Breeding	Total	Live	Slaughtered	Total
Ram	1,022	814	1,836	1,438	6	1,444
She Sheep (Ewe)	589	4,447	5,036	435	-	435
Male Lamb (up to 1 yr)	830	730	1,560	153	3	156
She Lamb (up to 1 yr)	367	1,388	1,755	35	-	35
Total	2,807	7,380	10,187	2,061	9	2,070

Table A2.15: Distribution of pigs by type as production and sale purposes

Pig type	Number as at 30 June 2014			Number sold, July 2013 – June 2014		
	Meat	Breeding	Total	Live	Slaughtered	Total
Boar	643	526	1,169	503	663	1,166
Sow	856	2,001	2,857	663	575	1,238
Gilt	1,450	897	2,348	957	862	1,819
Male Piglet	4,177	1,152	5,329	7,016	2,516	9,532
She Piglet	2,976	1,409	4,385	5,626	620	6,246
Total	10,103	5,985	16,088	14,765	5,236	20,001