SIERRA LEONE 2015 POPULATION AND HOUSING CENSUS

THEMATIC REPORT ON

AGRICULTURE

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ABBREVIATIONS

A4C	Agenda for Change
A4P	Agenda for Prosperity
APVC	Agricultural Product Value Chain
BAFS	Boosting Agriculture and Food Security
BECE	Basic Education Certificate Examination
CAADP	Comprehensive African Agricultural Development Program
CCO	Chief Census Officer
DFID	Department for International Development, UK
DSOs	District Census Officers
EAs	Enumeration Areas
EESW	Extensive Economic Sector Work
GoSL	Government of Sierra Leone
GDP	Gross Domestic Product
ICADP	Inclusive Comprehensive Agricultural Development Programme
MAFFS	Ministry of Agriculture, Forestry and Food Security
MDGs	Millennium Development Goals
NSADP	National Sustainable Agricultural Development Plan
PES	Post Enumeration Survey
PHC	Population and Housing Census
PhD	Doctor of Philosophy degree
PRSP 1	Poverty Reduction Strategy Paper 1 (2005-2007)
RISP	Regional Integration Strategy Paper
SCADeP	Smallholder Commercialization Agri-Business Development Project
SCP	Smallholder Commercialization Programme
SLARI	Sierra Leone Agricultural Research Institute
SPSS	Statistical Package for the Social Sciences
SSS	Senior Secondary School
UN	United Nations
UNDP	United Nations Development Programme
UNFPA	United Nations Populations Fund
VTNTC	Vocational, Technical, Nursing and Teaching Certificate
WAATP	West Africa Agricultural Transformation Project
WECARD	West and Central Africa Council for Agricultural Research and Development

EXECUTIVE SUMMARY

The overall objective of the 2015 Population and Housing Census was to provide data required for all levels of planning. The 2015 Census took place a year late after the Ebola outbreak postponed the proposed start date of 2014.

The census is not only a complete count of the country's inhabitants, but also a valuable collection of data on the population's socio-economic characteristics and housing conditions, both at individual and household level.

This report is the outcome of all the agriculture variables as they emerged from the data analysis. It uses a succinct and clear manner to describe each variable using simple statistical parameters such as frequency counts, ratios, percentages and arithmetic means.

58% OF HOUSEHOLDS IN SIERRA LEONE ARE ENGAGED IN AGRICULTURAL PRODUCTION

29% of the total food production is Cassava

74% of agricultural households are involved in animal husbandry

The agriculture module collected data at the household level but did not include details such as age and sex. However, these details, including sex, age, marital status and education attained, were captured for heads of the agricultural household.

Sierra Leone is still a dominantly agrarian economy with 57.9 per cent of households engaged in agricultural production. The majority of those households (42.2 per cent) are headed by men, with just 15.7 per cent headed by women. This is has changed since the 2004 Census which reported 52.2 and 47.8 per cent of female and male headed household involvement in the agricultural sector respectively.

There were more households participating in agriculture in the Northern and Southern regions than the Western region, which recorded only 2.9 per cent agricultural households. Kailahun district recorded the highest concentration of agricultural households (5.9 per cent), closely followed by Kenema (5.7 per cent), Bombali (5.3 per cent) and Tonkolili (5.2 per cent).

Ages ranged from 15 years to over 75 years with an average age of 46.2 years.

The majority (82.3 per cent) of household heads were aged between 25 and 64 years, which falls within the definition of an economically active or productive age. Almost three-quarters of household heads were below the age of 55, indicating that the future is promising in terms of a youthful and strong farm base. However, it must be noted that not everybody in an agricultural household in this age bracket (15 to 54 years) is actually engaged in agricultural production.

The 2015 Census reveals a high literacy rate in Sierra Leone with just over half of the population literate in any language and 44.2 per cent literate in English. Data show that nearly two thirds of all agricultural households in the Northern, Eastern and Southern regions never received any formal education. The situation is comparatively better in the Western region where the majority (57.6 per cent) of heads of households went to school.

Less than 20 per cent of those from agricultural households who went to school completed the basic education certificate examination and education level attainment worsened as people progressed from lower to higher qualifications. As a result, the percentage of agricultural households reporting completion of senior secondary school education fell below double digits in the regions with the exception of the Western region, which recorded 18 per cent completion of senior secondary school by heads of agricultural households.

Although there are (minor) variations in livelihood and/or economic activities within agricultural households in Sierra Leone's various regions and districts, in general the activities include crop farming, livestock, poultry, fishing, hunting and exploitation of forest products.

In the 2015 census, three of those livelihood activities (crop farming, animal husbandry and fishery) were captured. The majority of agricultural households in Sierra Leone (85.4 per cent) own or operate a crop farm, 73.6 per cent are involved in animal husbandry and 33.6 per cent engage in fishing activities.

Six food crops were captured including upland rice, lowland rice, cassava, sweet potato, groundnut and maize. About 62 per cent of agricultural households grow upland rice, while 31.6 per cent of households cultivate lowland rice, which includes inland valley swamp, boliland, mangrove swamp and riverine ecologies. Put together, 93.6 per cent of agricultural households grow either upland or lowland rice. In addition, 20.2 per cent of agricultural households nationwide cultivated cassava as the second staple food crop after rice. About 19 per cent of agricultural households nationwide participated in groundnut farming.

Of the total land area of 3,244,214 ha under cultivation for food crops production, 35 per cent of it is under upland rice production, 17.3 per cent is used for lowland rice cultivation, 10.6 per cent for cassava cultivation, 9.2 per cent for groundnut cultivation, 1.5 per cent under sweet potato and 0.9 per cent under maize cultivation.

When disaggregated by regions, the Northern region cultivates the most upland rice with 13.1 percent of land cultivated, compared to the Eastern region (12.4 per cent), Southern region (9.3 per cent) and Western region (0.2 per cent). A relatively lower proportion of land is used for lowland rice, with the Northern region recording the highest proportion of land under lowland rice cultivation (10.3 per cent).

The Southern region recorded the highest (5.3 per cent) proportion of land under cassava cultivation followed by the Northern region (3.4 per cent) while the Northern region recorded the highest proportion of land under groundnut cultivation (5.5 per cent), followed by Southern region (2.0 per cent) and Eastern region (1.7 per cent). Though Maize cultivation is done in all the four regions of the country, it is presently at a very low levels, and too small to even merit discussion.

A total of 761,073.054 kg of upland rice, lowland rice, cassava, sweet potato, groundnut and maize production was reported nationwide in the 2015 census. Of this total, 322,921,870 and 181,370,495 kg came from upland and lowland rice respectively, which is 66.2 per cent of the total food crops production. Cassava contribution was 217,358,479 kg (28.6 per cent of total food production). Sweet potato, groundnut and maize combined accounted for 5.2 per cent of total food production.

Agricultural household in the Western and Northern regions were more prone to selling rice than agricultural households in the Southern and Eastern regions. One possible explanation for this is the closeness to the Freetown market and cross border trade along the Sierra Leone, Guinea and Liberia border.

A good proportion of agricultural households (though not as much as in the case of the upland and lowland rice crops) said they never sold the cassava crop. This means that the crop was solely used for subsistence of family members. This scenario was reported by 3.7, 8.3, 10.2 and 1.0 per cent of agricultural households in the Eastern, Northern, Southern and Western regions respectively.

In general, tree crops farming is concentrated in the Eastern region with 23.9 per cent, 29.7 per cent and 15.2 per cent of agricultural households in this region involved in coffee, cocoa and oil palm farming respectively. Tree crop farming in the other regions is insignificant, except for 11.8 per cent and 10.9 per cent of the agricultural households from the Northern and Southern regions who grow oil palm.

At the national level, a total of 3,164,472 ha of land is under tree crop cultivation for coffee, cocoa, oil palm, citrus and cashew. Eastern region is confirmed as farming the most tree crops, with 162,701 ha of land under coffee cultivation, 84 per cent of the country's total land under coffee production.

The Census showed that in total 110,619,553 kg of coffee, cocoa, oil palm, citrus and cashew were produced.The ownership of livestock varies by region based on vegetation and cultural habits of the inhabitants of a particular region or district. The vast majority (87.0 per cent) of cattle are owned by agricultural households in the Northern region. Just 10 per cent are owned by agricultural households in the Eastern region, two per cent in the Southern region, and slightly less than 2 per cent in the Western region.

There is a similar pattern ownership of small ruminants including sheep and goats, with the largest proportion of sheep (71.2 per cent) and goats (63.4 per cent) owned by agricultural households in the Northern region. The Eastern region ranks second with 17.7 per cent and 21.1 per cent of agricultural households owning sheep and goats respectively.

Artisan fishing emerged as the most popular enterprise among the three fishing enterprises. The Southern region recorded 31.1 per cent of agricultural households engaged in artisan fishing and ranked first. This was followed by the Eastern region (28.5 per cent), Northern region (26.0 per cent), and Western region with 1 per cent of agricultural households. Fish pond farming in all the regions was relatively low with the Northern region recording the highest proportion of agricultural households (4.8 per cent) engaged in the enterprise. Coastal fishing was not popular probably because it requires modern technology, currently a limiting factor due to its high cost and special skills requirements.

The data show that generally, access to tractors was higher for agricultural households in the Northern region (3.6 per cent), than the other regions. The analysis shows that more agricultural households in the Northern region (2.4 per cent) also had more access to power tillers than the other regions. While the Southern and Northern regions are endowed with large areas of riverine grassland, boliland and mangroves swamps (well suited to the use of tractors and power tillers), this is not reflected by the distribution patterns of agricultural machinery and equipment. About an equal number of households from the Eastern, Northern and Southern regions (1.1 per cent) reported access to threshers, meaning that the majority of households in each of the regions have no access to threshers.

The number of farmers captured in the 2015 Census indicates a serious decline in the use of power tillers as compared to the census figures of 2004 which found that 69.9 per cent, 5.7 per cent, 13.6 per cent and 0.8 per cent of households in the Southern, Northern, Eastern and Western regions, respectively, had access to power tillers.

Like stores, access to drying floors were found to be highest in the East (65.7 per cent), followed by Northern (61.8 per cent) and Southern (52.6 per cent) regions. The Western Area households had the least (40.7 per cent) access to drying floors. However this is a significant increase from the 0.6 per cent recorded in the 2004 Census.

Graters were more popular in use in households in the Southern (55.5 per cent) and Western (15.7 per cent) regions than in the Northern (8.9 per cent) and Eastern (6.6 per cent) regions. The high use of cassava graters in the Southern region is supported by data on the number of households growing cassava, which is highest for Southern (34.5 per cent), than northern (17.3 per cent), Eastern (13.7 per cent), and Western (9.3 per cent) regions. Since the Southern region grows more cassava than the other regions, there is a high demand for graters by farmers for processing cassava into fufu and gari for both domestic and commercial purposes. This demand has dropped from 77.5 per cent in 2004 to 55.7 per cent in 2015.

Recommendations

01 There is a sharp drop in the percentage of female involvement in agriculture as compared to 2004 findings. We therefore recommend that the existing gender policy and other related laws and regulations be reviewed to include more participation of women in the agriculture sector through equal opportunities to access bank loans, agricultural inputs including fertilizers and agro-chemicals, and women-focused programmes and extension services.

02 The Scaling Up Nutrition (SUN) programme which is coordinated in the Office of the Vice President should consider the possibility of including fish pond farming as a major component of the programme and to invest in agricultural households to be involved in and/or own fish ponds in all districts as one of the major livelihoods and source of income for small-scale farmers.

03 In terms of food diversification (presently considered under the Smallholder Commercialization and Agri-Business Development, Boosting Agriculture and Food Security and West Africa Agricultural Transformation Project), sweet potato and maize crops should be considered for diversification and farmers empowered through targeted extension services with new crop varieties, fertilizers, agro-chemicals and best practices to cultivate these crops using the value chain approach.

04 As the uplands have become depleted with nutrients, the lowlands are becoming the viable alternative for rice production in Sierra Leone. Unfortunately, only 31.6 per cent of agricultural households are involved in lowland rice cultivation. The lowlands are also limited, constituting only 17.3 per cent of the total arable land of 3,244,214 ha. The Government, through the Ministry of Agriculture, Forestry and Food Security, should increase investment on developing the lowlands especially Inland Valley Swamps and encourage formers to double crop rice in the lowlands and increase use of the lowlands through crop intensification.

05 Due to the small area of land cultivated for food crops in the lowland ecologies, farmers should be encourage to also increase the area under cultivation, in addition to crop intensification and diversification practices.

06 The majority of farmers are subsistence farmers. Farmers should be encouraged to sell their crops and turn their farms into businesses to help improve their livelihoods.

07 Tree crops like cashew nut, coconut and oil palm should be grown in districts where cocoa and coffee do not perform adequately.

08 Districts with small numbers of livestock should be restocked with small ruminants like sheep and goats.

CHAPTER 1: INTRODUCTION

1.1 Background and Context

Sierra Leone is located on the West Coast of Africa; bounded on the North West and North East by the Republic of Guinea, on the Southeast by the Republic of Liberia and on the West by the Atlantic Ocean. The country is divided into Eastern, Northern and Southern regions with 12 districts (Kambia, Port Loko, Tonkolili, Bombali, Kailahan, Kono, Pujehun, Bo, Bonthe, Koinadugu, Moyamba and Kenema), and the Western Area. The climate is generally equatorial with two distinct seasons; a wet season from May to October and a dry season from November to April.

The country covers a geographical area of about 72,300 km^2 (72 million hectares) and nearly three-quarters of the land is suitable for crop production on a sustainable basis. Of this total, 4.3 million hectares (ha) are uplands with low fertile soils and an estimated 1.06 million ha are fertile lowlands with considerable potential for food crop production. Less than 15 per cent of this arable land is currently under cultivation.

The Sierra Leonean economy remains predominantly agrarian. Agriculture continues to employ at least 70 per cent of the national labour force and contributes more than 40 per cent of gross domestic product (GDP).

These characteristics explain the huge potentials Sierra Leone has for rapid agricultural development and socioeconomic transformation. There is an abundance of renewable energy resources, including biomass, solar, wind and hydropower generation, which adds to the promise of agricultural enterprise development.

This potential pre-existed the 11-year civil war, which ended in 2002. Some argue that this underutilization of Sierra Leone's potential was one of the causes of the conflict. The poverty headcount had risen to more than 89 per cent of the national population before the war and by the time it was over, those depending on agriculture or living in the rural areas were further enmeshed in poverty (Sierra Leone First Poverty Reduction Strategy Paper I, 2005). More than 79 per cent of farmers, most of whom were cultivating the staple crop, rice, were living in poverty in 2002.

Trends in both rice yields and GDP growth before and during the civil war, show general downward trends. The dominance of agriculture in Sierra Leone's GDP would generally suggest that any decline in agricultural activities, especially in rice production, would seriously reduce GDP growth.

An acutely distorted and ad hoc national development planning arrangement contributed to low agricultural productivity before the war. Agriculture should have been placed at the apex of national development priorities to help finance the economic transformation that the nation had needed since independence in 1961.

Instead, mining as a source of revenue took precedence over agriculture in terms of state attention. Incentives to work in agriculture were weak and young and energetic people abandoned farming fields for mining areas and other non-agricultural activities in urban settlements. The dearth of advanced farming technology compounded the decline in agriculture, while the war only made the situation worse.

The situation looked more promising following the end of the war, with the implementation of a series of structural reforms including a rethink of the approach to agricultural development. In 2001, poverty reduction strategy papers (PRSP) became the new comprehensive national development frameworks, replacing the 1975-79 national development plan. A series of agriculture specific programmes have been implemented within the PRSPs, including the National Sustainable Agricultural Development Programme (2010-2030) and the Smallholder Commercialization Programme (2010-2015), supported by the Comprehensive African Agricultural Development Programme (CAADP).

In May 2014, the Ebola virus broke out in Sierra Leone, killing thousands of people before the country was declared free of the disease in November 2015. This reversed substantial gains made in the implementation of post conflict reforms. Growth in GDP decelerated from 15.2 per cent in 2012 and 20.1 per cent in 2013 to 4.6 per cent in 2014, with an estimated growth of minus 21.1 per cent in 2015 (Sierra Leone National Ebola Recovery Strategy, 2015).

Most farming activities were brought to a total halt and more than 2.3 million (farm and non-farm) people saw their livelihoods deterioriate during these crises. Lessons derived from this epidemic include a need to diversify the economy with a greater focus on agricultural development. This provides substantial legitimacy for the support currently provided by the West and Central Africa Council for Agricultural Research and Development (CORAF/WECARD) to Sierra Leone, among six West African countries, to undertake a set of studies aimed at increasing agricultural yields and productivity.

1.2 The Agricultural Sector

1.2.1 Salient Features

The economy is driven by primary commodities, mainly agriculture and mineral production.The economy is presently undergoing a shift in the size of its major components, informed by movements in the sizes of their contributions to GDP. The mining sector contribution to GDP is projected to substantially increase from 4 per cent in 2011 to 22 per cent in 2013 and is anticipated to reach 30 per cent in 2017, due largely to the expansion in existing large scale iron ore operations.

However, agriculture, including forestry and fisheries, still accounts for the largest GDP share. This share however declined from 52 per cent in 2011 to an estimated 42 per cent in 2013. Despite this declining trend, the agriculture sector is still the largest employer, and accounts for over 70 per cent of the current labour force.

The majority of the population of Sierra Leone lives in rural areas, trapped in a combination of low agricultural productivity and malnutrition, with approximately 70 per cent living below the national poverty line, with 26 per cent unable to meet the minimum consumption of 2,400 kilocalories required per day (GoSL, 2013). This suggests that Sierra Leone's economy can only be sustainably transformed, and its levels of poverty significantly stemmed, if agricultural productivity is commensurately scaled up.

Poverty reduction strategies have been the overarching national development policy framework of Sierra Leone since the immediate post-conflict phase of the country, 2001-2004. The leading focus of the first PRSP (2005-2007) was promotion of food security and job creation.

It acknowledged low capital investment in the sector and weak level of support for agricultural research technology generation and poor extension services as one of the fundamental bottlenecks that had faced efforts to increase agricultural production and productivity. A range of Agricultural Sector Initiatives were aligned to the national strategy, including the Government's Food Security Strategy, and the establishment of A Right to Food Secretariat, all consistent with the UN Millennium Development Goal (MDG1) of eradicating extreme poverty and hunger.

The Government stayed the course of increased policy focus on agriculture, as it entered into the second generation PRSP (2008-2012) referred to as the Agenda for Change (A4C). The renewed drive was especially driven by the formulation of a more comprehensive agriculture sector plan, the National Sustainable Agricultural Development Plan (NSADP, 2010 - 2030), consistent with Sierra Leone's participation in the CAADP.

With the remaining challenges of weak agricultural technology research, and weak extension systems and limited institutional capacity, among others, enhancing agricultural productivity became one of the five strategic priority areas of the Government in the A4C. It had four specific objectives: (i) increasing agricultural productivity through intensification and diversification; (ii) promoting commercial agriculture through private sector participation; (iii) improving agricultural research and extension delivery systems; and (iv) promoting efficient and effective sector resource management systems (GoSL, 2009).

The Smallholder Commercialization Programme (SCP, 2008-2014) was developed as the government flagship programme for agricultural development; which focused mainly on boosting livelihoods and incomes of small-scale farmers through supporting value-chain development. By the end of 2012, yields of the major priority or staple crops were still very low: rice could not surpass 1.2mt as per projection, while cassava and sweet potato maintained the same yields as in 2007, at 13.0 mt and 5.4 mt, respectively. While the total national poverty headcount dropped appreciably from 70 per cent in 2003, to 53 per cent in 2011, rural poverty count remained worryingly close to 70 per cent. Food self-sufficiency had risen to between 70 and 80 per cent in 2010, compared to about 70 per cent in 2007.

The A4C was succeeded by the Agenda for Prosperity (A4P), the third generation PRSP (2013-2018) with eight pillars. *Increasing Agricultural Productivity and Value-Added* remained a focus of the Government under the first pillar of the A4P, *Economic Diversification and Inclusive Growth*, renewing the focus on supporting agricultural research and increased supply of improved input and extension services (GoSL, 2013).

In 2014/15, the SCP morphed into the *Inclusive Comprehensive Agricultural Development Programme* (ICADP, 2015-2018), which strengthened the focus on agricultural productivity as in previous national plans. But unlike the SCP, the ICADP has a huge concentration on boosting medium-scale agricultural enterprise development. With agricultural productivity a central plank, the A4P has been designed to set the baseline and provide initial impetus for the drive towards achieving Sierra Leone's Vision 2035 of becoming a middle-income country.

Despite all these policy interventions, coupled with abundant physical and human resources as well as favourable climatic conditions, agriculture has continued to face enormous challenges in Sierra Leone. The slow pace of growth can be attributed not only to gross underinvestment but also to a lack of judicious investments in critical capacity gaps along commodity value chains.

It is against this background that CORAF/WECARD has supported the Government through the Ministry of Agriculture, Forestry and Food Security (MAFFS) to commission a value chain approach to elucidating requisite capacity for technical change needed to uplift Sierra Leone's agriculture.

The three capacity components implicit in this chain include knowledge/technology generation capacity, knowledge/technology diffusion capacity, and knowledge/technology adoption and utilization capacity. Conceptually, the underlying framework in this analysis is that of a sectoral innovation system - the various actors that operate in the sector, their interactions, and the environment in which they operate, which together and individually produce and/ or transfer economically and/or socially-useful knowledge.

1.2.2 Constraints and Opportunities

The major constraints to agricultural production in Sierra Leone include:

- Non-availability of seeds/planting materials for high yielding crop varieties;
- iLow crop yields due to declining soil fertility and low adoption of research technologies;
- iRain fed system – dry season cultivation remains a challenge due to unavailability of irrigation systems, despite the presence of nine major rivers;
- Limited access to credit, seasonal inputs and farming equipment;
- Lack of clear policy framework to encourage private sector engagement in the agriculture sector;
- Weak institutional linkages, especially between research, extension services and the farming communities;
- Low priority given to women farmer problems;
- Malnutrition, especially among children under five years and lactating mothers, is prevalent among the farming communities;
- Lack of appropriate policies, standards for food products, marketing opportunities, limited stakeholder involvement in the product value chain;
- Pest and diseases, limited infrastructure, inadequate research capacity, limited access to current and relevant scientific literature, and
- Poor physical infrastructure, mainly feeder road network, processing and storage facilities.

There are many opportunities Sierra Leone can tap into to achieve its goals in the agriculture sector, including suitable climatic conditions (suitable temperatures and excess rain); vast land area that is fertile; several rivers to expedite irrigation schemes; critical mass of research scientists; political will including an enabling environment, and supportive government policies; sustainable peaceful atmosphere; potential for development partners funding; potential for use of information and communication technologies; potential to benefit from emerging biotechnological innovations; supporting policy framework for modernization and commercialization; and emerging regional markets and expanding domestic market opportunities.

1.2.3 National Strategy for Growth

Following the decade-long civil conflict, which destroyed the social and physical fabric of the country, Sierra Leone is making remarkable progress in recovery and transitioning into a stable democratic and resilient state. The country however continues to experience some challenges stemming from the root causes of fragility that need to be persistently addressed over the long term. Some of these challenges are well captured in the Government's medium term development plan - A4P (2013-2018) - that builds on the achievements of the A4C, and supports the country's long-term vision of becoming a middle-income country by 2035.

The Country Strategy Paper (CSP) for Sierra Leone (2013-2017) selectively supports the country's A4P objectives. The CSP is fully aligned with the World Bank Group's Strategy (2013-2022) and the Regional Integration Strategy Paper (RISP) for West Africa. The CSP is also underpinned by the relevant results of Extensive Economic and Sector Work (EESW) carried out by the Government, World Bank and other development partners, while taking a participatory approach in seeking inputs from diverse stakeholders.

Presently, there is a shift of focus from production-oriented research to market-oriented research for development. Production-oriented research assumes market demand exists for increased production. The entry point for the research agenda is the prioritization of production constraints.

In market-oriented research, the market is the driver. No assumption is necessary and the entry point for the research agenda is the identification of market opportunities. To this effect, the agricultural product value chain (APVC) is adopted, with the following research thematic schemes developed in response to the shift in focus:

- Seed/planting material development and multiplication;
- Natural resource management;
- Engineering, post-harvest and food technology;
- Policy, socio-economics and outreach;
- Farm management;
- Training of farmers and technical staff; and
- Fast tracking the generation and dissemination of new crop varieties.

In the light of the above, GoSL's draft policy statement sets out a framework for support to agriculture with the objectives of:

- Increased and diversified domestic production of food, with a view to achieving food security in the medium to long-term;
- Increased agricultural productivity, rural incomes and employment, while ensuring adequate protection of the environment;
- Balanced regional agricultural growth and equitable distribution of income; and
- Maximized foreign exchange earnings from agriculture.

CHAPTER 2: METHODOLOGY

2.1 Introduction

The 2015 Population and Housing Census was a complete count of the country's inhabitants. The overall objective was to provide data required for planning at all levels, including socio-economic characteristics and housing conditions. The 2015 Census was supposed to take place in 2014 but because of the Ebola outbreak it was postponed by one year.

2.2 Data Source and Analysis

The data collected in the 2015 Census was analysed using different variables. For the agricultural module, the definition of variables and their measurement is provided in this section in order to facilitate the understanding and use of the data presented in this report.

2.3 Definition and measurement of variables

Population census: A population census is the total process of collecting, compiling, evaluating, analysing and publishing, or otherwise disseminating, demographic, economic and social data pertaining to all persons in a country or in a well delimited part of a country, at a specified period of time.

Economically active person (15 – 64 years): A person is regarded as economically active if he/she worked for pay or profit or family gain for at least one hour within the 12 months preceding the census night, or was available and looking for work.

Non-economically active person (15 – 64 years): The non-economically active persons include those who did not work and were not seeking or available for work during the 12 months preceding the census.

Occupation: Occupation refers to the type of work the person is engaged in at the establishment where he/she worked during the 12 months preceding the census.

Industry: Industry (branch of economic activity) refers to the kind of production or activity of the establishment or similar unit in which the job(s) of the economically active person was located during the 12 months preceding the census.

Livestock: Livestock are domesticated animals raised at household level to produce commodities such as food, fibre or labour. For the 2015 Census, livestock included goats, cattle, sheep, pigs, ducks and chicken.

Literacy: Ability to read, write and understand any language(s).

Household: A household is defined as a person or group of persons who normally live together, eat from the same pot and recognize a particular person as the head.

Head of Household: The resident member of the household who is acknowledged by the other members of the household as the household head.

Agricultural Household: A household was characterized 'agricultural' when any member of the household engages in any form of agricultural activity.

CHAPTER 3: CHARACTERISTICS OF AGRICULTURAL HOUSEHOLDS IN SIERRA LEONE

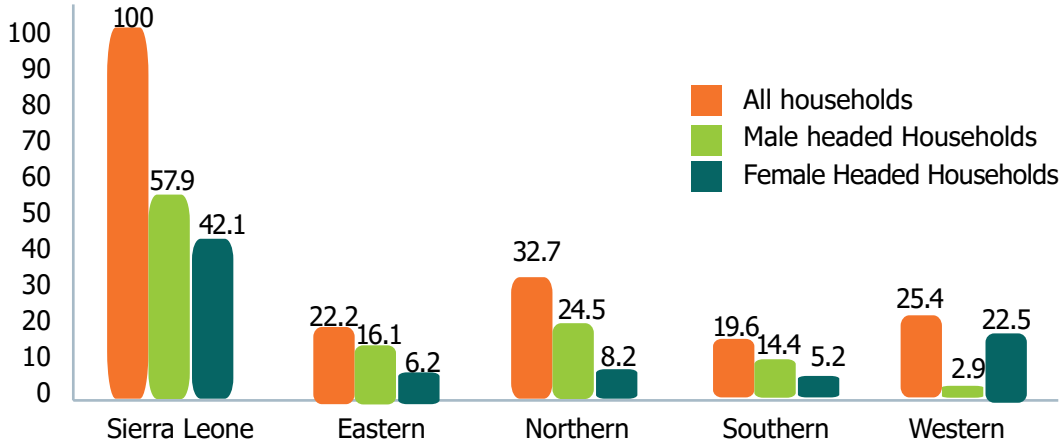
3.1 Introduction

Chapters three to nine of the report look at the outcome of all the agriculture variables as they emerged from the data analysis. Each variable is described in a very succinct and clear manner, using simple statistical parameters such as frequency counts, ratios, percentages and arithmetic means.

3.2 Agricultural and Non-agricultural Households

Given the definition of an agricultural household as one in which at least one family member is involved in crop farming, livestock production or fishery activity, it will follow that a non-agricultural household is one in which none of the household members are involved in any form of agricultural activity. Based on this understanding, and as shown in Figure 1.3, the majority (57.9 per cent) of total households in Sierra Leone are agricultural and all others are non-agricultural.

Figure 1.3 Classification of households into agricultural and non-agricultural by region



At the regional level, the Northern region recorded the highest proportion of agricultural households (24.5 per cent), followed by the East, the South and the West. The highest number of non-agricultural households were found, as expected, in the Western area (22.5 per cent), but followed by the North, the East and then the South.

Table 1.3 presents a percentage distribution of agricultural and non-households in Sierra Leone by district. At the district level, Port Loko recorded the highest percentage of agricultural households, followed closely by Kailahun and then Kenema.

Table 1.3 Classification of households into agricultural and non-agricultural by district

District	All Households		Agriculture Household		Non Agriculture Household	
	No.	%	No.	%	No.	%
Kailahun	83,348	6.6	74,361	5.9	8,987	0.7
Kenema	111,734	8.8	71,698	5.7	40,036	3.2
Kono	86,119	6.8	57,227	4.5	28,892	2.3
Bombali	105,902	8.4	67,229	5.3	38,673	3.1
Kambia	53,826	4.3	45,019	3.6	8,807	0.7
Koinadugu	56,108	4.4	49,302	3.9	6,806	0.5
Port Loko	111,701	8.8	82,353	6.5	29,348	2.3
Tonkolili	86,840	6.9	66,170	5.2	20,670	1.6
Bo	102,723	8.1	63,850	5.0	38,873	3.1
Bonthe	32,538	2.6	26,587	2.1	5,951	0.5
Moyamba	61,880	4.9	52,263	4.1	9,617	0.8
Pujehun	51,514	4.1	39,702	3.1	11,812	0.9
Western Rural	91,284	7.2	26,670	2.1	64,614	5.1
Western Urban	229,951	18.2	10,030	0.8	219,921	17.4

Source: Statistics Sierra Leone, 2015 Population and Housing Census

3.3 Agricultural Households by region, district and Gender

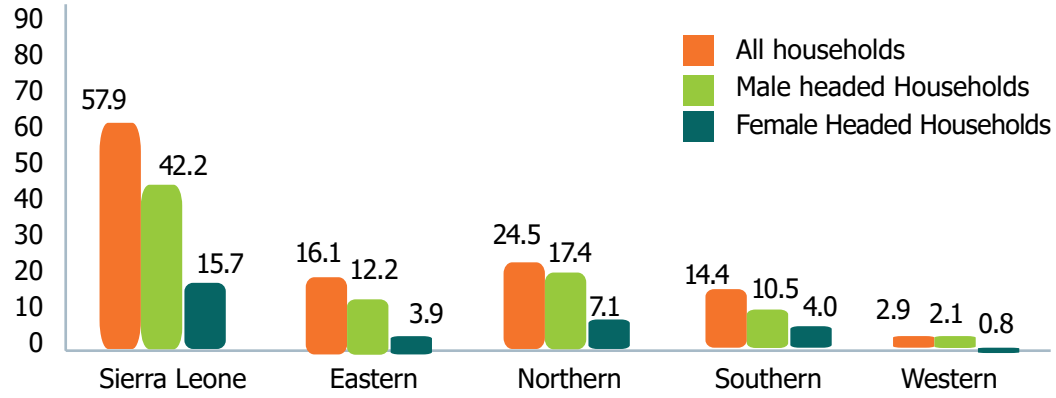
The 2015 Census collected data at two levels - individual (person) and household. However, the agriculture module collected data just at the household level. As such, the details of agricultural household members such as age, sex, marital status and education attained, were not captured. However, those details were captured for the head of the household.

3.3.1 Agricultural households by region and gender

A closer look at agricultural households showed that the majority were headed by a male (Figure 2.3).

A breakdown of the situation by region showed this was a consistent pattern across the country, with male-headed households ranging from 2.1 per cent in the Western Region to 17.4 per cent in the Northern Region, and female-headed households from 0.8 per cent in the Western Region to 7.1 per cent in the Northern Region.

Figure 2.3 Percentage distribution of agricultural household by gender and region



3.3.2 Agricultural households by district and sex

Table 2.3 Percent distribution of agricultural households by district and gender

District	All Agricultural Household Heads		Male Headed		Female Headed	
	No.	%	No.	%	No.	%
Kailahun	74,361	5.9	54,122	4.3	20,239	1.6
Kenema	71,698	5.7	55,368	4.4	16,330	1.3
Kono	57,227	4.5	44,682	3.5	12,545	1.0
Bombali	67,229	5.3	47,663	3.8	19,566	1.5
Kambia	45,019	3.6	32,487	2.6	12,532	1.0
Koinadugu	49,302	3.9	34,318	2.7	14,984	1.2
Port Loko	82,353	6.5	58,403	4.6	23,950	1.9

District	All Agricultural Household Heads		Male Headed		Female Headed	
	No.	%	No.	%	No.	%
Tonkolili	66,170	5.2	47,262	3.7	18,908	1.5
Bo	63,850	5	45,770	3.6	18,080	1.4
Bonthe	26,587	2.1	20,235	1.6	6,352	0.5
Moyamba	52,263	4.1	37,716	3.0	14,547	1.1
Pujehun	39,702	3.1	28,611	2.3	11,091	0.9
Western Rural	26,670	2.1	19,818	1.6	6,852	0.9
Western Urban	10,030	0.8	7,233	0.6	2,797	0.4

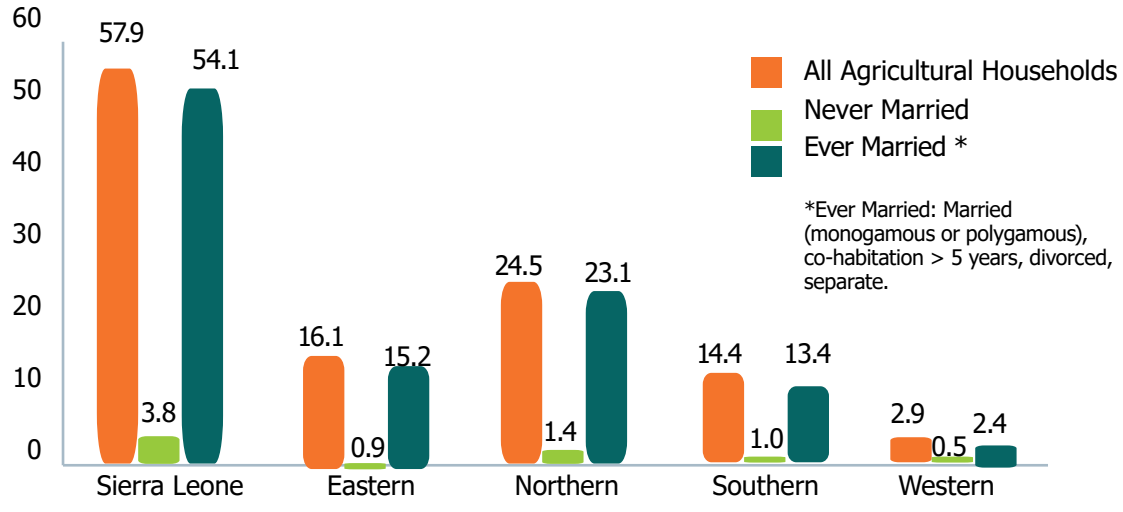
Source: Statistics Sierra Leone, 2015 Population and Housing Census

Port Loko District recorded the highest of agricultural households (6.5 per cent), closely followed by Kailahun District (5.9 per cent) and Kenema District (5.7 per cent). When disaggregated by gender, the pictured appeared very similar to the regional pattern, with more males heading households than females.

3.4 Marital Status of Heads of Agricultural Households

The vast majority of heads of agricultural households were or had been married, which included those married (monogamous or polygamous), co-habitation for more than five years, divorced, and separated (by death or living separately). At the regional level, (Figure 3.3), the Northern Region reported 23.1 per cent of married heads of agricultural households out of a total of 24.5 per cent, followed by the Eastern Region, Southern Region and Western Region. From a common sense perspective of the population trends, one would expect the Northern Region with the highest number of agricultural households to have more married heads of households than the other regions with smaller number of agricultural households, which is clearly demonstrated by the census data.

Figure 3.3 Agricultural households head by marital status* and region



A breakdown by district shows the same trend.

Table 3.3 Agricultural households head by marital status and District

District	All Agricultural Households		Marital Status of Household Head			
			Never Married		*Ever Married	
	No.	%	No.	%	No.	%
Kailahun	74,361	5.9	4,710	0.4	69,651	5.5
Kenema	71,698	5.7	3,702	0.3	67,996	5.4
Kono	57,227	4.5	3,052	0.2	54,175	4.3
Bombali	67,229	5.3	4,428	0.3	62,801	5.0
Kambia	45,019	3.6	2,441	0.2	42,578	3.4
Koinadugu	49,302	3.9	1,308	0.1	47,994	3.8
Port Loko	82,353	6.5	4,298	0.3	78,055	6.2
Tonkolili	66,170	5.2	4,713	0.4	61,457	4.9
Bo	63,850	5.0	5,650	0.4	58,200	4.6
Bonthe	26,587	2.1	1,534	0.1	25,053	2.0
Moyamba	52,263	4.1	3,449	0.3	48,814	3.9
Pujehun	39,702	3.1	1,966	0.2	37,736	3.0
Western Rural	26,670	2.1	4,678	0.4	21,992	1.7
Western Urban	10,030	0.8	2,090	0.2	7,940	0.6

Source: Statistics Sierra Leone, 2015 Population and Housing Census

*Ever Married: Married (monogamous or polygamous), co-habitation > 5 years, divorced, separate.

3.5 Agricultural Households by Age Group of Household Head and Region

The majority of heads of agricultural households nationally (602,885 or 82.3 per cent) were within the age range of 25 and 64 years, which falls within the range of the economically active population (15 - 64 years) (Table 4.3). It is encouraging that 540,765 (73.8 per cent) of household heads were below the age of 55, indicating a youthful and strong farm base. However, not everybody in this age bracket (15-54) is engaged in agricultural production given that the definition of the agricultural household is that at least one member is engaged in agriculture (not necessarily the head of the household). Just 13.5 per cent of heads of agricultural households 99,346 are 65 years and above.

The trends at the national level continue to show at the regional and district levels with minor variations. Within the same age bracket of (25-64), the Northern Region recorded 34.8 per cent of 42.3 per cent heads of agricultural households. This is followed by the Eastern Region in second place with 23 per cent, the Southern Region with 20.2 per cent and the Western Region with 4.2 per cent of heads of agricultural households respectively. Port Loko, a Northern Region district and Keaema, a district in the Eastern Region recording 9.2 per cent and 8.1 per cent of heads of agricultural households within the 25-64 age bracket respectively.

Table 4.3 Percent distribution of heads of agricultural households by age group and region

Age Group	Sierra Leone		Eastern Region		Northern Region		Southern Region		Western Region	
	No.	%	No.	%	No.	%	No.	%	No.	%
15 – 24	30,230	4.1	6,830	0.9	12,781	1.7	88,98	1.2	1,721	0.2
25 – 34	139,055	19.0	36,708	5.0	59,369	8.1	35,251	4.8	7,727	1.1
35 – 44	204,023	27.9	58,547	7.9	85,523	11.7	49,457	6.8	10,496	1.4
45 – 54	167,457	22.9	48,239	6.6	70,629	9.6	40,299	5.5	8,292	1.1
55 – 64	92,350	12.6	25,361	3.5	39,497	5.4	22,956	3.1	4,536	0.6
65 – 74	58,063	7.9	16,361	2.2	24,469	3.3	14,636	2.0	2,597	0.3
75+	41,283	5.6	11,242	1.5	17,805	2.4	10,905	1.5	1,331	0.2
Total	732,461	100	203,288	27.8	310,073	42.3	182,402	24.9	36,700	5.0

Source: Statistics Sierra Leone, 2015 Population and Housing Census

Bombali and Tonkolili districts jointly emerged in third place with each recording 7.4 per cent of heads of agricultural households within the 25-64 age group. This was followed by Bo district, Kailahun district, and Kono districts in fourth, fifth and sixth places with 7.1 per cent, 6.8 per cent, and 6.5 per cent of heads of agricultural households respectively. While the Bonthe, Western Rural and Western Urban districts may be having more young people within the age brackets of 25-65 in the general population, the percentage household heads recorded within the agricultural households for this age group were the lowest with Western Rural scoring 3.1 per cent of heads of agricultural households, followed by Bonthe (2.9 per cent) and Western Urban district (1.2 per cent).

Table 5.3 Percent distribution of household heads by age group and district

District	Age Group							
	15 - 24		25 - 34		35 - 44		45 - 54	
	No	%	No	%	No	%	No	%
Kailahun	2,216	0.3	12,858	0.2	21,103	2.9	17,710	2.4
Kenema	2,748	0.4	13,713	1.9	20,548	2.8	16,374	2.2
Kono	1,866	0.3	10,137	1.4	16,896	2.3	14,153	1.9
Bombali	2,648	0.3	12,039	1.6	17,834	2.4	15,527	2.1
Kambia	1,765	0.2	8,114	1.1	11,902	1.6	9,949	1.4
Koinadugu	1,527	0.2	8,983	1.2	14,786	2.0	12,142	1.7
Port Loko	3,775	0.5	16,052	2.2	22,385	3.1	18,157	2.5
Tonkolili	3,066	0.4	14,181	1.9	18,616	2.5	14,854	2.0
Bo	3,265	0.4	12,114	1.7	17,384	2.4	14,272	1.9
Bonthe	1,240	0.2	5,395	0.7	7,069	0.9	5,571	0.8
Moyamba	3,003	0.4	10,290	1.4	13,634	1.9	12,293	1.5
Pujehun	1,392	0.2	7,452	1.0	11,370	1.6	9,163	1.3
Western Rural	1,344	0.2	5,830	0.8	7,751	1.1	5,957	0.8
Western Urban	377	0.1	1,897	0.3	2,745	0.4	2,335	0.3

Table 5.3 Percent distribution of household heads by age group and district (continued)

District	Age Group					
	55 - 64		65 – 74		75+	
	No	%	No	%	No	%
Kailahun	9,657	1.3	6,356	0.9	4,461	0.6
Kenema	8,903	1.2	5,676	0.8	3,736	0.5
Kono	6,801	0.9	4,329	0.6	3,045	0.4
Bombali	9,216	1.3	5,823	0.8	4,138	0.6
Kambia	6,195	0.9	4,017	0.6	3,077	0.4
Koinadugu	6,273	0.8	3,570	0.5	2,121	0.3
Port Loko	10,478	1.4	6,629	0.9	4,877	0.7
Tonkolili	7,435	1.0	4,429	0.6	3,592	0.5
Bo	7,990	1.1	5,107	0.7	3,720	0.5
Bonthe	3,382	0.5	2,156	0.3	1,774	0.2
Moyamba	6,664	0.9	4,194	0.6	3,185	0.4
Pujehun	4,920	0.7	3,179	0.4	2,226	0.3
Western Rural	3,101	0.4	1,749	0.2	938	0.1
Western Urban	1,435	0.2	848	0.1	393	0.1

Source: Statistics Sierra Leone, 2015
Population and Housing Census

3.6 Agricultural Households by Educational Level of Household Head

Educational level was measured in terms of years completed to attain certain levels of qualifications including Basic Education Certificate (BECE), Senior Secondary School (SSS), Vocational, Technical, Nursing and Teaching (VTNT) certificates, Higher Degree Certificate, Tertiary (Postgraduate and PhD), and others. The percentage distribution of heads of agricultural households by educational level attained is presented in Appendix 2.

To begin with, the Sierra Leone society is highly illiterate as revealed in the 2015 census with just 51.4 per cent of the population literate in any language and 44.2 per cent literate in English. Between more than three-quarters and two-thirds of agricultural households in the Northern, Eastern and Southern regions (76.6, 69.0 and 68.4 per cent respectively) never received any formal education.
The situation is relatively better in the Western region where the majority (57.6 per cent) went to school. Of those agricultural households who went to school, 18.8 per cent, 18.2 per cent, and 13.2 per cent from the Eastern, Southern and Northern regions respectively completed BECE, which is a total of nine years of primary and junior secondary education.

A relatively better proportion (27.1 per cent) of agricultural households in the Western region completed basic education. The education level attained by agricultural households worsened in terms of higher qualifications. As shown in Appendix 2, the percentage of agricultural households reporting attainment of SSS education (12 years of formal schooling) fell below double digits in the Northern (5 per cent), Eastern (7 per cent) and Southern (6 per cent) regions with the exception of the Western region which recorded 18 per cent completion of SSS by heads of agricultural households.

Few agricultural households attended vocational, technical, nursing and teacher certification programmes beyond 12 years of SSS education. Fewer agricultural households reported completing first degree and post-graduate/PhD programs at tertiary institutions.

3.7 Agricultural Households by Employment Status of Heads of Agricultural Households

Data on the employment and unemployment status of heads of agricultural households are presented in Tables 6.3 and 7.3 respectively.

Paid Employment

Out of a total of 732,461 agricultural households nationwide, just 5.5 per cent were in paid employment. At the regional level, the Northern region recorded the highest proportion (1.8 per cent) of agricultural households in paid employment, with the Western region (0.9 per cent) at the bottom.

Self-employment without employees

The majority of agricultural households nationwide were in self-employment without employees (76.9 per cent). At the regional level, the Northern region again recorded the highest numbers of agricultural households in self-employment, followed this time by the Eastern region , the Southern region and the Western region.

At the district level, Port Loko district ranked first place with 62,597 of agricultural households in paid employment, closely followed by Kailahun district and Kenema District in second and third places with 59,767 and 59,188 respectively.

Self-employment with employees (employer)

Less than four per cent of agricultural households nationwide, were in self-employment with employees. At the regional level, the Northern region again recorded the highest numbers, followed by the Southern region, the Eastern region and the Western region.

At the district level, Bo district ranked first place with 3,448 of agricultural households in self-employment with employees, closely followed by Bombali district and Tonkolili District in second and third places with 3,325 and 3,180 respectively. Port Loko and Kenema districts ranked fourth and fifth places with 2,492 and 2,408 respectively.

Table 6.3 Employment status of heads of agricultural households

District	Total	Paid employee	Self-employed without employees	Self-employed with employees	Unpaid family worker	Paid apprentice	Unpaid apprentice	Total employed	% employed
National	732,461	40,253	563,152	27,933	26,624	1,495	4,257	63,714	90.614
Eastern Region	203,286	8,868	164,553	6,109	7,780	440	1,265	189,015	25.805
Kailahun	74,361	3,186	59,767	1,897	3,086	125	496	68,557	9.360
Kenema	71,698	3,177	59,188	2,408	1,792	167	483	67,215	9.177
Kono	57,227	2,505	45,598	1,804	2,902	148	286	53,243	7.269
Northern Region	310,073	13,550	243,403	12,810	10,463	442	1,310	281,978	38.497
Bombali	67,229	3,143	52,200	3,325	1,980	101	247	60,996	8.328
Kambia	45,019	1,788	36,921	1,963	671	36	76	41,455	5.660
Koinadugu	49,302	1,339	41,882	1,850	1,439	36	180	46,726	6.379
Port Loko	82,353	4,471	62,597	2,492	2,693	118	309	72,680	9.923
Tonkolili	66,170	2,809	49,803	3,180	3,680	151	498	60,121	8.208
Southern Region	182,402	10,918	135,522	7,170	8,095	340	1,543	163,588	22.334
Bo	63,850	4,327	44,723	3,448	3,097	147	695	56,437	7.705
Bonthe	26,587	1,459	20,985	625	678	46	157	23,950	3.270
Moyamba	52,263	2,702	40,142	1,839	2,864	72	301	47,920	6.542
Pujehun	39,702	2,430	29,672	1,258	1,456	75	390	35,281	4.817
Western Region	36,700	6,917	19,674	1,844	286	273	139	29,133	3.977
Western Rural	26,670	4,246	15,382	1,350	205	184	101	21,468	2.931
Western Urban	10,030	2,671	4,292	494	81	89	38	7,665	1.046

Source: Statistics Sierra Leone, 2015 Population and Housing Census

Table 6.3 Employment status of heads of agricultural households (continued)

District	Worked before but currently looking for work	Looking for work for the first time	Household work	Not working & not looking for work	Full time student	Retired or pensioner	Others	Don't know	Total unemployed	% unemployed
National	2,763	5,888	21,264	19,283	8,444	4,690	5,310	1,105	68,747	9.386
Eastern Region	489	938	4,432	3,592	2,448	790	1,247	335	14,271	1.948
Kailahun	151	292	1,874	1,469	1,265	289	306	158	5,804	0.792
Kenema	142	271	1,199	1,260	709	301	482	119	4,483	0.612
Kono	196	375	1,359	863	474	200	459	58	3,984	0.544
Northern Region	966	2,378	8,869	8,869	3,354	1,625	1,709	325	28,095	3.836
Bombali	190	523	1,733	1,959	727	528	525	48	6,233	0.851
Kambia	66	149	970	1,533	478	202	147	19	3,564	0.487
Koinadugu	59	95	746	852	403	138	247	36	2,576	0.352
Port Loko	380	1,019	3,077	3,148	917	507	509	116	9,673	1.321
Tonkolili	271	592	2,343	1,377	829	250	281	106	6,049	0.826
Southern Region	608	1,343	6,535	5,117	1,959	1,322	1,632	298	18,814	2.569
Bo	280	394	2,372	1,766	901	663	906	131	7,413	1.012
Bonthe	66	185	1,064	729	294	155	125	19	2,637	0.360
Moyamba	106	308	1,488	1,328	451	352	286	24	4,343	0.593
Pujehun	156	456	1,611	1,294	313	152	315	124	4,421	0.604
Western Region	700	1,229	1,428	1,705	683	953	722	147	7,567	1.033
Western Rural	460	900	1,003	1,209	489	547	490	104	5,202	0.710
Western Urban	240	329	425	496	194	406	232	43	2,365	0.323

Source: Statistics Sierra Leone, 2015 Population and Housing Census

Table 7.3 Unemployment status of heads of agricultural households

District	Total	Worked before but currently looking for work	Looking for work for the first time	Household work	Not working & not looking for work	Full time student
Sierra Leone	732,461	2,763	5,888	21,264	19,283	8,444
Eastern Region	203,286	489	938	4,432	3,592	2,448
Kailahun	74,361	151	292	1,874	1,469	1,265
Kenema	71,698	142	271	1,199	1,260	709
Kono	57,227	196	375	1,359	863	474
Northern Region	310,073	966	2,378	8,869	8,869	3,354
Bombali	67,229	190	523	1,733	1,959	727
Kambia	45,019	66	149	970	1,533	478
Koinadugu	49,302	59	95	746	852	403
Port Loko	82,353	380	1,019	3,077	3,148	917
Tonkolili	66,170	271	592	2,343	1,377	829
Southern Region	182,402	608	1,343	6,535	5,117	1,959
Bo	63,850	280	394	2,372	1,766	901
Bonthe	26,587	66	185	1,064	729	294
Moyamba	52,263	106	308	1,488	1,328	451
Pujehun	39,702	156	456	1,611	1,294	313
Western Region	36,700	700	1,229	1,428	1,705	683
Western Rural	26,670	460	900	1,003	1,209	489
Western Urban	10,030	240	329	425	496	194

Source: Statistics Sierra Leone, 2015 Population and Housing Census

Table 7.3 Unemployment status of heads of agricultural households (continued)

District	Total	Retired or pensioner	Others	Don't know	Total unemployed	% unemployed
Sierra Leone	732,461	4,690	5,310	1,105	68,747	9.386
Eastern Region	203,286	790	1,247	335	14,271	1.948
Kailahun	74,361	289	306	158	5,804	0.792
Kenema	71,698	301	482	119	4,483	0.612
Kono	57,227	200	459	58	3,984	0.544
Northern Region	310,073	1,625	1,709	325	28,095	3.836
Bombali	67,229	528	525	48	6,233	0.851
Kambia	45,019	202	147	19	3,564	0.487
Koinadugu	49,302	138	247	36	2,576	0.352
Port Loko	82,353	507	509	116	9,673	1.321
Tonkolili	66,170	250	281	106	6,049	0.826
Southern Region	182,402	1,322	1,632	298	18,814	2.569
Bo	63,850	663	906	131	7,413	1.012
Bonthe	26,587	155	125	19	2,637	0.360
Moyamba	52,263	352	286	24	4,343	0.593
Pujehun	39,702	152	315	124	4,421	0.604
Western Region	36,700	953	722	147	7,567	1.033
Western Rural	26,670	547	490	104	5,202	0.710
Western Urban	10,030	406	232	43	2,365	0.323

Source: Statistics Sierra Leone, 2015 Population and Housing Census

Unpaid family worker

Three per cent of heads of agricultural households were classified as unpaid family workers. At the regional level, the Northern region recorded the highest numbers (10,463) of agricultural households as unpaid family workers, followed by the Southern region (8,095), the Eastern region (7,780) and the Western region (286).

At the district level, Tonkolili district ranked first place with 3,680 of agricultural households as unpaid family workers, closely followed by Kailahun district and Kono district in second and third places.

Paid apprentice

Less than one per cent of the household heads were paid apprentices. At the regional level, the Northern region recorded the highest numbers, followed by the Eastern region, the Southern region and the Western region.

At the district level, Western Rural district ranked first place, followed by Kenema district and Tonkolili District in second and third places.

Unpaid apprentice

Less than one per cent of heads of agricultural households were in unpaid apprentice work. At the regional level, the Southern region recorded the highest numbers, followed by the Northern region, the Eastern region and the Western region.

At the district level, Bo district ranked first place, followed by Tonkolili district and Kailahun Districts.

Other categories of employment status

Other categories of employment status are those not actually employed in any form of paid or unpaid work. These categories were presented in Table 7 and they include: a) Those who worked before but currently looking for work; b) Looking for work for the first time; c) Doing unpaid household work; d) Not working and not looking for work; e) Full time student; f) Retired/Pensioner; g) Other forms of unemployment; and h) Those who don't even know their employment status.

3.8 Agricultural Households by Major Livelihood Activity

More than half the households who participated in the 2015 census, were agricultural households with just over 42.1 per cent being non-agricultural households, who could have belonged to other industries such as trade, manufacturing, artisanal mining and services.

Figure 4.3 Percentage distribution of agricultural households by type of agricultural activity and region

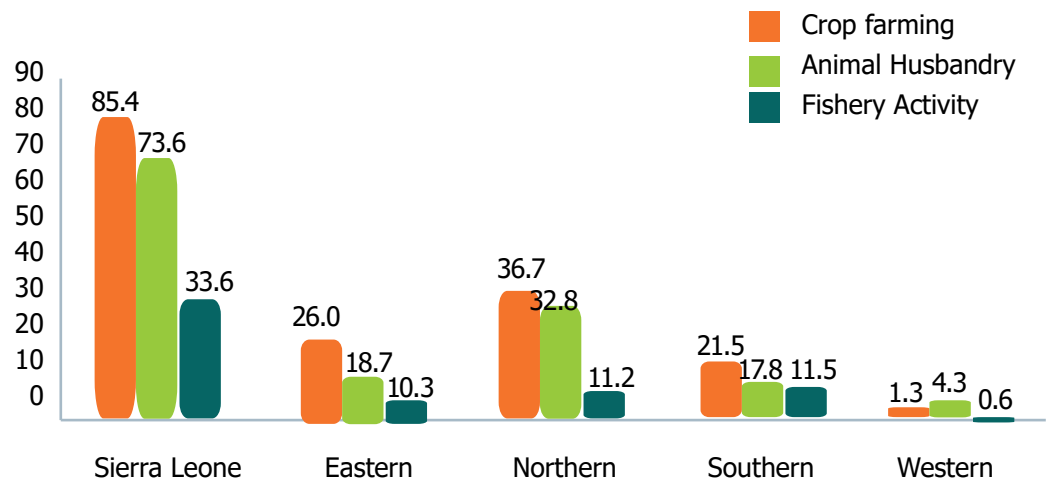


Table 8.3 Distribution of agricultural households by type of agricultural activity and district

District	All Agricultural Households	Crop Farming		Animal Husbandry		Fishery Activity	
		No.	%	No.	%	No.	%
Kailahun	74,361	70,970	9.7	56,341	7.7	28,318	3.9
Kenema	71,698	66,502	9.1	45,192	6.2	28,423	3.9
Kono	57,227	52,738	7.2	35,544	4.9	18,434	2.5
Bombali	67,229	58,463	8.0	46,866	6.4	10,626	1.5
Kambia	45,019	39,513	5.4	38,376	5.2	11,896	1.6
Koinadugu	49,302	46,350	6.3	38,968	5.3	22,417	3.1
Port Loko	82,353	65,101	8.9	67,071	9.2	16,821	2.3
Tonkolili	66,170	59,475	8.1	48,692	6.6	20,183	2.8
Bo	63,850	53,431	7.3	43,843	6.0	28,356	3.9
Bonthe	26,587	21,942	3.0	19,617	2.7	11,345	1.5
Moyamba	52,263	45,718	6.2	40,689	5.6	26,127	3.6
Pujehun	39,702	36,023	4.9	26,270	3.6	18,600	2.5
Western Rural	26,670	8,616	1.2	22,687	3.1	3,498	0.5
Western Urban	10,030	837	0.1	9,148	1.2	913	0.1

Source: Statistics Sierra Leone, 2015 Population and Housing Census

This supports the assertion that Sierra Leone is an agrarian economy, because the majority of the economically-active labour force is found in the agriculture sector.

Across the various districts and regions of the country, there are minor variations in livelihood and/or economic activities. In general the activities include crop farming, livestock, poultry farming, fishing, hunting, and exploiting forest products. In the 2015 Census, three livelihood activities (crop farming, animal husbandry and fishery) were captured, and the percentage distribution of agricultural households by their engagement in these activities is presented in Figure 4.3 (above) and Table 8.3 for regions and districts respectively.

3.8.1 Agricultural Households by Major Livelihood Activity by Region

Crop farming: More than 85 per cent of agricultural households nationwide were engaged in crop production including food crops, tree crops and horticultural crops. At the regional level, the Northern region recorded the highest percentage, followed by the Eastern region, the Southern region and the Western region, which was the only region not to follow the trend.

Animal husbandry: Nearly three-quarters (73.6 per cent) were engaged in animal husbandry, involving the raising of different types of livestock including big ruminants (cattle), small ruminants (goats and sheep), poultry (chickens and ducks) and others.

At the regional level, the largest proportion of those engaged in animal husbandry was found in the Northern region. This was followed by the Eastern and Southern regions, followed by the Western region. The Western region recorded only 4.3 per cent of the total, but the figures showed agricultural households in this region were more likely to engage in animal husbandry than in crop farming.

Fishery activities: The figures for fishery activities were relatively low compared to crop farming and animal husbandry. At the national level, 33.6 per cent of agricultural households were engaged in fishery activities including fish pond farming, coastal fishing and artisanal fishing.

At the regional level, the Southern region accounted for 11.5 per cent of this 33.6 per cent followed by the Northern region (11.2 per cent), Eastern region (10.3 per cent) and Western region (0.6 per cent) of agricultural households doing fish farming.

3.8.2 Agricultural Households by Major Livelihood Activity by District

Crop farming: At the district level, Kailahun and Kenema districts ranked in first and second places in crop production. This was followed by Port-Loko, Tonkolili and Bombali districts.

Animal husbandry: Port Loko district ranked first place, followed by Kailahun district in a surprising second place. This was followed by Tonkolili, Bombali, Kenema and Bo districts.

Fishery activities: Bo, Kailahun and Kenema districts each recorded 3.9 per cent of the total nationwide agricultural households engaged in fishery activities. This was followed by Moyamba district, Koinadugu and Tonkolili districts.

CHAPTER 4: FOOD CROPS PRODUCTION

4.1 Agricultural Households Growing Different Type of Food Crops

Nearly two-thirds of agricultural households grew upland rice while just under a third cultivated lowland rice, which included inland valley swamp (IVAS), boliland, mangrove swamp and riverine ecologies (Table 9.4a). This is clear evidence of the importance farmers attach to rice as the number one staple crop, and possibly the demand for rice.

Table 9.4a Households engaged in crop farming by type of food crop, region and district

District	Upland Rice		Lowland Rice		Cassava	
	No.	%	No.	%	No.	%
Sierra Leone	456,470	62.3	231,335	31.6	147,936	20.2
Eastern	158,341	21.6	66,904	9.1	27,815	3.8
Kailahun	61,646	8.4	25,675	3.5	9,574	1.3
Kenema	57,139	7.8	18,553	2.5	10,377	1.4
Kono	39,556	5.4	22,676	3.1	7,864	1.1
Northern	187,997	25.7	128,995	17.6	53,711	7.3
Bombali	40,990	5.6	24,497	3.3	8,975	1.2
Kambia	18,364	2.5	24,783	3.4	4,975	0.7
Koinadugu	34,973	4.8	24,384	3.3	5,767	0.8
Port Loko	43,779	6.0	32,210	4.4	21,809	3.0
Tonkolili	49,891	6.8	23,121	3.2	12,185	1.7
Southern	107,796	14.7	33,842	4.6	63,013	8.6
Bo	41,084	5.6	6,801	0.9	16,592	2.3
Bonthe	6,038	0.8	7,939	1.1	15,321	2.1
Moyamba	34,506	4.7	8,971	1.2	16,336	2.2
Pujehum	26,168	3.6	10,131	1.4	14,764	2.0
Western	2,336	0.3	1,594	0.2	3,397	0.5
West Rural	2,074	0.3	1,489	0.2	3,094	0.4
West Urban	262	0.0	105	0.0	303	0.0

Source: Statistics Sierra Leone, 2015 Population and Housing Census

In addition, about a fifth of agricultural households cultivated cassava, considered the number two staple food crop after rice. Groundnut farming came a close fourth, followed by sweet potato and maize.

Table 9.4b Households engaged in crop farming by type of food crop, region and district

District	Sweet Potato		Groundnut		Maize	
	No.	%	No.	%	No.	%
Sierra Leone	30,866	4.2	139,909	19.1	15,330	2.1
Eastern	7,395	1.0	24,030	3.3	4,386	0.6
Kailahun	2,570	0.4	9,901	1.4	1,082	0.1
Kenema	2,188	0.3	6,726	0.9	1,339	0.2
Kono	2,637	0.4	7,403	1.0	1,965	0.3
Northern	14,463	2.0	86,566	11.8	6,464	0.9
Bombali	2,585	0.4	20,933	2.9	452	0.1
Kambia	2,418	0.3	10,745	1.5	788	0.1
Koinadugu	1,667	0.2	17,127	2.3	1,137	0.2
Port Loko	5,728	0.8	20,028	2.7	1,882	0.3
Tonkolili	2,065	0.3	17,733	2.4	2,205	0.3
Southern	6,792	0.9	27,647	3.8	3,796	0.5
Bo	2,227	0.3	7,123	1.0	1,121	0.2
Bonthe	1,279	0.2	2,178	0.3	169	0.0
Moyamba	1,766	0.2	12,196	1.7	2,140	0.3
Pujehum	1,520	0.2	6,150	0.8	366	0.0
Western	2,216	0.3	1,666	0.2	684	0.1
West Rural	2,037	0.3	1,561	0.2	627	0.1
West Urban	179	0.0	105	0.0	57	0.0

Source: Statistics Sierra Leone, 2015 Population and Housing Census

4.1.1 Regional Distribution of Agricultural Households by Type of Food Crops Grown

Upland rice crop: The Northern region recorded the highest percentage of agricultural households cultivating upland rice nationwide. This was followed by the Eastern region, the Southern region and the Western region.

Lowland rice crop: The data in Table 9.4a shows that relatively few agricultural households were involved in lowland rice production compared to upland rice. The Northern region had the highest proportion, followed by the Eastern region, the Southern region and the Western region.

Cassava crop: Though the second most important crop in Sierra Leone, the number of agricultural households involved in cassava cultivation was relatively low when compared to rice production. As shown in Table 9.4a, the Southern region recorded the most households cultivating cassava. The Northern region ranked second place, followed by the Eastern and Western regions.

Sweet Potato crop: A meagre 4.2 per cent of agricultural households in the entire country were involved in sweet potato cultivation. This was made up of 2 per cent in the Northern region, 1 per cent in the Eastern region, 0.9 per cent in the Southern region and 0.3 percent of agricultural households in the Western region.

Groundnut crop: Groundnut production provides a major source of protein and vegetable oil for cooking. The Northern region accounts for 11.8 per cent of all agricultural households producing groundnuts, followed by the Southern region, the Eastern region and the Western region.

Maize crop: Agricultural households were least likely to grow maize (Table 9.4b), with regional production below one per cent.

4.1.2 Distribution of Agricultural Households Growing Different Types of Food Crops by District

Upland rice crop: At the district level, Kailahun and Kenema districts had the largest numbers of households involved in upland rice farming. This was followed by Tonkolili and Port Loko districts.

Lowland rice crop: For lowland rice crop, Port Loko recorded the highest number of agricultural households involved in cultivation followed by Kailahun, and Kambia districts. Bombali and Koinadugu districts both ranked in fourth place.

Cassava crop: Port Loko had the most agricultural households cultivating cassava. The four districts in the Southern region, (Bo, Moyamba, Bonthe and Pujehun) ranked in second, third, fourth and fifth places.

Sweet potato crop: Sweet potato production at the national level involved just 4.2 per cent of agricultural households scattered over 14 districts. As such, all figures on agricultural households producing sweet potato at the district level were below one per cent. Port Loko recorded the greatest number of households involved in sweet potato production.

Groundnut crop: Many more agricultural households were involved in groundnut production than in sweet potato or maize. Bombali, Port Loko, Tonkolili and Koinadugu ranking first, second, third and fourth in terms of numbers of households cultivating this crop.

Maize crop: Maize was the least popular food crop to cultivate. Tonkolili district had the most households (2,205) growing the crop.

4.2 Total Land Area Under Food Crops Cultivation

Agricultural household heads provided information about the total land area under cultivation for each of the six main food crops (Tables 10.4a and 10.4b). As shown in Table 10.4a, of the total land area of 3,244,214 hectares (ha) under food production, just over three-quarters was used to cultivate these six crops. The largest percentage was used for upland rice production (35 per cent), with 17.3 per cent for lowland rice cultivation, 10.6 per cent for cassava cultivation, 9.2 per cent for groundnut cultivation and a combined land area of 2.4 per cent for sweet potato and maize cultivation.

4.2.1 Land Area Under Food Crops Cultivation by Region

When considered by regions, the Northern region cultivated more of the upland rice with 37.1 percent of land under food crop production. This was followed by the Eastern and Southern regions of 36.1 and 25.5 per cent of land under food crop cultivation respectively.

Upland rice crop: Of the total arable land under upland rice cultivation, 13.1 per cent of the country's 35 per cent was in the Northern region. The Eastern and Southern regions ranked second and third.

Lowland rice crop: Less than half the land used for upland rice production nationally was used in lowland rice production. The Northern region does not follow this trend with 335,440 ha of land used for lowland rice compared to 424,654 ha for upland rice. But the other regions follow the national trend and used considerably more land for upland rice than lowland rice.

Cassava crop: The Southern region used the most land for cassava cultivation. This was followed by Northern region and then the Eastern region.

Table 10.4a Total land area under food crops cultivation by region and district

District	Total	Upland Rice		Lowland Rice		Cassava	
		No.	%	No.	%	No.	%
Sierra Leone	3,244,214	1,133,925	35.0	560,384	17.3	342,507	10.6
Eastern	1,170,590	400,988	12.4	136,415	4.2	54,275	1.7
Kailahun	499,264	153,687	4.7	51,907	1.6	17,706	0.5
Kenema	350,338	140,173	4.3	32,238	1.0	17,327	0.5
Kono	320,988	107,128	3.3	52,270	1.6	19,241	0.6
Northern	1,220,327	424,654	13.1	335,440	10.3	111,309	3.4
Bombali	196,812	77,478	2.4	45,264	1.4	15,388	0.5
Kambia	196,593	39,250	1.2	106,041	3.3	10,216	0.3
Koinadugu	252,895	107,047	3.3	67,928	2.1	9,958	0.3
Port Loko	310,294	101,556	3.1	78,774	2.4	44,779	1.4
Tonkolili	263,734	99,323	3.1	37,434	1.2	30,967	1.0

District	Total	Upland Rice		Lowland Rice		Cassava	
		No.	%	No.	%	No.	%
Southern	825,816	302,132	9.3	84,918	2.6	172,187	5.3
Bo	287,375	121,460	3.7	16,463	0.5	40,379	1.2
Bonthe	127,605	17,644	0.5	21,151	0.7	45,063	1.4
Moyamba	210,347	86,686	2.7	26,459	0.8	44,601	1.4
Pujehun	200,489	76,343	2.4	20,845	0.6	42,144	1.3
Western	27,481	6,151	0.2	3,612	0.1	4,736	0.1
Western Rural	23,223	4,889	0.2	2,973	0.1	4,252	0.1
Western Urban	4,258	1,262	0.0	639	0.0	484	0.0

Source: Statistics Sierra Leone, 2015
Population and Housing Census

Groundnut crop: The Northern region recorded the largest amount of land devoted to groundnut cultivation followed by the Southern region and the Eastern region.

Maize crop: The total land under maize cultivation in all four regions of the country was relatively small in line with national figures.

4.2.2 Land Area Under Food Crops Cultivation by District

Tables 10a and 10.4b still apply to the distribution of crops by land area under cultivation at the district level.

Upland crop: The Kailahun and Kenema districts ranked in first and second places and recorded 4.7 per cent and 4.3 per cent of national arable land under upland rice cultivation. This was followed by Bo district in third place.

Table 10.4b Total land area of food crops under cultivation by region and district

District	Total	Sweet Potato		Groundnut		Maize	
		No.	%	No.	%	No.	%
Sierra Leone	3,244,214	50,105	1.5	299,580	9.2	28,984	0.9
Eastern	1,170,590	10,880	0.3	53,533	1.7	7,815	0.2
Kailahun	499,264	3,699	0.1	20,980	0.6	2,006	0.1
Kenema	350,338	3,027	0.1	13,922	0.4	1,974	0.1
Kono	320,988	4,154	0.1	18,632	0.6	3,835	0.1
Northern	1,220,327	22,781	0.7	178,889	5.5	11,445	0.4
Bombali	196,812	3,912	0.1	41,849	1.3	953	0.0
Kambia	196,593	3,547	0.1	18,595	0.6	991	0.0
Koinadugu	252,895	2,762	0.1	36,750	1.1	2,000	0.1
Port Loko	310,294	8,929	0.3	35,404	1.1	3,563	0.1
Tonkolili	263,734	3,631	0.1	46,291	1.4	3,939	0.1
Southern	825,816	13,087	0.4	63,943	2.0	8,655	0.3
Bo	287,375	3,981	0.1	16,782	0.5	1,972	0.1
Bonthe	127,605	2,640	0.1	6,276	0.2	330	0.0
Moyamba	210,347	3,891	0.1	27,672	0.9	5,210	0.2
Pujehun	200,489	2,575	0.1	13,212	0.4	1,142	0.0
Western	27,481	3,357	0.1	3,215	0.1	1,068	0.0
Western Rural	23,223	3,036	0.1	2,767	0.1	953	0.0
Western Urban	4,258	321	0.0	448	0.0	115	0.0

Source: Statistics Sierra Leone, 2015
Population and Housing Census

Lowland rice crop: Kambia and Port Loko district ranked first and second place with 3.3 per cent and 2.4 per cent of total arable land under lowland rice cultivation. This was followed by Koinadugu, Kailahun, Kono, Bombali, Tonkolili and Kenema districts in descending order.

Cassava crop: Bonthe district had the most land used for cassava farming, followed by Port Loko, Moyamba, Pujehun and Bo

Groundnut crop: A total of 299,580 ha of land was reported nationally to be under groundnut production, which is 9.2 per cent of the total arable land under food crops nationwide. At the district level, Tonkolili district reported the most land area under groundnut cultivation, followed by Bombali, then Koinadugu.

Sweet potato and maize crops: The percentages of land under sweet potato and maize crops cultivation at the district level were insignificant and also not very distinct among the districts. The reader is advised to look at the absolute numbers of the land area under cultivation for these two crops instead of the percentage land area.

4.3 Total Quantity of Food Crops Produced

The quantity of food crops produced was measured in kilograms (kg).

4.3.1 Quantity of Food Crops Produced by Region

A total of 761,073,054 kg of upland rice, lowland rice, cassava, sweet potato, groundnut and maize production was reported nationwide in the 2015 Census (Tables 11.4a and 11.4b). Of this total, 322,921,870 and 181,370,495 kg were upland and lowland rice respectively, which is 66.2 per cent of total food crop production. Cassava amounted to 217,358,479 kg (28.6 per cent of total food production) and the remaining 5.2 per cent was from sweet potato, groundnut and maize.

Upland and Lowland Rice: The Northern region produced almost half (48.2 per cent) of total national food production. Nearly three-quarters of the 366,952,975 kg produced in the region came from rice crops (upland and lowland), which was 54 per cent of total rice production, 73.5 per cent of regional production, and 35.5 per cent of national food production.

The Southern region produced the second highest amount of food (213,784,106 kg) with 72,566,860 and 19,082,222 kg of upland and lowland rice respectively. This was 18.2 per cent of total rice production, 43 per cent of the regional food production and 12.1 per cent of national food production.

The Eastern region ranked third place in food crop production with 174,780,579 kg of total regional food production, which was 23 per cent of national food production. Of the total regional production, 104,475,273 and 36,912,124 kg were from upland and lowland rice production. This was 28 per cent of total rice production, 81 per cent of regional production, and 18.6 per cent of national food production.

The Western region is typically not known for food production, which is confirmed by the figures obtained for food crop production. A total of 5,555,396 kg was recorded for food production, of which 905,304 and 499,475 kg were for upland and lowland rice production. The total of upland and lowland rice produced was 0.3 per cent of total rice production, 25.3 percent of regional food production, and 0.2 percent of national food production.

Cassava Production: Cassava is the second staple food crop in Sierra Leone after rice. The production figures of the 2015 Census support this labelling. At the regional level, the Southern region produced more than half the nation's cassava crop (53 per cent), which also equated to 54 per cent of total regional food production, and 15.1 percent of total national food production.

The Northern region was the second largest producer of cassava, which is 34 per cent of total cassava production, 20 per cent of regional food production and 9.6 per cent of total national food production.

Table 11.4a Agricultural household food crops production in Kg by Region and district

District	Total	Upland Rice		Lowland Rice		Cassava	
		No.	%	No.	%	No.	%
Sierra Leone	61,073,054	322,921,870	42.4	181,370,495	23.8	217,358,479	28.6
Eastern	174,780,579	104,475,273	13.7	36,912,124	4.9	26,938,348	3.5
Kailahun	59,320,065	35,135,813	4.6	13,548,122	1.8	8,460,437	1.1
Kenema	69,808,786	45,726,256	6.0	12,253,387	1.6	10,096,884	1.3
Kono	45,651,729	23,613,204	3.1	11,110,616	1.5	8,381,027	1.1
Northern	366,952,975	144,974,434	19.0	124,876,675	16.4	73,329,626	9.6
Bombali	56,973,782	23,599,052	3.1	15,108,202	2.0	12,503,385	1.6
Kambia	61,655,969	14,072,335	1.8	37,062,892	4.9	6,934,860	0.9
Koinadugu	91,048,996	45,339,520	6.0	32,024,392	4.2	7,037,257	0.9
Port Loko	93,324,250	30,342,719	4.0	27,041,723	3.6	31,103,054	4.1
Tonkolili	63,949,979	31,620,809	4.2	13,639,466	1.8	15,751,070	2.1
Southern	213,784,106	72,566,860	9.5	19,082,222	2.5	114,588,026	15.1
Bo	60,761,675	30,135,660	4.0	3,387,428	0.4	25,548,380	3.4
Bonthe	35,414,131	2,407,423	0.3	3,832,821	0.5	28,260,156	3.7
Moyamba	54,505,373	19,077,124	2.5	6,002,288	0.8	26,443,722	3.5
Pujehun	63,102,927	20,946,653	2.8	5,859,686	0.8	34,335,768	4.5
Western	5,555,396	905,304	0.1	499,475	0.1	2,502,479	0.3
Western Rural	5,089,487	759,791	0.1	454,688	0.1	2,363,238	0.3
Western Urban	465,910	145,513	0.0	44,788	0.0	139,241	0.0

Source: Statistics Sierra Leone, 2015
Population and Housing Census

The Eastern region produced 12 per cent of total cassava production, 15.4 per cent of total regional food production and 3.5 per cent of total national food production.

The Western region recorded the lowest cassava crop in the four regions, just 1.2 per cent of total cassava production, 4.5 per cent of regional food production and 0.3 per cent of total national food production.

Sweet Potato: The Northern region recorded the highest sweet potato production among the four regions and it produced more than half the entire nation's crop. This can also be represented as 3.2 per cent of regional food production and 1.5 percent of total national food production.

The Eastern region was second largest producer with 21 per cent of total sweet potato production, 2.6 per cent of regional food production and 0.6 per cent of total national food production.The Southern region produced 20 per cent of total sweet potato production, 2 per cent of total regional food production and 0.6 per cent of national food production.

The Western region again recorded the lowest figure in the four regions with only 1.2 per cent of total sweet potato production, 45 per cent of total regional food production and 0.3 per cent of total national food production.

Table 11.4b Agricultural household food crops production in Kg by Region and district

District	Total	Sweet Potato		Groundnut		Maize	
		No.	%	No.	%	No.	%
Sierra Leone	141,797,503	21,962,890	2.9	13,624,090	1.8	3,835,230	0.5
Eastern	70,484,847	4,610,150	0.6	684,518	0.1	1,160,166	0.2
Kailahun	34,459,202	1,544,406	0.2	344,353	0.0	286,934	0.0
Kenema	25,027,532	1,228,854	0.2	154,835	0.0	348,570	0.0
Kono	10,998,114	1,836,891	0.2	185,330	0.0	524,661	0.1
Northern	42,347,039	11,575,725	1.5	10,533,605	1.4	1,662,910	0.2
Bombali	7,471,518	2,434,075	0.3	3,246,556	0.4	82,512	0.0
Kambia	4,747,460	3,049,790	0.4	308,095	0.0	227,997	0.0
Koinadugu	11,260,759	1,448,651	0.2	4,742,560	0.6	456,616	0.1
Port Loko	8,548,990	3,380,272	0.4	1,054,055	0.1	402,427	0.1
Tonkolili	10,318,313	1,262,937	0.2	1,182,339	0.2	493,358	0.1
Southern	27,231,777	4,375,213	0.6	2,251,077	0.3	920,708	0.1
Bo	10,574,457	1,122,732	0.1	288,557	0.0	278,918	0.0
Bonthe	3,746,555	715,050	0.1	172,977	0.0	25,704	0.0
Moyamba	4,427,184	1,668,161	0.2	743,649	0.1	570,429	0.1
Pujehun	8,483,582	869,270	0.1	1,045,893	0.1	45,657	0.0
Western	1,733,839	1,401,802	0.2	154,890	0.0	91,446	0.0
Western Rural	1,566,761	1,290,607	0.2	132,282	0.0	88,881	0.0
Western Urban	167,078	111,195	0.0	22,608	0.0	2,565	0.0

Source: Statistics Sierra Leone, 2015
Population and Housing Census

Groundnut: The Northern region produced the largest quantity of groundnut of all four regions. This production figure is 77 per cent of total groundnut production, 3 per cent of total regional food production and 1.3 per cent of total national food production.

The Southern region followed with just 16.5 per cent of total groundnut production, 1 per cent of total regional food production and 0.3 per cent of total national food production.

The Eastern region production of groundnut was only 5 per cent of total groundnut production, 2.8 per cent of total regional food production and 1.4 per cent of total national food production. Similarly, the contribution by the Western region was a meagre 1 per cent of total groundnut production, 2.8 per cent of total regional food production and 0.02 percent of total national food production.

Maize: Maize was the least grown crop of the six. The Northern region recorded the largest production followed by the Eastern, Southern and Western regions. The Northern production was 43 per cent of total maize production, 0.4 per cent of total regional food production and 0.2 per cent of total national food production. The Eastern region represented 30 per cent of total maize production, 0.7 per cent of regional food production and 0.1 percent of national food production. The Southern production of maize represented 24 per cent of total maize production, 0.4 per cent of total regional food production and 0.1 per cent of total national food production. Lastly, the maize production from the Western region accounted for 2.4 per cent of total maize production, 1.6 per cent of total regional food production and 0.01 per cent of total national food production.

4.3.2 Total quantity of Food Crops produced by District

Upland Rice: Kenema district recorded 45,726,256 kg of upland rice production, equal to 14 per cent of total upland rice production and 6 per cent of total national food production (Table 11.4a). The Kenema district was closely followed by Koinadugu district with 45,339,520 kg, also 14 per cent of total upland rice production, and 6 per cent of total national food production. The Kailahun and Tonkolili districts produced 35,135,813 and 31,620,804 kg respectively. They contributed 11 per cent and 9.8 per cent respectively to total rice production; and 5 per cent and 4 per cent respectively to total national food production.

Lowland Rice: Kambia and Koinadugu districts featured as the main producers of lowland rice with Kambia producing 37,062,892 kg and Koinadugu 32.024,392 kg. The Kambia and Koinadugu production figures represented 20.4 per cent and 18 per cent of total lowland rice production and 4.9 per cent and 4.2 per cent of total national food production respectively.

Port Loko produced the third largest quantity of lowland rice followed by Bombali district ,Tonkolili district, Kailahun district, Kenema and Kono district.

Cassava: Cassava production was highest in the Pujehun district which recorded 34,335,768 kg, followed by Port Loko with 31,103,054 kg, Bonthe with 28,260,156 kg and Moyamba district with 26,443,722 kg. Pujehun the largest producer, contributed 6 per cent to total cassava production and 5 per cent to total national food production. The Kenema district production which was 10,096,844 kg represented 5 per cent of total cassava production but only 1.3 percent of overall national food production. Hence as the production figures get smaller the percentage contribution to food security diminishes.

Other Crops: Groundnut production in all districts fell below 5,000 kg with the largest production from Koinadugu district. Sweet potato production fell below 4 kg with the largest production from Port Loko and Kambia which recorded 3,380,272 kg and 3,049,790 kg respectively. Production below 5 kg is only accounting for 0.6% to total national food produced.

4.4 Food Crops Sales by Agricultural Households

4.4.1 Sales of Food Crops by Region

Information on how agricultural households sold crops was obtained at three levels, no sale, part sold and all sold. Only 3.3 per cent of agricultural households nationally said they sold all the produce from food crops. A significant proportion (46.8 per cent) said they sold part of the food crop produce while the majority (49.9 per cent) never sold any portion of their produce.

The pattern is broadly the same at the regional and district levels with very few households selling their food crop produce and the majority either selling part or none. This supports the notion that agriculture is more of a subsistence nature than a for-profit business.

Table 12.4a Agricultural households by whether they sold part, sold all or never sold food crops

All Food Crops							
District	Total	Sold all		Sold part		None	
		No.	%	No.	%	No.	%
Sierra Leone	800,336	26,758	3.3	374,564	46.8	399,014	49.9
Eastern	204,820	5,999	0.7	78,274	9.8	120,547	15.1
Kailahun	65,912	2,493	0.3	24,893	3.1	38,526	4.8
Kenema	79,323	2,234	0.3	29,236	3.7	47,853	6.0
Kono	59,585	1,272	0.2	24,145	3.0	34,168	4.3
Northern	384,403	7,821	1.0	206,632	25.8	169,950	21.2
Bombali	81,573	1,562	0.2	35,252	4.4	44,759	5.6
Kambia	48,142	1,360	0.2	28,380	3.5	18,402	2.3
Koinadugu	69,974	1,016	0.1	48,246	6.0	20,712	2.6
Port Loko	100,920	2,614	0.3	54,157	6.8	44,149	5.5
Tonkolili	83,794	1,269	0.2	40,597	5.1	41,928	5.2
Southern	201,699	12,516	1.6	85,075	10.6	104,108	13.0
Bo	61,658	3,979	0.5	23,389	2.9	34,290	4.3
Bonthe	26,880	1,426	0.2	13,395	1.7	12,059	1.5
Moyamba	61,523	3,711	0.5	23,897	3.0	33,915	4.2
Pujehun	51,638	3,400	0.4	24,394	3.0	23,844	3.0
Western	9,414	422	0.1	4,583	0.6	4,409	0.6
Western Rural	8,714	381	0.0	4,254	0.5	4,079	0.5
Western Urban	700	41	0.0	329	0.0	330	0.0

Source: Statistics Sierra Leone, 2015 Population and Housing Census

Upland Rice: Less than one per cent of agricultural households in the country sold all of their upland rice crop (Table 12.4b). More than one third said they sold part of their upland rice produce while the majority (61.5 per cent) never sold any of the upland rice crop. About 21 per cent of agricultural households who never sold the upland crop were in the Eastern region, with only 9.3 per cent. Those who reported selling part of the upland rice crop being in this region. The Northern and Southern regions accounted for 23.7 per cent and 16.9 per cent of households who never sold any of the upland crop respectively. Many of the Northern households sold part of the upland rice crop (20.3 per cent of the national percentage),.

Table 12.4b Agricultural households by whether they sold the upland rice crop

Upland Rice									
District	Total	Total		Sold all		Sold part		None	
		No.	%	No.	%	No.	%	No.	%
Sierra Leone	800,336	394,039	49.2	2,453	0.6	149,194	37.9	242,392	61.5
Eastern	204,820	118,813	14.8	782	0.2	36,714	9.3	81,317	20.6
Kailahun	65,912	37,684	4.7	238	0.1	11,471	2.9	25,975	6.6
Kenema	79,323	50,143	6.3	336	0.1	14,853	3.8	34,954	8.9
Kono	59,585	30,986	3.9	208	0.1	10,390	2.6	20,388	5.2
Northern	384,403	174,317	21.8	1,085	0.3	79,918	20.3	93,314	23.7
Bombali	81,573	39,085	4.9	225	0.1	14,337	3.6	24,523	6.2
Kambia	48,142	16,622	2.1	122	0.0	7,546	1.9	8,954	2.3
Koinadugu	69,974	33,036	4.1	305	0.1	21,937	5.6	10,794	2.7
Port Loko	100,920	40,723	5.1	228	0.1	17,861	4.5	22,634	5.7
Tonkolili	83,794	44,851	5.6	205	0.1	18,237	4.6	26,409	6.7
Southern	201,699	98,763	12.3	521	0.1	31,566	8.0	66,676	16.9
Bo	61,658	37,067	4.6	216	0.1	10,306	2.6	26,545	6.7
Bonthe	26,880	4,934	0.6	42	0.0	1,752	0.4	3,140	0.8
Moyamba	61,523	31,747	4.0	110	0.0	9,620	2.4	22,017	5.6
Pujehun	51,638	25,015	3.1	153	0.0	9,888	2.5	14,974	3.8
Western	9,414	2,146	0.3	65	0.0	996	0.3	1,085	0.3
Western Rural	8,714	1,916	0.2	54	0.0	861	0.2	1,001	0.3
Western Urban	700	230	0.0	11	0.0	135	0.0	84	0.0

Source: Statistics Sierra Leone, 2015
Population and Housing Census

Lowland Rice: A similar pattern of sales was captured for lowland rice crop as in the case of upland rice crop (Table 12.4c). Nearly 53 per cent of agricultural households nationwide never sold their lowland rice crop, 46.2 per cent sold part of the crop and only one per cent of agricultural households said they sold all of their lowland crop.

This pattern is observed at both regional and district levels though by different proportions of agricultural households. For example, 15.9 per cent, 27.0 per cent and 9.5 per cent of agricultural households in the Eastern, Northern and Southern regions never sold their lowland rice crop respectively, while 8.5 per cent, 32.1 per cent and 5.3 per cent in the Eastern, Northern and Southern regions sold part of the lowland rice crop respectively.

Table 12.4c Agricultural households by whether they sold the lowland rice crop

Lowland Rice									
District	Total	Total		Sold all		Sold part		None	
		No.	%	No.	%	No.	%	No.	%
Sierra Leone	800,336	200,196	25.0	1,927	1.0	92,472	46.2	105,797	52.8
Eastern	204,820	49,445	6.2	553	0.3	17,081	8.5	31,811	15.9
Kailahun	65,912	16,300	2.0	204	0.1	5,392	2.7	10,704	5.3
Kenema	79,323	16,254	2.0	216	0.1	5,720	2.9	10,318	5.2
Kono	59,585	16,891	2.1	133	0.1	5,969	3.0	10,789	5.4
Northern	384,403	119,345	14.9	994	0.5	64,224	32.1	54,127	27.0
Bombali	81,573	23,341	2.9	141	0.1	8,797	4.4	14,403	7.2
Kambia	48,142	22,800	2.8	189	0.1	14,905	7.4	7,706	3.8
Koinadugu	69,974	23,079	2.9	219	0.1	15,959	8.0	6,901	3.4
Port Loko	100,920	29,715	3.7	285	0.1	14,797	7.4	14,633	7.3
Tonkolili	83,794	20,410	2.6	160	0.1	9,766	4.9	10,484	5.2
Southern	201,699	29,895	3.7	354	0.2	10,513	5.3	19,028	9.5
Bo	61,658	5,858	0.7	107	0.1	1,917	1.0	3,834	1.9
Bonthe	26,880	6,526	0.8	38	0.0	2,340	1.2	4,148	2.1
Moyamba	61,523	8,267	1.0	55	0.0	2,721	1.4	5,491	2.7
Pujehun	51,638	9,244	1.2	154	0.1	3,535	1.8	5,555	2.8
Western	9,414	1,511	0.2	26	0.0	654	0.3	831	0.4
Western Rural	8,714	1,429	0.2	21	0.0	610	0.3	798	0.4
Western Urban	700	82	0.0	5	0.0	44	0.0	33	0.0

Source: Statistics Sierra Leone, 2015 Population and Housing Census

For both upland and lowland rice crops, the sales data obtained further confirms the assertion that agriculture is still for subsistence, especially for the staple crop rice. Much of what is produced by the farmer is used to feed the family and part of the produce is reserved as seed for planting in the following cropping season. Agricultural households in the Western and Northern regions were more prone to selling rice than agricultural households in the Southern and Eastern regions. Possible explanation for this is the closeness to the Freetown market and cross border trade along the Sierra Leone-Guinea border.

Table 12.4d Agricultural households by whether they sold the cassava crop

Cassava									
District	Total	Total		Sold all		Sold part		None	
		No.	%	No.	%	No.	%	No.	%
Sierra Leone	800,336	134,024	16.7	17,448	13.0	85,547	63.8	31,029	23.2
Eastern	204,820	25,406	3.2	3,292	2.5	17,198	12.8	4,916	3.7
Kailahun	65,912	8,672	1.1	1,385	1.0	6,017	4.5	1,270	0.9
Kenema	79,323	9,517	1.2	1,310	1.0	6,325	4.7	1,882	1.4
Kono	59,585	7,217	0.9	597	0.4	4,856	3.6	1,764	1.3
Northern	384,403	49,331	6.2	3,635	2.7	34,575	25.8	11,121	8.3
Bombali	81,573	8,009	1.0	695	0.5	5,300	4.0	2,014	1.5
Kambia	48,142	4,674	0.6	487	0.4	3,433	2.6	754	0.6
Koinadugu	69,974	5,038	0.6	243	0.2	3,492	2.6	1,303	1.0
Port Loko	100,920	20,099	2.5	1,561	1.2	14,574	10.9	3,964	3.0
Tonkolili	83,794	11,511	1.4	649	0.5	7,776	5.8	3,086	2.3
Southern	201,699	56,383	7.0	10,365	7.7	32,340	24.1	13,678	10.2
Bo	61,658	14,920	1.9	3,282	2.4	8,694	6.5	2,944	2.2
Bonthe	26,880	13,735	1.7	1,314	1.0	8,215	6.1	4,206	3.1
Moyamba	61,523	14,853	1.9	3,004	2.2	7,800	5.8	4,049	3.0
Pujehun	51,638	12,875	1.6	2,765	2.1	7,631	5.7	2,479	1.8
Western	9,414	2,904	0.4	156	0.1	1,434	1.1	1,314	1.0
Western Rural	8,714	2,702	0.3	141	0.1	1,368	1.0	1,193	0.9
Western Urban	700	202	0.0	15	0.0	66	0.0	121	0.1

Source: Statistics Sierra Leone, 2015 Population and Housing Census

Cassava: Although cassava is only the second staple crop, a relatively good proportion of agricultural households (see Table 12.4d) sold all or part of the crop. Unlike rice, which no more than one per cent of agricultural households sold their entire crop, up to 13 per cent of agricultural households nationally, made up of 2.5 per cent in the Eastern region, 2.7 per cent in the Northern region, and 7.7 per cent in the Southern region and 0.1 per cent in the West region sold their entire cassava crop. The majority of agricultural households nationwide also sold nearly two-thirds (63.8 per cent) of the cassava crop they produced.

A good proportion of agricultural households (though not as much as in the case of the upland and lowland rice crops) said they never sold the cassava crop. In these scenarios, the crop was solely used for the subsistence of family members (23.3 per cent).

Table 12.4e Agricultural households by whether they sold the sweet potato crop

Sweet Potato									
District	Total	Total		Sold all		Sold part		None	
		No.	%	No.	%	No.	%	No.	%
Sierra Leone	800,336	25,719	3.2	2,840	11.0	16,137	62.8	6,742	26.2
Eastern	204,820	6,561	0.8	875	0.7	4,316	3.2	1,370	1.0
Kailahun	65,912	2,228	0.3	494	0.4	1,403	1.0	331	0.2
Kenema	79,323	1,941	0.2	240	0.2	1,363	1.0	338	0.3
Kono	59,585	2,392	0.3	141	0.1	1,550	1.2	701	0.5
Northern	384,403	11,995	1.5	1,219	0.9	7,770	5.8	3,006	2.2
Bombali	81,573	2,139	0.3	367	0.3	1,340	1.0	432	0.3
Kambia	48,142	2,281	0.3	444	0.3	1,410	1.1	427	0.3
Koinadugu	69,974	1,211	0.2	73	0.1	827	0.6	311	0.2
Port Loko	100,920	4,493	0.6	237	0.2	2,950	2.2	1,306	1.0
Tonkolili	83,794	1,871	0.2	98	0.1	1,243	0.9	530	0.4
Southern	201,699	5,311	0.7	631	0.5	3,129	2.3	1,551	1.2
Bo	61,658	1,855	0.2	223	0.2	1,107	0.8	525	0.4
Bonthe	26,880	909	0.1	15	0.0	521	0.4	373	0.3
Moyamba	61,523	1,533	0.2	280	0.2	845	0.6	408	0.3
Pujehun	51,638	1,014	0.1	113	0.1	656	0.5	245	0.2
Western	9,414	1,852	0.2	115	0.1	922	0.7	815	0.6
Western Rural	8,714	1,739	0.2	107	0.1	877	0.7	755	0.6
Western Urban	700	113	0.0	8	0.0	45	0.0	60	0.0

Source: Statistics Sierra Leone, 2015 Population and Housing Census

Sweet Potato:
The number of households producing sweet potatoes were relatively lower than those producing cassava, possibly because the latter crop has been given more attention in the last five years by the Ministry of Agricultural, Forestry and Food Security as well as farmer organizations. Like the other food crops, the sweet potato crop is used for both subsistence and commercialization.

As shown in Table 12.4e, 11 per cent of agricultural household's countrywide sold all their sweet potato crop, 62.8 per cent sold part of their crop and 26.2 per cent sold none at all.

Groundnut:
A similar percentage of households who produced groundnuts to those who produced sweet potatoes sold part of the crop. More than one quarter of groundnut producers kept all of their crop with only 3.5 per cent selling the entire crop.

Table 12.4f Agricultural households by whether they sold the groundnut crop

Groundnut									
District	Total	Total		Sold all		Sold part		None	
		No.	%	No.	%	No.	%	No.	%
Sierra Leone	800,336	38,655	4.8	1,351	3.5	26,340	68.1	10,964	28.4
Eastern	204,820	2,058	0.3	139	0.1	1,314	1.0	605	0.5
Kailahun	65,912	430	0.1	43	0.0	238	0.2	149	0.1
Kenema	79,323	606	0.1	38	0.0	411	0.3	157	0.1
Kono	59,585	1,022	0.1	58	0.0	665	0.5	299	0.2
Northern	384,403	26,652	3.3	732	0.5	18,364	13.7	7,556	5.6
Bombali	81,573	8,845	1.1	122	0.1	5,403	4.0	3,320	2.5
Kambia	48,142	1,277	0.2	95	0.1	776	0.6	406	0.3
Koinadugu	69,974	7,140	0.9	140	0.1	5,719	4.3	1,281	1.0
Port Loko	100,920	5,119	0.6	263	0.2	3,497	2.6	1,359	1.0
Tonkolili	83,794	4,271	0.5	112	0.1	2,969	2.2	1,190	0.9
Southern	201,699	9,227	1.2	435	0.3	6,221	4.6	2,571	1.9
Bo	61,658	1,257	0.2	98	0.1	910	0.7	249	0.2
Bonthe	26,880	708	0.1	17	0.0	507	0.4	184	0.1
Moyamba	61,523	3,861	0.5	125	0.1	2,173	1.6	1,563	1.2
Pujehun	51,638	3,401	0.4	195	0.1	2,631	2.0	575	0.4
Western	9,414	718	0.1	45	0.0	441	0.3	232	0.2
Western Rural	8,714	655	0.1	43	0.0	403	0.3	209	0.2
Western Urban	700	63	0.0	2	0.0	38	0.0	23	0.0

Source: Statistics Sierra Leone, 2015 Population and Housing Census

Maize: The picture created by the sales data on maize as shown in Table 12.4g shows that the crop has high potential for commercialization. Nearly 10 per cent of agricultural households nation-wide sold all of their maize crop. Of these households, 4.6 per cent, 2.0 per cent, and 2.7 per cent were in the Eastern, Northern and Southern regions respectively. Nearly two-thirds sold part of the maize crop with 21.4 per cent, 23.1 per cent, 17.0 per cent and 1.8 per cent of these households being in the Eastern, Northern, Southern and Western regions. A good proportion of agricultural households (27.1 per cent) never sold their maize crop.

Table 12.4g Agricultural households by whether they sold the maize crop

Maize									
District	Total	Total		Sold all		Sold part		None	
		No.	%	No.	%	No.	%	No.	%
Sierra Leone	800,336	7703	1.0	739	9.6	4874	63.3	2090	27.1
Eastern	204,820	2537	0.3	358	4.6	1651	21.4	528	6.9
Kailahun	65,912	598	0.1	129	1.7	372	4.8	97	1.3
Kenema	79,323	862	0.1	94	1.2	564	7.3	204	2.6
Kono	59,585	1077	0.1	135	1.8	715	9.3	227	2.9
Northern	384,403	2763	0.3	156	2.0	1781	23.1	826	10.7
Bombali	81,573	154	0.0	12	0.2	75	1.0	67	0.9
Kambia	48,142	488	0.1	23	0.3	310	4.0	155	2.0
Koinadugu	69,974	470	0.1	36	0.5	312	4.1	122	1.6
Port Loko	100,920	771	0.1	40	0.5	478	6.2	253	3.3
Tonkolili	83,794	880	0.1	45	0.6	606	7.9	229	3.0
Southern	201,699	2120	0.3	210	2.7	1306	17.0	604	7.8
Bo	61,658	701	0.1	53	0.7	455	5.9	193	2.5
Bonthe	26,880	68	0.0	0	0.0	60	0.8	8	0.1
Moyamba	61,523	1262	0.2	137	1.8	738	9.6	387	5.0
Pujehun	51,638	89	0.0	20	0.3	53	0.7	16	0.2
Western	9,414	283	0.0	15	0.2	136	1.8	132	1.7
Western Rural	8,714	273	0.0	15	0.2	135	1.8	123	1.6
Western Urban	700	10	0.0	0	0.0	1	0.0	9	0.1

Source: Statistics Sierra Leone, 2015 Population and Housing Census

4.4.2 Quantity of Food Crops Sold by District

The general pattern of sales at the district level is identical to the pattern established at the regional level, in which there is a greater tendency for agricultural households to sell part of the food crop but to retain a substantial amount for family consumption and seed for the following planting season.

Like at the regional level, very few agricultural households at the district level sell all of the harvest from any food crop. There is potential to commercialize food crops in the country through increased production per hectare of land using fertilizers, improved crop varieties, and recommended innovations and best practices.

Until this is achieved, food production systems will continue to be subsistent. A detailed description of patterns of food crop sales by district is not included because of space reasons and because the patterns follow the regional level. Further the low figures of sales are not worth describing. Readers who require more detail are directed to the data in Tables 12.4a to 12.4g for any specifics of interest on food crop sales by district.

CHAPTER 5: TREE CROPS PRODUCTION

Tree crops plantations in Sierra Leone contribute to a major portion of agricultural exports. The main export crops are coffee, cocoa, cola nut and oil palm. In this section of the report, the distribution of tree crops farmers by region and district, the area under tree crops cultivation, the quantity of produce from tree crops, and the patterns of sales of tree crops produce by region and district is discussed.

5.1 Distribution of Tree Crops Farmers by Regions

Table 13.5a Percentage distribution of agricultural households by type of tree crops grown

District	Total	Coffee		Cocoa		Oil Palm	
		No.	%	No.	%	No.	%
Sierra Leone	203,589	55,447	27.2	66,362	32.6	77,278	38.0
Eastern	141,553	48,623	23.9	60,432	29.7	30,941	15.2
Kailahun	69,569	21,186	10.4	30,616	15.0	17,210	8.5
Kenema	38,664	10,752	5.3	15,944	7.8	11,556	5.7
Kono	33,320	16,685	8.2	13,872	6.8	2,175	1.1
Northern	30,448	3,079	1.5	1,390	0.7	24,034	11.8
Bombali	2,694	24	0.0	54	0.0	2,312	1.1
Kambia	2,854	35	0.0	67	0.0	2,400	1.2
Koinadugu	7,440	2,658	1.3	869	0.4	3,717	1.8
Port Loko	6,861	48	0.0	109	0.1	5,963	2.9
Tonkolili	10,599	314	0.2	291	0.1	9,642	4.7
Southern	31,271	3,712	1.8	4,499	2.2	22,189	10.9
Bo	17,070	2,585	1.3	3,260	1.6	10,932	5.4
Bonthe	3,448	60	0.0	65	0.0	3,212	1.6
Moyamba	2,577	200	0.1	217	0.1	1,844	0.9
Pujehun	8,176	867	0.4	957	0.5	6,201	3.0
Western	317	33	0.0	41	0.0	114	0.1
Western Rural	246	24	0.0	26	0.0	85	0.0
Western Urban	71	9	0.0	15	0.0	29	0.0

Source: Statistics Sierra Leone, 2015 Population and Housing Census

The Eastern region of Sierra Leone is the centre of the country's tree crops farming. More than half all the agricultural households involved in these crops are in this region . Involvement of agricultural households in tree crops in the other regions is insignificant, except with oil palm farming where a significant number (24,034 and 22,189) are from the North and South.

Table 13.5b Percentage distribution of agricultural households by type of tree crops grown

District	Total	Citrus		Cashew	
		No.	%	No.	%
Sierra Leone	203,589	3,647	1.8	855	0.4
Eastern	141,553	1,394	0.7	163	0.1
Kailahun	69,569	528	0.3	29	0.0
Kenema	38,664	361	0.2	51	0.0
Kono	33,320	505	0.2	83	0.0
Northern	30,448	1,404	0.7	541	0.3
Bombali	2,694	210	0.1	94	0.0
Kambia	2,854	236	0.1	116	0.1
Koinadugu	7,440	181	0.1	15	0.0
Port Loko	6,861	492	0.2	249	0.1
Tonkolili	10,599	285	0.1	67	0.0
Southern	31,271	756	0.4	115	0.1
Bo	17,070	268	0.1	25	0.0
Bonthe	3,448	71	0.0	40	0.0
Moyamba	2,577	282	0.1	34	0.0
Pujehun	8,176	135	0.1	16	0.0
Western	317	93	0.0	36	0.0
Western Rural	246	82	0.0	29	0.0
Western Urban	71	11	0.0	7	0.0

Source: Statistics Sierra Leone, 2015 Population and Housing Census

5.2 Distribution of Tree Crops Farmers by District

Coffee: The district of Kailahun dominated the farming of coffee trees, followed by the other two Eastern districts Kono and Kenema.

Cocoa: Kailahun again dominated cocoa production, followed by Kenema then Kono.

Oil Palm: Kailahun also dominated oil palm production but there were also significant numbers grown in Kenema and in the Southern district of Bo and the Northern district of Tonkolili.

5.3 Area under tree crop cultivation by region

At the national level, a total of 3,164,472 ha of land was under tree crop cultivation (coffee, cocoa, oil palm, citrus and cashew). A further 79,742 ha was under vegetable cultivation. The Eastern and part of Southern regions are traditionally known for the cultivation of coffee and cocoa. Recently cashew has been added to the list of tree crops because of its cash potential. It is being promoted nationwide, but farmers are being slow to take the crop on.

Table 14.5 Total hectares of tree crops under cultivation by region (ha)

Province	Area of crop cultivation in hectares						
	Total	Coffee	Cocoa	Oil palm	Citrus	Cashew	Vegetables
Sierra Leone	3,244,214	191,791	235,749	307,593	9,487	4,368	79,742
Eastern	1,170,590	162,701	215,442	111,472	3,378	1,031	12,659
Northern	1,220,327	9,045	3,660	84,798	3,602	2,487	32,218
Southern	825,816	19,752	16,473	110,476	2,329	605	31,259
Western	27,481	294	173	847	178	244	3,607

Source: Statistics Sierra Leone, 2015 Population and Housing Census

Coffee: The Eastern region had 162,701 ha of coffee under coffee cultivation. This was 85 per cent of the total land under coffee production in the country and 14 per cent of total land under overall tree crop production countrywide. The Southern region was second, with 19,752 ha under tree crop cultivation – 10 per cent of total land under coffee production and 1.7 per cent of total land under tree crop production. The Northern and Western regions recorded third and fourth places with 9,045 ha and 294 ha respectively under coffee production. The Northern land under coffee cultivation accounted for 4.7 per cent of total land under coffee production and 0.8 per cent of overall land under tree crop production.

Cocoa: Cocoa production at national level occupied 235,749 ha of land which was 20 per cent of total land under tree crop production. The Eastern region alone had 215,442 ha (91.4 per cent of total land under cocoa production) and 18.6 per cent of total land under tree crop production. The Southern region had 16,473 ha under cocoa plantations, which was 6.9 per cent of total land under cocoa production and 14.2 per cent of total land under tree crops.

Oil Palm: Oil palm, unlike coffee and cocoa plantations, were almost evenly spread around the country, with the exception of the Western region which recorded a meagre 847 ha of oil palm under cultivation. The Eastern region recorded 111,472 ha and the largest land area under oil palm plantations. This regional figure was 3.7 per cent of total land under oil palm plantations and 9.6 per cent of total land under tree crops plantations. This was followed by the Southern and the Northern regions with 110,476 and 84,798 ha, which was 3.4 per cent and 2.6 per cent of total land under tree crop production and 35.9 per cent and 27.6 per cent of land under oil palm production respectively.

Citrus: Many citrus plantation were destroyed during the civil war. The few plantations that survived cover only a total land area of 9,487 ha with 3,602 ha in the Northern region, 3,378 ha in the Eastern region, 2,329 ha in the Southern region and just 178 ha in the Western region. The total land cover under citrus production was only 0.8 per cent of total land under tree crop plantations. The Northern region cultivated 3,602 ha of citrus plantations, 38 per cent of total land under citrus cultivation and a mere 0.3 per cent of overall land under tree crop production. This was followed closely by the Eastern region which recorded 36 per cent of total land under citrus cultivation and 0.29 per cent of total land under tree crop plantations.

Cashew: This is a relatively new crop in Sierra Leone for large scale cultivation compared to coffee, cocoa, oil palm and citrus. Overall, cashew occupied only 4,368 ha of land with 2,487 ha in the Northern, 1,031 ha in the Eastern, 605 ha in the Southern and 244 ha in the Western region. The land under cashew plantations was 2.5 per cent of total land under tree crop plantations.

Table 15.5 Total area of tree crops under cultivation by district (ha)

Area of crop cultivation in hectares							
Province	Total	Coffee	Cocoa	Oil palm	Citrus	Cashew	Vegetables
Eastern	1,170,590	162,701	215,442	111,472	3,378	1,031	12,659
Kailahun	499,264	66,814	114,125	62,658	1,327	44	4,311
Kenema	350,338	34,236	58,086	43,126	1,104	379	4,745
Kono	320,988	61,651	43,231	5,688	947	608	3,604
Northern	1,220,327	9,045	3,660	84,798	3,602	2,487	32,218
Bombali	196,812	38	112	7,270	405	316	3,829
Kambia	196,593	267	129	9,815	531	900	6,312
Koinadugu	252,895	7,964	2,310	7,978	396	27	7,777
Port Loko	310,294	196	478	25,101	1,221	888	9,405
Tonkolili	263,734	580	632	34,636	1,049	357	4,896
Southern	825,816	19,752	16,473	110,476	2,329	605	31,259
Bo	287,375	15,504	11,715	53,799	718	201	4,398
Bonthe	127,605	222	353	16,577	359	190	16,801
Moyamba	210,347	537	872	9,062	891	80	4,386
Pujehun	200,489	3,489	3,533	31,038	362	135	5,673
Western	27,481	294	173	847	178	244	3,607
Western Rural	23,223	219	84	412	89	127	3,421
Western Urban	4,258	75	89	435	89	117	186

Source: Statistics Sierra Leone, 2015 Population and Housing Census

5.4 Area under tree crop cultivation by district

It has already been established at the regional level that coffee and cocoa crops are grown mainly in the Eastern and Southern regions, with oil palm covering the Eastern, Northern and Southern regions. This pattern of tree crop distribution was extended to the district level with districts in the Eastern region dominating in tree crop production, followed by the Southern region for coffee and cocoa but with a couple of Northern region districts showing strength in oil palm production.

As shown in Table 15.5, the Kailahun district was the leading cultivator of coffee with 66,814 ha of coffee plantations. This was followed by the other two Eastern districts Kono and Kenema. Bo district in the South was a distant fourth with 15,504 ha of plantation cover.

Kailahun also had the most land under cocoa cultivation (114,125 ha), followed by Kenema and Kono with 58,236 ha and 43,231 ha respectively. Again Bo occupied a distant fourth place with 111,715 ha of cocoa plantation cover.

A slightly different pattern emerged with oil palm plantation. While Kailahun district took the lead with 62,658 ha under oil palm cultivation, Bo district recorded a close second with 53,799 ha, followed by Kenema (43,126 ha), Tonkolili (34,636ha), Pujehun (31,038 ha), Port Loko (25,101 ha), and Bonthe district (16,577 ha).

5.5 Quantity of tree crop production by region

It is expected that a high quantity of tree crop produce will come from regions and districts with more land under tree crop cultivation. Table 16.5 shows that of the total tree crops, oil palm was the most productive (48.3 per cent of overall tree crop production), followed by cocoa, then coffee.

Table 16.5 Percent distribution of tree crops production (kg) by region

Province	Area of crop cultivation in hectares					
	Total	Coffee	Cocoa	Oil palm	Citrus	Cashew
Sierra Leone	110,619,553	14,385,347	34,592,583	53,397,363	2,371,115	90,800
Eastern	65,405,767	12,716,952	32,630,595	18,682,466	653,933	15,300
Northern	23,043,009	594,731	224,535	17,755,533	1,172,865	70,900
Southern	21,680,875	1,070,874	1,734,430	16,879,475	478,970	1,275
Western	489,902	2,790	3,023	79,888	65,348	3,325

Source: Statistics Sierra Leone, 2015 Population and Housing Census

Coffee: The Eastern region was the largest producer of coffee, followed by the Southern region, the Northern region and the Western region. Coffee production in the Eastern region accounted for 88.4 per cent of total coffee production and 11.5 per cent of total tree crops production in Sierra Leone.

Cocoa: The Eastern region also dominated in cocoa production with 94.3 per cent of cocoa production and 29.5 per cent of overall tree crop production. The Southern region recorded 5 per cent of total cocoa production and 1.6 per cent of overall tree crop production.

Oil Palm: The Eastern region recorded 18,682,466 kg, followed closely by the Northern region with 17,755,533 kg and the Southern region with 16,879,475 kg. The Eastern, Northern and Southern regions each accounted for 35 per cent, 33.3 percent and 31.6 percent of total oil palm production and 16.9 per cent, 16.1 per cent, and 15.3 per cent of overall tree crop production respectively.

5.6 Quantity of tree crop production by district

At the district level, Kailahun district recorded the highest production of coffee (5,664,474 kg), Kenema (3,776,394 kg), Kono (3,276,084 kg) and the rest of the districts produced below 1,000 kg (Table 17.5).

Kailahun district produced 39.4 per cent of total coffee production in the country and 5.1 per cent of overall tree crop production. This is a clear evidence of a decline in coffee production after the war.

Table 17.5 Percent distribution of tree crops production (Kg) by district

Province	Total	Coffee	Cocoa	Oil palm	Citrus	Cashew
Eastern	110,619,553	14,385,347	34,592,583	53,397,363	2,371,115	90,800
Kailahun	65,405,767	12,716,952	32,630,595	18,682,466	653,933	15,300
Kenema	32,876,087	5,664,474	16,458,990	10,160,045	232,358	75
Kono	23,687,421	3,776,394	11,993,280	7,525,599	239,890	500
Northern	8,842,260	3,276,084	4,178,325	996,823	181,685	14,725
Bombali	23,043,009	594,731	224,535	17,755,533	1,172,865	70,900
Kambia	2,025,070	2,520	32,899	1,672,956	114,420	28,275
Koinadugu	2,001,646	7,380	11,189	1,143,009	201,760	10,375
Port Loko	5,865,540	545,681	131,516	3,935,735	172,054	3,150
Tonkolili	5,223,717	7,830	12,191	3,692,215	467,510	28,250
Southern	7,927,038	31,320	36,740	7,311,619	217,121	850
Bo	21,680,875	1,070,874	1,734,430	16,879,475	478,970	1,275
Bonthe	9,107,083	617,643	1,187,722	7,078,885	147,138	-
Moyamba	3,736,983	9,000	11,523	2,812,301	19,935	250
Pujehun	1,937,633	25,650	45,374	1,373,921	260,856	1,025
Western	6,899,177	418,581	489,811	5,614,370	51,041	-
Western Rural	489,902	2,790	3,023	79,888	65,348	3,325
Western Urban	452,131	2,565	1,587	50,839	64,858	1,950

Source: Statistics Sierra Leone, 2015 Population and Housing Census

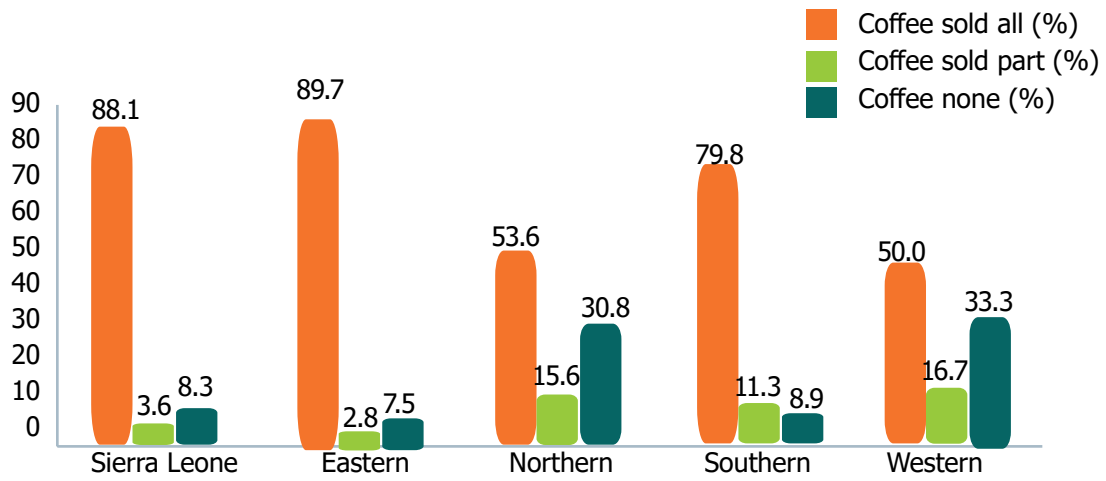
More cocoa was produced than coffee, with Kailahun district recording the largest amount: 16,458,990 kg. The Kailahun district production was 47.6 percent of total cocoa production and 14.9 per cent of overall tree crop production. This was followed by the other two Eastern districts Kenema and Kono. There was some contribution from the southern district of Bo producing 1,187,722 kg.

Oil palm production presented a unique and interesting picture. The total production of 53,397,363 kg was more or less evenly spread around the country. The Kailahun district took the lead with 10,160,045 kg, followed by 7,525,599 kg from Kenema district, 7,311,619 kg from Tonkolili district, 7,078,885 kg from Bo district, 5,614,370 kg from Pujehun district, 3,935,735 kg from the Koinadugu district, 3,692,215 kg from Port Loko district, 2,812,301 kg from Bonthe district, 1,672,956 kg from Bombali district, 1,143,009 kg from Kambia and 1,373,921 kg from Moyamba district.

5.7 Tree crop sales by region and district

Coffee Produce Sales: There are few reasons for farmers not to sell all or part of their coffee crops, apart from very small quantities harvested for medicinal reasons. As a result, the majority of agricultural households in all four regions sold all of the coffee harvested (Figure 5.5). The Eastern and Southern regions recorded 89.7 per cent and 79.8 per cent respectively of agricultural households selling all their coffee produce. The Northern and Western regions recorded more agricultural households either not selling at all or selling part of the coffee produce.

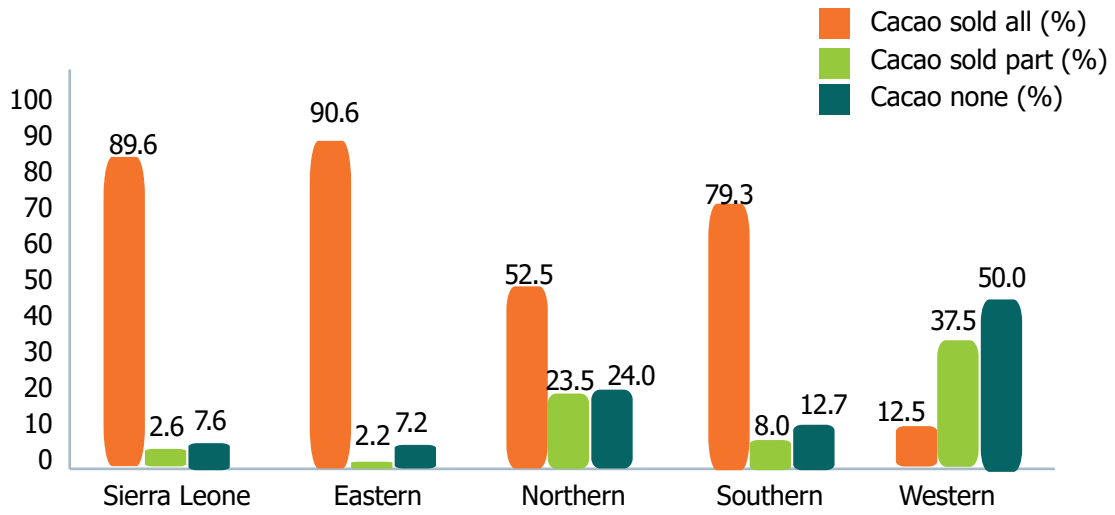
Figure 5.5 Percentage distribution of agricultural households by sale of coffee



Cocoa Produce Sales: Figure 6.5 presents a percentage distribution of agricultural households by the sale of cocoa. A similar pattern of sales for cocoa emerged as in the case of coffee. At the national level, 89.8 per cent of agricultural households sold all their cocoa produce.

Cocoa Produce Sales: Figure 6.5 presents a percentage distribution of agricultural households by the sale of cocoa. A similar pattern of sales for cocoa emerged as in the case of coffee. At the national level, 89.8 per cent of agricultural households sold all their cocoa produce.

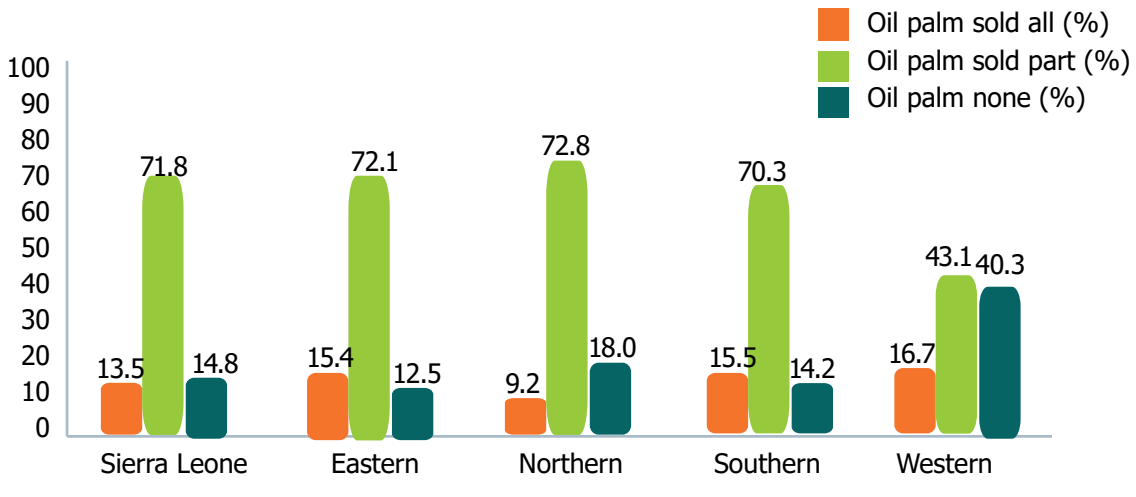
Figure 6.5 Percentage distribution of agricultural households by sale of cocoa



At the regional level, 90.6 per cent of agricultural households in the Eastern region and 79.3 per cent of agricultural households from the Southern region, where the bulk of the cocoa is produced, sold all the cocoa harvest. About 53 per cent of agricultural households from the Northern region also sold all of their cocoa harvest. The patterns of sales at the district level were almost identical with the regional sales, with Kailahun, Kenema, Kono, Bo and Pujehun districts selling 92.2 per cent, 90.4 per cent, 84.1 per cent, 82.5 per cent, and 73.5 per cent of their cocoa produce respectively.

Oil Palm Product Sales: The sale of oil palm produce, palm oil, followed a different pattern to coffee and cocoa. Palm oil is heavily consumed by almost all households in Sierra Leone and as such, less households sold their entire crop (Figure 7.5).

Figure 7.5 Oil palm produce sale by region



CHAPTER 6: VEGETABLE PRODUCTION

6.1 Importance of the Horticultural Sector

Vegetables provide basic essential nutrients and are a major source of nutrition, contributing significantly to food security. They are needed for a normal physiological functioning of the body and can contribute significantly to health and wellbeing of individuals.

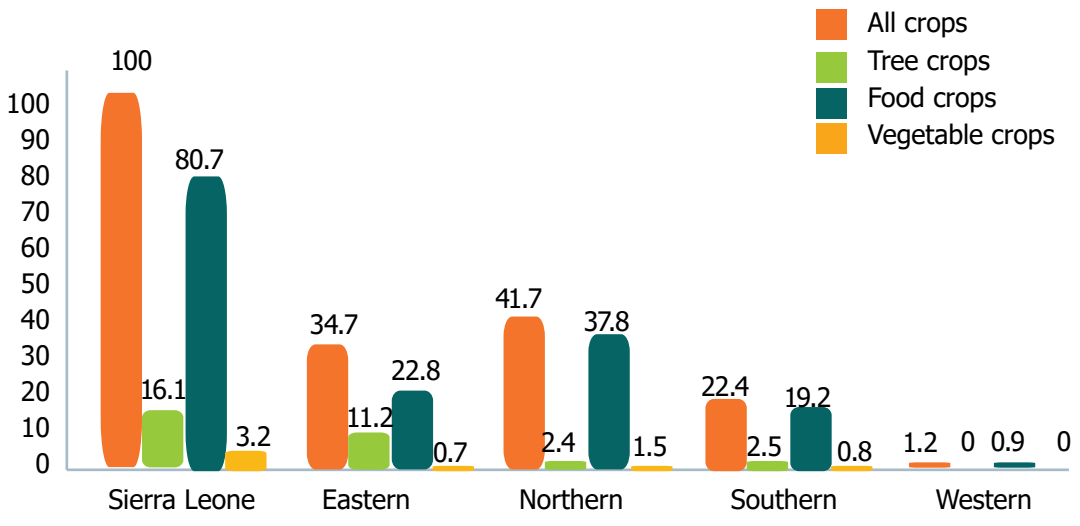
Vegetables are also a major source for income for farmers. Vegetables are a source of viable business enterprise for entrepreneurs engaged in horticultural value chains. The production of vegetables could create a platform for employment. Vegetables are also a major source for pharmaceutical industry. Recent statistics by FAO (2013) indicate that the horticultural sub-sector is an important contributor to gross domestic production (GDP). For example, the sector contributes 17 per cent to the GDP in Kenya, 13 per cent in South Africa, and 15 per cent in Ivory Coast.

In Sierra Leone, the horticultural sector has significant potential with respect to the vast natural resources. Hence the horticultural sub-sector can be considered as an economic hub worthy of exploitation. At the moment, vegetables are significantly cultivated in diverse ecologies, including seasonally-flooded savanna plains, IVS and tropical rain forest zones. Despite the numerous advantages associated with horticultural crop production, the sector is not presently commercialized in Sierra Leone with most of the crops grown for subsistence.

6.2 Comparative engagement of households in tree crops, food crops and vegetable production

A comparative involvement of agricultural households in tree crops, food crops, and vegetable production is presented in figure 8.6. It shows the majority of agricultural households were involved in food crop production, with less involved in tree crops and even less in vegetable production. This is demonstrated by the data at national, regional and district levels.

Figure 8.5 comparative engagement of agricultural households in food crops



6.3 Distribution of agricultural households by vegetable production by region and district

Vegetable production in Sierra Leone accounted for just 3.2 per cent of agricultural households engaged in crop production (Table 18.6). Nearly half of these households were from the Northern region, followed by the Southern, Eastern and Western regions.

At the district level, Port Loko recorded 6,291 the highest of agricultural households producing vegetables, almost twice the number in second place Bonthe district (3,643).

Table 18.6 Households engaged in vegetable production by region and district

District	Total							
	All Crops		Tree Crops		Food Crops		Vegetables	
	No.	%	No.	%	No.	%	No.	%
Sierra Leone	1,266,174	100.0	203,589	16.1	1,021,846	80.7	40,739	3.2
Eastern	439,592	34.7	141,553	11.2	288,871	22.8	9,168	0.7
Kailahun	183,191	14.5	69,569	5.5	110,448	8.7	3,174	0.3
Kenema	138,383	10.9	38,664	3.1	96,322	7.6	3,397	0.3
Kono	118,018	9.3	33,320	2.6	82,101	6.5	2,597	0.2
Northern	527,721	41.7	30,448	2.4	478,196	37.8	19,077	1.5
Bombali	103,443	8.2	2,694	0.2	98,432	7.8	2,317	0.2
Kambia	68,332	5.4	2,854	0.2	62,073	4.9	3,405	0.3
Koinadugu	95,986	7.6	7,440	0.6	85,055	6.7	3,491	0.3
Port Loko	138,588	10.9	6,861	0.5	125,436	9.9	6,291	0.5
Tonkolili	121,372	9.6	10,599	0.8	107,200	8.5	3,573	0.3
Southern	284,031	22.4	31,271	2.5	242,886	19.2	9,874	0.8
Bo	94,020	7.4	17,070	1.3	74,948	5.9	2,002	0.2
Bonthe	40,015	3.2	3,448	0.3	32,924	2.6	3,643	0.3
Moyamba	80,402	6.3	2,577	0.2	75,915	6.0	1,910	0.2
Pujehun	69,594	5.5	8,176	0.6	59,099	4.7	2,319	0.2
Western	14,830	1.2	317	0.0	11,893	0.9	2,620	0.2
Western Rural	13,577	1.1	246	0.0	10,882	0.9	2,449	0.2
Western Urban	1,253	0.1	71	0.0	1,011	0.1	171	0.0

Source: Statistics Sierra Leone, 2015 Population and Housing Census

6.4 Area under vegetable production by region and district

Data on the land area under vegetable production is presented in Table 19.6. It shows that a total of 3,244,214 ha was under crop production, but only 2.5 per cent was vegetable production, while the 74.5 per cent was for food crops and 23.1 per cent for tree crops.

Table 19.6 Area under vegetable cultivation (hectares) by region and district

District	All Crops	Food Crops		Tree Crops		Vegetables	
		No.	%	No.	%	No.	%
Sierra Leone	3,244,214	2,415,485	74.5	748,988	23.1	79,742	2.5
Eastern	1,170,590	663,906	20.5	494,024	15.2	12,659	0.4
Kailahun	499,264	249,985	7.7	244,968	7.6	4,311	0.1
Kenema	350,338	208,661	6.4	136,931	4.2	4,745	0.1
Kono	320,988	205,260	6.3	112,125	3.5	3,604	0.1
Northern	1,220,327	1,084,518	33.4	103,592	3.2	32,218	1.0
Bombali	196,812	184,844	5.7	8,141	0.3	3,829	0.1
Kambia	196,593	178,640	5.5	11,642	0.4	6,312	0.2
Koinadugu	252,895	226,445	7.0	18,675	0.6	7,777	0.2
Port Loko	310,294	273,005	8.4	27,884	0.9	9,405	0.3
Tonkolili	263,734	221,585	6.8	37,254	1.1	4,896	0.2
Southern	825,816	644,922	19.9	149,635	4.6	31,259	1.0
Bo	287,375	201,037	6.2	81,937	2.5	4,398	0.1
Bonthe	127,605	93,104	2.9	17,701	0.5	16,801	0.5
Moyamba	210,347	194,519	6.0	11,442	0.4	4,386	0.1
Pujehun	200,489	156,261	4.8	38,557	1.2	5,673	0.2
Western	27,481	22,139	0.7	1,736	0.1	3,607	0.1
Western Rural	23,223	18,870	0.6	931	0.0	3,421	0.1
Western Urban	4,258	3,269	0.1	805	0.0	186	0.0

Source: Statistics Sierra Leone, 2015 Population and Housing Census

At the regional level, the largest proportion of land under vegetable production was in the Northern and Southern regions, accounting for 1 per cent of total land under crop production in each region and 40.4 per cent of total land under vegetable production in the North and 39.2 per cent in the South. The Eastern region ranked a far third place with 12,659 ha, which was about 0.4 percent of land under crop production and 15.9 per cent of land under vegetable production. Only 3,607 ha was under vegetable production in the Western region, which was 0.1 per cent of total land under crop production and 4.5 per cent of land under vegetable production.

At the district level, Bonthe district recorded 16,801 ha in first place which was 0.5 per cent of total land under crop production. This was followed by Port Loko district in second place with 9,405 ha (0.3 per cent) and Koinadugu district in third place with 7,777 ha (0.2 per cent).

6.5 Quantity of vegetable production by region and district

The percentage distribution of the quantity of vegetable produced in kilograms is presented in Table 20.6. It shows that a total of 5,782,345 kg of vegetables were produced as captured in the 2015 Census, which was 0.7 per cent of total quantity of crops produced. At the regional level, the Northern region ranked first place and recorded 3,224,445 kg of vegetable production.

Table 20.6 Quantity of vegetables produced in Kg

District	All Crops	Food Crops		Tree Crops		Vegetables	
		No.	%	No.	%	No.	%
Sierra Leone	71,692,607	761,073,054	87.3	104,837,208	12.0	5,782,345	0.7
Eastern	240,186,345	174,780,579	20.1	64,699,246	7.4	706,521	0.1
Kailahun	92,196,150	59,320,065	6.8	32,515,942	3.7	360,145	0.0
Kenema	93,496,207	69,808,786	8.0	23,535,663	2.7	151,758	0.0
Kono	54,493,987	45,651,729	5.2	8,647,642	1.0	194,618	0.0
Northern	389,995,983	366,952,975	42.1	19,818,564	2.3	3,224,445	0.4
Bombali	58,998,851	56,973,782	6.5	1,851,070	0.2	174,000	0.0
Kambia	63,657,615	61,655,969	7.1	1,373,713	0.2	627,933	0.1
Koinadugu	96,914,535	91,048,996	10.4	4,788,136	0.5	1,077,404	0.1
Port Loko	98,547,967	93,324,250	10.7	4,207,996	0.5	1,015,721	0.1
Tonkolili	71,877,015	63,949,979	7.3	7,597,650	0.9	329,388	0.0
Southern	235,464,980	213,784,106	24.5	20,165,024	2.3	1,515,851	0.2
Bo	69,868,758	60,761,675	7.0	9,031,388	1.0	75,695	0.0
Bonthe	39,151,113	35,414,131	4.1	2,853,009	0.3	883,974	0.1
Moyamba	56,443,007	54,505,373	6.3	1,706,826	0.2	230,807	0.0
Pujehun	70,002,103	63,102,927	7.2	6,573,803	0.8	325,374	0.0
Western	6,045,298	5,555,396	0.6	154,374	0.0	335,528	0.0
Western Rural	5,541,617	5,089,487	0.6	121,799	0.0	330,332	0.0
Western Urban	503,681	465,910	0.1	32,575	0.0	5,197	0.0

Source: Statistics Sierra Leone, 2015 Population and Housing Census

This was followed by the Southern region in second place with production of 1,515,851 kg of vegetables, Eastern region in third place with production of 706,521 kg, and Western region in fourth place with 335,528 kg of vegetables produced.

At the district level, the Koinadugu and Port Loko districts ranked first and second places with production of 1,077,404 kg and 1,015,721 kg of vegetables respectively. Bonthe and Kambia districts ranked third and fourth places with total vegetable production of 883,974 kg and 627,933 kg respectively.

6.6 Vegetable sales by region and district

Table 21.6 presents data on the sales of vegetables. The sales of crops, as already seen in previous chapters dealing with crops, is at three levels. That is, the producers sometimes sell all, part of the produce and/or none. In this case, the majority of producers (50.9 per cent) sold part of the vegetable crop. Presumably, the part of the vegetable crop that was not sold was eaten, as vegetables constitute a significant component of meals in Sierra Leone.

Table 21.6 Households engaged in the sales of vegetables by region and district

District	Vegetables Sales (kg)							
	Total		Sold all		Sold part		None	
	No.	%	No.	%	No.	%	No.	%
Sierra Leone	19,074	6,009	31.5	9,701	50.9	3,364	17.6	3.2
Eastern	2,750	410	2.1	1,844	9.7	496	2.6	0.7
Kailahun	886	152	0.8	602	3.2	132	0.7	0.3
Kenema	813	115	0.6	565	3.0	133	0.7	0.3
Kono	1,051	143	0.7	677	3.5	231	1.2	0.2
Northern	9,480	3,736	19.6	4,269	22.4	1,475	7.7	1.5
Bombali	940	408	2.1	382	2.0	150	0.8	0.2
Kambia	2,267	946	5.0	1,066	5.6	255	1.3	0.3
Koinadugu	2,562	1,309	6.9	826	4.3	427	2.2	0.3
Port Loko	2,386	857	4.5	1,182	6.2	347	1.8	0.5
Tonkolili	1,325	216	1.1	813	4.3	296	1.6	0.3
Southern	5,639	1,681	8.8	2,989	15.7	969	5.1	0.8
Bo	466	84	0.4	240	1.3	142	0.7	0.2
Bonthe	2,594	792	4.2	1,368	7.2	434	2.3	0.3
Moyamba	1,143	372	2.0	604	3.2	167	0.9	0.2
Pujehun	1,436	433	2.3	777	4.1	226	1.2	0.2
Western	1,205	182	1.0	599	3.1	424	2.2	0.2
Western Rural	1,114	180	0.9	588	3.1	346	1.8	0.2
Western Urban	91	2	0.0	11	0.1	78	0.4	0.0

Source: Statistics Sierra Leone, 2015 Population and Housing Census

CHAPTER 7: LIVESTOCK PRODUCTION

The livestock sub-sector is an important source of protein as well as a major contributor to GDP. This section focuses on the ownership of livestock by region and district.

Table 22.7a Percentage distribution of number of livestock owned by region and district

District	Total Household	Number of Livestock					
		Cattle		Sheep		Goat	
		No.	%	No.	%	No.	%
Sierra Leone	539,304	465,817	100.0	574,706	100.0	814,269	100.0
Eastern	137,077	45,648	9.8	101,609	17.7	171,444	21.1
Kailahun	56,341	3,289	0.7	36,173	6.3	75,090	9.2
Kenema	45,192	2,308	0.5	19,799	3.4	27,272	3.3
Kono	35,544	40,051	8.6	45,637	7.9	69,082	8.5
Northern	239,973	403,215	86.6	409,245	71.2	516,170	63.4
Bombali	46,866	47,592	10.2	56,684	9.9	78,727	9.7
Kambia	38,376	16,375	3.5	50,719	8.8	63,983	7.9
Koinadugu	38,968	309,291	66.4	191,788	33.4	212,634	26.1
Port Loko	67,071	20,105	4.3	68,581	11.9	92,740	11.4
Tonkolili	48,692	9,852	2.1	41,473	7.2	68,086	8.4
Southern	130,419	9,699	2.1	48,682	8.5	108,896	13.4
Bo	43,843	4,931	1.1	13,303	2.3	30,643	3.8
Bonthe	19,617	1,584	0.3	9,967	1.7	20,369	2.5
Moyamba	40,689	2,464	0.5	15,206	2.6	42,286	5.2
Pujehun	26,270	720	0.2	10,206	1.8	15,598	1.9
Western	31,835	7,255	1.6	15,170	2.6	17,759	2.2
Western Rural	22,687	5,241	1.1	10,763	1.9	13,876	1.7
Western Urban	9,148	2,014	0.4	4,407	0.8	3,883	0.5

Source: Statistics Sierra Leone, 2015 Population and Housing Census

7.1 Distribution of livestock owned by agricultural households by region

Tables 22.7a and 22.7b show a percentage distribution of livestock owned by agricultural households by region. As shown in Table 22.7a, the ownership of livestock varies by region, based on the vegetation and cultural habits of the inhabitants of a particular region and or district.

Cattle ownership: Cattle has traditionally been owned by agricultural households in the Northern region because it is has savanna-type vegetation suitable for livestock rearing, especially big and small ruminants. As shown in Table 19.7a, 86.6 per cent of cattle in Sierra Leone were owned by agricultural households in the Northern region. Of the remaining 13.4 per cent of cattle, nearly 10 per cent were in the Eastern region, 2 per cent in the Southern region, and 1.6 per cent owned by agricultural households in the Western region.

Table 22.7b Percentage distribution of number type of livestock owned by region and district

District	Total Household	Number of Livestock					
		Pig		Chicken		Duck	
		No.	%	No.	%	No.	%
Sierra Leone	539,304	57,877	100.0	4,316,349	100.0	396,103	100.0
Eastern	137,077	15,903	27.5	882,219	20.4	108,372	27.4
Kailahun	56,341	8,645	14.9	363,690	8.4	48,386	12.2
Kenema	45,192	2,493	4.3	284,730	6.6	33,193	8.4
Kono	35,544	4,765	8.2	233,799	5.4	26,793	6.8
Northern	239,973	17,018	29.4	2,099,462	48.6	187,365	47.3
Bombali	46,866	3,190	5.5	335,298	7.8	17,025	4.3
Kambia	38,376	1,755	3.0	402,805	9.3	34,167	8.6
Koinadugu	38,968	2,892	5.0	374,373	8.7	22,298	5.6
Port Loko	67,071	4,801	8.3	602,327	14.0	57,607	14.5
Tonkolili	48,692	4,380	7.6	384,659	8.9	56,268	14.2
Southern	130,419	14,010	24.2	1,065,918	24.7	77,227	19.5
Bo	43,843	6,166	10.7	307,955	7.1	23,511	5.9
Bonthe	19,617	1,588	2.7	191,121	4.4	13,719	3.5
Moyamba	40,689	4,918	8.5	346,812	8.0	21,434	5.4
Pujehun	26,270	1,338	2.3	220,030	5.1	18,563	4.7
Western	31,835	10,946	18.9	268,750	6.2	23,139	5.8
Western Rural	22,687	6,603	11.4	203,106	4.7	16,950	4.3
Western Urban	9,148	4,343	7.5	65,644	1.5	6,189	1.6

Source: Statistics Sierra Leone, 2015 Population and Housing Census

Small Ruminants: The ownership of small ruminants including sheep and goats follows a similar pattern to the ownership of cattle with a major proportion of sheep (71.2 per cent) and goats (63.4 per cent) owned by agricultural households in the Northern Region. The Eastern Region ranked second with 17.7 per cent and 21.1 per cent of sheep and goats. The Southern and Western regions ranked third and fourth, with very low proportions of both sheep and goats owned by agricultural households respectively.

Pigs: The ownership of pigs by agricultural households is evenly spread across regions with 29.4 per cent, 27.5 per cent, 24.2 per cent, and 18.9 per cent of pigs owned by agricultural households in the Northern, Eastern, Southern and Western regions respectively.

Ownership of chickens and ducks: Chickens and ducks constitute a major source of protein, especially for rural households who rear these birds using the free range method. The pattern of chicken and duck ownership by region is almost the same, with the Northern region leading for number of chickens (48.6 per cent) and ducks (47.3 per cent) owned by agricultural households. Unlike all other livestock, the Southern region ranks second place with 24.7 per cent of chickens owned by agricultural households, followed by the Eastern region with 20.4 per cent and the Western region with 6.2 per cent of chickens owned by agricultural households. The Eastern, Southern and Western regions ranked second, third, and fourth with 27.4 per cent, 19.5 per cent, and 5.8 per cent of ducks owned by agricultural households respectively.

7.2 Distribution of livestock owned by district

Information on the ownership of livestock by district is presented in Tables 22.7a and 22.7b.

Cattle: The Koinadugu district emerged as a leading producer of cattle in the country, with 66.4 per cent of cattle owned by agricultural households in that district. This is followed by the Bombali district which ranked second with 10.2 per cent of cattle owned by agricultural households. The Kono district recorded 8.6 per cent of cattle heads owned by agricultural households and in third place. The remaining 14.8 per cent of the cattle population was distributed across the other 11 districts.

Small Ruminants (Goats and Sheep): Relatively more sheep and goats were owned by agricultural households in the Koinadugu and Port Loko district with 33.4 per cent of sheep and 26.1 per cent of goats owned by agricultural households in the Koinadugu districts while 11.9 per cent of sheep and 11.4 per cent of goats were in the Port-Loko district. Bombali district ranked third with 9.9 per cent and 9.7 per cent of sheep and goats owned by agricultural households.

Pigs: Ownership of pigs by agricultural households at the district level followed the regional pattern. Kailahun district took the lead with 14.9 per cent of pigs owned by agricultural households. This was closely followed by Western Rural and Bo districts reporting 11.4 percent and 10.7 percent of pigs owned by agricultural households respectively.

Ownership of Chickens and Ducks: The Port Loko district reported a relatively higher ownership of poultry, with 14.5 per cent and 14.0 per cent ducks and chickens respectively. The Tonkolili and Kailahun districts recorded second and third places for ducks with 14.2 per,cent and 12.2 percent of ducks, respectively.

CHAPTER 8: FISHERY AND FISHING ACTIVITIES

Table 23.8 Percentage distribution of agricultural households by region, district and type of fishing enterprise practiced

District	Total Household	Type of Fishery Activities					
		Fish Pond		Artisan Fishing		Coastal Fishing	
		No.	%	No.	%	No.	%
Sierra Leone	245,957	18,876	7.7	212,938	86.6	14,143	5.8
Eastern	75,175	3,219	1.3	70,117	28.5	1,839	0.7
Kailahun	28,318	1,122	0.5	26,552	10.8	644	0.3
Kenema	28,423	1,041	0.4	26,707	10.9	675	0.3
Kono	18,434	1,056	0.4	16,858	6.9	520	0.2
Northern	81,943	11,685	4.8	63,890	26.0	6,368	2.6
Bombali	10,626	1,593	0.6	8,583	3.5	450	0.2
Kambia	11,896	3,912	1.6	6,216	2.5	1,768	0.7
Koinadugu	22,417	489	0.2	21,327	8.7	601	0.2
Port Loko	16,821	3,351	1.4	10,687	4.3	2,783	1.1
Tonkolili	20,183	2,340	1.0	17,077	6.9	766	0.3
Southern	84,428	3,578	1.5	76,432	31.1	4,418	1.8
Bo	28,356	878	0.4	26,961	11.0	517	0.2
Bonthe	11,345	478	0.2	9,761	4.0	1,106	0.4
Moyamba	26,127	1,499	0.6	23,232	9.4	1,396	0.6
Pujehun	18,600	723	0.3	16,478	6.7	1,399	0.6
Western	4,411	394	0.2	2,499	1.0	1,518	0.6
Western Rural	3,498	315	0.1	1,977	0.8	1,206	0.5
Western Urban	913	79	0.0	522	0.2	312	0.1

Source: Statistics Sierra Leone, 2015 Population and Housing Census

8.1 Distribution of Agricultural Households by Region and Type of Fishing Enterprise

Table 23.8 presents data on type of fishing enterprise by region and district. Three fishing enterprises (fishing ponds/aqua culture, artisan fishing and coastal fishing) were captured in the 2015 Census. Artisan fishing emerged as the most popular enterprise among the three fishing enterprises.

The Southern region recorded 31.3 per cent of agricultural households engaged in artisan fishing and ranked first. This was followed by the Eastern region (28.5 per cent), Northern region (26.0 per cent), and Western region (1.0 per cent) of agricultural households in that order.

Fish pond farming in all the regions was relatively low with the Northern region recording the highest proportion of agricultural households (4.8 per cent) engaged in the enterprise. This was followed by the Southern region (1.5 per cent), the Eastern region (1.3 per cent) and the Western region (0.2 per cent). While coastal fishing may be as old as the ocean itself, the practice of coastal fishing involves not only traditional skills but requires modern technology which is currently a limiting factor due to its high cost and special skills requirements. Hence this was clearly demonstrated by the data captured with the Northern and Southern regions recording 2.6 per cent and 1.8 per cent of agricultural households engaged in coastal fishing respectively.

8.2 Distribution of Agricultural Households by District and Type of Fishing Enterprise

At the district level, artisan fishing was also reported as the most popular across districts compared to fish pond and coastal fishing. As shown in Table 23.8, Bo and Kenema districts emerged first and second places with 11.0 per cent and 10.9 per cent of agricultural households engaged in artisan fishing. This was followed by Kailahun, Moyamba, and Koinadugu.

Kambia district recorded the highest proportion of agricultural households (1.6 per cent) for fish pond farming followed by Port Loko and Tonkolili districts in second and third places with 1.4 per cent and 1.0 per cent of agricultural households engaged in fish pond farming respectively.

With respect to coastal fishing, the Port Loko and Kambia districts recorded first and second places with 1.1 per cent and 0.7 per cent of agricultural households practicing coastal fishing respectively. This was followed by Moyamba and Pujehun districts with each recording 0.6 per cent.

CHAPTER 9: ACCESS TO AGRICULTURAL PRODUCTION ASSETS, MACHINERY AND EQUIPMENT

9.1 Ownership and Access to Production and Processing Machinery and Equipment by Region and District

9.1.1 Access of agricultural households to tractors

Table 24.9 presents the percentage distribution of agricultural household heads that either own or have access to tractors in each region. The data show that generally, access to tractors was higher for agricultural households in the Northern region than in the other regions.

Table 24.9 Percent distribution of farmers by access to tractors in Sierra Leone

District	Access to Tractors				
	Total	Yes	%	No	%
Sierra Leone	265,857	16,859	6.3	248,998	93.7
Eastern	94,942	2,983	1.1	91,959	34.6
Kailahun	49,271	1,810	0.7	47,461	17.9
Kenema	28,059	834	0.3	27,225	10.2
Kono	17,612	339	0.1	17,273	6.5
Northern	99,966	9,477	3.6	90,489	34.0
Bombali	21,316	2,288	0.9	19,028	7.2
Kambia	27,571	2,335	0.9	25,236	9.5
Koinadugu	16,914	1,563	0.6	15,351	5.8
Port Loko	20,309	1,143	0.4	19,166	7.2
Tonkolili	13,856	2,148	0.8	11,708	4.4
Southern	68,645	4,254	1.6	64,391	24.2
Bo	22,658	1,009	0.4	21,649	8.1
Bonthe	9,830	1,806	0.7	8,024	3.0
Moyamba	18,436	764	0.3	17,672	6.6
Pujehun	17,721	675	0.3	17,046	6.4
Western	2,304	145	0.1	2,159	0.8
Western Rural	1,800	121	0.0	1,679	0.6
Western Urban	504	24	0.0	480	0.2

Source: Statistics Sierra Leone, 2015 Population and Housing Census

At the district level, the two Northern districts Kambia and the Bombali recorded the highest access of agricultural households to tractors. This was followed by Tonkolili, also in the North, and Kailahun in the Eastern region. The Kono district recorded the least number of agricultural households having access to tractors among the Eastern, Southern and Northern regions.

These findings of the 2015 Census are different to the 2004 census data, in which the districts with the higher access to tractors were Bonthe, Bo, Moyamba, in first, second and third ranking, and Kambia, Bombali, Pujehun and Portloko in that order. These districts have ecologies (bolilands and riverine) that are most suited to the use of tractors.

9.1.2 Access of agricultural households to power tillers

Access to power tillers was fairly uniform across the regions. The data analysis shows that slightly more agricultural households in the Northern (6,316) had access , than in the Southern (4,255), Eastern (5,053) and Western (103). While the Southern and Northern regions have large areas of riverine grassland, bolilands and mangroves swamps which are well suited to the use of tractors and power tillers, this is not reflected by the distribution patterns of these machines.

At the district level, the data revealed that Kailahun, Koinadugu, Kenema, and Kambia, ranked as the top four districts with the highest number of agricultural households with access to power tillers.

Table 25.9 Percentage distribution of farmers by access to power tillers in Sierra Leone

District	Access to Power Tillers				
	Total	Yes	%	No	%
Sierra Leone	265,857	15,727	5.9	250,130	94.1
Eastern	94,942	5,053	1.9	89,889	33.8
Kailahun	49,271	2,717	1.0	46,554	17.5
Kenema	28,059	1,807	0.7	26,252	9.9
Kono	17,612	529	0.2	17,083	6.4
Northern	99,966	6,316	2.4	93,650	35.2
Bombali	21,316	935	0.4	20,381	7.7
Kambia	27,571	1,376	0.5	26,195	9.9
Koinadugu	16,914	2,244	0.8	14,670	5.5
Port Loko	20,309	611	0.2	19,698	7.4
Tonkolili	13,856	1,150	0.4	12,706	4.8
Southern	68,645	4,255	1.6	64,390	24.2
Bo	22,658	1,240	0.5	21,418	8.1
Bonthe	9,830	1,245	0.5	8,585	3.2
Moyamba	18,436	764	0.3	17,672	6.6
Pujehun	17,721	1,006	0.4	16,715	6.3
Western	2,304	103	0.0	2,201	0.8
Western Rural	1,800	87	0.0	1,713	0.6
Western Urban	504	16	0.0	488	0.2

Source: Statistics Sierra Leone, 2015 Population and Housing Census

The difference between the 2015 Census and 2004 Census shows a serious decline in the use of these machines. Data in 2004 revealed that Bo, Moyamba, Bonthe and Pujehun districts recorded 29.9 per cent, 22.3 per cent, 9.6 per cent and 8.0 per cent of agricultural households having access to power tillers respectively, which ranked the Southern region as the number one user of power tillers in the country. This was followed by Kenema, Bombali, Kono and Kambia districts in fifth, sixth, seventh and eight places, with 6.5 per cent, 6.2 per cent, 4.8 per cent, and 4.2 per cent of agricultural households having access to power tillers respectively. Looking at the same districts in the 2015 Census confirmed a decline in use and access to power tillers, with Bo district recorded only 0.5 per cent, Moyamba district 0.3 per cent, Bonthe district 0.5 per cent and Pujehun district 0.4 per cent of agricultural households having access to power tillers.

9.1.3 Access of agricultural households to threshers

About an equal number of households 3,046 (1.0 per cent), 2,976 (1.1 per cent), 2,941 (1.1 per cent) from the Eastern, Northern and Southern regions respectively reported access to threshers compared with 99 (0.0 per cent) households from the Western region. These figures represent less than 5 per cent of national agricultural households in each of the regions. At the district level, the data revealed that Kailahun, Koinadugu, Kenema, and Kambia, ranked as the top four districts with the highest number of agricultural households with access to power tillers.

Table 26.9 Percent distribution of farmers by access to threshers in Sierra Leone

District	Access to Threshers				
	Total	Yes	%	No	%
Sierra Leone	265,857	9,062	3.4	256,795	96.6
Eastern	94,942	3,046	1.1	91,896	34.6
Kailahun	49,271	1,243	0.5	48,028	18.1
Kenema	28,059	1,439	0.5	26,620	10.0
Kono	17,612	364	0.1	17,248	6.5
Northern	99,966	2,976	1.1	96,990	36.5
Bombali	21,316	344	0.1	20,972	7.9
Kambia	27,571	916	0.3	26,655	10.0
Koinadugu	16,914	840	0.3	16,074	6.0
Port Loko	20,309	229	0.1	20,080	7.6
Tonkolili	13,856	647	0.2	13,209	5.0
Southern	68,645	2,941	1.1	65,704	24.7
Bo	22,658	1,157	0.4	21,501	8.1
Bonthe	9,830	618	0.2	9,212	3.5
Moyamba	18,436	447	0.2	17,989	6.8
Pujehun	17,721	719	0.3	17,002	6.4
Western	2,304	99	0.0	2,205	0.8
Western Rural	1,800	83	0.0	1,717	0.6
Western Urban	504	16	0.0	488	0.2

Source: Statistics Sierra Leone, 2015 Population and Housing Census

In general, the use of threshers is not common practice in Sierra Leone and consequently access to threshers (as shown in Table 26.9) is highly limited. Kenema 1,435 (0.5 per cent), Kailahun 1,243 (0.5 per cent), and Bo 1,157 (0.4 per cent) districts had the highest percentage of agricultural households with access to threshers. Most agricultural households cannot afford the high cost of threshers, which partly explains the limited access.

9.1.4 Access of agricultural households to rice milling machines

Unlike the tractors and power tiller, the use of milling machines was comparatively higher in all regions. On a regional basis, the Eastern region (23.4 per cent), Northern region (20.2 per cent), Southern region (6.3 per cent) and Western region (0.1 per cent) reported access to rice milling machines. The figures on access to rice milling machines supports the data on regional agricultural households involved in upland and lowland rice farming which stands at 21.6 per cent and 9.1 per cent respectively for the Eastern region, 25.7 per cent and 17.6 per cent for the Northern region, 14.7 per cent and 4.6 per cent for the Southern region, and 0.3 per cent and 0.2 per cent for the Western region.

Table 27.9 Percent distribution of farmers by access to rice mills in Sierra Leone

District	Access to Rice Mills				
	Total	Yes	%	No	%
Sierra Leone	265,857	133,170	50.1	132,687	49.9
Eastern	94,942	62,286	23.4	32,656	12.3
Kailahun	49,271	37,885	14.3	11,386	4.3
Kenema	28,059	16,175	6.1	11,884	4.5
Kono	17,612	8,226	3.1	9,386	3.5
Northern	99,966	53,754	20.2	46,212	17.4
Bombali	21,316	5,259	2.0	16,057	6.0
Kambia	27,571	23,049	8.7	4,522	1.7
Koinadugu	16,914	10,686	4.0	6,228	2.3
Port Loko	20,309	9,631	3.6	10,678	4.0
Tonkolili	13,856	5,129	1.9	8,727	3.3
Southern	68,645	16,853	6.3	51,792	19.5
Bo	22,658	5,337	2.0	17,321	6.5
Bonthe	9,830	1,386	0.5	8,444	3.2
Moyamba	18,436	4,599	1.7	13,837	5.2
Pujehun	17,721	5,531	2.1	12,190	4.6
Western	2,304	277	0.1	2,027	0.8
Western Rural	1,800	244	0.1	1,556	0.6
Western Urban	504	33	0.0	471	0.2

Source: Statistics Sierra Leone, 2015 Population and Housing Census

Milling machines are very important and have in recent times taken central stage in the processing of rice in Sierra Leone by replacing the traditional, labour intensive mortar and pestle. Kailahun district had the highest number of agricultural households (14.3 per cent) that use milling machines for processing rice. This was followed by Kambia, Kenema, Koinadugu and Port Loko districts with 8.7 per cent, 6.1 per cent and 4.0 per cent, and 3.6 per cent, of agricultural households respectively reporting access to rice milling machines. Kono district ranked fifth place with 3.1 per cent of agricultural households having access to rice mills, while Pujehun, Bombali and Bo districts recorded 2.1 per cent, 2.0 per cent and 2.0 per cent of agricultural households with access to rice milling machines respectively.

9.1.5 Access of agricultural households to cassava graters

Cassava graters are more popular in use in households in the Southern region (14.4 per cent) – which makes since more Southern households are engaged in the production of the crop 63,013 (8.6 per cent) and more land area in the South 172,187 ha (5.3 per cent of total crop land) is under cassava cultivation.

At the district level, data in Table 28.9 unsurprisingly revealed that agricultural households in the Southern districts had more access to cassava graters than the other districts. The agricultural households in Koinadugu, Kono, Western Rural and Western Urban districts had very little access to cassava graters.

Table 28.9 Percentage distribution of farmers by access to cassava graters in Sierra Leone

District	Access to Cassava Graters				
	Total	Yes	%	No	%
Sierra Leone	265,857	53,791	20.2	212,066	79.8
Eastern	94,942	6,271	2.4	88,671	33.4
Kailahun	49,271	3,594	1.4	45,677	17.2
Kenema	28,059	1,962	0.7	26,097	9.8
Kono	17,612	715	0.3	16,897	6.4
Northern	99,966	8,921	3.4	91,045	34.2
Bombali	21,316	1,693	0.6	19,623	7.4
Kambia	27,571	1,982	0.7	25,589	9.6
Koinadugu	16,914	465	0.2	16,449	6.2
Port Loko	20,309	3,299	1.2	17,010	6.4
Tonkolili	13,856	1,482	0.6	12,374	4.7
Southern	68,645	38,238	14.4	30,407	11.4
Bo	22,658	10,392	3.9	12,266	4.6
Bonthe	9,830	7,242	2.7	2,588	1.0
Moyamba	18,436	10,246	3.9	8,190	3.1
Pujehun	17,721	10,358	3.9	7,363	2.8
Western	2,304	361	0.1	1,943	0.7
Western Rural	1,800	271	0.1	1,529	0.6
Western Urban	504	90	0.0	414	0.2

Source: Statistics Sierra Leone, 2015 Population and Housing Census

9.1.6 Access of agricultural households to oil palm pressers

Pressers were most in use by households in the Southern region 3,596, followed by households in the Eastern region, 1,739, Northern region, 1,584, and Western, region 74.

Table 29.9 Percent distribution of farmers by access to oil palm pressers in Sierra Leone

District	Access to Oil Palm Pressers				
	Total	Yes	%	No	%
Sierra Leone	265,857	6,993	2.6	258,864	97.4
Eastern	94,942	1,739	0.7	93,203	35.1
Kailahun	49,271	832	0.3	48,439	18.2
Kenema	28,059	418	0.2	27,641	10.4
Kono	17,612	489	0.2	17,123	6.4
Northern	99,966	1,584	0.6	98,382	37.0
Bombali	21,316	250	0.1	21,066	7.9
Kambia	27,571	392	0.1	27,179	10.2
Koinadugu	16,914	124	0.0	16,790	6.3
Port Loko	20,309	417	0.2	19,892	7.5
Tonkolili	13,856	401	0.2	13,455	5.1
Southern	68,645	3,596	1.4	65,049	24.5
Bo	22,658	1,834	0.7	20,824	7.8
Bonthe	9,830	589	0.2	9,241	3.5
Moyamba	18,436	493	0.2	17,943	6.7
Pujehun	17,721	680	0.3	17,041	6.4
Western	2,304	74	0.0	2,230	0.8
Western Rural	1,800	49	0.0	1,751	0.7
Western Urban	504	25	0.0	479	0.2

Source: Statistics Sierra Leone, 2015 Population and Housing Census

In general, most households in all the districts had very little access to oil palm pressers. Most of the rural households are poor and cannot afford the cost of oil palm pressers. One would assume that the use of oil palm pressers would be prevalent in districts with more agricultural households with oil palm plantations and/or with large land areas under oil palm cultivation. This assumption, however, does not hold for the Kailahun, Kenema, Tonkolili, Bo, Bonthe and Moyamba districts which recorded relatively higher percentages of agricultural households with oil palm plantations.

9.1.7 Access of agricultural households to storage facilities

There were more households in the Eastern (20.2 per cent) and Northern (19.7 per cent) regions with access to storage facilities compared to the Southern (12.0 per cent) and Western region (0.5 per cent). This is similar to the 2004 Census results which revealed that storage facilities were predominantly used in the regions where agricultural activities are on the increase. Most of the Western Area farmers in 2004 were involved in production of perishable crops like vegetables and fruits, which they needed to sell immediately. This situation, as shown by the 2015 Census data, has not significantly changed with the Western Area farmers ranking last behind all regions with only 1,276 (0.5 per cent) of agricultural households reporting access to storage facilities.

Table 30.9 Percent distribution of farmers by access to storage facilities in Sierra Leone

District	Access to Storage facilities				
	Total	Yes	%	No	%
Sierra Leone	265,857	139,457	52.5	126,400	47.5
Eastern	94,942	53,704	20.2	41,238	15.5
Kailahun	49,271	29,216	11.0	20,055	7.5
Kenema	28,059	16,157	6.1	11,902	4.5
Kono	17,612	8,331	3.1	9,281	3.5
Northern	99,966	52,502	19.7	47,464	17.9
Bombali	21,316	12,367	4.7	8,949	3.4
Kambia	27,571	13,832	5.2	13,739	5.2
Koinadugu	16,914	8,727	3.3	8,187	3.1
Port Loko	20,309	9,577	3.6	10,732	4.0
Tonkolili	13,856	7,999	3.0	5,857	2.2
Southern	68,645	31,975	12.0	36,670	13.8
Bo	22,658	12,285	4.6	10,373	3.9
Bonthe	9,830	3,277	1.2	6,553	2.5
Moyamba	18,436	7,988	3.0	10,448	3.9
Pujehun	17,721	8,425	3.2	9,296	3.5
Western	2,304	1,276	0.5	1,028	0.4
Western Rural	1,800	954	0.4	846	0.3
Western Urban	504	322	0.1	182	0.1

Source: Statistics Sierra Leone, 2015 Population and Housing Census

Storage facility in the agricultural product value chain is of paramount importance to crop shelf-life, quality and market price. All fourteen districts recorded having access to some storage facilities. Kailahun took the lead with 11.0 per cent of agricultural households having access to storage facilities. This was followed by Kenema, Kambia, Bombali and Bo.

9.1.8 Access of agricultural households to drying floors

Like storage facilities, drying floors are also very important in reducing post-harvest losses, especially during the drying stage of the product value chain. At the regional level, access to drying floors was found to be highest in the Eastern (23.5 per cent) and the Northern (23.2 per cent) regions followed by the Southern region (13.6 per cent).

At the district level, Kailahun district recorded the highest percentage (12.0 per cent) of agricultural households with access to drying floors. This was followed by Kenema district (7.0 per cent), Bombali district (6.7 per cent) and Kambia district (5.5 per cent).

Table 31.9 Percent distribution of farmers by access to drying floors in Sierra Leone

District	Access to Drying Floors				
	Total	Yes	%	No	%
Sierra Leone	265,857	161,177	60.6	104,680	39.4
Eastern	94,942	62,372	23.5	32,570	12.3
Kailahun	49,271	31,977	12.0	17,294	6.5
Kenema	28,059	18,674	7.0	9,385	3.5
Kono	17,612	11,721	4.4	5,891	2.2
Northern	99,966	61,795	23.2	38,171	14.4
Bombali	21,316	17,763	6.7	3,553	1.3
Kambia	27,571	14,688	5.5	12,883	4.8
Koinadugu	16,914	10,868	4.1	6,046	2.3
Port Loko	20,309	11,155	4.2	9,154	3.4
Tonkolili	13,856	7,321	2.8	6,535	2.5
Southern	68,645	36,073	13.6	32,572	12.3
Bo	22,658	13,711	5.2	8,947	3.4
Bonthe	9,830	2,861	1.1	6,969	2.6
Moyamba	18,436	9,848	3.7	8,588	3.2
Pujehun	17,721	9,653	3.6	8,068	3.0
Western	2,304	937	0.4	1,367	0.5
Western Rural	1,800	771	0.3	1,029	0.4
Western Urban	504	166	0.1	338	0.1

Source: Statistics Sierra Leone, 2015 Population and Housing Census

9.1.9 Access to Agricultural Business Centres (ABCs)

The ABCs are a new phenomenon in the history of agricultural development in Sierra Leone and were not captured in the 2004 Census. At the regional level, the Eastern region recorded the highest number of agricultural households (10.7 per cent) with access to ABCs. This was followed by the Northern region (8.2 per cent), Southern region (7.7 per cent), and Western region (0.3 per cent).

Data in Table 32.9 show that there was an even spread of access to ABCs around the country with Kailahun and Kenema districts recording the highest percentages of agricultural households that have access to ABCs. The Western Rural and Western Urban districts recorded the least percentages of agricultural households with access to ABCs.

Table 32.9 Percent distribution of farmers by access to Agricultural Business Centres (ABCs) in Sierra Leone

District	Access to ABCs				
	Total	Yes	%	No	%
Sierra Leone	265,857	71,436	26.9	194,421	73.1
Eastern	94,942	28,391	10.7	66,551	25.0
Kailahun	49,271	13,153	4.9	36,118	13.6
Kenema	28,059	8,930	3.4	19,129	7.2
Kono	17,612	6,308	2.4	11,304	4.3
Northern	99,966	21,873	8.2	78,093	29.4
Bombali	21,316	2,297	0.9	19,019	7.2
Kambia	27,571	6,573	2.5	20,998	7.9
Koinadugu	16,914	4,228	1.6	12,686	4.8
Port Loko	20,309	4,851	1.8	15,458	5.8
Tonkolili	13,856	3,924	1.5	9,932	3.7
Southern	68,645	20,348	7.7	48,297	18.2
Bo	22,658	7,120	2.7	15,538	5.8
Bonthe	9,830	2,825	1.1	7,005	2.6
Moyamba	18,436	5,570	2.1	12,866	4.8
Pujehun	17,721	4,833	1.8	12,888	4.8
Western	2,304	824	0.3	1,480	0.6
Western Rural	1,800	691	0.3	1,109	0.4
Western Urban	504	133	0.1	371	0.1

Source: Statistics Sierra Leone, 2015 Population and Housing Census

CHAPTER 10: SUMMARY, RECOMMENDATIONS AND POLICY IMPLICATIONS

10.1 Summary

Agricultural households in Sierra Leone

Sierra Leone is a dominantly agrarian economy with 57.9 per cent of households engaged in agricultural production. Of these, 72.9 per cent were male and 27.0 per cent female headed agricultural households, differing to the 2004 census which reported 52.2 per cent and 47.8 per cent of female and male involvement in agricultural sector. The Eastern, Northern and Southern regions recorded more agricultural participation than the Western, which recorded only 2.9 per cent agricultural households. Kailahun district recorded the highest concentration of agricultural households, closely followed by Kenema district, Bombali district and Tonkolili district.

Major Livelihood Activity

In the 2015 Census, three livelihood activities were captured: crop farming, animal husbandry and fishery. About 85 perc ent of agricultural households owned or operated a crop farm, 73.6 per cent were involved in animal husbandry and 33.6 per cent were engaged in fishery and/or fishing activities. The Northern region had the highest percentage of agricultural household (36.7 per cent) engaged in crop farming followed by the Eastern region (26.0 per cent) and Southern region (21.5 per cent) with the Western region recording the lowest concentration (1.3 per cent) of agriculture households in crop farming. The Northern region tops the livestock sector with 32.8 per cent of agricultural households, followed by the Eastern region with 18.7 per cent of agricultural households and the Southern region with 17.8 per cent of agricultural households engaged in livestock as major agricultural activities.

While a significant majority of agricultural households in other districts were also involved in crop farming, Kailahun district rated highest followed by Kenema district, Tonkolili district and Bombali district. For animal husbandry, Port Loko ranked first, followed by Kailahun, Tonkolili and Bombali.

Food Crops sub-Sector

The six food crops captured in the 2015 Census included upland rice, lowland rice, cassava, sweet potato, groundnut and maize. About 62 per cent of agricultural households grew upland rice in Sierra Leone, while 31.6 per cent of households cultivated lowland rice, which included IVS, boliland, mangrove swamp and riverine ecologies. Put together, 93.6 per cent of agricultural households in Sierra Leone grew either upland or lowland rice. On the other hand, 20.2 per cent of agricultural households nationwide cultivated cassava as the second staple food crop after rice. Groundnut farming is strong with 19.1 per cent of agricultural households nationwide cultivating the crop. The numbers of agricultural household involved in the cultivation of sweet potato and maize crops were very low.

The Northern region emerged with the highest percentage of agricultural households cultivating upland rice, followed by the Eastern region and Southern region. With respect to the lowland rice, the Northern region recorded the highest number of agricultural households, followed by the Eastern and Southern regions. At the district level, Kailahun cultivated the most upland rice while Port Loko cultivated the most lowland rice.

Land Area under Food Cultivation

Agricultural households provided details of the total land area under cultivation for each of the six food crops including upland rice, lowland rice, cassava, sweet potato, groundnut and maize.

Of the total land area of 3,244,214 ha under cultivation for food crops production, 35 per cent of it was under upland rice production, 17.3 per cent was used for lowland rice cultivation, 10.6 per cent for cassava cultivation, 9.2 per cent for groundnut cultivation, 1.5 per cent for sweet potatos and 0.9 per cent for maize cultivation. When disaggregated by regions, the Northern region cultivated more upland rice than the Eastern, Southern and Western regions. A relatively lower proportion of land was used for lowland rice, with the Northern region recording the highest proportion of land under lowland rice cultivation (10.3 per cent). The Southern region recorded the highest (5.3 per cent) proportion of land under cassava cultivation followed by the Northern region (3.4 per cent) while the Northern region recorded the highest proportion of land under groundnut cultivation (5.5 per cent), followed by Southern region (2.0 per cent) and Eastern region (1.7 per cent). Though maize cultivation was done in all four regions, it was at very low levels, too small to even merit discussion.

Quantity of Food Crops Produced

A total of 761,073.054 kg of upland rice, lowland rice, cassava, sweet potato, groundnut and maize production was reported nationwide in the 2015 Census. Of this total, 322,921,870 and 181,370,495 kg came from upland and lowland rice respectively, which was 66.2 per cent of the total food crops production. Cassava contribution was 217,358,479 kg or 28.6 per cent of total food production. Sweet potato, groundnut and maize combined accounted for 5.2 per cent of total food production.

Quantity of Food Crops Sold

The information on sales of crops was obtained at three levels: no sale, part sold and all sold. Very few of agricultural households (3.3 per cent) sold all of the upland rice crop. A good proportion of agricultural households (37.9 per cent) said they sold part of upland rice produce but with the majority (61.5 per cent) selling none.

Like with the upland rice crop, a small proportion of agricultural households sold the lowland rice crop. For both upland and lowland rice, the data confirms the assertion that production is still at subsistence levels. Agricultural households in the Western and Northern regions were more prone to selling rice than agricultural households in the Southern and Eastern regions. A possible explanation for this is the closeness to the Freetown market and cross border trade along the Sierra Leone Guinea and Liberia border.

Tree Crops Sub-Sector

In general, tree crops farming was concentrated in the Eastern region with 23.9 per cent, 29.7 per cent and 15.2 per cent of agricultural households in this region involved in coffee, cocoa and oil palm farming respectively. Involvement of agricultural households in tree crops in the other regions is insignificant, except for oil palm farming where 11.8 per cent and 10.9 per cent of the agricultural households from the Northern and Southern regions are oil palm farmers. While Kailahun district leads with 8.5 per cent of agricultural households, Kenema district recorded 5.7 per cent followed by Bo district, Tonkolili district and Pujehun district in fifth place with a surprisingly low percentage of 3.0 per cent of agricultural households doing oil palm farming. At the national level, a total of 3,164,472 ha of land was under tree crop cultivation for coffee, cocoa, oil palm, citrus and cashew. Eastern region had 162,701 ha of land under coffee cultivation. This is 84.0 per cent of total land under coffee production in the country and 14.0 per cent of total land under tree crop production countrywide. This implies that the high quantity tree crop produce will come from this region and districts, as more land is under tree crop cultivation. Over all, a total of 110,619,553 kg of coffee, cocoa, oil palm, citrus and cashew production was reported in the 2015 census, of which 14,385,347 kg was coffee, 34,592,583 kg cocoa, 53,397,363 kg oil palm, 2,371,115 kg citrus, and 90,800 kg cashew.

Livestock Sub-Sector

The ownership of livestock varies by region, based on vegetation and cultural habits of the inhabitants of a particular region or district. About 87.0 per cent of cattle in Sierra Leone are owned by agricultural households in the Northern region. Of the remaining 13.4 per cent, nearly 10 per cent are owned by agricultural households in the Eastern region, two per cent owned by Southern region households, and slightly less than 2 per cent owned by agricultural households in the Western region. The ownership of small ruminants including sheep and goats follows a similar pattern with a major proportion of sheep (71.2 per cent) and goats (63.4 per cent) owned by agricultural households in the Northern region. The Eastern region ranks second with 17.7 per cent and 21.1 per cent of agricultural households owning sheep and goats respectively.

Fishery Sub-Sector

Data on three fishery enterprises (fishing ponds/ aqua culture, artisan fishing and coastal fishing) were captured in 2015 Census. Artisan fishing emerged as the most popular enterprise among the three fishing enterprises. The Southern region recorded 31.1 per cent of agricultural households engaged in artisan fishing and ranked first. This was followed by the Eastern region (28.5 per cent), Northern region (26.0 per cent), and Western region (1 per cent). Fish pond farming in all the regions was relatively low with the Northern region recording the highest proportion of agricultural households (4.8 per cent) engaged in the enterprise. Coastal fishing was not popular, probably because it requires modern technology, which is currently a limiting factor due to its high cost and special skills requirements.

Ownership and Access to Production Machinery and Equipment

The data show that generally, access to tractors was higher for agricultural households in the Northern region (3.6 per cent) than the other regions. The analysis showed that more agricultural households in the Northern region (2.4 per cent) also had more access to power tillers than the other regions. While the Southern and Northern regions have large areas of riverine grassland, boliland and mangroves swamps, well suited to the use of tractors and power tillers, this is not reflected by the distribution patterns of agricultural machinery and equipment. About an equal number of households from the Eastern, Northern and Southern regions, (1.1 per cent), reported access to threshers, meaning that nearly all households in each

10.2 Recommendations

- There is a sharp drop in the percentage of female involvement in agriculture as compared to 2004 findings. We therefore recommend that the existing gender policy and other related laws and regulations be reviewed to include more participation of women in the agriculture sector through equal opportunities to access bank loans, agricultural inputs including fertilizers and agro-chemicals, and women-focused programmes and extension services.

- The Scaling Up Nutrition (SUN) programme, which is coordinated in the Office of the Vice President, should consider the possibility of including fish pond farming as a major component of the programme and to invest in agricultural households to be involved and/ or own fish ponds in all districts, as one of the major livelihoods and source of income for small-scale farmers.

- In terms of food diversification, presently considered under the Smallholder Commercialization and Agri-Business Development (SCADeP), Boosting Agriculture and Food Security (BAFS) and West Africa Agricultural Transformation Project (WAATP), sweet potato and maize crops should be considered for diversification and farmers empowered through targeted extension services with new crop varieties, fertilizers, agro-chemicals and best practices to cultivate these crops using the value chain approach.

- As the uplands have become depleted with nutrients, the lowlands are becoming the viable alternative for rice production in Sierra Leone. Unfortunately, only 31.6 per cent of agricultural households are involved in lowland rice cultivation. The lowlands are also limited and constitute only 17.3 per cent of the total arable land. The Government, through the Ministry of Agriculture, Forestry and Food Security and under the various projects, should increase investment on developing the lowlands especially IVS and encourage farmers to double crop rice in the lowlands and intensify crops.

- Farmers should be encouraged to increase the area of land cultivated for food crops in the lowland ecologies, in addition to crop intensification and diversification practices.

- The majority of farmers are subsistence farmers either growing for part sale or not for sale. Farmers should be encouraged to farm for profit to help them improve their livelihoods.

- Tree crops like cashew nut, coconut and oil palm should be grown in districts where cocoa and coffee do not grow well.

- Districts who do not have small ruminants (sheep and goats) should be restocked.

10.3 Policy Implications

- Agriculture is a major sector of the Sierra Leone economy. More than half of total households are agricultural. There needs to be serious government support given to the agriculture sector to enhance its transformation from subsistence to commercial, through the agriculture product value chain (APVC) and the empowerment of all stakeholders.

- Agricultural households are headed by both men (72.9 per cent) and women (27.1 per cent). This has policy implications for equal recognition and access of both male and female farmers to agricultural credit, inputs, and extension services.

- Most (93.4 per cent) of the heads of households were or had been married. The fact that most of the agricultural households are married nationwide supports the presumption that activities on the farm are gender-based and therefore require spousal partnerships of adult men and women. This presumption has implications for gender policy.

- The age of household heads ranged from 15 to more than 75 years with an average age of 46.2 years. The majority (82.3 per cent) of the respondents were 15 to 64 years, which by definition is the economically active or productive age. The fact that the country has 73.8 per cent of household heads below the age of 55 indicates that the future is promising in terms of a youthful and strong farm base. This also has implications for youth policy and support of youth to engage in agricultural activities.

- The Sierra Leone society is highly illiterate with only 51.4 per cent of the population literate in any language and 44.2 per cent literate in English. The majority of agricultural household heads in the Northern, Southern and Eastern regions never received any formal education. Since the use of some modern farm technologies require some form of basic education, these findings have implications for adult education training and learning at the farm level, as a component of the extension services provided by the extension Division of the Ministry of Agriculture, Forestry and Food Security (MAFFS).

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APPENDICES

Appendix 1 Agricultural households by age group

District	Age group						
	Total	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44
Sierra Leone	732,461	5,617	24,613	62,964	76,091	109,388	94,635
Eastern	203,286	1,155	5,675	15,912	20,796	31,723	26,824
Kailahun	74,361	344	1,872	5,397	7,461	11,240	9,863
Kenema	71,698	487	2,261	5,998	7,715	10,980	9,568
Kono	57,227	324	1,542	4,517	5,620	9,503	7,393
Northern	310,073	2,389	10,392	27,505	31,864	45,667	39,856
Bombali	67,229	503	2,145	5,514	6,525	9,476	8,358
Kambia	45,019	333	1,432	3,751	4,363	6,171	5,731
Koinadugu	49,302	296	1,231	3,706	5,277	7,479	7,307
Port Loko	82,353	703	3,072	7,641	8,411	12,133	10,252
Tonkolili	66,170	554	2,512	6,893	7,288	10,408	8,208
Southern	182,402	1,777	7,121	16,023	19,228	26,370	23,087
Bo	63,850	702	2,561	5,479	6,635	9,379	8,005
Bonthe	26,587	218	1,022	2,374	3,021	3,655	3,414
Moyamba	52,263	616	2,387	4,965	5,325	7,325	6,309
Pujehun	39,702	241	1,151	3,205	4,247	6,011	5,359
Western	36,700	296	1,425	3,524	4,203	5,628	4,868
Western Rural	26,670	217	1,127	2,694	3,136	4,156	3,595
Western Urban	10,030	79	298	830	1,067	1,472	1,273

Appendix 1 Agricultural households by age group (continued)

District	Age group						
	45 - 49	50 - 54	55 - 59	60 - 64	65 - 69	70 - 74	75 +
Sierra Leone	93,415	74,042	45,770	46,580	31,191	26,872	41,283
Eastern	27,707	20,530	12,379	12,982	8,924	7,437	11,242
Kailahun	10,215	7,495	4,493	5,164	3,349	3,007	4,461
Kenema	9,141	7,233	4,357	4,546	3,027	2,649	3,736
Kono	8,351	5,802	3,529	3,272	2,548	1,781	3,045
Northern	38,956	31,673	19,549	19,948	12,909	11,560	17,805
Bombali	8,641	6,886	4,673	4,543	3,217	2,610	4,138
Kambia	5,390	4,559	2,946	3,249	2,100	1,917	3,077
Koinadugu	6,838	5,304	2,876	3,297	1,853	1,717	2,121
Port Loko	9,814	8,343	5,296	5,182	3,359	3,270	4,877
Tonkolili	8,273	6,581	3,758	3,677	2,380	2,046	3,592
Southern	22,216	18,083	11,362	11,594	7,805	6,831	10,905
Bo	7,923	6,349	4,047	3,943	2,825	2,282	3,720
Bonthe	2,964	2,607	1,575	1,807	1,102	1,054	1,774
Moyamba	6,241	5,052	3,418	3,246	2,249	1,945	3,185
Pujehun	5,088	4,075	2,322	2,598	1,629	1,550	2,226
Western	4,536	3,756	2,480	2,056	1,553	1,044	1,331
Western Rural	3,275	2,682	1,688	1,413	1,035	714	938
Western Urban	1,261	1,074	792	643	518	330	393

Appendix 2 Educational level of heads of agricultural households

District	Total	Educational level					
		No Education		Basic School		SSS	
		No.	%	No.	%	No.	%
Sierra Leone	732,461	518,179	70.7	122,277	16.7	47,233	6.45
Eastern	203,286	140,292	69.0	38,203	18.8	13,847	6.81
Kailahun	74,361	48,388	65.1	15,735	21.2	5,963	8.02
Kenema	71,698	49,645	69.2	13,093	18.3	4,377	6.10
Kono	57,227	42,259	73.8	9,375	16.4	3,507	6.13
Northern	310,073	237,580	76.6	40,988	13.2	15,032	4.85
Bombali	67,229	51,881	77.2	9,507	14.1	3,042	4.52
Kambia	45,019	33,567	74.6	6,146	13.7	2,176	4.83
Koinadugu	49,302	42,651	86.5	3,019	6.1	1,552	3.15
Port Loko	82,353	59,101	71.8	13,013	15.8	5,053	6.14
Tonkolili	66,170	50,380	76.1	9,303	14.1	3,209	4.85
Southern	182,402	124,764	68.4	33,144	18.2	11,623	6.37
Bo	63,850	41,008	64.2	13,449	21.1	4,955	7.76
Bonthe	26,587	18,742	70.5	4,017	15.1	1,620	6.09
Moyamba	52,263	36,802	70.4	9,639	18.4	3,132	5.99
Pujehun	39,702	28,212	71.1	6,039	15.2	1,916	4.83
Western	36,700	15,543	42.4	9,942	27.1	6,731	18.34
Western Rural	26,670	11,935	44.8	7,343	27.5	4,522	16.96
Western Urban	10,030	3,608	36.0	2,599	25.9	2,209	22.02

Appendix 2 Educational level of heads of agricultural households (continued)

District	Educational level							
	Voc Technical Nursing Teacher		Higher (First Degree)		Tertiary (Post-graduate) & PHD		Other	
	No.	%	No.	%	No.	%	No.	%
Sierra Leone	17,662	2.4	5,258	0.7	2,397	0.3	19,455	2.7
Eastern	4,723	2.3	1,150	0.6	596	0.3	4,475	2.2
Kailahun	2,072	2.8	431	0.6	259	0.3	1,513	2.0
Kenema	1,510	2.1	432	0.6	175	0.2	2,466	3.4
Kono	1,141	2.0	287	0.5	162	0.3	496	0.9
Northern	6,733	2.2	1,357	0.4	642	0.2	7,741	2.5
Bombali	1,594	2.4	333	0.5	185	0.3	687	1.0
Kambia	954	2.1	202	0.4	100	0.2	1,874	4.2
Koinadugu	780	1.6	131	0.3	47	0.1	1,122	2.3
Port Loko	2,064	2.5	450	0.5	191	0.2	2,481	3.0
Tonkolili	1,341	2.0	241	0.4	119	0.2	1,577	2.4
Southern	4,415	2.4	1,449	0.8	584	0.3	6,423	3.5
Bo	1,916	3.0	897	1.4	278	0.4	1,347	2.1
Bonthe	637	2.4	121	0.5	54	0.2	1,396	5.3
Moyamba	1,136	2.2	251	0.5	163	0.3	1,140	2.2
Pujehun	726	1.8	180	0.5	89	0.2	2,540	6.4
Western	1,791	4.9	1,302	3.5	575	1.6	816	2.2
Western Rural	1,175	4.4	730	2.7	369	1.4	596	2.2
Western Urban	616	6.1	572	5.7	206	2.1	220	2.2

Appendix 3 Employment status of heads of agricultural households

District	Main employment status of Agricultural Household Head						
	Total	Paid employee	Self-employed without employees	Self-employed with employees (employer)	Unpaid family worker	Paid apprentice	Unpaid apprentice
Sierra Leone	732,461	40,253	563,152	27,933	26,624	1,495	4,257
Eastern	203,286	8,868	164,553	6,109	7,780	440	1,265
Kailahun	74,361	3,186	59,767	1,897	3,086	125	496
Kenema	71,698	3,177	59,188	2,408	1,792	167	483
Kono	57,227	2,505	45,598	1,804	2,902	148	286
Northern	310,073	13,550	243,403	12,810	10,463	442	1,310
Bombali	67,229	3,143	52,200	3,325	1,980	101	247
Kambia	45,019	1,788	36,921	1,963	671	36	76
Koinadugu	49,302	1,339	41,882	1,850	1,439	36	180
Port Loko	82,353	4,471	62,597	2,492	2,693	118	309
Tonkolili	66,170	2,809	49,803	3,180	3,680	151	498
Southern	182,402	10,918	135,522	7,170	8,095	340	1,543
Bo	63,850	4,327	44,723	3,448	3,097	147	695
Bonthe	26,587	1,459	20,985	625	678	46	157
Moyamba	52,263	2,702	40,142	1,839	2,864	72	301
Pujehun	39,702	2,430	29,672	1,258	1,456	75	390
Western	36,700	6,917	19,674	1,844	286	273	139
Western Rural	26,670	4,246	15,382	1,350	205	184	101
Western Urban	10,030	2,671	4,292	494	81	89	38

Appendix 3 Employment status of heads of agricultural households (continued)

District	Main employment status of Agricultural Household Head						
	Worked before but currently looking for work	Looking for work for the first time	Household work	Not working & not looking for work	Full time student	Retired/ pensioner	Other (specify)
Sierra Leone	2,763	5,888	21,264	19,283	8,444	4,690	5,310
Eastern	489	938	4,432	3,592	2,448	790	1,247
Kailahun	151	292	1,874	1,469	1,265	289	306
Kenema	142	271	1,199	1,260	709	301	482
Kono	196	375	1,359	863	474	200	459
Northern	966	2,378	8,869	8,869	3,354	1,625	1,709
Bombali	190	523	1,733	1,959	727	528	525
Kambia	66	149	970	1,533	478	202	147
Koinadugu	59	95	746	852	403	138	247
Port Loko	380	1,019	3,077	3,148	917	507	509
Tonkolili	271	592	2,343	1,377	829	250	281
Southern	608	1,343	6,535	5,117	1,959	1,322	1,632
Bo	280	394	2,372	1,766	901	663	906
Bonthe	66	185	1,064	729	294	155	125
Moyamba	106	308	1,488	1,328	451	352	286
Pujehun	156	456	1,611	1,294	313	152	315
Western	700	1,229	1,428	1,705	683	953	722
Western Rural	460	900	1,003	1,209	489	547	490
Western Urban	240	329	425	496	194	406	232

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