STATISTICS SIERRA LEONE
(Stats SL)
Credible Data for National Development

SIERRA LEONE INTEGRATED HOUSEHOLD SURVEY (SLIHS) REPORT 2018

OCTOBER 2019

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THE WORLD BANK

GOVERNMENT OF SIERRA LEONE

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October, 2019

CONTENTS

LIST OF TABLES ix

LIST OF FIGURES xix

LIST OF MAPS xxiv

ABBREVIATIONS xxvi

ACKNOWLEDGEMENTS xxvii

FOREWORD xxviii

STATEMENT FROM THE WORLD BANK xxix

EXECUTIVE SUMMARY xxx

MAIN FINDINGS ON POVERTY IN SIERRA LEONE: LEVELS AND TRENDS - 2011 TO 2018 lii

CHAPTER ONE - SURVEY INFORMATION AND DEMOGRAPHIC CHARACTERISTICS 1

1.0. General Overview 1

1.1 Objectives and Organization of the Survey 2

1.1.1 Objectives 2

1.1.2 Administration and Funding of the Survey 3

1.2 Timing of the Survey 5

1.3 Sample Design and Selection 5

1.3.1 Sample Size 6

1.3.2 Calculation of Sample Weights 7

1.4 Listing Activities 8

1.5 Questionnaire Development and Pre-testing 9

1.5.1 The Questionnaire Development 9

1.5.2 Pre-test 9

1.6 Data Collection Activities 9

1.6.1 Staff Recruitment and Training 9

1.6.2 Fieldwork 11

1.6.3 Quality Control and Monitoring of Field Work 11

1.6.4 Advocacy and Publicity 13

1.7 Data Processing and Analysis 14

1.8 Total Sample achieved and the non-response rate 14
1.9 Demographic Characteristics 15
1.9.1 Household Characteristics, Size and Composition 15
1.9.2 Sex Composition 18
1.9.3 Age Composition 19
1.9.4 Relationship with the Head of Household 22
1.9.5 Marital Status of Household Heads 24
1.9.6 Orphanhood 24
1.9.7 Main Economic Activity of Household Heads 26
CHAPTER TWO - EDUCATION AND LITERACY 27
2.0 Introduction 27
2.1 School Attendance 27
2.2 Educational Attainment and Highest Level Completed 35
2.2.1 Educational Level Completed, Still in School, Higher Education and Drop Out 35
2.2.2 Highest Level / Courses Completed and Highest Qualification Obtained 38
2.3 School Level Enrolment and Gross Enrolment Ratios 40
2.4 Literacy and Numeracy 45
2.5 School Ownership 46
CHAPTER THREE - HEALTH ISSUES AND DISABILITY 47
3.0 Introduction 47
3.1. Protection against malaria 47
3.2 Health conditions four weeks preceding the interview 51
3.2.1 Type of illness 56
3.3 Cost of consultation 58
3.4 Disability 60
3.4.1 Disability and employment 66
3.5 Social Transfers 68
3.6 Functioning 69
3.7 Child preventive health 71

3.8 Lifetime fertility 78
3.9 Knowledge about the transmission of Ebola 81
3.10 Deaths 83
CHAPTER FOUR - PERCEPTION OF WELL BEING 86
4.0 Introduction 86
4.1 Social Assistance 86
4.2 Perceived Status of Household 87
4.3 Perception of economic wellbeing 88
4.4 Road accidents of households 89
4.5 Perception of the impact of Ebola 89
4.6. Social amenities 91
4.7. Household sources of Loans and those with Bank Accounts 91
4.7.1 Sources 92
4.7.2 Reasons for taking Loans 93
4.8 Household participation in Osusu Scheme. 94
4.9 Money Transfers into and outside the household 95
CHAPTER FIVE - EMPLOYMENT AND TIME USE 98
5.0 Introduction 98
5.1. Characteristics of the Labour Force 98
5.2. Economically Active Population 101
5.3. Labour Force Participation Rates 103
5.4. The Currently Employed 105
5.4.1. Current Employment for the Last 12 Months 107
5.5. Child Labour in Sierra Leone 108
5.6 Employment in the informal sector 110
5.5.1 Features of Informal Economy 111
5.7 Secondary Occupation in Sierra Leone 113
5.7.1 An analysis of employed persons engaged in secondary occupations 113
5.8 Non-Farm Enterprise 116

5.8.1 Characteristics of Non-Farm Enterprises 116
5.9 Migration 123
5.9.1 Definition of Key Terms 123
5.9.2 Migration Pattern 124
5.9.3 Migration status by sex 124
5.9.4 Extent of Migration 125
5.9.5 Age Distribution of Migrants and Non-migrants 126
5.9.6 Migration Flow 127
5.9.7 Proportion of migrant status by educational level 128
5.9.8 Proportion of migrant by marital status and rural-urban 129
5.9.9 Reasons for Migration 130
CHAPTER SIX - HOUSING CONDITIONS 131
6.0 Introduction 131
6.1 Types of Housing and ownership by regions and locality 131
6.2 Rooms used for sleeping 135
6.3 Share of Dwelling Unit 138
6.4 Length of stay in Dwelling Unit 139
6.5 Occupancy Status of Households 140
6.6 Acquisition of Dwelling 144
6.7 Land Lord Type 148
6.8: Type of Document to back Occupancy Status 149
6.9 Housing by Construction Material 151
6.9.1 Floor material of dwelling unit 152
6.9.2 Roofing material of dwelling unit 153
6.10 Location of main cooking area in dwelling unit by District 157
6.11 Source of energy 158
6.11.1 Main Source of Fuel for Cooking by District 158
6.11.2 Main Source of Fuel for Lighting 159
6.12: Annual Payment of Electricity bill and Type of meter used 162

6.12.1 EDSA Connection and Average hours' electricity received 162
6.13 Type of Meter used by Households 164
6.14 Communication coverage by Households..... 165
6.15 Sources and use of Water 168
6.15.1 Main source of drinking water 168
6.15.2 Main Source of Water for Household use 172
6.15.3 Responsibility for the provision of main source of water 172
6.15.4 Access to water supply 174
6.15.5 Payment for Supply of Water 175
6.16 Sanitation and Hygiene 176
6.16.1 Refuse Disposal..... 176
CHAPTER SEVEN - INCOME AND CONSUMPTION EXPENDITURE ANALYSIS 177
7.1 Income Analysis..... 177
7.1.1 Income definition: inclusion and exclusion for aggregation 177
7.1.2 Analysis of Total annual household Income by source 179
7.1.3 Average annual total households' Income by sources and category 181
7.1.4 Income frequency Distributions..... 190
7.1.5 Quintile Measurement 191
7.1.5.1 Average Household Income by Quintile 191
7.1.6 Percentile ranking 192
7.1.7 Income Distribution- Gini Coefficient 193
7.2 Household Consumption Expenditure 193
7.2.1 Household Consumption Expenditure Analysis 193
7.2.2 Nominal Consumption Expenditure..... 194
7.2.3 Deflated Consumption Expenditure..... 196
7.2.4 Main Expenditure groups..... 199
7.2.5 Summary of the Main Expenditure group (COICOP) findings..... 201
CHAPTER EIGHT - AGRICULTURE..... 216
8.0 Introduction..... 216

8.1 Agricultural Assests And Land 217
8.1.1 Agricultural Implements 217
8.1.2 Agricultural Land 219
8.2 Annual Crops 229
8.2.1 Planting 230
8.2.2 Fertilizer 231
8.2.3 Herbicide/Insecticide 234
8.2.4 Crop Loss 235
8.2.5 Rice Preparation 237
8.2.6 Disposal of harvest 238
8.3 Permanent Crops 240
8.3.1 Crop Calendar 241
8.3.2 Planting 242
8.3.5 Crop loss 244
8.3.3 Harvest 245
8.3.6 Cassava Processing 246
8.3.4 Disposal of Harvest 247
8.3.5 Own Consumption of Cassava 248
8.4 Forestry 249
8.5 Fishing 255
8.5.1 Fishing Practices 256
8.5.2 Fishing Boats 258
8.5.3 Fishing Nets and Lines 259
8.5.4 Fishing Equipment 260
8.5.5 Fish Catches and Revenue 261
8.6 Livestock 263
8.6.1 Livestock ownership and acquisition 263
CHAPTER NINE - POVERTY AND INEQUALITY 267
9.0 Introduction 267

9.1 Poverty Analysis 267
9.2 Geographic Distribution of Poverty 268
9.3 Poverty Rates for Different Types of Households 269
9.4 Inequality 271
9.5 Poverty and inequality trends: 2011-2018 272
9.6 Inequality 273
REFERENCES **275**
APPENDIX 1: POVERTY RATES FOR 2018 ..... **277**
APPENDIX 2: POVERTY TRENDS, 2011-2018 ..... **279**
APPENDIX 3: DEMOGRAPHIC INFORMATION **279**
APPENDIX 4: EDUCATION AND LITERACY **280**
APPENDIX 5: HEALTH ISSUES **281**
APPENDIX 6: PERCEPTION OF WELL-BEING **290**
APPENDIX 7: HOUSING CONDITIONS **292**
APPENDIX 8: INCOME AND HOUSEHOLD CONSUMPTION EXPENDITURE **298**
APPENDIX 9: AGRICULTURE **302**
APPENDIX 10: SIERRA LEONE INTEGRATED HOUSEHOLD SURVEY 2018 (SLIHS2018) FIELD STAFF **307**

LIST OF TABLES

Table 1.1: Sampled Households by Locality and Year of Survey 5

Table 1.2: Distribution of EAs/Cluster by District 7

Table 1.3: SLIHS weights by Strata 8

Table 1.4: Distribution of Sample Achieved by District 15

Table 1.5: Total Population by Residence and Sex 16

Table 1.6: Distribution of Average size of households by Locality and Region 17

Table 1.7: Sex Ratios by Regions, Districts and Age Groups 18

Table 1.8 Populations and Sex Ratio Distribution by District 19

Table 1.9: Percentage Distribution of Five-Year Age Groups 20

Table 1.10: Below shows the age distribution of the population by locality and gender 22

Table 1.11: Distribution of the population 10 Years and over by Marital Status and sex 24

Table 1.12: Proportion of children 17 years or under who have lost both parents 25

Table 2.1: Regional Percentage Disparities amongst reasons for never attending formal school 31

Table 2.2: Percentage Distributions of reason for never attending school by District 32

Table 2.3: Percentage Distribution of Pre-schools by district and type of ownership 35

Table 2.4: Percentage Distributions of Educational Level Completed by Districts 36

Table 2.5: Percentage Distributions of Still in School, Higher Education and Drop Out by District 38

Table 3.1: Percentage of persons that slept under a mosquito net by sex and Administrative divisions 49

Table 3.2: Percentage of persons that slept under a treated net by sex and by Administrative division 51

Table 3.3: Percentage of persons that reported sick or injured in the past 4 weeks by sex and administrative division 53

Table 3.4: Percentage and Total number of persons who reported an illness or injury and visited a health facility or medical practitioner by sex and Region 55

Table 3.5: Mean cost of consultation, purchase of medicine, X-Ray and other medical supplies by administrative division and sex 60

Table 3.6: Count and percentage distribution of persons with and without disability by region 61

Table 3.7: Count and percentage distribution of persons with disability by district and sex 64

Table3.8: Count and percentage distribution of persons with disability by type of disability and sex 65

Table 3.9: Percentage distribution of disability by sex and cause of disability 66

Table 3.10: Count and percent distribution of employment Status of persons with and without disability 67

Table 3.11: Percentage distribution of type of employment Status of Persons with and without disability 67

Table 3.12: Percentage distribution of level of primary and secondary education completed among persons with and without disability. 68

Table 3.13: Social Transfers to households with Disability 68

Table 3.14: Count and percentage distribution of difficulty seeing even when wearing glasses 69

Table 3.15: Count and percentage distribution of difficulty hearing even when using hearing aid 69

Table 3.16: Count and percentage distribution of difficulty walking or climbing stairs 70

Table 3.17: Count and percentage distribution of difficulty remembering or concentrating .. 70

Table 3.18: Percentage distribution of six core domains of functioning 71

Table 3.19: Mean number of children ever born by women 15-49 years by region and locality 79

Table 3.20: Count and percentage distribution of household deaths by sex region and district 83

Table 3.21: Percentage distribution of cause of death by sex 84

Table 4.1: Types of social assistance available by District 87

Tale 4.2: Perceptions of household status 88

Table 4.3: Perception of Household economic wellbeing 89

Table 4.4: Proportion of households affected by the Epidemic on small, moderate and large scales 90

Table 4.5: Sources of credit/loans 92

Table 4.6: Purpose of Loans/Credit 93

Table 4.7: Cash transfer into Households 96

Table 5.1: Key Labour Market Indicators from the 2018 SLIHS by Sex 100

Table 5.2: Total economically Active population (Labour Force) by Sex, Locality and Age group 101

Table 5.3: Total economically Active and Inactive population (Labour Force) by Sex, Locality and Age group 102

Table 5.4: Labour Force Participation rate by Sex, locality and region 104

Table 5.5: Labour force participation rate by Age Group 104

Table 5.6: Employment and unemployment rates by age (15-64 years) and sex 105

Table 5.7: Currently Employed Population by Age Group, Sex and locality 106

Table 5.8: Percentage distribution of hours of work by Gender and Locality 112

Table 5.9: Employed persons with secondary activities by age group, sex, and locality 114

Table 5.10: Employment Type by Sex and Locality 115

Table 5.11: Proportion of Non-Farm Enterprise activities by region and national distribution 117

Table 5.12: Proportion of Non-Farm Enterprise activities by Locality 119

Table 5.13: Proportion of Non-Enterprise activities registered with Government agency 121

Table 5.14: Non-Farm Enterprise Revenue by Region..... 121

Table 5.15: Non-Farm Enterprise Expenditure by Region 122

Table 5.16: Distribution of migrants by status and sex (percent) 124

Table 5.17: Distribution of Migrants by Region..... 126

Table 5.18: Age Distribution of Migrants and Non-migrants 126

Table 5.19: Distribution of Urban/Rural Dwellers by Region (Percent) 128

Table 5.20: Proportion of migrant status by educational level..... 129

Table5.21: Proportion of migrant by marital status and rural-urban 130

Table 6.1: Percentage of household's type of dwelling by Region and Locality 131

Table 6.2: Percentage of household with Shared dwelling by District..... 138

Table 6.3: Average number of years Spent in dwelling by occupancy status by Region 139

Table 6.4: Percentage occupancy status by Region, Residence and District 140

Table 6.5: Percentage of dwelling acquisition by District 144

Table 6.6: Percentage distribution of different types of Land Lords by District 148

Table 6.7: Percentage of Households with document to occupancy status by Region 149

Table 6.8: Household Mean expenditure (Le '000) on minor constructions 150

Table 6.9: Percentage of HHs that used Construction material of outside walls by District 151

Table 6.10: Percentage of HHs with Main flooring material by Region, Residence and District 152

Table 6.11: Percentage of the HHs location of kitchen by District 157

Table 6.12: Percentage distribution of HHs by source of energy by District 158

Table 6.13: Percentage of Households with EDSA connection, Average Hours received, and annual amount paid for electricity by region 162

Table 6.14: Percentage of household by type of meter by Region 164

Table 6.15: Percentage and Number of Households with mobile phone coverage by Region and District 165

Table 6.16: Main source of drinking water for proportion of HHs in the dry Season by Region, Residence and District 168

Table 6.17: Percentage of HHs view about responsibility for the provision of main source of drinking water by Region, Residence and District 173

Table 6.18: Distance (Mile) to Main Source of Drinking Water in the dry season by region, Residence and District 174

Table 6.19: Annual Payment for water and Percentage of HHs that pay for water by region and Residence 175

Table 6.20: Percentage of HHs by type of refuse Disposal in use by region, Locality District 176

Table 7.1: Average annual value and percentage distribution of total household Income 180

Table 7.2a: Average annual value of total income disaggregated sources by region 189

Table 7.2b: Average Annual Total Income Disaggregated Sources by locality 189

Table 7.3: Average annual HH income sources by Gender of Household Head 190

Table 7.4: Total Average Annual Household Income by Income Category by Region and Sex 191

Table 7.5: Average Annual Household Income Quintile: by Region 192

Table 7.6: Income Percentiles 193

Table 7.7: Mean Annual nominal consumption expenditure of Food, Food Own & Non-food 195

Table 7.8: Mean Annual deflated consumption expenditure of Food, Food Own & Non-food 197

Table 7.9: Mean annual household consumption expenditure and per capita consumption expenditure for food and non-food items by quintile groups at locality levels 198

Table 7.10: Percentages of Average Household Annual Consumption Expenditure for Food and Non-Food (all consumables) by region and locality 199

Table 7.11: Total Average Annual Household Consumption Expenditure by main expenditure group (COICOP) 201

Table 7.12: Overview of consumption expenditure on food and non-alcoholic beverages by sex of household head, region and Locality 203

Table 7.13: Overview of consumption expenditure on alcoholic beverages, tobacco & narcotics by sex, region and Locality 205

Table 7.14: Overview of consumption expenditure on clothing and footwear by sex of household head, region and Locality 206

Table 7.15: Annual average expenditure of households on housing, water, electricity, gas and other fuels by sex of household head, region and Locality 207

Table 7.16: Overview of consumption expenditure on Furniture, household equipment and maintenance by sex of household head, region and place of residence 208

Table 7.17: Overview of consumption expenditure on health, by sex of household head, region and Locality 209

Table 7.18: Overview of consumption expenditure on transport by sex of household head, region and Locality 210

Table 7.19: Annual household expenditure on communication by sex of household head, region and Locality 211

Table 7.20: Overview of consumption expenditure on recreation and culture by sex of household head, by region and Locality 212

Table 7.21: Overview of consumption expenditure on education by sex of household head, by region and Locality 213

Table 7.22: Overview of consumption expenditure on restaurants and hotels by sex of household head, region and Locality 214

Table 7.23: Overview of consumption expenditure on miscellaneous goods and services by sex of household head, region and Locality 215

Table 8.1: Total number of households that bought, Spent, Owned and Rented different types of equipment 218

Table 8.2: Estimated number of households that own item now and items owned now by households between SLIHs 2011 and SLIHs 2018 219

Table 8.3: Households that own land (agricultural and non-agricultural) in the last 12 months by gender and District 222

Table 8.4: Estimated percentage of the various types of irrigation by region 224

Table 8.5: Estimated households that have permission to farm on the land by region 227

Table 8.6: Estimated households that paid to work on the farm in the past 12 months by region 228

Table 8.7: Estimated Household that harvested on their farm land by region 229

Table 8.8: Percentage Households source of seed planted by region 230

Table 8.9: Showing percentage use of improved seed NERICA and method of plating by region 231

Table 8.10: Estimated percentage of households that applied organic fertilizer on annual crops by region 232

Table 8.11: Estimated percentage of households that applied inorganic fertilizer on annual crops by region 233

Table 8.12: Estimated percentage of households that applied insecticide on annual crops by region 234

Table 8.13: Estimated percentage of HHs that lost annual crop before harvest by region 235

Table 8.14: Estimated percentage of Rice crop processing by region 237

Table 8.15: Estimated percentage of household crop harvest disposal by region 238

Table 8.16: Estimated percentage of crop sold by region 239

Table 8.17: Estimated percentage households that consumed own rice by region 240

Table 8.18: Estimated percentage of month's crop that was harvested 241

Table 8.19: Estimated percentage of households that planted crops in the last 12 months by region 242

Table 8.20: Estimated total amount spent to plant, on labour and equipment in the last 12 months by region 243

Table 8.21: Estimated total amount spent on Labour and to hire equipment for the application of herbicide/insecticide by region 244

Table 8.22: Estimated percentage of households that lost permanent crop by region 244

Table 8.23: Estimated total amounts spent on labour, items and to hire equipment to harvest permanent crop 246

Table 8.24: Estimated percentage of cassava processing by region 246

Table 8.25: Estimated percentage of how permanent crop are mostly sold by region 248

Table 8.26: Estimated percentage of households who grew cassava for own consumption by region 248

Table 8.27: Estimated percentage of households that are engaged in forest activity in own bush/Farm by region 250

Table 8.28: Estimated percentage households that are engaged in forest activity in communal Bush by region 250

Table 8.29: Estimated percentage HHs that are engaged in forest activity in wild forest by region 251

Table 8.30: Estimated amount spent on Labour or materials for forest activity by region 251

Table 8.31: Estimated amount received from forest products sold in the last month by region 252

Table8.32: Estimated amount of forest products kept for own use in the last month by region 252

Table 8.33: Estimated income received from forest activities by region 253

Table 8.34: Estimated percentage of households that did forest activities in the first quarter by region 253

Table 8.35: estimated percentage of households that did forest activities in the Second quarter by region 254

Table 8. 36: Estimated percentage of households that did forest activities in the third quarter by region 254

Table 8.37: Estimated percentage of households that did activity in the fourth quarter by region 255

Table 8.38: Estimated percentage of households that did fishing and the different fishing practices in the past 12 months 256

Table 8.39: Estimated percentage of fishing households that obtained a license/ permit in the past 12 months by region 257

Table 8.40: Estimated percentage of households that use different type of boat for fishing by region 258

Table 8.41: Estimated percentage of households that use different type of fishing nets and lines 259

Table 8.42: Estimated percentage of households that own different type of fishing equipment 260

Table 8.43: Estimated percentage of various types of fish catch in volumes by fishing households 261

Table 8.44: Estimated percentage of HHs main fish selling place 262

Table 8.45: Estimated total amount of fish sold 263

Table 8. 46: Estimated household heads that own Livestock including poultry or farmed fish in the past 12 months by district 264

Table 8.47: Estimated number of adult animals bought and total amount spent to buy adult animal 266

Table 9.1: Poverty Rates by Household Characteristics 270

LIST OF FIGURES

Figure 1.1: Household Size Groups 17

Figure 1.2: Distribution of the population by special age groups 20

Figure 1.3: Population by Five Year Age group and Sex 21

Figure 1. 4: Distribution of the Household Population by Relationship to the Head of the Household 23

Figure 1.5: Proportion of the Household Population by Relationship to the Head of the Household 23

Figure 1.6: Proportion of children 17 years or under who have lost a mother..... 25

Figure 1.7: Economic Activities of Persons 10 years and over who were employed in the last 7 days 26

Figure 2.1: Percentage Distributions of Ever and Never Attended Formal School 28

Figure 2.2: Sex Differences in Percentage Distributions of Ever and Never Attended Formal School 28

Figure 2.3: Percentage distribution of ever attended formal school y region 29

Figure2.4: Percentage Distributions of Ever Attended Formal School by Districts 30

Figure 2.5: Percentage Distributions of Reasons for not being in school..... 30

Figure 2.6: Regional Percentage Distribution of Ever Attended Pre-school or Nursery 33

Figure 2.7: Regional Sex Differences in Ever Attended Pre-school or Nursery..... 33

Figure 2.8: Ever Attended Pre-school or Nursery by District..... 34

Figure 2.9: National & Regional Percentage Distributions of Educational Level Completed... 36

Figure 2.10: Percentage Distributions of Still in School, Higher Education and Drop Out by Region..... 37

Figure 2.11: National Percentage Distributions of Highest Level/Courses Completed 38

Figure 2.12: Regional Percentage Distributions of Highest Level/Courses Completed 39

Figure 2.13: National Percentage Distributions of Highest Qualification Obtained 40

Figure 2.14: Primary Level Total Enrolment Trends 41

Figure 2.15: Primary Level Total Enrolment Trends by sex 41

Figure 2.16: JSS Level Total Enrolment Trends 42

Figure 2.17: JSS Level Total Enrolment Trends by sex 42

Figure 2.18: SSS Level Total Enrolment Trends 43

Figure 2.19: SSS Level Total Enrolment Trends by sex 43

Figure 2.20: Trends in Gross Enrolment Ratios for Primary, JSS and SSS 44

Figure 2.21: National and Regional Literacy Rates by Sex 45

Figure 2.22: Total Literacy Rates by Districts 46

Figure 2.23: Percentage Distribution of Schools by Ownership 46

Figure 3.1: Percentage by sex of population that slept under any mosquito net according to age group 48

Figure 3.2: Percentage of persons that slept under a treated mosquito net by five year age group and sex 50

Figure 3.3: Percentage distribution of persons who reported sick or injured in the 4 weeks preceding the interview by sex and age group 52

Figure 3.4: Percentage distribution of persons who reported an illness or injury and visited a health facility or medical practitioner by sex and age group 54

Figure 3.5: Mean cost of consultation, purchase of medicine, X-Ray and other medical supplies by sex and age group 59

Figure 3. 6: Disability prevalence by residence 65

Figure 3.7: Percentage of children that have received the first dose of all the vaccines by sex according to region and place of residence 72

Figure 3.8: Percentage of children that have taken the full dose of all vaccines by sex according to region and locality 77

Figure 3.9: Percentage of children that have received at least one kind of vaccination by sex according to region and place of residence..... 78

Figure 3.10: Percentage distribution of cause death 85

Figure 4.1: Number of households affected by the Ebola virus by Regions and locality 91

Figure 4.2: Percentage distribution of Households with Bank Accounts by District 94

Figure 4.3: Household members involved in Osusu schemes 95

Figure 4.4: District that send money outside their Households 96

Figure 4.5: Percentage distributions of Households that transfer cash by Region 97

Figure 5.1: The distribution of the census working age population (15-64 years) by economic activity 99

Figure 5.2: Employment Rate by Age Group (15-24 and 15-34) and Sex 106

Figure 5.3: Percentage Distributions of Persons Employed By Region 107

Figure 5.4: The Currently Employed Persons for the last 12 Months by Region, Rural-Urban and Sex 108

Figure 5.5: Distribution of employed and unemployed children by age group 10-14 years by region..... 109

Figure 5.6: Percentage of children aged 10-14 years by status of employment..... 110

Figure 5.7: Number of Persons employed in the Informal sector 111

Figure 5.8: Distribution of paid employees in the Informal sector by locality 112

Figure 5.9: Proportion of Registration of Non-Enterprise activities 120

Figure 5.10: Sources of funds to start-up the business..... 122

Figure 5. 11: Migration Status by Sex..... 125

Figure 5.12: Reasons for Migration 130

Figure 7.1: Average Annual Distribution of Household Property Income sources by region 187

Figure 7.2: Distribution of Average Annual Households' Current Transfer Income Sources by region 188

Figure 7.3: Size distribution of Income for SL Households 2018 by income category 190

Figure 7.4: Percentile distribution of income 192

Figure 7.5: Distribution of Mean annual Household consumption expenditure and per capita household consumption expenditure by household size, region and Locality 195

Figure 7.6: Distribution of un-deflated/nominal Mean Annual Food, Own-Food and Non-Food consumption expenditure by Region 196

Figure 7.7: Percentage distribution of household consumption expenditure attributed to food and non-alcoholic beverages by region and Locality 203

Figure 8.1: Percentage of Households that own agricultural equipment by region 217

Figure 8.2: Estimated percentage of households that own land (agricultural and non-agricultural) in the last 12 months 220

Figure 8.3: Households that cultivated agricultural land in the last 12 months by gender ... 221

Figure 8.4: Showing households that own land (agricultural and non-agricultural) in the last 12 months by region 221

Figure 8.5: Percentage of households that farm on various types of ecologies 223

Figure 8.6: Estimated percentage of households that have right to sell agricultural land 225

Figure 8.7: Estimated percentage HHs that have right to sell agricultural land by region 226

Figure 8.8: Estimated percentage of different methods of disposal of harvest of permanent crop by region 247

Figure 8.9: Estimated percentage households that are engaged in forest activity by region 249

Figure 8.10: Estimated household heads that own Livestock (including poultry or farmed fish) in the past 12 months by region 263

Figure 8.11: Estimated number of livestock owned by households in the last 12 months..... 265

Figure 9.1: Poverty Rates and Numbers by Sector 268

Figure 9. 2: Total Poverty Rate by District 269

Figure 9.3: Extreme Poverty Rate by District 269

Figure 9.4: Distribution of Consumption by Decile..... 271

Figure 9.5: Changes in Poverty, 2011 to 2018 273

Figure 9.6: Lorenz Curves 274

Figure 9.7: Share of HH Consumption by Decile 274

LIST OF MAPS

Map 3.1: Disability prevalence by district 62

Map 3.2: Percentage of children that have received the full dose of the first round of the different vaccines by sex 74

Map 3.3: Percentage of children that have received the full dose of the first round of the different vaccines by district 76

Map 3.4: Mean number of children ever born by women 15-49 years by district 80

Map 6.1a: Percentage Of Single Dwelling Unit By District 133

Map 6.1b: Percentage Of Dwelling With Multiple Structures By District 134

Map 6.2a: Percentage Of Household Who Occupied Three Rooms By District 136

Map 6.2b: Percentage of household who occupied a single room by District 137

Map 6.3a: Percentage of dwelling owned 142

Map 6. 3b: Percentage of dwelling Rented 143

Map 6.4a: Percentage of dwelling units Constructed 146

Map 6.4b: Percentage of dwelling units Rented 147

Map 6.5a: Percentage of Households with Thatch as Main Roofing Material By District 155

Map 6.5b: Percentage of Households with CI Sheets As Main Roofing Materials 156

Map 6.6a: Percentage of HHs using EDSA for lighting by District 160

Map 6.6b: Percentage Of House holds Using Battery For Lighting By District 161

MAP 6.7: Average Hours of EDSA Received by Region 163

Map 6.8: Percentage of Households With Mobile Phone Coverage By District 167

Map 6.9a: Percentage of Safe Drinking Water by District 170

Map 6.9b: Percentage of Unsafe Drinking Water by District 171

Map 7.1 a: Households' Formal Employment (In-Kind) income by region 182

Map 7.1 b: Households' Formal Employment (Cash) income by region 183

Map 7.2a: Households' Self-employment (Farming Revenue) by region..... 185

Map 7.2b: Households' Self-employment (Non-farm Revenue) by region 186

ABBREVIATIONS

AIDS	Acquired Immune Deficiency Syndrome
CPI	Consumer Price Index
EA	Enumeration Area
EFA	Education for All
FQSEP	Free Quality School Education Program
GDP	Gross Domestic Product
HIES	Household Income and Expenditure Survey
HIV	Human Immune Virus
ILO	International Labour Organization
JSS	Junior Secondary School
LSMS	Living Standard Measurement Survey
MDAs	Ministry Department and Agencies
MDGs	Millennium Development Goals
NGO	Non-Governmental Organization
PFMU	Project Fiduciary Management Unit
PRSP	Poverty Reduction Strategy Paper
SLIHS	Sierra Leone Integrated Household Survey
SDG	Sustainable Development goals
Stats SL	Statistics Sierra Leone
SRN	State Registered Nurse
SSS	Senior Secondary School
WB	World Bank

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We are grateful to all survey respondents for their time and patience shown in providing relevant information to the survey staff.

Please see Appendix 9 for the full list of SLIHS 2018 staff.

Professor Osman Sankoh, DSc
Statistician General & CEO

FOREWORD

Statistics Sierra Leone (Stats SL) and its partners have been collecting nationally representative household survey data since 2003 through the Sierra Leone Integrated Household Survey (SLIHS), which collects information on a wide range of social and economic topics and is the primary source for measuring and understanding monetary poverty in the country.

The SLIHS 2018 was used to update the incidence of monetary poverty in Sierra Leone in 2018 and thus complements the assessment of multidimensional poverty obtained from the Multiple Indicator Cluster Survey 2017.

The SLIHS 2018 also provides a natural baseline to monitor/benchmark, the implementation of the Sierra Leone's Medium-Term National Development Plan 2019-2023 which was launched in February 2019.

The information from the SLIHS 2018 can serve as a basis for an evidence-based approach to policy formulation and development planning. In that view, I highly recommend its use by all Ministries, Departments, Agencies and other stakeholders.

As government we will ensure that the Sierra Leone Integrated Household Survey continue to be implemented on a regular basis under the leadership of Statistics Sierra Leone in collaboration with the World Bank and other Development Partners.

I would finally like to thank Stats SL for the successful implementation of this project and the Government of Sierra Leone and the World Bank for providing the funds and technical assistance along the way.

Hon. Dr. Francis Kai-Kai
Minister for Planning and Economic Development

STATEMENT FROM THE WORLD BANK

Launched in 2018, the Medium-Term National Development Plan (2019-2023) sets the country on the path toward inclusive growth that is sustainable and leaves no one behind. This closely coincides with the goal of the World Bank Group, namely to reduce poverty and boost shared prosperity.

Congratulations to the Government of Sierra Leone on the launch of the Sierra Leone Integrated Household Survey (SLIHS) which provides vital baseline information to track progress on the Medium-Term National Development Plan and Sierra Leone's Sustainable Development Goals, and for the country to measure development outcomes and hold us all accountable.

This report is the product of a close partnership between Statistics Sierra Leone (Stats SL) and the World Bank since 2003 through the same instrument – the Sierra Leone Integrated Household Survey. Most recently, the Government of Sierra Leone through Statistics Sierra Leone and the World Bank embarked on and successfully completed the latest round of the SLIHS in 2018.

The results reported in this report suggest that, unfortunately, some Sierra Leoneans are indeed being left behind, and dismayingly, that some are falling further behind. This coincides with the multiple years of slowing growth following the twin shocks of Ebola and the commodity price collapse. Given these trends, it is critically important that this data is reported widely and analyzed to understand how the effects of slowing growth is being transmitted to households, and how the impacts can be mitigated.

Let me conclude by expressing that the World Bank is fully committed to a continued partnership with Sierra Leone as it strives toward eradicating poverty and ensuring more equality in economic benefits. The report we are launching today is instrumental in informing how well we all do on this.

Gayle H. Martin
Country Manager for Sierra Leone
World Bank

EXECUTIVE SUMMARY

The Sierra Leone Integrated Household Survey (SLIHS) is Sierra Leone's Living Standard Measurement Survey (LSMS) or Household Income and Expenditure Survey (HIES), which is conducted regularly in order to collect useful socio-economic data to support government planning processes. The 2018 SLIHS data collection covered the period January-December 2018, and it is the third round, which followed the 2011 and 2003 rounds.

For this survey, the estimated number of households in Sierra Leone was 1,248,180 and the estimated population was 7,534,981 million, which is slightly less (about 2.4percent) than the projected population of 7.7 million people contained in the Projection Monograph of the 2015 Population and Housing Census Report.

From SLIHS2018, the average household size for Sierra Leone was 6, as compared to 5.6 in 2011. In addition, the average household size for urban areas in 2018 was 5.8 whereas in rural areas it was 6.2. These numbers show an increase in the household size from the SLIHS 2011 of 5.4 and 5.7 for urban and rural areas respectively. The data shows that female constituted 52.1 percent of the population compared to males with 47.9 percent. The general sex ratio for Sierra Leone is 92 males per 100 females indicating a female excess of 322,664 compared to 95 males per 100 females in the SLIHS2011.

The main household economic activity is agriculture comprising crop product livestock, forestry and fishing activities. These is followed by services including whole and retail trade, accommodation and restaurant services, public administration services, education, health and social work. Industry comprising mining, manufacturing, utilities and construction

With Sierra Leone's Free Quality School Education Program (FQSEP) there is need to assess the attendance rates after this initiative. 61.3 percent (comprising 3,775,164) have attended formal schools, the remaining 38.7 percent have never attended schools, lower than the 48 percent obtained in the 2011 SLIHS for those that had never been to school.

The major player in the Education sector is GoSL followed by religious organisations with the Private sector, local government and Community playing fairly reasonable roles as owners of schools and missions

In terms of educational levels completed, overall at least 4 out of every ten Sierra Leoneans did not complete any level of education. Corresponding figures for primary, JSS and SSS are 3, 1 and 1 respectively.

GERs exceeding 100percent at the Primary level suggest the inclusion of over-aged and under-aged pupils due to early or late entrants and class repetition. However, the general level of participation at the JSS and SSS levels is worrying since the GERs are far below 100 percent.

Amongst those who ever attended schools throughout the country, 60.8 percent were still in primary or secondary schools, 7.2 percent in pursuit of higher education while 32 percent either dropped out of school or did no higher education. 2018 SLIHS shows that national literacy level is still below 50 percent and the gender disparity still looms in the sector. All the three regional figures (East, North, North-West and South) fall below the national average and the West is the outlier with almost 78 percent functional literacy.

SLIHS 2018 results show that more children age 0-4 years slept under a mosquito net the night preceding the interview for both male and female than any persons (89.1 and 87.8 percent respectively). As age increases, the percentage of persons that slept under a mosquito net reduces from 85.2 percent males and 80.4 percent females for age 5-9 years to 74.0 percent males and 77.3 percent females for age 15-19 years. There is a further decrease to 69.5 percent for males 20-24 years old. More rural residents slept under a mosquito net than their urban counterparts. Nine out of every 10 males or females in the rural areas slept under a mosquito net compared to just about two-thirds of each in the urban areas. Within the districts, more than 97 percent of males in Bonthe, Pujehun and Falaba slept under a mosquito whilst less than half (46.6 percent) of males in the Western Area Urban slept under a mosquito net. Of those that slept under a mosquito net, more that 9 out of every 10 for both males and females for all age groups slept under a treated mosquito net.

For the country as a whole, nearly 6 out every 10 of those that reported an illness or injury visited a health facility or medical practitioner (58.5 and 57.7 percent for males and females respectively). In the Northern Region, exactly half of those that fell ill or injured visited a health facility or medical practitioner. More people in the Eastern Region reported to a health facility with more than two-thirds (69.5 and 70.6 percent of males and females respectively), whilst just nearly 6 out of every 10 in the other regions visited a health facility or medical practitioner.

Overall, more people consulted a nurse/SRN than any of the other medical practitioners when they fell ill or injured in the past 4 weeks preceding the interview. However, females had more access to see a nurse/SRN than their male counterparts in Sierra Leone (60.1 and 51.1 percent respectively), compared to access to a doctor which is 23.7 and 19.2 percent for males and females respectively.

Malaria is the most common illness that was reported by respondents who consulted a medical practitioner when they fell ill for the past 4 weeks preceding the survey. Malaria is common with

children 5-9 years; about two-thirds of children (65.6 and 68.6 percent of male and female respectively) in this age group reported malaria Malaria is reported across the different age groups more than any of the ailments regardless of the fact that more people slept under a mosquito net.

As expected, more children in the 0-4 years and adults 75 years and above were affected by cough or cold; this is likely due to low resistance to cold at young and old age respectively. Cold or cough is common among males in the Western Area Rural District than in the rest of the other districts. Overall, more males reported cold or cough than their female counterparts across the districts.

The prevalence of hypertension is seen to be increasing with age from 65 to 75 years for females; 1 out of every 5 (20.3 percent) females aged 75 years and over, reported hypertension as an illness in the past 4 weeks preceding the interview. Hypertension is reported much earlier by females than males; the data shows that this health condition manifests in males at age 35 years and above while in females it started much earlier at age 25 years.

Within the Free Health Care programme, one would not expect any cost for medical services from children 0-4 years, the amount incurred could probably be due to seeking medical attention outside government health facilities. Generally, females of child bearing age tend to pay less than their male counterparts except for the 25-29 year age group where females pay more for medical services. Overall, mean cost of consultation, purchase of medicine, X-ray and other medical supplies is about Le103, 910 for males and Le103, 810 for females in Sierra Leone. The mean cost of these services varies across the regions with North-West paying less the Le70, 400. Residents in the Western Area paid more than their counterparts in the other regions (Le180, 250 and 172,680 for males and females respectively).

In Sierra Leone disability is an area that has attracted the interest of central government, local councils and advocacy groups. There are 310, 973 persons with disability in Sierra Leone accounting for 4.3 percent of the total population. When compared with the 2011 SLIHS which gave a national prevalence of 2.9 and the 2015 Population and Housing census (SLPHC) which gave a prevalence of 1.3, the SLIHS 2018 national prevalence of 4.3 percent is highest. Looking at regional divide, the northern region has the highest number of these persons with disability (96,236) followed by the Eastern region (72,460). The Western area has the least number of persons with disability (36,205).

The 2018 SLIHS shows that the main cause of disability for both males and females in Sierra Leone is diseases or illness (41.2 percent and 45.4 percent for males and females respectively). About 21 percent of females are disabled as a result of aging.

Among the population with disability, 162, 208 are within the working ages of 15 to 64 years. Among the population with disability, a total of 93,843 (57.8percent) persons were employed the last week preceding the survey interview whilst among persons without disability, 63.1 percent where employed. of the 57.8 percent of persons with disability employed, 74.4 percent are self - employed. Fifteen percent are engaged help without pay in households or businesses. Only 6.7 percent are regular employees.

About 71 percent of both males and females have taken the first round of all the vaccines in Sierra Leone. Across the regions, vaccination coverage for this first round is higher in the Northern Region with 4 out of every 5 children vaccinated (80.1 and 81.4 percent, male and female respectively). The lowest coverage is observed in Eastern Region where just about two-thirds of children received all the first round of the vaccines (67.7 and 64.5 percent, male and female respectively). More children in the rural areas received this first round of vaccination their urban counterparts. About 72 percent of male children and 71 percent of female children were vaccinated in the rural areas compared to about 68 percent of male children and 71 percent of female children in the urban children.

Vaccination coverage for those that have received one kind of vaccination or the other is relatively high in the country. About 95 percent of children in the Northern Region have received at least one vaccine compared to the Eastern Region where 4 out of every 5 children have received a vaccine. About 9 out of every 10 children in both the rural and urban areas have received one kind of vaccination or the other.

From the SLIHS data it can be inferred that Social assistance for now, does not seem to be a contributory factor to prevent the poor or the vulnerable from shocks and falling below a certain poverty level. Other-in-kind transfers, medicines and micro loans are the most prominent social assistance programs for the poor and vulnerable.

Findings show that households in Kailahun and Western Urban Districts described their households as “stable”**.** Very few households in the country reported to have very stable status. Port Loko, Kenema, Tonkolili and Bo recorded the highest number of households reporting very unstable and unstable status.

The survey examined perceived economic wellbeing of the households and results generally show that all Fourteen (14) administrative divisions of Sierra Leone have households that are perceived to be fairly rich, especially Port Loko, Kenema, Bo and Tonkolili Districts. The study revealed also that Tonkolili and Kailahun Districts had the highest prevalence of perceived poverty.

The SLIHS data shows that there were very few road accidents during the last year. About 57percent of Households reported only minor injuries from road accidents and only about 3percent of the respondent households reported death by road accidents.

The large proportion of households that perceived that the Ebola impacted households on a large scale are households of Kono, Kambia, Bonthe, Port Loko and Tonkolili Districts. In all the regions, the Ebola virus affected the rural households more than the urban households. Western urban had more households affected by the virus than western rural as an exception to the rule.

The survey results indicate that a greater proportion of households, about 69percent access social amenities by walking on foot, 23 percent use motorcycles and 7 percent use vehicles. The study further reveals that about 1percent of household's access social amenities using Bicycles, Canoes and Boats.

Financial intermediation and inclusion is still a problem in Sierra Leone. The 2018 SLIHS sought to investigate sources of capital for household activities and data shows that credits/loans are mainly acquired from relatives/friends/neighbors in all Districts with a proportion of 53.36 percent. Traders are also a source of credit/loans with a proportion of 20.71 percent. Money Lenders, Micro finance institutions, cooperatives and commercial Banks show low proportions of 6.56 percent, 5.37 percent, 4.47 and 0.5 percent respectively.

The survey result indicates that households seek to acquire loans do so to expend on Consumer goods to a percentage of 32.9 percent. Other reasons for acquiring loans according to the survey data is do Business, undertake housing, and spend on Education, agriculture and health.

Data shows that Western area Urban and western areas Rural are seen to have the number of households that had Bank accounts during the period the data was collected. The data further shows that Tonkolili and Kailahun Districts reported the least number of households with Bank accounts.

The survey indicates that Western Rural District households get more remittances followed by Kenema District. Kailahun District had the least cash transfer at the time the data was collected.

The SLIHS 2018 revealed that high proportion of the households in the Western Urban send money outside to other households. Western Rural also sends money outside the household to a considerable proportion.

The 2018 Sierra Leone Integrated Household Survey shows that there are 4,460,087 persons in the dependent population which accounts for about 59.2 percent of the total population;

whereas 3,074,796 persons constitute the working population 15-64 years. Of the working age population, 2,745,418 persons were economically active and 1,425,196 were females and 21.4 per cent of the economically active populations are youth in the age group 15-24 years.

The unemployed total is 317,365, which shows that the number of the unemployed has increased by 264,627 (a percentage increase of about 83.4 per cent over the seven-year period 2011 to 2018).

The labour force participation rate in the 2018 SLIHS 73.4 percent is greater than the rate (67.1 percent) in SLIHS 2011, implying increase in the volume of the supply of labour available to engage in the production of goods and service in the economy.

The survey reveals that the paid working population that worked between 7-9 hours declined by 8.2 percentage point from 45.8 percent in SLIHS 2011 to 37.6 percent in SLIHS 2018.

The age group with the highest number of employed persons with secondary occupation male/female total is between 35-39 years old (96, 331 persons), followed by 30-34 years (76,623 persons).

Wholesale and retail trade are the largest non-farm enterprise activity operated in the country with approximately 71.4 percent, which is almost the same as the 2011 SLIHS which was 71.1 percent.

The percentage of female (53.2 percent) that are not migrating is higher than that of the male (46.8 percent) that are not migrating, same so for the in-migrants with female 56.5 percent and male 43.5 percent, but for return-migrant, male 56.0 percent and female 44.0 percent which means more males are returning to their original place of birth than females.

The 2018 SLIHS collected detailed information on housing characteristics relating to the type of dwelling units, occupancy status of households, housing expenditure, physical characteristics of household dwelling units, and households' source of energy, water and sanitation.

Single dwelling unit is the most common type of dwelling in Sierra Leone accounting for 82.8 percent, followed by multiple units in building 13.8 percent. At the residence level, 93.8 percent of single dwelling units were accounted for in rural areas and 65.2 percent in urban area which may be related to the Sierra Leone nuclear family system and nature of housing at the rural areas.

Single dwelling unit is the most common type of dwelling in Sierra Leone accounting for 82.8 percent, followed by multiple units in building 13.8 percent. At the locality level, 93.8 percent of single dwelling units were accounted for in rural areas and 65.2 percent in urban area.

About 50.6 percent of Sierra Leoneans share their dwellings. This represents a slight decline of 2.8 percent when compared to the 2011 SLIHS (53.4 percent). By district level, Bo district reported the highest number of shared dwellings (64.9 percent) followed by Kenema district (61.3 percent), Tonkolili district (60.9 percent), Port Loko district (54.8 percent) and western rural (52.2 percent). In terms of unshared dwellings Bonthe district reported the highest number (62.8 percent), then Moyamba district (62.5 percent), Koinadugu (60.4 percent), Falaba district (59.2 percent) and Karene (56.5 percent). At national level (50.6 percent) reported to have shared dwellings.

In terms of time spent in dwelling, western region has highest number of years spent by occupancy owned by member of household, followed by the North with 8.0 years on average. For urban area the southern region has the highest number of years Spent in dwelling by occupancy owned by member of household. For rents, the Eastern province has the highest number of years spent in dwelling by occupancy in the rural area.

Length of stay in dwelling free has been reported higher in the North-west region, 8.7 years on average followed by the North with 4.6 years on average. For the urban area the western region reported the highest number which account 7.6 years on average followed by southern area with 6.1 years on average.

Overall, 79.5 percent of households constructed the house in which they dwell; only 1.7 percent of households purchased their dwelling. Regionally, a higher percentage of households constructed their dwelling. The table further reveals that, in the North West (88.6 percent), West and East (79.4 percent), North (78.7 percent) with the South showing 73.7 percent of households constructed houses they dwell. On the other hand, inherited units accounted for 26.2percent of the total dwelling units in the South followed by the North (21 percent), whereas the West show the least proportion (10.6 percent) of inherited dwelling unit.

At the district level; there are higher occurrences of constructed dwellings in both Port Loko (93.3 percent) and Koinadugu (92.2 percent) in Falaba (91.2 percent), Western Rural (90.3 percent) and Kono (89.1 percent) districts. Bombali accounted for 63.3 percent, the least households with constructed dwellings. Inherited dwellings are also significantly more common in Bombali (36.2 percent) followed by Bo (29.3 percent) and Moyamba (26.4 percent) and lower in Western Rural with (2.1 percent).

2018 SLIHS data shows that the highest percentages of dwelling units are owned by private individuals which accounted for 83.9percent nationally. This is distributed as follows 87.9 percent, 87.0 percent, 77.9 percent, 74.3 percent and 62.4 percent in the Western, Southern, Eastern, Northern, and North-west regions respectively. Relative/friends and others owned less

than 20percent of dwelling units occupied by households nationally. The findings further reveals that 98.1 percent, 96.7 percent and 96.3 percent of dwelling units are owned by private individuals in Bonthe, Moyamba and Western Rural district respectively. While 49.9 percent, 49.2 percent, and 44.1 percent of land lords are Relatives or friends in Pujehun, Falaba and Kailahun districts respectively.

The following amounts were recorded Le 801,000, Le584, 000 and Le 477,000 as payments for minor constructions per annum on Owned, rented and free by family or friend dwelling unit in Sierra Leone. The amount spent on minor constructions is higher in the west (Le 1,383,000) followed by the North (Le 1,211,000) for dwelling owned by member of household and lower amount spent on minor construction on rented dwelling in the north west region (Le 83,000) but high in the west and southern region, Le(734,000) and Le(399,000) respectively. Expenditure on rent for minor constructions is higher in western region than the other regions.

In Sierra Leone, the percentage of outside walls constructed with Mud and Wattle brick decreased in 2011, 58.9 percent of dwelling units had outside walls constructed of Mud and Wattle brick this percentage declined to 44.8 percent in 2018. The data further shows that the use of cement block for the construction of outside wall of dwelling units in the urban areas increased from 22.2 percent in 2011 to 40.6 percent in 2018.

There are wide regional variations in materials used for the construction of outside walls. Mud and Wattle brick outside walls were predominant in the East (59.7 percent), North (58.9 percent) and Southern (58.2 percent) regions. The other region with fairly high percentage of dwellings with Cement block is the Western region (50.7 percent), compared to the Southern (11.6 percent), East and North Western (8.8 percent) regions respectively.

The percentage of dwelling floors made with earth or mud nationally declined from 55.2 percent in 2011 to 47.7 percent in 2018, while the proportion made of concrete increased from 39.3 percent to 45.2 percent. In 2011, the percentage of floors made of tiles, Wood or stone put together was 3.4 percent but this increased to 7.1 percent in 2018. In all the regions, concrete or cement was the most common material for floors ranging from 35.5 percent in Eastern region to 75.9 percent in Western Area in 2018. However, south (62.1 percent), East (61.9 percent), and North (61.0 percent) still show that the main material for floor is earth or mud.

2018 SLIHS shows that 84.6percent of dwelling units in Sierra Leone were roofed with corrugated iron sheets. The other two main materials used for roofing were Thatch (11.8 percent) and concrete or cement (3.1 percent). Less than one percent of roofs were made of Tarpaulin. Between 2011 and 2018, the percentage of dwellings with corrugated iron sheets as the main

roofing material increased from 73.3 percent to 84.6 percent. In contrast, the proportion of dwelling units with Thatch decreased from 20.7 percent to 11.8 percent.

While the most common material for roofs were Corrugated Iron Sheet in all five regions. The regions with the highest percentage of roofs made up of Corrugated Iron Sheet were Western Area (92.1 percent), East (92.0percent) and North West (91.8 percent) regions. Southern region had the highest percentage of roofs made of thatch (26.3 percent), followed by Northern region (17.3 percent).

The percentage of households using firewood decreased from 78.7 percent in 2011 to 72.0 percent in 2018 and that of charcoal increased from 20.2 percent in 2011 to 27.7percent) in 2018. However, firewood remains the main source of cooking fuel in rural areas, although the percentage declined from 97.2 percent in 2011 to 95.2 percent in 2018. In contrast, only 32.8 percent in urban areas used firewood, a decline from 50.1 percent in 2011.

For all the regions, firewood was the predominant source of cooking fuel. This was particularly the situation in the South (89.4 percent), East (86.7 percent), North West (86 percent), and Northern (83.2 percent) regions. Western Area had the lowest percentage of households using firewood (11.9 percent). Moreover, the use of charcoal was low in the South (10.6 percent) and Eastern (13.2 percent) regions compared to other regions. Western Area had the highest percentage of households using Charcoal (87.2 percent) and gas (0.8 percent) for cooking. In all other regions, the 2018 SLIHS data shows that no household is using gas for cooking.

At the national level, the three main sources of non-natural lighting in households were EDSA (19.5 percent), batteries (71.1 percent) and solar panel (6.6 percent). As expected, electricity, the most modern of the three utilities, is more prevalent in urban areas (49.3 percent) than in rural (0.9 percent); battery is more frequently used in rural areas (89.0 percent) than in urban (42.4 percent). Other sources of lighting are also more popular in rural areas. Solar panel, for example, is used by 8.2 percent of households in rural areas compared to 3.9 percent in urban areas. The percentage of households using EDSA increased from 13.5 percent in 2011 to 19.5 percent in 2018. In 2011, 52.3 percent of households were using battery, but this increased to 71.1 percent in 2018.

Regionally, Western Area households have better access (70 percent) to grid electricity and fewer average hours (17) of availability than Northern region households with 8 percent access and higher average hours (20.3), but at a lower commensurate cost compared to Western Area.

Sierra Leone has benefited from this global diffusion of mobile telecommunication, which is primarily the mode of communication for social and business activities. In Sierra Leone, the SLIHS

shows that 3,853,257 (77.2 percent) households have mobile phone coverage corresponding to 64.6percent and 97.4percent of rural and urban areas respectively. The highest number of households with mobile phone coverage is found in the West 1,000,116 (97.1 percent), followed by East 743,844 (66.4 percent). Data showed that all the other regions had more than fifty percent of households with mobile phone coverage. At district level, Falaba, Moyamba, and Koinadugu districts reported substantially low proportions of mobile phone coverage of 37.0 percent, 49.2 percent and 59.9 percent respectively.

There is a wide variation between households in the western region and those in the provincial regions in sourcing improved drinking water. In the western region, the main sources of drinking water are from piped and bottle/sachet water, 43.2 percent and 26.9 percent respectively. The main sources of drinking water in the provincial areas vary. The eastern region has tube well (33.5 percent) and protected dug well (21.6 percent) as the main sources of water for drinking. The north uses more of river/stream (29.2 percent) as the main source of drinking water. The north/west has tube well (22.5 percent) and river/stream (22.6 percent) as the main sources of water for drinking while the south also uses tube well (25.0 percent) and river/stream (26.5 percent) as the main sources of water for drinking.

The data collection for Household Consumption Expenditure Survey was spread out in order to capture seasonal variation in food consumption and expenditure patterns and so Stats SL used one main approach, that of, one visit per household with the sample spread over a 12-month period.

For analysis of the 2018 household level distribution of income, the theoretical definition of household income is based on the definition of household income set out in the International Conference of Labor Statisticians (ICLS 2004). The analysis follows the ICLS definition with an adaptation to the type of data available in the context of Sierra Leone. Household 'income' comprises all current receipts, whether cash or in kind, that are received by the household or by individual members of the household, and which are available for, or intended to support, current consumption by the household.

The estimated total household income in 2018 SLIHS was Le 18,895,989.83 million (Table7. 1). About ninety one percent of main source of income was household income from self-employment, (contributing Le 17,125,336.87 million) 91percent of total income, followed by (Le 1,001,381.91 million or 5.3 percent) income from employment income (cash and in-kind income).

Current transfers summed up to (3.4 percent) and that came mainly from Inter-household cash transfers Le 2.8 percent followed by rental income which include financial and non-financial assets as part of property income (i.e. rental income - from rent of agricultural equipment,

machinery and rent from building, land and other assets /'non-agricultural', agricultural land) and other income (0.33 percent). The least contributing source to total household is dividends.

the percentage distribution of average annual households' employment income across region by source. It indicates that the Eastern region recorded the highest (92.7 percent) followed by the North-West (82.2 percent). Western region recorded (72.8 percent) and the Southern region recorded (56.3 percent) of income and the Northern region recorded the least (32.5 percent) in the form of cash employment.

With regards to in-kind employment income, Northern region recorded (67.5 percent), Southern region (43.7 percent), Western (27.2 percent), North-West region (17.8 percent) and Eastern region recorded the least (7.3 percent)

distribution of households' property income sources by region. The Western Area registered the highest (99.9 percent) of income from rented out buildings, equipment, lands and other asset compared to the North-West region The Southern region registered the highest value of renting out agricultural equipments followed by the North and the least was the Eastern and Western regions.

For cash transfer received by households, the North-West region registered the highest (Le 212,230.18) followed Western and Eastern regions (Le 215,092.35 and Le 24,718.14) and the Southern and Northern region recorded (Le 55, 202.15 and Le 23,833.71). For goods transfer received by households, the Western and Southern regions registered the highest (Le 28,272.46 and Le 7,624.72) followed by the Eastern region (Le 2,527.30) and with North-West and North been the least. For food transfer received by households, the Eastern region registered the highest proportion, next is the Northern region (13 percent) followed by the Southern region (12 percent) and with the West (7 percent) and North-West (2 percent) been the least. For transfer received from NASSIT, the Northern and Western region registered the highest (8percent and Le 7 percent) followed by the Southern region (3 percent) and with the Eastern and North-Western region recorded the least respectively.

In the Household total average annual values for all four components of income levels, the western region indicated the highest (Le4, 839,756 or 40.9 percent), followed by Eastern region (Le2, 433,131 or 20.5 percent), the Southern region (Le2, 118,488 or 17.9 percent), North-West (Le1, 428,940 or 12.1 percent) and North been the least. It further illustrates that for total aggregate income employment income follows self-employment income, a little chunk comes from total cash transfers and rental income across all the regions.

The total employment income in the rural areas is less than one-third of that component in the urban areas- Rental income is more preponderant in the urban areas.

Analysis shows that Sierra Leone is a male dominated society because males accrue higher incomes by all sources than the females. For total employment income the females accrued less than one-seventh of the males' total employment income. For rental income, female total rental income is less than half that of the males and it followed the same pattern for total cash transfers.

nationally about 16percent of households income level is lesser than Le1,000,000, and about 48percent of households income level lie between Le1,000,000 and Le10,000,000. This implies that about 64percent of households' income level lies below Le10, 000,000 (About US$1000). The remaining 37percent of households' income is greater than Le10, 000,000.

Similarly, at regional level , in the Eastern region level, about 60 percent of total households income level is less than Le10,000,000, in the Northern region, about 70 percent of total households income level less than Le10,000,000 in the North-West region, about 56 percent in the Southern region, about 69 percent of total households income level less than Le 10,000,000 and in the Western region, about 60 percent of total households income level less than Le10,000,000. The distribution of income across region seems asymmetric, with a relatively small percentage of households having a high household income and larger percentage of households having very little household incomes.

the average annual household income increases with quintiles. Overall, households in the 1st quintile had an average household income of about Le 2,938 million, compared to households in the 5th quintile's Le 272,586 million.

The Gini coefficient is a summary/total inequality measure of the relative degree of income inequality in a country The Gini coefficient calculated on per capita income is about 0.701 compared to 0.297 in 2011.

Three categories of consumables and at national level, the average annual household consumption expenditure on non-food was the highest (Le13,198,840) followed by household consumption expenditure for purchased food (Le9,824,046). Households reported the least average total annual consumption expenditure for own consumed food (Le1,406,100). This could be explained from perspective of low productivity across the country especially in the western region.

At locality level the rural areas have higher own food and gift food consumption expenditure than Urban areas.

The national annual average household per capita consumption expenditure was reported at 163,893 Leones. At regional levels, the western region reported the highest amount of total average annual consumption expenditure (Le9, 379,676), followed by the Eastern region (Le4,277,848). The North-West region reported the least total average annual consumption expenditure (Le3, 448,822).

At national level, the average annual total deflated household consumption expenditure was reported at 143,850,000 Leones and the average annual total deflated per capita household consumption expenditure was reported at 1,438,000 Leones. The average annual total food consumption expenditure (Le67, 172,000) reported was lower than that for non-food consumption expenditure (Le 76,678,000).

At regional levels, the findings suggest that, the western region even though it has the lowest average household size (5.5), reported the highest total average annual deflated household consumption expenditure (Le36, 654,000) and per capita expenditure (Le367, 000). Data also reveals that with highest average household size (6.9), the northern regions, reported a lower total average annual deflated household consumption expenditures of 16,537,000 than the North-West with a smaller average household size of 6.5, reporting a total average annual deflated household consumption expenditure of 17,018;000 Leones.

The average annual household consumption expenditure in the fifth (highest) quintile (Le20, 140,921) was about six or more times higher than that in the lowest quintile, whose households reported an average annual expenditure of 3,661,914 million Leones. A similar trend is manifested in the per capita expenditure in which the average annual per capita expenditure in the fifth quintile (Le 3,653,275) is about eight times that of households in the lowest quintile (Le641, 555). Further details of this trend suggest that the poorest 22percent (lowest quintile) of households spends 8 percent of total per capita consumption expenditure, whilst the richest 16 percent of households in the fifth quintile, spend almost 45 percent of total per capita consumption expenditure.

The findings show that 61 percent of total average household consumption expenditure for all consumables was spent on food purchase compared to 39 percent spent on non-food purchase. This is an indication of some level of poverty.

For food purchase, the Northern region reported the least proportion of total average household consumption expenditure (17.33 percent). This due to the fact that the proportion of household consumption expenditure on own food consumption was reported to be very low (1.68 percent). The Western region reported the highest proportion of consumption expenditure (26.85 percent) followed closely by the eastern region which reported a proportion of 20.77 percent.

The total annual household consumption expenditure was estimated at 25,277,505 Million Leones. The average Sierra Leone household spent approximately 20,251 Leones during the survey period, with the main components of that expenditure coming from food and non-alcoholic beverages, Transport, health, housing, clothing and footwear, furniture and miscellaneous goods and services.

Sierra Leoneans households spent 46.75 percent far more the highest household consumption expenditure on Food and non-alcoholic beverages, followed by transport (8.79 percent), health (8.37 percent), housing etc. (6.88 percent), clothing and footwear (6.79 percent), furniture (6.09 percent) and the lowest been miscellaneous

According to the SLIHS 2018, households in Sierra Leone spent on average Le9, 468 per annum on food and non-alcoholic beverages and accounted for 9.91 percent of total household consumption expenditure in the country.

At regional level, households in Western (12.99 percent) and North-West (10.64 percent) spent the highest percentages which were notably higher that the national average of 9.91 percent, while the Eastern (9.18 percent), Northern (8.85percent) and Southern (8.16 percent) on this expenditure group.

Regionally, households in North-West (17.97 percent) and Eastern (10.44 percent) spent the highest in household consumption expenditure on alcoholic beverages, tobacco and narcotics and even higher that the national average of 10.15 percent, while the Northern (10.08 percent), followed by the Southern (8.94 percent) and Western as the least in this expenditure group.

The table further revealed that the rural indicated the highest average household expenditure at 12.91 percent, while the lowest average was with the urban spending 5.73 percent per annum. On average, urban households spent less on alcoholic beverages, tobacco and narcotics compared to those in rural areas.

Regionally, household consumption expenditure on clothing and footwear as a proportion of total consumption expenditure in the Western (19.64 percent) was higher than average national and all the other regions, followed by Eastern (7.74 percent), Southern (7.67 percent) and Northern (7.36 percent). Household consumption expenditure on clothing and footwear as a proportion was lowest in North-west (6.28 percent).

At regional level, Western had the highest proportion of spending on furnishings, household equipment and maintenance at 18.42 percent and its proportion exceeds the national average. The other regions were Northern (8.37 percent) followed by the Southern (8.14 percent), the

Eastern (7.28 percent) and with North-West been the least. Apart from the Western region, all the other regional averages were less than the national.

According to table 7.24, male headed households (9.97) spending above that of their female (9.76) counterparts' average household consumption expenditure on health.

At regional level, Western and Northern recorded the highest proportion of the total consumption expenditure on health (14.55 percent versus 13.37 percent), followed by the Eastern (7.39 percent). Southern (7.15 percent) and North-west regions scoring the lowest although slightly the same in proportion but differs in average. Both the Western and Northern regions indicate twice as higher than the national average while others three regions are below the national average.

The study indicates that male headed households spent more on transport compared to female headed households (10.26 percent versus 8.54 percent). The average expenditure for male headed households is more than the national average, and its proportion to total expenditure is also higher than the national amount. Western had the highest average expenditure of 24.59 percent on transport, followed by Northern (6.75 percent), Southern (6.18 percent), Eastern (5.76 percent) while the North-West ranked the lowest. Western doubles the highest national average and all other regions have lower proportions than the national average. Urban areas acquired the largest (17.69 percent) average than national and the rural the least.

Males spent on average 9.95 percent more than females (8.96 percent) on communication. The communication as a share of consumption expenditure for male and female-headed households has almost a one percent gap.

This part indicates household expenditure for the restaurants and hotels expenditure group. It consists of catering in modern hotels and restaurants, catering in informal sector stalls or restaurants and accommodation services. On the other hand, urban settlement type (18.74 percent) doubles the national proportion of household expenditure attributed to restaurants and hotels with a difference of about 9.68 percentage point. In the rural settlement (4.02 percent), the household consumption expenditure on restaurants and hotels was two times lower than the overall national household consumption expenditure (9.68 percent) on this expenditure group.

Consumption expenditure on miscellaneous goods and services includes hair dressing saloons and personal grooming establishment, other articles and products for personal care, clocks and watches, other personal effects and other services.

The outcomes also revealed that female headed households spent 914 Leones on average per annum on miscellaneous goods and services, whereas male-headed households spent 830 Leones less than as compared to their female counterparts.

In Urban settlement type (Le1, 501 or 17.08 percent) far exceeds both average and the national proportion of household expenditure attributed to miscellaneous goods and services. In the rural settlement (Le447 or 5.08 percent), the household consumption expenditure on miscellaneous goods and services was two times lower than the overall national household consumption expenditure in the expenditure group.

Out of 2,544,341 households that reported having owned Agricultural assets. The Eastern region reported the highest number of households with 717,734 accounting for 25.8 percent, Followed by the Southern region with 703,231 accounting for 25.3 percent. The North West region and North reported 616,548 and 580,886 accounting for 22.1 and 20.9 percent respectively. The Western region reported the least number of households with 166,456 accounting for 6.0 percent.

Analysis shows that more households bought cutlass 28.95 percent (799,332), Hand hoe 27.21 percent (692,420), Winnower 22.48 percent (572,043), Axe 18.95 percent (472,043), Fish drying rack 1.75 percent (44,531) and cassava grater 0.62 percent (15,668) respectively.

The total amount spent in the last twelve months is also higher for hand hoe Le 37.6B, cutlass Le 36.9B, Axe Le 19.5B, Fish drying rack Le 1.3B, winnower Le 9.6B, sprayer Le 924,980 million and rice mill Le 867,812 million which are commonly use in land preparation especially for planting of crops and processing of husk rice in Sierra Leone are bought and rented more for agricultural households.

Analysis shows that more households own items now in 2018,cutlass (799,332), Hand hoe (775,595), Axe (546,781), winnower (591,226), Power tiller (1603) respectively compared to 2011 SLIHS, While for items like tractor, Plough, other tractor drawn equipment and rice mill were own by more households in 2011 compared to 2018 SLIHS.

SLIHS findings are that more male headed households cultivated agricultural land in the Eastern region with 24.44 percent for male and 23.68 percent female, North west, male 22.73 percent and female 22.17 percent, South, male 23.58 percent and female 23.45 percent, While the Northern region and Western region reported more female headed households cultivating land than male headed households

Findings within region reveals that, The Eastern region reported the highest number of households estimated at 209,141 households owning agricultural land and non-agricultural land, this is followed by the Southern region and the Northern region which reported 201,517 and 191,017 respectively. The North West and Western Area reported the lowest with 171,915 and 18, 835 households respectively.

District level analysis revealed that, Kenema, Bo, Port Loko, Kono, Tonkolili and Moyamba reported the highest number of households that own or cultivated Agricultural land and Non-agricultural land.

Out of 4,962,005 agricultural households that cultivated land in the past twelve months, 2,370,309 are male headed households and 2,591,696 are female headed households. This shows that more women are engaged in small scale/back yard garden than men.

Analysis at districts level shows that Kenema, Port Loko, Bo, Falaba, Kambia, Moyamba ,western area rural and western area Urban reported more female headed households cultivated land in the past twelve months, while Kailahun, Bombali, Kono, Koinadugu, Tonkolili, Bonthe and Pujehun reported more male headed households.

Regarding quantity of land owned by households, the estimated land owned was (2215495 ha). Analysis within districts shows that Kailahun, Kenema, Port Loko, Tonkolili reported the highest with (305901), (239789), (208196), (206537), followed by Bo (159412), Moyamba (146563), Kono (145220), Kambia (133874).

The regional distribution shows that the Eastern and southern region shows the highest percentage of agricultural households owing land on upland ecology

the North West, North and Southern region reported the highest number of households owing land on Inland valley ecology. Very few Households reported owing land on bolilands and mangrove.

Results also revealed that the North West region reported the highest number of households cultivating or owing land on mangrove and riverine ecologies. The western region shows mangrove and riverine.

Rain fed, Hand –watering, Canals and pump mechanized are sources of water for irrigation reported by all regions This implies that Agriculture is predominately rain-fed. This implies that other methods of irrigation and water management other than rain-fed may be developed for

improving pasture, crop production and also to provide a more complete picture of water usage in agricultural production

District level analysis shows that Kailahun, Port Loko, Bombali, Kenema, Kambia, Tonkolili and Bo district with, (89,538),(79,216),(45,636),(32,730), (28,600) and (26,420) reported the highest number of Agricultural households that seek permission to farm their holdings accounting for 22.53,11.48 ,8.2, 7.96, 7.20 and 6.65 percent respectively. While Moyamba, Koinadugu, Pujehun, Bonthe and Kono districts reported 19,880, 15, 736, 11,400, 7,763 and 5,134 estimated at 5.00, 3.96, 2.87, and 1.95 percent respectively. Western Area rural and Western Area urban reported the lowest number of households asking permission to cultivate their farms.

Out 1,454,977 agricultural households that gave information on payment to farm on their holdings, 311,658 reported having to pay before working on the holding, while 1,143,319 households responded that, they did not pay anything before working on the holding. Analysis on the form of payment also shows that 199,382 agricultural households pay fixed amount, 95,545 households used share of harvest as payment, while 16,451 agricultural households used other source of payments.

Regional Analysis further revealed that North West and Northern region reported the highest with 114,775 and 95,055 agricultural households reported payment to farm on their farms respectively. This was followed by the Southern region with 64,627 agricultural households, while Eastern region and western region reported the lowest with 29,977 and 7,224 respectively.

The within regional analysis revealed that the East region had the highest number of agricultural households that used improved seeds NERICA with 50,153 households accounting for 59.28 percent. This was followed by the southern region with 14, 241 agricultural households accounting for 16.83 percent. While the North West and Northern region reported 11,335 and 7,948 agricultural households estimated at 13.4 and 9.39 percent respectively.

Finding in table 8.4.2.3a shows the quantity of crops mainly harvested in various months within the year. Cassava is mainly harvested more in December 13.96 percent followed by November 11.92 percent and January 11.88 percent. Cassava Leaves is mainly harvest in October 12.76 percent, September 12.71 percent and August 11.54. Coffee in January 24.36 percent, December, 26.04 percent February 16.87 and November 14.02 percent. Cocoa is harvested more in October 18.33 percent, December 16.54 percent and September 16.93 percent. Oil palm is harvested more in April 14.34, May 13.76 percent and June10.38 percent. Cashew harvested more in October 17.37 percent, November 17.37 percent and December 11.26 percent. Cola nut in December22.1 percent, January 20.03 and November 15.76 percent. Rubber mainly harvested in

October 31.30 percent, September 31.30 percent and August 12.47 percent. Mango is mainly harvested in May, April and June with 39.80, 25.24 and 22.24 percent respectively.

The total amount paid for things planted is Le 4.5B, Le 11.2B amount spent on labour to plough and Le 780.1M amount spent on equipment. The highest amount spend is on the amount spent on labour to plough Le 11.2B.

The result shows that Le 16.5B is spent on things for planting, labour to plough and equipment in Sierra Leone. The southern region is spending the highest Le 8.1B on the three activities followed by Le 3.8B in the North, Eastern region Le 2.9B and West which shows the lowest Le 518.6M.

Regional analysis shows that the North West region reported the highest percentage with 1,444 representing 25.98 percent of agricultural households; this was closely followed by West region with 1,369 representing 24.63 percent. While the north and South region reported 1,291 and 880 representing 23.22 and 15.83 percent respectively. The Eastern region reported the lowest with 575 representing 10.34 percent.

District analysis shows that West area Urban, Karene and western rural reported the highest percentage of farmers applying organic fertilizer.

Regarding the kind of fertilizer used, NPK 15:15:15 was mostly used by the three regions, followed by unspecified fertilizer, while urea, NPK,20:20:20 and other types of inorganic fertilizers are used by a small percentage of agricultural households.

District analysis shows that Kambia, western area urban and Karene reported the highest percentage of farmers applying Inorganic fertilizer.

Regional analysis shows that the Western region reported the highest percentage of herbicides/insecticide use. Unsurprising given its proximity to Freetown and hence easier and cheaper herbicides access. This was followed by the Southern region While East, North and North West reported no usage of herbicides/insecticide.

Regional analysis revealed that, the South region with 104,404 estimated 35.75 percent experiences more crop loss before harvest. This was followed by the East region with 75,238 estimated at 25.76 percent agricultural households. While the North and North West region.

Cassava processing which is an important sector in the production chain is most prominent in the south where 79.26 percent process/grate all the cassava that is harvested and also in the same

south 82.54 percent process/grate some of the cassava that is harvested. Interestingly, the same South spent the highest amount Le 1.7B to pay to grate cassava on machine.

Among the districts the highest number of percentages for cassava processing were reported by Moyamba, Pujehun, Port Loko and Bonthe.

In the first quarter most households are engage in firewood collection, making charcoal, harvesting timber and cutting fence sticks. In the second quarter most households are engage in firewood collection and making charcoal. The East shows 83.50 percent are engaged in collecting firewood followed by 5.91 percent gathering wild fruits. The same trend goes for the third quarter which shows most households are engage in firewood collection, making charcoal and cutting of fence sticks. These three activities are prominent in all the regions.

The table above shows the percentage of households that did fishing in the past 12 months. The southern province shows the highest of 52.84 percent of those households who did fishing or hired others in the last 12 months. This is followed by East 17.85 percent and the North West 14.02 percent. Western region shows the least of 6.95 percent of households who did fishing in the last 12 months. Looking at the location where household's fish, the southern region shows that 52.76 percent of household fish in the sea/ocean followed by 24.68 percent in the North west and 21.35 percent in the western region. The river (all year round) shows that the southern region has higher percentage of 49.82 percent, East 21.52 percent, and North West 16.40 percent. The stream fishing also shows higher percentage in the southern region 37.85 percent, 33.53 percent for East and27.2 for North. For fresh water pond/lake south is 68.85 percent, 15.69 percent in the North West and 13.45 in the Eastern region. The south also shows higher percentage of 66.85 and the East 29.05 percent. Southern region shows higher percentage 55.32 percent for salt water.

The table shows the percentage of households that obtained a license/permit from different sources. The North west shows the highest percentage of 51.44 percent of households who took fishing licence/permit from the ministry of fisheries and marine resources followed by the west 31.43 percent and southern region 17.13 percent. For Local councils, 66.71 percent of the households took license/permit, the West 25.77 percent, North West 7.52 percent and the North and East shows that households do not take license/permit from the local councils. The west and south also show the highest percentage of households that took license/ permit from national revenue authority 65.9 and 34.1 percent respectively and rest of the other regions shows that households do not take license/ permit from the national revenue authority. The Other source of taking license/ permit which can taking daily tickets/market due ect shows that in the southern region 53.63 percent of households use this other source followed by East 18.62 percent and 14.15 percent.

Use different type of boats for fishing by region. The dugout canoe boat, the southern region has the highest percentage of 85.99 followed by 10.6 percent in the North West and the North recorded 0 percent. For the traditional wooding boat, the North West have the highest percent of 43.73, the west 32.1 percent and south 20.03 percent. For the traditional wooden boat shows 0.0 percent which means that this type of boat is not use in the East region. Data shows that only the West which is the highest and the North West that only use the modern manufacture boat 68.97 and 31.03 percent respectively. The Boat with separate motor shows from the data the only south 70.48 and North West 29.52 percent use this type of boat and rest of the other do not use boat with separate motor.

The table shows a total of 84, 632 fishing nets and lines report by fishing households in Sierra Leone and among this majority 31.5 percent use traditional fish traps followed 17.07 percent using hook and line and small percentages of fishing households 8.62 and 8.11 percent using bottom set gillnet and ring net respectively. The cast net and the long line fishing net have the percentage of 7.31 followed by bottom drift gillnet and 5.19 percent of channel net.

fishing equipment's that are owned by fishing households in Sierra Leone, majority are light for night 22,274 followed by life jackets fishing 7,563, traps for lobsters 3,540, scuba diving equipment 1.412 and least boat radio.

Total amount spent on the newest equipment 1 to 2 years ago is Le 3.9M of which the highest is spent on the purchase of life jackets for fishing Le 1.3M followed by Traps for lobsters Le 1.3M and the least on boat radio.

The fish catch varies from season to season because tide of the sea and in the mid-high season, households catch more of catfish 7033 in volume teams which is 12.91 percent, other fish 6086 (11.17 percent) gwan-gwan 5799 (10.64 percent), crab 5754 (10.56 percent), couta/kinni 5248 (9.63 percent) and the rest follows in the table above. In the mid-high season, households catch more of bonga 9790 in volume teams which is 15.06 percent, catfish 8730 (14.96 percent) crab 8241 (12.67 percent), gwan-gwan 4992 (7.68 percent), snail 4819 (7.41 percent)

fishing households fish catch selling place is more on beach riverbank 60.42 percent, 32.6 in the market place and other which can be those walk round communities to sell is 6.98 percent.

District analysis shows that more female households own livestock in Port Loko, Tonkolili, Moyamba, Bo, Karene, western rural and Falaba, while districts like Kailahun, western area urban, Bombali and Kono, reported higher percentages male headed households.

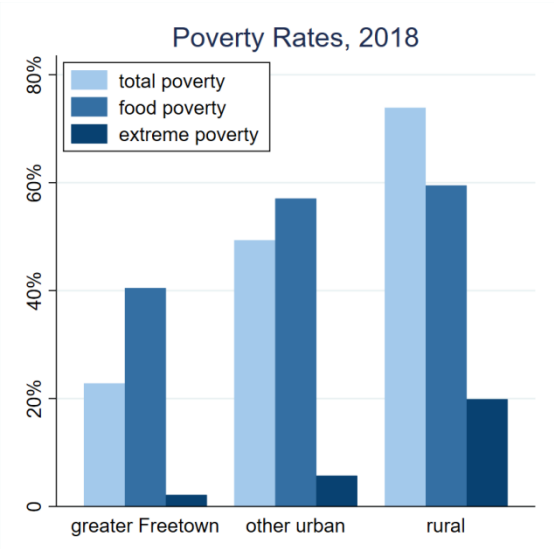
In the last 12 months households own 1.1M livestock nationwide and disaggregated by livestock, chickens is the highest 654,600 (58.24 percent) followed by goats 219,106 (19.49 percent), sheep 132,855 (11.82 percent) and the least is farm fish 1818 (0.16 percent).

It should be noted that cattle, sheep and goats rearing at district level is much more high and common in Falaba, Koinadugu, Kambia, Karene and Port Loko, while poultry keeping Port Loko, Tonkolili, Bo, Kenema and Kambia reported the highest (see annex for details).

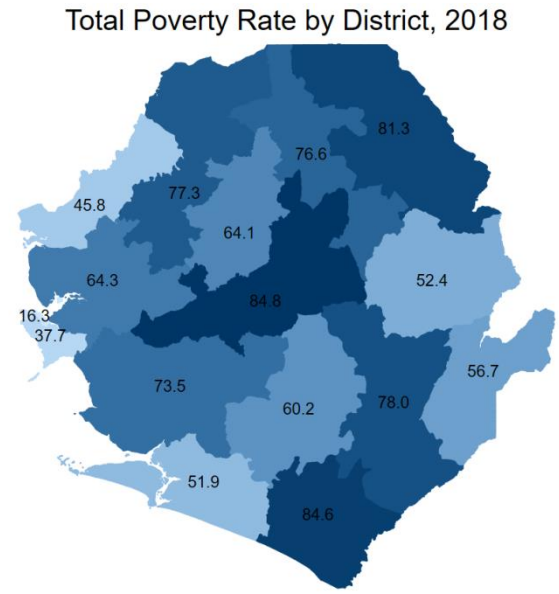
Analysis shows that in Sierra Leone levels of livestock holding are very low, especially considering that the majority of households are engaged in farming activities.

MAIN FINDINGS ON POVERTY IN SIERRA LEONE: LEVELS AND TRENDS - 2011 TO 2018

Poverty remains high in Sierra Leone with the official poverty rate at 56.8% in 2018. Calculations from the 2018 SLIHS place the food poverty line (the amount needed to buy a sufficient amount of food following the local diet) at Le 2,125,000 annually per adult equivalent, and the total poverty line (accounting for both food and non-food expenditure) at Le 3,921,000 per adult equivalent. This results in an extreme poverty rate of 12.9%, a food poverty rate of 54.5% and an overall poverty rate of 56.8%.

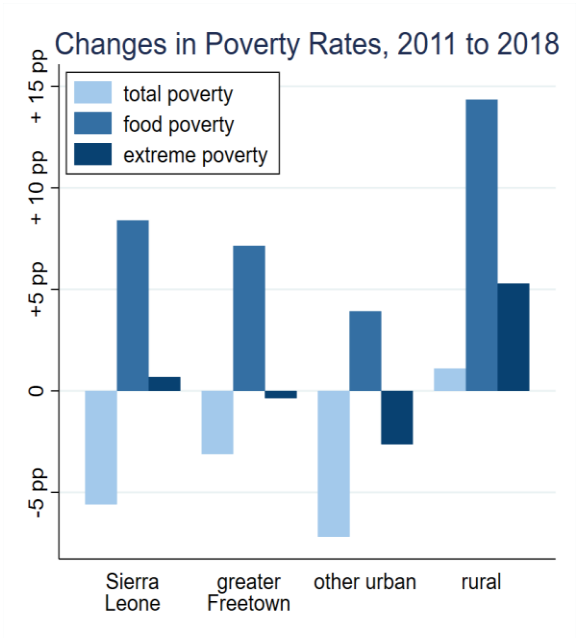


Poverty is concentrated in the rural areas in Sierra Leone. Poverty rates in rural areas are more than twice as high as in urban areas, 73.9% compared to 34.8%. Separating out Greater Freetown (all urban areas in Western Area), we find that Freetown has a significantly lower poverty rate (22.8%) than other urban areas (49.3%). Extreme poverty rates show an even greater disparity: the rate is 19.9% in rural areas and 3.8% in urban areas. Food poverty rates show less variation and the rate for rural areas is quite close to the rate for other urban areas, showing that although those in rural areas are much poorer overall, they are no worse than urban dwellers (outside of Freetown) in terms of having sufficient food. Poverty depth and severity (which consider not just whether households are poor, but how poor they are and inequality among the poor) show stark disparities between urban and rural areas.



The North is the province with the highest rate of poverty, districts Tonkolili, Pujehun and Falaba have the highest rates by district. Poverty rates are 64.1% in the East, 76.5% in the North, 62.3% in the North-West, 67.7% in the South and 23.3% in the West. Poverty rates vary widely within province, however, and the three poorest districts (Pujehun, Tonkolili, and Falaba) span the far south, center and far north-east of the country. The least poor districts are Western Area Urban and Rural, Kambia and Bonthe.

National poverty has decreased modestly since 2011 driven by decreases in urban areas. The new poverty rate of 56.8% is not directly comparable to the official rate of 52.9% in 2011, due to differences in methodology and setting a new (higher) poverty line for 2018. Adjusting for these changes[1], we do find that poverty has decreased by 5.6 percentage points. Poverty in rural areas has remained flat (increased by a statistically insignificant amount) while poverty in urban areas has decreased significantly (by 6.2 percentage points), concentrated in urban areas outside of Freetown. All the regions saw decreases in poverty, but only that in the West is statistically significant. **Extreme poverty has not changed overall since 2011 but increased in rural areas** (5.3 percentage points) and the East (5.9 percentage points). Food poverty has increased significantly (8.4 percentage points) with particularly large increases in rural areas, the East and the North.



[1] For details see Statistics Sierra Leone/World Bank. 2019. "Methodology for Consumption-Poverty Estimation, 2018

and Poverty Trends, 2011-2018, in Sierra Leone."

CHAPTER ONE - SURVEY INFORMATION AND DEMOGRAPHIC CHARACTERISTICS

1.0. General Overview

The Sierra Leone Integrated Household Survey (SLIHS) is Sierra Leone's Living Standard Measurement Survey (LSMS) or household income and expenditure survey (HIES), which is conducted regularly in order to collect useful socio-economic data to support government planning processes. The 2018 SLIHS data collection covered the period January-December 2018, and it was the third round, which followed the 2011 and 2003 rounds. SLIHS is a multi-topic household survey that collects detailed household incomes and expenditures, which are the ingredient for the monetary poverty assessment and collects information on education, health, employment, housing, and household assets.

The 2018 SLIHS was designed specifically to provide poverty indicators required for a successful updating of the poverty profile of the country as well as the household expenditure pattern, which serves as a basis for policy making and implementing both the national development plan (NDP) or the poverty reduction strategy paper (PRSP) and sectoral plans such as in education, health and agriculture sectors. The 2018 SLIHS also serves as a baseline for the monitoring of key International benchmarks as contained in the sustainable development goals (SDGs) and African Union Commission (AUC) Agenda 2063 in health, education, environment, income, employment, and gender issues.

The 2018 SLIHS therefore provides for the analysis of household welfare and poverty characteristics; and the results are comparable to previous rounds, at national and sub-national levels. The poverty lines usually computed from the data are:

- The food poverty line represents the minimum amount of money required to afford a food bundle that provides the minimum required caloric intake.

- The total poverty line is the sum of the food (extreme) poverty line, plus an additional allowance for non-food items, and represents the minimum amount of money required to afford a set of basic food and nonfood needs.

Based on these lines and the level of consumption in the household, three definitions of being poor are used:

- A household is classified as absolute poor if its total (food and non-food) consumption is less than the total or absolute poverty line;
- A household is classified as food poor if its food consumption is less than the food poverty line;
- A household is classified as extremely poor if its total (food and non-food) consumption is less than the food poverty line.

The following three poverty measures are used to aggregate poverty across households.

- Incidence of poverty (headcount index). The percent of the household population living below the poverty line;
- Depth of poverty (poverty gap). How far, on average, the population is from the poverty line. In other words, depth of poverty captures the mean percent consumption shortfall of the population relative to the poverty line;
- Severity of poverty (squared poverty gap). Combines the distance separating the poor from the poverty line and the inequality among the poor. Conceptually, poverty severity gives greater weight to those who are farther below the poverty line.

1.1 Objectives and Organization of the Survey

1.1.1 Objectives

The objectives of the survey are as follows:

- To provide fresh poverty profile and determine new official poverty lines using the new World Bank poverty line of USD 1.90 per day;
- To provide poverty and other indicators to serve as tools for the monitoring and evaluation of the Medium-term national development plan;
- To measure households consumption and expenditure at a greater level of disaggregation;
- To provide data for the compilation of National Accounts and computation of the Consumer Price Index (CPI);
- To measure the impact of Ebola on the socio-economic characteristics of the population.

1.1.2 Administration and Funding of the Survey

The main structures of the survey were:

The Steering Committee (SC) comprised Stats SL, World Bank and the Integrated Project Administration Unit (IPAU), which was established in the MoU signed between Stats SL and IPAU. The MoU laid out the roles of the World Bank as the major Funder, IPAU as the Fiduciary Agent and Stats SL as the Implementing Agency. The role of the Steering Committee was to provide policy direction and guidance of the entire survey processes including the review and approval of activities, budget and payments. The Steering Committee was chaired by IPAU.

The second body was the Technical Committee (TC), which comprised Stats SL and Ministries, Departments and agencies (MDAs) including the Ministry of Finance, Ministry of Planning and Economic Development, Ministry of Labour and Social Security, Ministry of Agriculture Forestry and Food Security, Ministry of Information and Communication, Ministry of Social Welfare Gender and Children's Affairs, and National Commission for Social Action (NaCSA). The TC was responsible for the development of the survey questionnaires, the training of field staff, quality control, and broad implementation of the survey activities.

The survey hierarchy of personnel for the 2018 SLIHS was as following:

The National Coordinator: The National Coordinator was responsible for the technical and administrative aspects of the survey. He coordinated all aspects of the Survey including the development of the survey instruments, manuals, advocacy and publicity; recruitment and training of field staff; data entry, data analysis and report writing and administrative issues. He was responsible for liaising and providing regular update to the Stats SL Management, Stats SL Council, the Ministries, the World Bank and other Development Partners on the progress of the 2018 SLIHS.

Regional Coordinators (4): Regional coordinators serve as training facilitators for both supervisors and enumerators training sessions. They also serve as quality control monitors-monitoring data collection, usage and delivery of materials and equipment throughout the period, every cycle from cycle 1-cycle 12. They report directly to the National Coordinator and the SLIHS Resident Advisor.

District Coordinators: These Coordinators assisted in the deployment of staff from one EA/cluster to the other done on a monthly basis; and the monitoring of data collection. They also assisted the supervisors and enumerators to in advocacy at the local level and talked to local authorities for acceptance and to resolve any misunderstanding. They also retrieved and stored completed questionnaires in their districts and reported directly to National and Regional Coordinator.

Survey Supervisors: The Supervisors were the leaders of their teams and were responsible for quality control of the data and for directing the work of the enumerators. They were responsible for providing questionnaires, other field materials and the list of pre-selected households in each Enumeration Area (EA) or cluster for each cycle to the enumerators and the Data Entry Clerks. They also assisted publicity and advocacy activities at the EA and community level. They assign enumerators to specific EAs ever cycle. They were responsible for reviewing and editing each questionnaire completed before handing it over to the Data Entry Clerks, as well as for storage. Supervisors reported directly to the National Coordinator and the Regional Coordinators, as well as the Monitors.

Enumerators: The Enumerators were responsible for completing questionnaires through face-to-face interview of the selected households and according to the instructions provided during the training and in the manual and other relevant document. They took part in advocacy and sensitization of communities and local authorities. They reported directly to the Supervisors.

Data Entry Clerks: Data Entry Clerks were responsible for keying in all the completed questionnaires in the field. They also review and edited completed questionnaires before entering them into the data capturing programme while in the field; as well as for syncing the keyed in data to the database. Data Entry Clerks reported directly to the supervisors.

Listers: The Listers were responsible for carrying out household listing exercise for the SLIHS 2018 in the field. They provided a list of household for each EA ahead before the enumerators visited the EAs with the selected list of households for the interview. The Listers listed all householders in all EAs which were not already covered by the MICS 6 survey. They report to the National Coordinator and District and Regional Coordinators.

Programmers: The Programmers were responsible for programming the SLIHS data entry mask, used for the entering of completed questionnaires in the field. CSPro software was used to develop the mask with support from the World Bank funded consultant based in Washington DC. They were also responsible for training Data Entry Clerks (DECs), Field Supervisors and Enumerators on the use of the data entry mask as well as provide support on a monthly basis to field staff regarding data entry, storage and uploading to server. The reported directly to the National Coordinator and the World Bank SLIHS Advisor.

Monitors: Monitors comprised a wide range of people including the National Coordinator, Stats SL Management, Regional Coordinator, District Coordinators, World Bank Advisors, IPAU and MDA officials. They were responsible for the overall quality of the data collected as they reviewed and edited completed questionnaires, keyed in data, and analyzed data in the database for completeness and accuracy of responses.

Analysts: they comprised Lead and other Analysts with support from the Local Consultant recruited to lead the data analysis and report writing process. The groups included Stats SL staff as well as MDAs officials and World Bank. The persons are responsible for generating clean tables and writing the report for the SLIHS2018.

1.2 Timing of the Survey

SLIHS is a 12-cycle/month survey with the data collection lasting for full 12 months. The 2018 SLIHS period coincided with the calendar year-started in January and end in December 2018. This period is actually the best period given that our fiscal year is also the calendar year, which makes it much easier to use the data for national accounts and consumer prices index (CPI) as estimates will correspond to annual estimates derived for aggregates such as government consumption, capital formation and other production aggregates.

The survey used a diary of daily consumption expenditures to support the interviews, which was completed four (4) times in a five-day interval period (20 days), which was administered from the 2nd to 22nd of each month. The remaining week of the survey was used to complete data entry as well as to travel to the next EA or cluster. It was also used to check for salaries and to attend to personal issues by the field teams.

1.3 Sample Design and Selection

The 2018 SLIHS sample was selected from the 2015 Population and Housing Census (PHC) frame, which had 12, 856 Enumeration Areas (EAs) and 1, 248, 218 households. The sample was drawn from a domain which had 4 Regions, 14 Districts, 149 chiefdoms and 1322 sections in the old administrative setting.

Box 1 shows the sampling procedure used to select the sample, which is similar to the procedure used in 2011 SLIHS. A two-stage stratification strategy was used to select the sample by first dividing the frame by the 14 Districts and then divided each district by rural and urban localities. Probability Proportional to Size (PPS) was used to select the 684 EAs, which were used as clusters for the survey. This meant that district and rural/urban locality were used as domain for selection as well as for analysis.

Table 1.1 shows the distribution of household population, the number of households and by urban rural residence.

Table 1.1: Sampled Households by Locality and Year of Survey

Locality	2003		2011		2018	
	Households	Percent	Households	Percent	Households	Percent
Rural	2,397	64.5	4,301	63.9	3,440	50.3
Urban	1,317	35.5	2,426	36.1	3,400	49.7
National	**3,714**	**100.0**	**6,727**	**100.0**	**6,840**	**100.0**

The poverty head count was used as the indicator for the distribution of the sample size of 684 clusters.

Box 1: Sample Estimation Formula

$$n = \frac{[4(r)(1-r)(f)(1.05)]}{[(0.01r)^2(p)(\bar{n})]}$$

Where:

- *n* is the required sample size, expressed as number of households
- *4* is a factor to achieve the 95 percent level of confidence
- *r* is the predicted or anticipated value of the indicator, expressed in the form of a proportion
- *1.05* is the factor necessary to raise the sample size by 5 per cent for the expected non-response
- *f* is the shortened symbol for *deff* (design effect)
- *0.01r* is the margin of error to be tolerated at the 95 percent level of confidence, defined as 1 per cent of *r* (relative margin of error of *r*)
- *p* is the proportion of the total population upon which the indicator, *r*, is based
- $\bar{n}$ is the average number of persons per household in Sierra Leone.

For the calculation, *r* (proportion of the population below the poverty line) was estimated to be 66 percent (SLIHS 2003/2004 Report). The value of *deff* (design effect) was taken as 1.58 based on estimates from previous similar surveys, *p* (total population) was taken as 100 percent, $\bar{n}$ (average household size) was taken as 6.0 households, and the response rate is assumed to be 95%.

1.3.1 Sample Size

The Sierra Leone Integrated Household Survey (SLIHS) is a nationwide survey conducted in 684 clusters/Enumeration Areas (EAs). The sample covers all 14 Administrative District (Old) as well as the 16 Administrative Districts in the new dispensation.

The resulting distribution is shown in Table 1.2 below.

Table 1.2: Distribution of EAs/Cluster by District

Distribution of EAs/Cluster by District				
No.	**District**	**Rural**	**Urban**	**Total**
1	Kailahun	23	15	38
2	Kenema	27	29	56
3	Kono	24	15	39
4	Bombali	46	30	76
5	Kambia	15	6	21
6	Koinadugu	28	10	38
7	Port Loko	30	20	50
8	Tonkolili	19	11	30
9	Bo	35	32	67
10	Bonthe	24	6	30
11	Moyamba	20	2	22
12	Pujehun	50	2	52
13	Western Area Rural	3	27	30
14	Western Area Urban	0	135	135
	Total	**344**	**340**	**684**

Given the wide variation in living conditions in the urban areas, the sample is tilted towards those areas although the bulk (63 percent) of the population lives in the rural areas.

The 2018 SLIHS collaborated with the multi-indicator cluster survey round six (MICS-6). MICS-6 collected data from 506 2018 SLIHS EAs out of 684 selected cluster for the survey. The 2018 SLIHS made use of basic household roster information from this MICS-6 (name, sex, age, relationship to household head); and we did receive this list of interviewed households from the MICS-6 Team. The collaboration was meant to produce economic and social indicators in a single dataset.

1.3.2 Calculation of Sample Weights

The number of clusters or EAs was chosen to be the same as in 2011, as was the number of households per EA (10). The sampling strata for the 2018 SLIHS were stratified by district and by urban/rural (14 districts x 2 = 28) but since there is no rural stratum in the Western Area Urban,

there were actually 27 strata used to develop the weights. This means that the 684 clusters were selected from 27 strata to give the most precise poverty rates by district. Probability Proportional to Size (PPS) means that clusters with more households were more likely to be selected such that each household within the stratum is equally likely to be selected. This enables us to calculate the household weights for each stratum and the weights were calculated as inverse probability of selection within strata. For example, if there were N households in a stratum, and we sampled n, then the probability for each household was included is n/N, so the inverse probability is N/n. This is called a "pweight" or sampling weight in STATA. The MICS sample was drawn after the SLIHS had been drawn, so its sampling procedures do not affect the SLIHS weights. The 2018 SLIHS weights are shown in Table 1.3

Table 1.3: SLIHS weights by Strata

		SLIHS Weights	
Province	**District**	**Rural**	**Urban**
East	Kailahun	273.1	187.5
	Kenema	257.7	148.6
	Kono	246.3	114.7
North	Bombali	148.3	79.9
	Kambia	287.8	282.4
	Koinadugu	216.1	133.2
	Port Loko	301.4	119.8
	Tonkolili	449.5	175.3
South	Bo	212.2	98.3
	Bonthe	147.1	119.4
	Moyamba	280.4	194.5
	Pujehun	113.6	110.9
West	Western Rural	222.6	223.1
	Western Urban	-	140.0

1.4 Listing Activities

Stand-alone listing exercise was done only for the 178 clusters out of the 684 clusters of the SLIHS which were not part of the MICS 6 sample, No listing was done for the 506 clusters, which were covered by MICS-6, instead list of 26 households interviewed by MICS-6 Teams was used as the list for the selection of households for SLIHS interviews. The Household listing exercise lasted for 2 months from October to December 2017; and the listing forms served as the basis for the selection of 10 households in each cluster for the survey.

1.5 Questionnaire Development and Pre-testing

1.5.1 The Questionnaire Development

The survey instruments were developed using the 2011 questionnaires as reference materials, updated to cover new areas include agriculture and household expenditure items and categories. Compared with the 2011 instrument, the 2018 SLIHS survey instrument was made up of 5 books of questionnaires:

- Book 1-Individual Characteristics,
- Book 2-Household Characteristics
- Book 3: Agriculture
- Book 4A: Household Consumption Items (first 10 days)
- Book 4B: Household Consumption Items (last 10 days)

These books were used to collect the data from the households and they were designed to allow for quick completion and inputting of data in the field.

The questionnaires were developed through a consultative process. The TC was consulted a various stages of the process as sector experts were invited many time to review and make input into the draft questionnaires. The last major Technical Committee meeting was organized in October 2017 to provide the opportunity to stakeholders to have a final review and made input into the questionnaires to reflect their sectors as well national and international benchmarks such the Sustainable Development Goals (SDGs)

1.5.2 Pre-test

A pre-test was conducted in order to test the suitability of the questionnaires including the structure and the formulation of the questions. SLIHS 2018 pre-test lasted for 5 days and covered 18 randomly selected households in each of the assigned enumeration areas (EAs)/clusters in Western Area. The selection was done in the field. The pre-test tested the instrument, the dairy and some of the survey field arrangements including data quality country. The questionnaires were revised to accommodate the findings of the pre-test.

1.6 Data Collection Activities

1.6.1 Staff Recruitment and Training

The training of trainers (TOT) was for coordinators and some of the wound-be supervisors conducted in November, 2017. The TOT was organized for 11 trainees including Stats SL staff who are involved in the SLIHS on a day to day basis as well as a few experienced survey field workers, who had worked with Stats SL for a longtime. The purpose of the 5 day training was to train personnel, who would assist the trainers in the training of the Enumerators and Supervisors.

The training provided the opportunity for a thorough examination and understanding the instrument/questionnaire in terms of content-formulation of questions and instructions and structure-skips based on age, sex and other responses and to discuss and agree among trainers or facilitators the best way to ask and interpret the questions. The questionnaires were also revised based on the outcome of the TOT.

THE MAIN TRAINING OF ENUMERATORS AND SUPERVISORS

The Training of Enumerators and Supervisors was conducted from November 27- December 8, 2017; and it was organized for 100 Enumerators and Supervisors and 25 Data Entry Clerks. The main objective of the training was to introduce the trainees to the SLIHS questionnaires; and to enable them understood the questionnaires in terms of content-formulation of questions and instructions, structure-skips based on age, sex and other responses, as well as discuss possible field challenges regarding workload, respondent cooperation and terrain. The training method included presentations, plenary sessions and field practices; and the field practices were organized in order to enable the trainees to understand and put into use the skills acquired during the presentation and plenary sessions. The Training was facilitated by the World Bank SLIHS Resident Advisor, SLIHS Coordinators. A selection test was administered on the last day of the training to select those who will form the teams for the SLIHS. Out of the 125 Trainees, the successful candidates comprise.

Enumerator	57
Supervisors	19
Data Entry Clerks	19

The successful candidates were grouped in to 19 teams; each comprised 1 Supervisor (who is the head of the team), 3 Enumerators (responsible for conducting face-to-face interviews with the households) and 1 Data Entry Clerk (responsible for entering the data in the field). Additional one-week training was organized for these teams to cover logistics, field arrangements and deployment.

Martials and equipment were distributed to all teams enough to commence the survey on the 2 January 2018. Field staff were also formally contracted by signing a contract with Stats SL specifying the terms and conditions of the job including remuneration, leave and medical allowance. The deployment of teams was completed before the end of December 2019

PROCUREMENT OF FIELDWORK

Procurement of fieldwork equipment and materials commenced much early with advertisement for bids and price quotations placed on newspaper. Equipment, stationery and other supplies were procured with support from IPAU and the World Bank Procurement Experts. Motor bikes, generators, printing of questionnaires, manuals, vehicle hire, GPS machines, scales, lights, stationery supplies, etc were all procured and supplied in time for the deployment of field teams. Although follow-up actions were undertaken during the process of data collection to address emerging issues.

1.6.2 Fieldwork

Cycle 1 data collection commenced on the 2nd January, 2018 all over the country with the distribution of dairies for the recording of food items on a daily basis by the households. The 5 booklets were used to collect the data from the households and they were designed to allow for quick completion and inputting in the field. The dairies are filled out on a 5-day interval for 20 days, and Enumerators work with the households to help them complete these dairies. Data entry was done in the filed alongside and the Data Entry Clerks (DECs) did their best to keep-up with the pace of data collectors. The survey was structured to last for a maximum of 24 days, during such a time all the five books should have been completed, edited, inputted and uploaded to the central database.

Each Enumerator interviewed 10 households every month/cycle for a period of three weeks.

The redeployment of field staff was done at the end of every cycle in readiness for the commencement of the following cycle data collection. 15 vehicles were hired every month/cycle to do the redeployment of 15 teams in the provinces from one cluster to the next. For riverine areas, boat fare was provided to field teams to cover the multiple crossing of the teams during data collection. For Teams in Western Area, transport fare allowance was provided to aid this movement every month.

1.6.3 Quality Control and Monitoring of Field Work

Effective Monitoring of data collection is an important part of quality control of data collection processes and procedures, which is believed to produce quality data required to support evidence-based policy formulation and implementation. The 2018 SLIHS monitoring exercise was implemented to assess the quality of the data collected, the logistics, materials, and proffer administrative and methodological solutions to constraints faced by filed staff. In this regard, monitoring activities were arranged and conducted at 4 levels as part of the quality control measures of the survey.

The first level is the work of the Supervisors, who were the leaders of the teams and were responsible for reviewing and editing all the questionnaires completed by the Enumerators. Since they were given motor bikes, Supervisors are expected to visit the teams very frequently in the field to check and edit their work at the data collection level. Supervisors undertook direct observations of the interviews and reviewed completed questionnaires before submitting them to the Data Entry Clerks (DECs) for data processing, which is done in the field.

The second level is the work of the Data Entry Clerks (DECs) who were responsible for inputting the data. In the process of carrying out their functions DECs were able to raise quality control issues bordering on the use of codes, missing codes, and following the skip patterns. Most of these issues raised led to revisions and editing of responses and questionnaires by the Supervisors and the Enumerators.

The third level of monitoring of data collection is the work of the monitoring teams, which comprised:

- The National Coordinator - monitored the technical and administrative operations of the survey
- Regional Coordinator - monitored the technical and logistics of teams in the field;
- Data Processing Support Staff - monitored the data entry program performance, the laptop performance and other technical aspect of the survey
- District Statistician/Coordinators - monitored data collection logistics and administrative arrangements in their districts
- Stats SL Council & Management Staff - monitored the logistics and administrative aspects of the survey
- MDAs Officials - monitored the logistics and administrative aspects of the survey aspects of the survey
- Stats SL Public Relation Officers - monitored the media and public relation aspect of the survey
- Stats SL Transport Officers - monitored motor bikes and generators maintenance

The main aim of this level of monitoring was not only to assess the constraints faced by field staff during the data collection but also aimed at mapping out strategies together with field staff and offering solutions to logistical and methodological issue faced in the field.

Apart from assisting in the distribution of logistics and materials to field staff, these teams of monitors have the responsibility of visiting and monitoring the work of all field teams in the clusters. The monitoring exercise was for first quarter was carried out every month and commenced on the same day as the cycle data collection exercise, which has been the 2nd of every month.

The specific tasks of the monitoring teams were to:

- Assist field teams identify their selected households for the interviews in their respective clusters;
- Support field staff to diligently follow the procedures laid out in the manuals, code book and other documents for administering the questionnaires and dairies and spotting any inconsistencies in the questionnaires;
- Support filed staff in their engagement with the local authorities, communities and households to secure their support and cooperation for the survey households;
- Assess the performance of the data entry program and the laptops; and to resolve problems;
- Maintain the motor bikes and generators and keep them road worthy and functional;
- Assist field staff access field materials on time including questionnaires, pens and gifts for households and communities;
- Adhere to the terms and conditions of the contract, especially in relation to social and political relationships and issues; and
- Review and edit completed questionnaires, food diaries and household rosters to ensure that data collected was of high quality.

The fourth level of monitoring data collection was the work of the World Bank recruited Field Monitor for the SLIHS as an independent monitor, who did monitoring independently from Stats SL. The monitors visited many clusters in the first quarter to review the work and data collected from the households from those clusters. Their work has indeed added value to the process, and their observations so far have been satisfactory and consistent with those of Stats SL regarding the quality of the data being collected.

The fifth level of monitoring of data collection involved doing snapshot analysis of key variables of the data submitted by field staff. Apart from the errors generated by the data entry program, the World Bank SLIHS Resident Advisor and Data Processing Support Staff carried out regular data analysis of submitted data to spot errors; and areas of concerns, which they shared, discussed and corrective measures taken with the full involvement of all field staff. These errors were used as training materials using the WhatsApp group setup for the SLIHS work. Field teams were trained and corrections were made to both the processes and coding of the responses.

1.6.4 Advocacy and Publicity

District level meetings with Paramount Chiefs, Districts Councils and other local authorities were held in all the 12 administrative districts in October 2017. The targeted stakeholders included the Mayors/District Chairmen, Councilors, and paramount chiefs in the districts, NGOs. Sensitization

exercise included presentations of the SLIHS methodology and processes as well as a one hour radio discussions explaining in detail to listeners the purpose and methodology of the SLIHS. The objective of the meetings was to raise the awareness of stakeholders about SLIHS processes, the importance of poverty data, and as well as to seek the support of stakeholders to assist all the field Teams that will visit their localities to do their work without hindrance.

In addition, 2018 SLIHS publicity was done at various levels including the use of the electronic media and one-to-one contact by the field staff. In addition to radio and television discussion programmes or interviews were organized, Stats SL signed memorandum of understanding (MoU) with 19 radio stations all over the country to air out SLIHS jingles in Krio and other local languages at least 5 days every month to raise the awareness level of the general public regarding the benefit of the survey. Also, 6 Community Announcers were contracted at the beginning of every cycle, and these Announcers went around the clusters in Western Area Urban using mega phones in Freetown to get the information down to the grass root level in the communities where the targeted households reside. The Community Announcers also displayed wall posters on the halls of household dwelling structures and community centers to raise the awareness of the community. Furthermore, field staff-the enumerators, supervisors and coordinators were also involved in advocacy as they engaged the local authorities and household heads regarding the purpose of the survey and seeking their support for the field staff and the entire survey

1.7 Data Processing and Analysis

2018 SLIHS data entry was done alongside with data collection in the field. It was a hybrid arrangement wherein completed paper questionnaires were entered in the field unlike the usual practice of centralizing data entry at the head office and carried out at the end of the survey. Data Entry Clerks (DECs) were trained and each of the 19 DECs was given a laptop computer to each to enter the data for a team in the field. The data entry mask or programme was finalized early which was installed in all laptops. DECs were responsible for syncing the data to the server which monitored by Stats SL and the World Bank

1.8 Total Sample achieved and the non-response rate

This 2018 SLIHS is unique in that we had a 100 percent response rate. We covered all 684 clusters and in each of these clusters 10 households were interviewed as shown in the Table 1.4 below.

Table 1.4: Distribution of Sample Achieved by District

		Cluster			Household		
No	**District**	**Rural**	**Urban**	**Total**	**Rural**	**Urban**	**Total**
1	Kailahun	23	15	38	230	150	380
2	Kenema	27	29	56	270	290	560
3	Kono	24	15	39	240	150	390
4	Bombali	46	30	76	460	300	760
5	Kambia	15	6	21	150	60	210
6	Koinadugu	28	10	38	280	100	380
7	Port Loko	30	20	50	300	200	500
8	Tonkolili	19	11	30	190	110	300
9	Bo	35	32	67	350	320	670
10	Bonthe	24	6	30	240	60	300
11	Moyamba	20	2	22	200	20	220
12	Pujehun	50	2	52	500	20	520
13	Western Area Rural	3	27	30	30	270	300
14	Western Area Urban	0	135	135	0	1350	1350
	Total	**344**	**340**	**684**	**3440**	**3400**	**6840**

6,840 households were targeted and interviewed in the selected 684 clusters from all over the country, which meant that the non-response rate was zero at all levels-cluster, household and questionnaire content levels.

1.9 Demographic Characteristics

This section of the report will examine information collected on the socio-demographic characteristics of household members which includes: age, sex, religion, marital status, relationship to head of household, educational level of head of household etc. A household for statistical surveys has a special meaning. In the 2018 SLIHS, the definition of household, head of household and household member is the same as in SLIHS 2011. A household was defined as a person or group of persons related or unrelated who live together and make common cooking arrangements. Simply put a person or group of persons eating from the same cooking pot. Similarly, a household head was defined as the person who makes economic decisions in the household, the breadwinner. A regular household member included all persons who have lived in a household without moving away for more than 3 months during the past twelve months.

1.9.1 Household Characteristics, Size and Composition

For this survey, the estimated number of households in Sierra Leone was 1,248,180 and the estimated population was 7,534,981 million. This means that the survey results shown in Table

1.10.1a shows that that there were 7,534,981 people living in Sierra Leone in 2018, which is slightly less (about 2.4percent) than the projected population of 7.7 million people contained in the Projection Monograph of the 2015 Population and Housing Census Report.

Table 1.5: Total Population by Residence and Sex

Residence	Male		Female		Total	
	Count	Percent	Count	Percent	Count	Percent
LOCALITY						
Rural	2,274,058	47.83	2,480,081	52.17	4,754,139	63.09
Urban	1,332,027	47.90	1,448,717	52.10	2,780,842	36.91
REGION	**Count**	**Percent**	**Count**	**Percent**	**Count**	**Percent**
East	771,222	48.23	827,838	51.77	1,599,060	21.22
North	790,323	47.53	872,429	52.47	1,662,752	22.07
North West	624,971	47.59	688,173	52.41	1,313,144	17.43
South	737,602	47.61	811,519	52.38	1,549,219	20.56
West	681,967	48.34	728,839	51.66	1,410,806	18.72
DISTRICT	**Count**	**Percent**	**Count**	**Percent**	**Count**	**Percent**
Kailahun	266,261	48.74	280,047	51.26	546,308	7.25
Kenema	315,466	47.22	352,543	52.78	668,009	8.87
Kono	189,495	49.25	195,248	50.75	384,743	5.11
Bombali	196,832	49.25	202,824	50.75	399,656	5.3
Falaba	115,732	46.65	132,364	53.35	248,096	3.29
Koinadugu	124,734	48.24	133,841	51.76	258,575	3.43
Tonkolili	353,025	46.67	403,400	53.33	756,425	10.04
Kambia	185,304	47.92	201,414	52.08	386,718	5.13
Karene	135,049	48.28	144,662	51.72	279,711	3.71
Port Loko	304,618	47.10	342,097	52.90	646,715	8.58
Bo	286,440	46.38	331,080	53.61	617,618	8.2
Bonthe	109,991	47.96	119,364	52.04	229,355	3.04
Moyamba	176,645	49.13	182,875	50.87	359,520	4.77
Pujehun	164,526	48.01	178,200	51.99	342,726	4.55
Western Area Rural	193,787	47.69	212,519	52.31	406,306	5.39
Western Area Urban	488,180	48.60	516,320	51.40	1,004,500	13.33
NATIONAL	**3,606,085**	**47.86**	**3,928,798**	**52.14**	**7,534,981**	**100**

Source: SLIHS 2018

Of this total population, 4,754,139 persons (63percent) live in the rural areas of the country; whereas 3,928,798 persons (52.14percent) were females.

Table 1.6: Distribution of Average size of households by Locality and Region

Locality	SLIHS 2018		SLIHS 2011	
	Population Share (percent)	Household Size (average)	Population Share(percent)	Household Size (average)
Rural	63.09	6.2	62.2	5.7
Urban	36.91	5.8	37.8	5.4
East	21.22	5.7	22.6	5.2
North	22.07	6.9	34	6.2
North West	17.43	6.5	NA*	NA*
South	20.56	5.8	22.7	5.7
West	18.72	5.5	20.7	5.2
National	**100**	**6.0**	**100**	**5.6**

Source: SLIHS 2018 and 2011. NA*: Not Applicable, since North West region was created in 2017

From SLIHS2018, the average household size for Sierra Leone shown in Table 1.6 was 6, as compared to 5.6 in 2011. In addition, the average household size for urban areas in 2018 was 5.8 whereas in rural areas it was 6.2. These numbers show an increase in the household size from the SLIHS 2011 of 5.4 and 5.7 for urban and rural areas respectively. The results further show that, the household sizes have similar pattern or trend for rural and urban areas, the regions, as well as national level; which justifies the general growth in population since 2011.

Figure 1.1: Household Size Groups

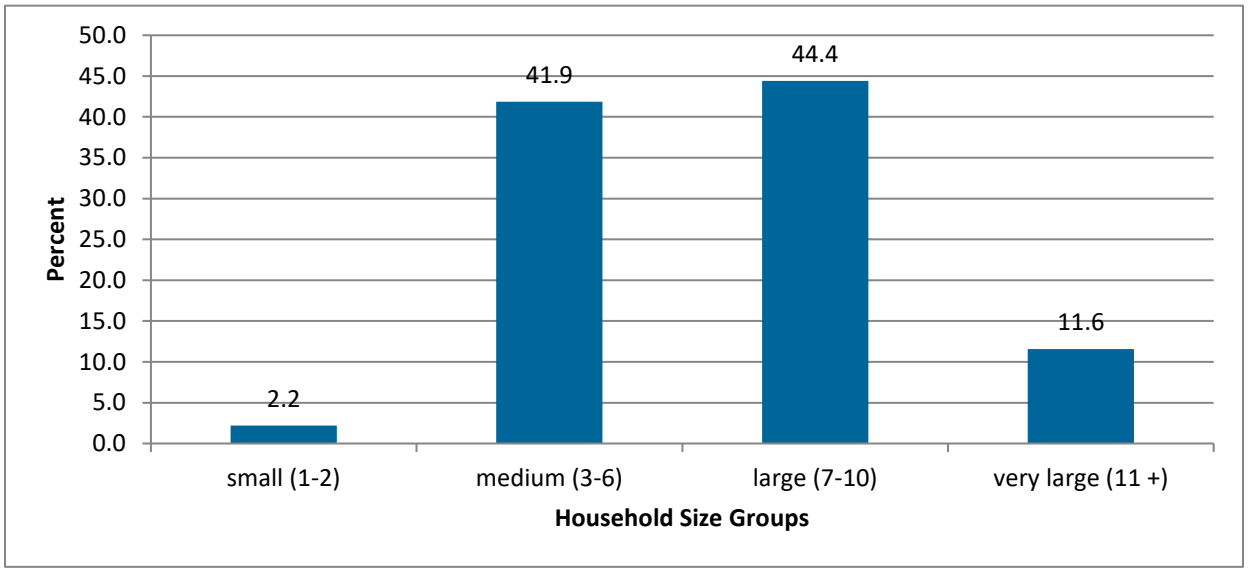


Figure 1.1 shows that majority of the population (44.4percent) lived in large size households with 7-10 members, followed by 41.9 percent which lived in medium size households with 3-6 members. Only 2.2 percent of the population lived in small size households with 1-2 members; although 11.6 percent lived in very large size households with 11 or more members.

1.9.2 Sex Composition

The sex composition of the household population is clearly in favour of the females. The data shows that female constituted 52.1 percent of the population compared to males with 47.9 percent.

The sex composition of a population can be measured by the Sex Ratio which is defined as the number of males per 100 females. A sex ratio of 100 denotes equal numbers of males and females, a sex ratio above 100 signifies an excess of males, and a sex ratio below 100 signifies an excess of females. Sex ratios can be calculated for the total population, or for specific age groups. The SLIHS2018 Results in Table 1.7 below shows Sex ratios for Sierra Leone, Regions, Districts and the Age groups.

Table 1.7: Sex Ratios by Regions, Districts and Age Groups

Region/District	Sex ratio (Males per 100 Females)	Age Groups	Sex Ratio (Males per 100 Females)
Sierra Leone	92	Under 5	100
Eastern Region	93	5 to 9	98
Kailahun	95	10 to 14	111
Kenema	89	15 to 19	92
Kono	97	20 to 24	77
Northern Region	91	25 to 29	69
Bombali	97	30 to 34	80
Falaba	87	35 to 39	80
Koinadugu	93	40 to 44	97
Tonkolili	88	45 to 44	104
North Western Region	91	50 to 49	83
Kambia	92	55 to 59	104
Karene	93	60 to 64	114
Port Loko	89	65 to 69	93
Southern Region	91	70 to 74	70
Bo	97	75 to 79	81
Bonthe	92	80 to 84	60
Mayamba	97	85 to 89	111
Pujehun	92	90 or more	62
Western Region	94		
Western Area Rural	91		
Western Area Urban	95		

Source: SLIHS 2018

From Table 1.7 above, the general sex ratio for Sierra Leone is 92 male per 100 females indicating a female excess of 322,664 compared to 95 males per 100 females in the SLIHS2011. This means that there has been an increase in the number of female population. This pattern of excess females as indicated in the table above is generally replicated across all Regions and Districts.

Sex ratios by specific age groups for Sierra Leone show mixed result as stated in table 1.7. The under 5 age group shows an equal representation of males and females. The data further reveals a male deficit of all age groups except 10 – 14, 45 – 49, 55 – 59, 60 – 64, and 85 – 89, with sex ratios of 111, 104, 104, 114, and 111 respectively. On average, the data underscored the dominance of females over males in the population, especially for ages above 5 years.

Table 1.8 Populations and Sex Ratio Distribution by District

No	District	Population			Sex Ratio	Population Shares
		Male	Female	Total		
1	Kailahun	266,261	280,047	546,308	95	7.3
2	Kenema	315,466	352,543	668,009	89	8.9
3	Kono	189,495	195,248	384,743	97	5.1
4	Bombali	196,832	202,824	399,656	97	5.3
5	Falaba	115,732	132,364	248,096	87	3.3
6	Koinadugu	124,734	133,841	258,575	93	3.4
7	Tonkolili	353,025	403,400	756,425	88	10.0
8	Kambia	185,304	201,414	386,718	92	5.1
9	Karene	135,049	144,662	279,711	93	3.7
10	Port Loko	304,618	342,097	646,715	89	8.6
11	Bo	286,440	331,080	617,520	87	8.2
12	Bonthe	109,991	119,364	229,355	92	3.0
13	Moyamba	176,645	182,875	359,520	97	4.8
14	Pujehun	164,526	178,200	342,726	92	4.5
15	Western Area Rural	193,787	212,519	406,306	91	5.4
16	Western Area Urban	488,180	516,320	1,004,500	95	13.3
	Sierra Leone	**3,606,085**	**3,928,798**	**7,534,883**	**92**	**100.0**

The sex ratio for Sierra Leone in 2018 is 91 males to 100 females, which underscores the dominance of females in the population. This scenario is the same for all the districts

1.9.3 Age Composition

Age in the 2018 SLIHS was defined as age in completed year as at last birthday. The data showed that the average age of Sierra Leoneans was 23.3 years; females slightly had a higher average age

of 23.7 years compared to the males with 22.8 years. This suggests that females tend to live longer than males.

Figure 1.2: Distribution of the population by special age groups

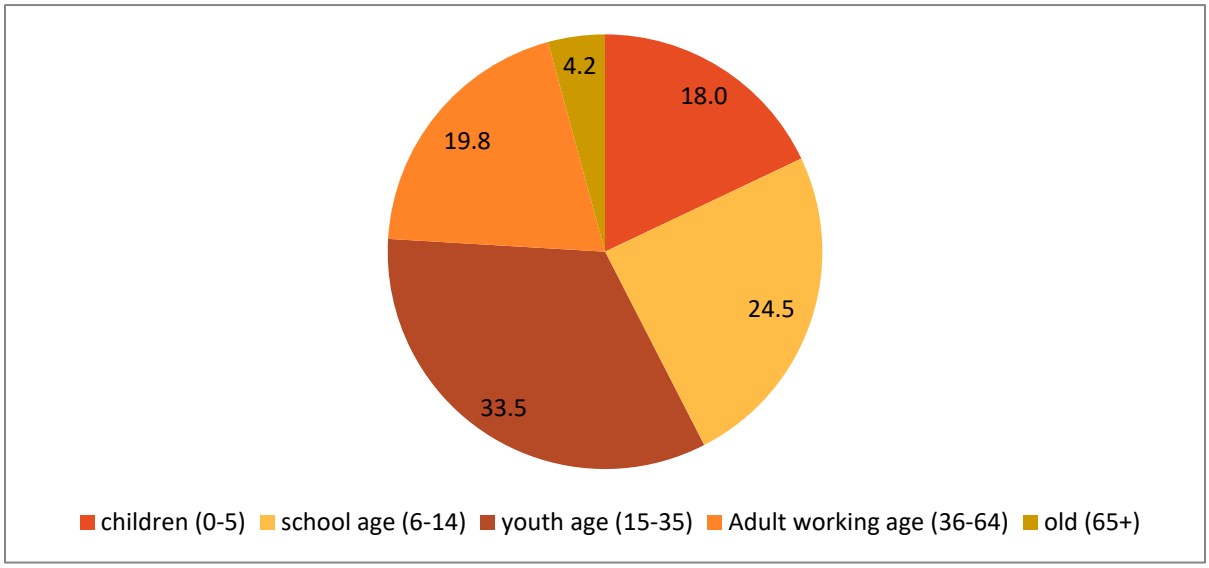


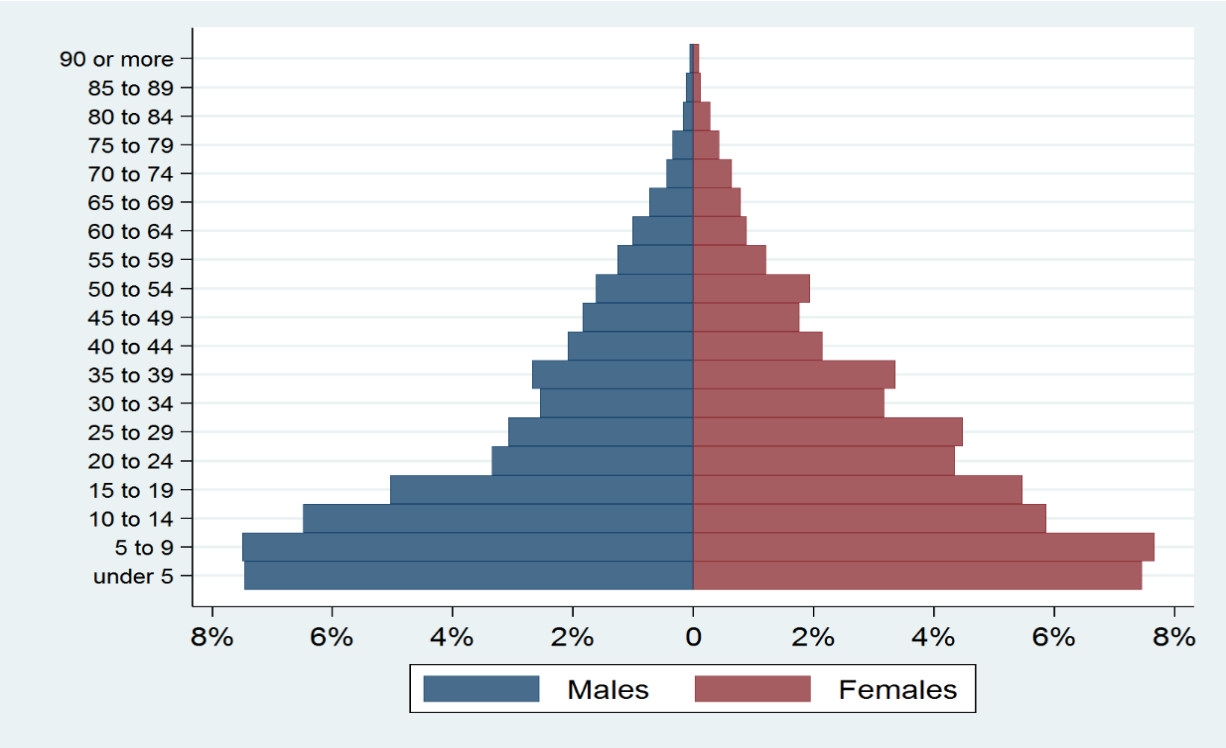
Figure 1.2 shows that children (5 years and under) constituted 18.0 percent of the population; while 33.5 percent of the population was in the youth age group of 15-35. The figure also shows that 1,846,904 children (24.5 percent) of the population were in the school age group of 6-14 years, which is the target of the Free Quality Education Programme of the government.

In addition, the percentage distribution of the population in five-year age groups for Sierra Leone is shown in Table 1.8 and Figure 1.2.

Table 1.9: Percentage Distribution of Five-Year Age Groups

AGE	SIERRA LEONE		AGE	SIERRA LEONE	
(Years)	Male	Female	(Years)	Male	Female
Under 5	7.47	7.47	50 to 54	1.62	1.94
5 to 9	7.50	7.67	55 to 59	1.26	1.21
10 to 14	6.49	5.86	60 to 64	1.01	0.88
15 to 19	5.04	5.47	65 to 69	0.73	0.79
20 to 24	3.35	4.34	70 to 74	0.45	0.64
25 to 29	3.08	4.49	75 to 79	0.35	0.43
30 to 34	2.55	3.17	80 to 84	0.17	0.28
35 to 39	2.68	3.36	85 to 89	0.13	0.12
40 to 44	2.09	2.15	90 or more	0.06	0.09
45 to 49	1.84	1.77	**Total**	**47.86**	**52.14**

Figure 1.3: Population by Five Year Age group and Sex



As expected, in a country with a high level of fertility, the pyramid has a relatively broad base. The first two age groups, under 5 years and 5-9 years, comprise 14.94 percent and 15.18 percent respectively of the total population.

The distribution of males and females show a number of significant contrasts. The distribution of the male population appears to conform to the expected pattern; the age groups, except 30 to 34, become smaller with advancing years from ages 5 to 9 years to 90 or more years. On the contrary, for females there are a number of distortions to the expected pattern. For example, there are relatively fewer females in age group 20 to 24 years than in 25 to 29 years; in 30 to 34 years than in 35 to 39 years and finally in 45 to 49 years than in 50 to 54 years.

Table 1.10: Below shows the age distribution of the population by locality and gender

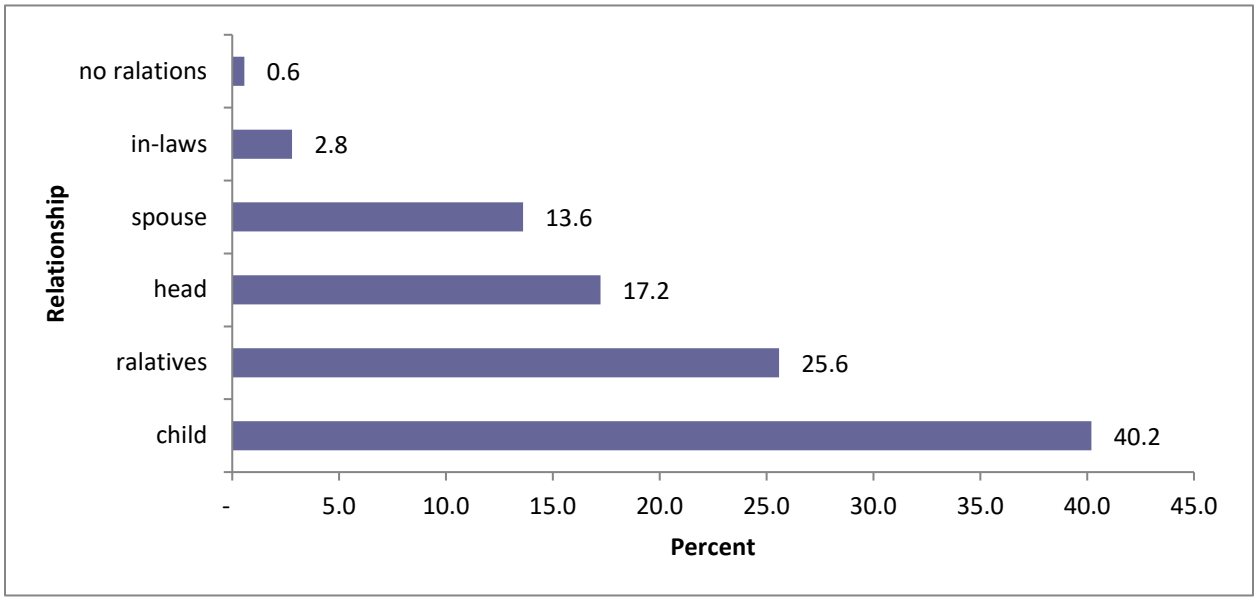
Age Group	MALE			Female			Sierra Leone		
	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban	Total
under 5	17.6	12.2	15.6	15.9	11.6	14.3	16.7	11.9	14.9
5 to 9	17.6	12.5	15.7	15.8	12.8	14.7	16.7	12.6	15.2
10 to 14	14.0	12.8	13.6	10.2	13.0	11.2	12.0	12.9	12.3
15 to 19	9.5	12.3	10.5	9.0	13.1	10.5	9.2	12.7	10.5
20 to 24	5.0	10.5	7.0	6.7	11.1	8.3	5.9	10.8	7.7
25 to 29	5.1	8.7	6.4	7.7	10.2	8.6	6.5	9.5	7.6
30 to 34	4.5	6.7	5.3	6.0	6.2	6.1	5.3	6.5	5.7
35 to 39	5.3	6.1	5.6	6.8	5.9	6.5	6.1	6.0	6.0
40 to 44	4.3	4.5	4.4	4.4	3.7	4.1	4.3	4.1	4.2
45 to 49	3.8	3.9	3.8	3.7	2.9	3.4	3.7	3.4	3.6
50 to 54	3.7	2.8	3.4	4.2	2.9	3.7	4.0	2.9	3.6
55 to 59	2.7	2.5	2.6	2.7	1.7	2.3	2.7	2.1	2.5
60 to 64	2.3	1.7	2.1	1.7	1.6	1.7	2.0	1.7	1.9
65+	4.6	2.8	3.9	5.2	3.3	4.5	4.9	3.1	4.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

The first four age groups, from '0-4' to '15-19', constitute more than half (53percent) of the total population, accounts for about of the total population in the Sierra Leone. This means that more than half of the country's population is below 20 years. About 47percent of the population is in the dependent category which comprises of people below 15 years and above 65 years. The working age population which is between 15-64 years accounts for about 53percent of the total population in Sierra Leone. There are slightly more males than females in the first four age groups of the population.

1.9.4 Relationship with the Head of Household

Relationship in the 2018 SLIHS was defined as relationship of members to the head of the household, whether the head of the household was the respondent or not. The most case the head of the household served as the main respondent for most of the modules of the instrument, but where he or she was absent responsible member of the household was interviewed.

Figure 1. 4: Distribution of the Household Population by Relationship to the Head of the Household



The data shows that children (biological or adopted) of the head of household constituted 40.2 percent of the household population, followed by relatives to the head (25.6percent). Heads of household constituted 17.2 percent of the household population, whereas only 2.8 percent were in-laws of the head of household.

Figure 1.5: Proportion of the Household Population by Relationship to the Head of the Household

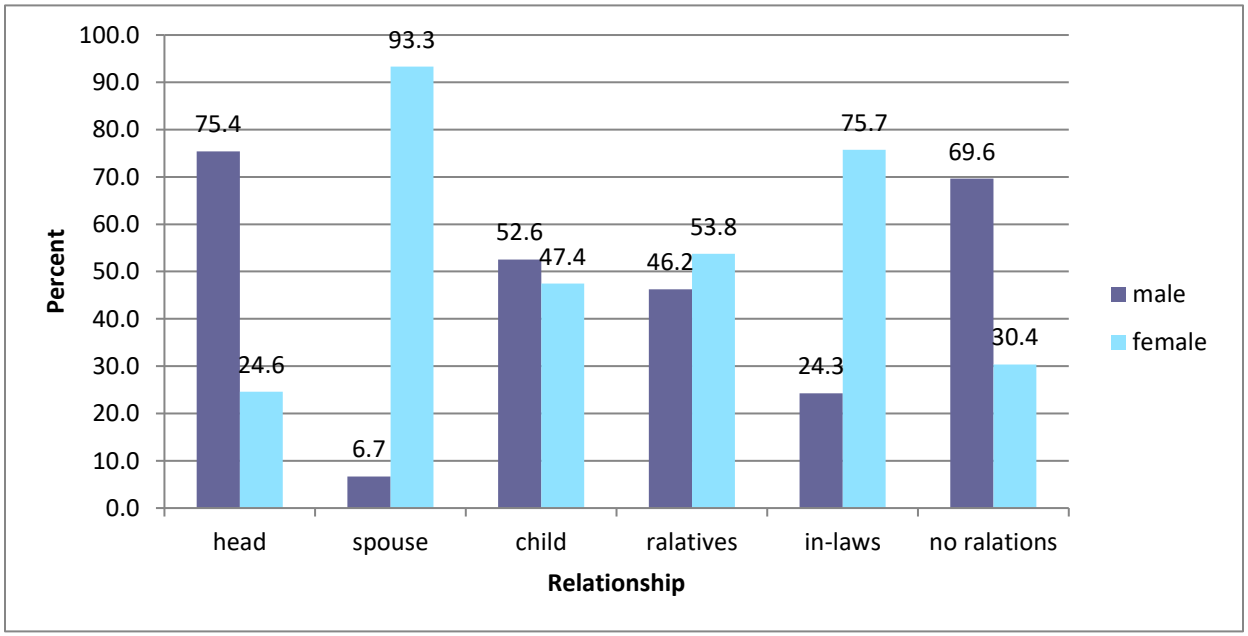


Figure 1.5 shows that almost a quarter (24.6percent) of households were headed by females compared to 75.4 percent headed by males.

A female head of household is on average older than the male counterpart, whereas a males spouse was older than a female spouse. There are more female heads of household in the North West than in any of the other regions.

1.9.5 Marital Status of Household Heads

Information on marital status was collected during the 2018 SLIHS as household members 10 years and over, were asked whether they were married or never married in line with the 3 Gender laws of 2007. The responses are shown in Table 1.11

Table 1.11: Distribution of the population 10 Years and over by Marital Status and sex

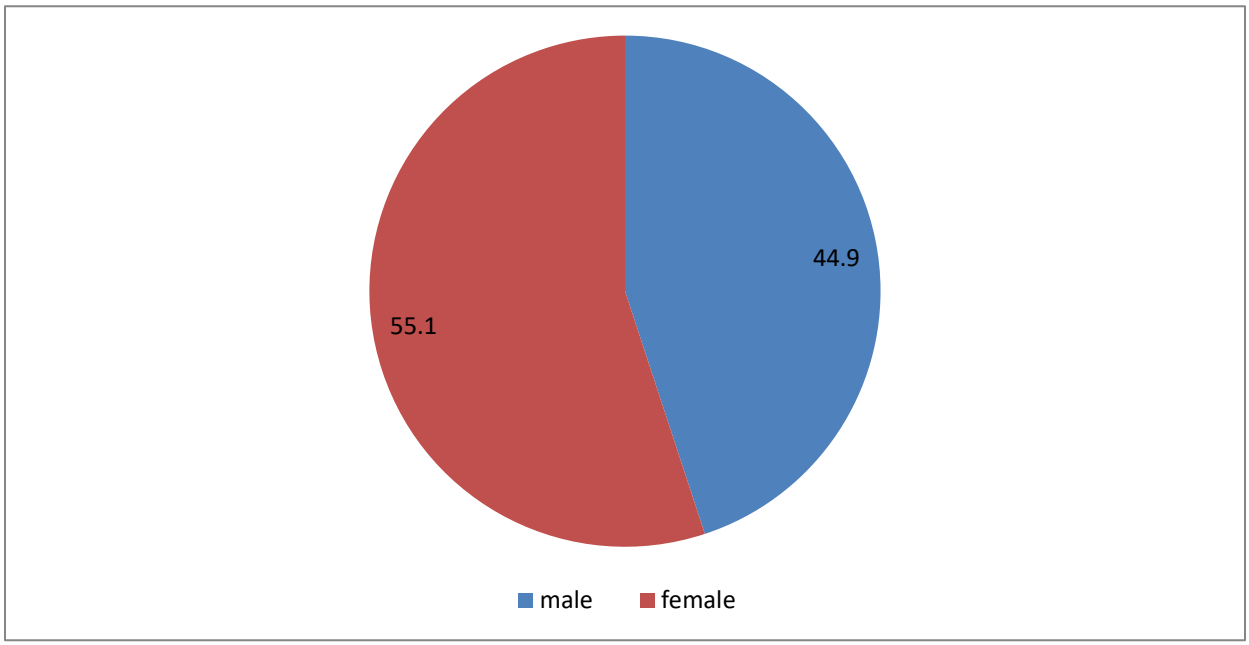
	Population			Percentage		
Status	**Male**	**Female**	**Total**	**Male**	**Female**	**National**
married monogamous	887,064	979,053	1,866,117	47.5	52.5	35.4
married polygamous	223,095	371,520	594,615	37.5	62.5	11.3
informal / loose union	20,073	29,879	49,952	40.2	59.8	1.0
divorced	11,685	21,524	33,209	35.2	64.8	0.6
separated	43,955	71,542	115,497	38.1	61.9	2.2
widowed	35,689	287,299	322,988	11.0	89.0	6.1
never married	1,256,589	1,026,868	2,283,457	55.0	45.0	43.4
Sierra Leone	**2,478,150**	**2,787,685**	**5,265,835**	**47.1**	**52.9**	**100.0**

Table 1.11 shows that t the national level, 43.4 percent of the population 10 years and over never married, while 35.4 percent were married monogamous marriage; followed by polygamous marriage (11.3percent). Of those who married monogamously, 52.5 percent were females and 47.5 percent males; and of those who never married, 55 percent were male and 45 percent females.

1.9.6 Orphanhood

Orphan is defined as a person who had lost both biological parents (mother and father) across all ages. However, Orphanhood is a concept that accounts for the impact of the loss of one or both parents on a child's ability to attend school, access to health and home care and other amenities.

Figure 1.6: Proportion of children 17 years or under who have lost a mother



Of the 1,698,595 children who lost a mother only 55.1 percent were female children and 44.9 percent were male children. In most the impact of losing a mother at childhood stage is normally greater than losing a father at that tender age.

Table 1.12: Proportion of children 17 years or under who have lost both parents

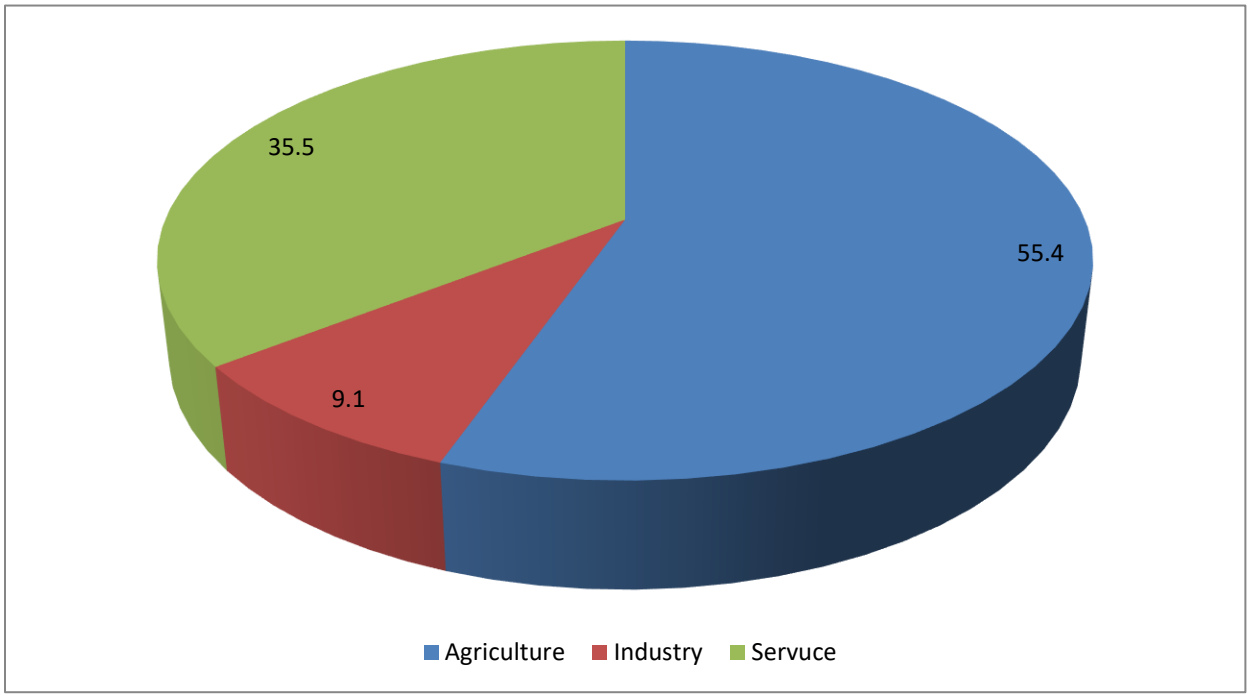
	Children (0-17)			Percentage		
Locality	**Male**	**Female**	**Total**	**Male**	**Female**	**National**
East	3,205	2,980	6,185	51.8	48.2	12.8
North	5,974	6,483	12,457	48.0	52.0	25.8
North West	4,384	7,338	11,722	37.4	62.6	24.3
South	3,640	4,740	8,380	43.4	56.6	17.4
West	3,464	6,067	9,531	36.3	63.7	19.7
Rural	10,767	14,212	24,979	75.8	29.4	51.7
Urban	9,900	13,396	23,296	73.9	27.7	48.3
Sierra Leone	**20,667**	**27,608**	**48,275**	**42.8**	**57.2**	**100.0**

The data shows that 48,275 children aged 0 to 17 years had lost both parents; of this number, 42.8 percent were males and 57.2 were females. By region, more children have lost both parents in the North (25.8 percent) and the North-West (24.3 percent) than in the other regions of the East (12.8 percent), south (17.4) and Western Area (19.7 percent). It can also be seen that more children in the rural areas (51.7 percent) had lost both parents than in the urban areas (48.3 percent).

1.9.7 Main Economic Activity of Household Heads

The 2018 SLIHS collected data on economic activities of members of the household who were 10 years and over. The responses of those who were employed were distributed among the industry they worked in during the survey. The survey assessed current activities over the last 7 days

Figure 1.7: Economic Activities of Persons 10 years and over who were employed in the last 7 days



The figure 1.7 shows that the main economic activity is agriculture comprising crop product livestock, forestry and fishing activities. The is followed by services (35.5 percent) including whole and retail trade, accommodation and restaurant services, public administration services, education, health and social work. Industry comprising mining, manufacturing, utilities and construction had a share of just 9.1 percent.

CHAPTER TWO - EDUCATION AND LITERACY

2.0 Introduction

Quality Education is a country's positive social investment for human and economic development. As a strong pillar for key industries in a country, education provides the foundations for moral regeneration and revival of all citizens. In the absence of quality education, a country cannot get the required manpower for socio-economic advancement and an enlightened citizenry. With the foregoing, it is argued that the quality of a country's education is a key determinant of its national development.

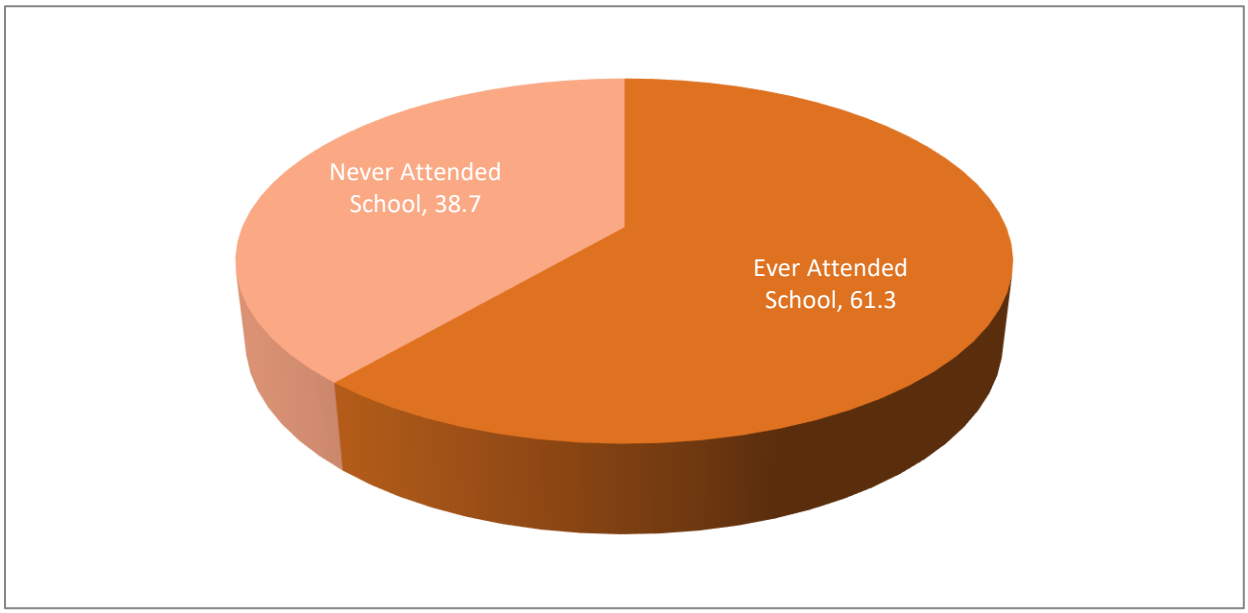
After almost four months of data collection for the 2018 Sierra Leone Integrated Household Survey, Sierra Leone's Free Quality School Education Program (FQSEP) was launched. Since education is a flagship project government has committed 21 percent of the national budget to improving education. Thus, there is need to assess the attendance rates after this initiative.

2.1 School Attendance

School attendance and performance are very critical in the Free Quality School Education Program. The analysis on education for the 2018 Sierra Leone Integrated Household Survey are presented in the figures and tables below.

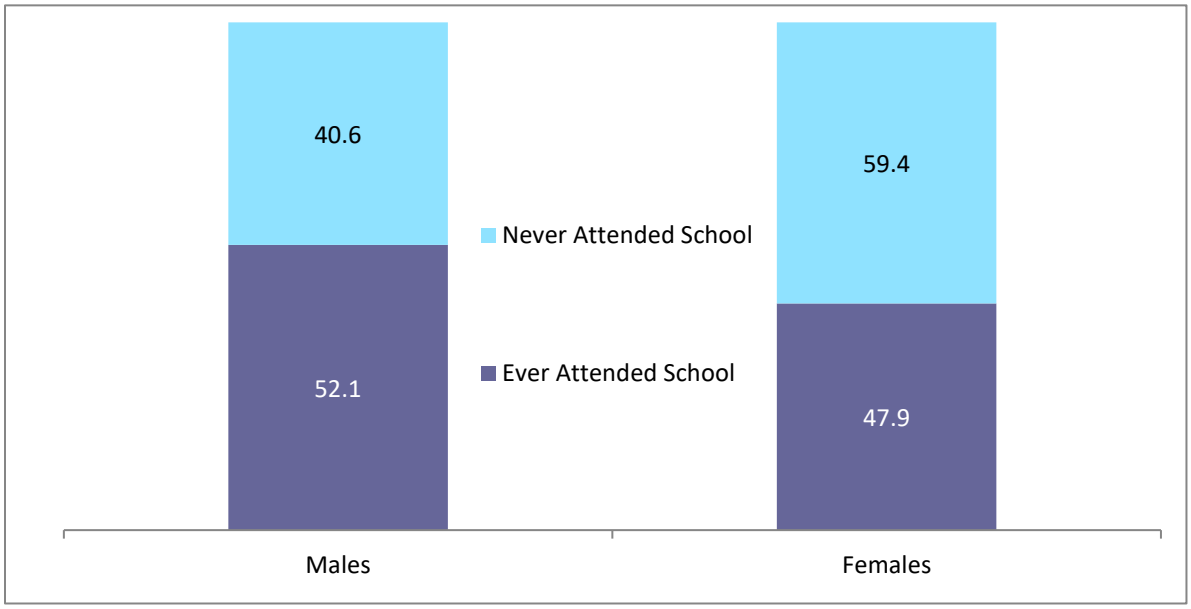
Figure 2.1 below shows that although 61.3 percent (comprising 3,775,164) have attended formal schools, the remaining 38.7 percent have never attended schools, notwithstanding the existence of compulsory basic education laid in the 2004 Education Act. It must be noted that the 38.7 percent is lower than the 48 percent obtained in the 2011 SLIHS for those that had never been to school.

Figure 2.1: Percentage Distributions of Ever and Never Attended Formal School



Overall, the results for sex differences amongst those who have ever attended school are shown in Figure 2.2 below. These constitute 52.1 percent Males and 47.9 percent Females. Amongst those who have never attended schools are 40.6 percent Males and 59.4 percent Females.

Figure 2.2: Sex Differences in Percentage Distributions of Ever and Never Attended Formal School



Minimal differences were observed in terms of places of residence for Sierra Leoneans who have ever attended schools. While 50.4 percent of residents in rural settlements have ever attended schools, 49.6 percent is the corresponding percentage in urban settlements. Further, the 2018 SLIHS data shows that more urban Males (53.1 percent) than urban Females (46.9 percent) ever attended formal schools, a similar occurrence was observed in rural areas with (51 percent) rural Males and 49.0 percent rural Females.

Regional disparities amongst ever attended formal school are shown in Figure 2.3 with the West showing the highest (26.2) percentage and the Northwest showing the least (16.2) percent.

Figure 2.3: Percentage distribution of ever attended formal school y region

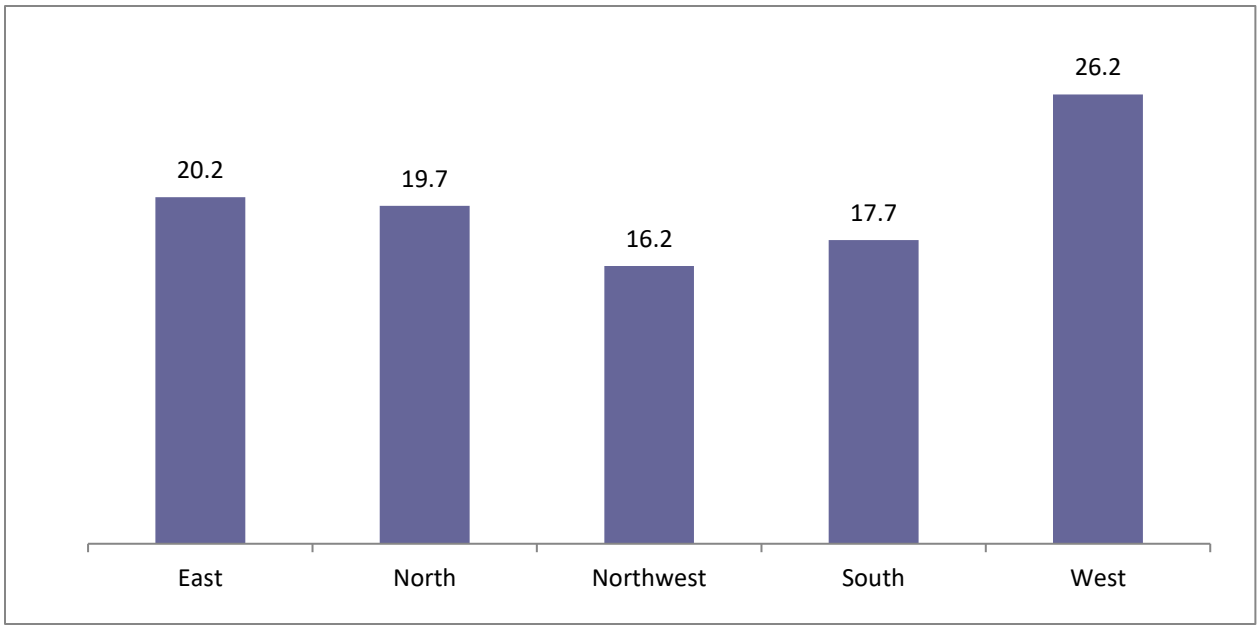
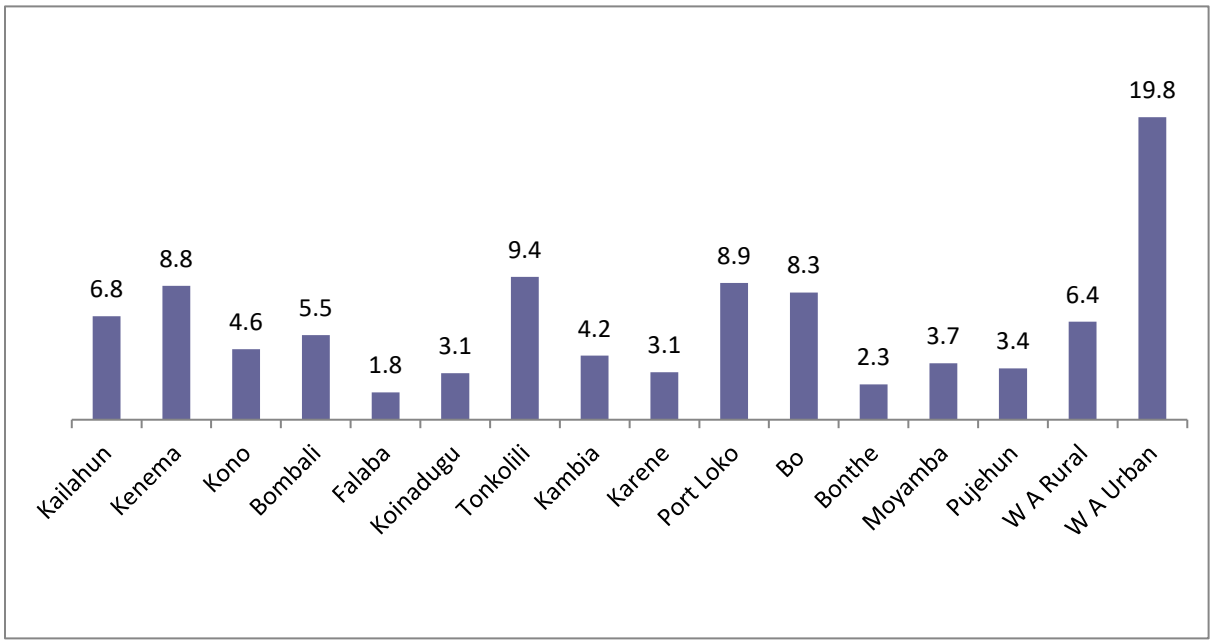


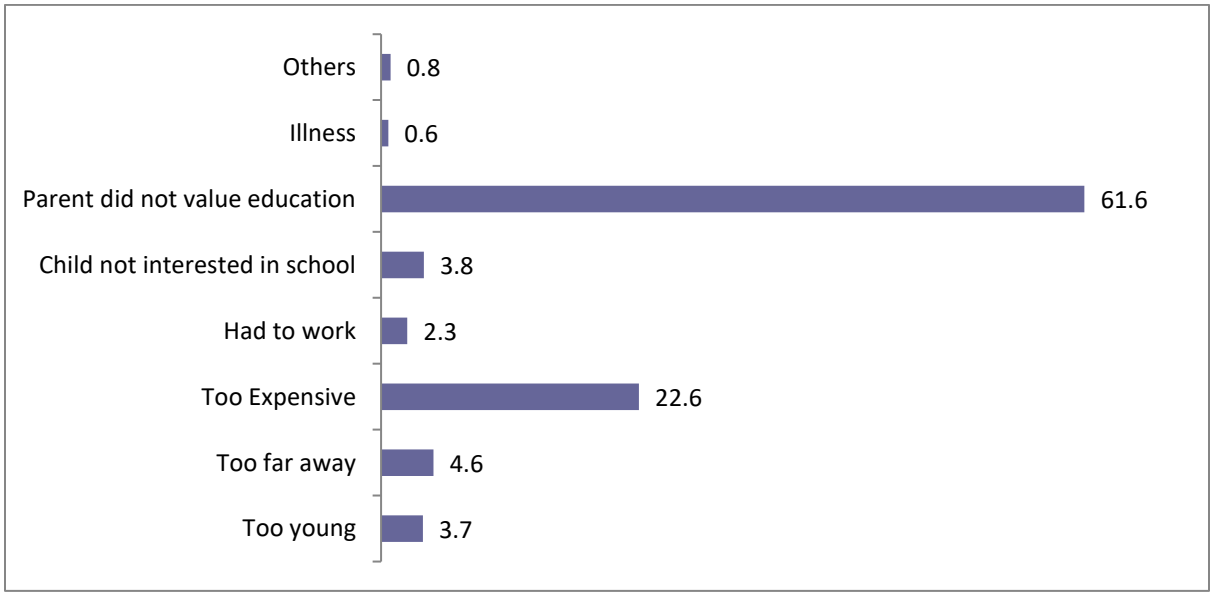
Figure 2.4 shows the percentage distribution of Sierra Leoneans who ever attended formal school by district. Data shows the Western Urban district (19.8 percent) and Falaba (1.8 percent) containing the highest and lowest percentages respectively. This distribution will guide the Ministry of Basic Education in the distribution of teaching and learning materials while implementing the Free Quality School Education Program for Sierra Leone.

Figure2.4: Percentage Distributions of Ever Attended Formal School by Districts



Despite the existence of the 2004 Education Act which stipulates compulsory basic education for all, 61.6 percent of Sierra Leoneans do not send their children to schools because they do not value education. With the nationwide introduction of the Free Quality Education Program, it is expected that 22.6 percent of Sierra Leoneans, who thinks formal education is too expensive at the time of conducting the 2018 SLIHS, will now cope with the minimal cost of sending their children to schools.

Figure 2.5: Percentage Distributions of Reasons for not being in school



Source: SLIHS 2018

The fact that 61.6 percent of Sierra Leoneans do not send their children to schools because they do not value education is also a cause for concern at the regional level (including the Western Area with the city- See Table 2.1 below). The percentage of those who do not value education is reasonably high in all regions with the North West and North recording 71.5 percent and 67.3 percent respectively. Apart from parents' not valuing education, another prominent reason advanced for never attending formal school in the regions is the fact that *formal education is too expensive.* Further, it was observed from the results that schools being *too far away* and the fact that pupils had to *walk to school* remain issues thwarting accessibility of schools in Sierra Leone.

Table 2.1: Regional Percentage Disparities amongst reasons for never attending formal school

Why pupils never attend school	East	North	North West	South	West
Too young	4.5	2.9	2.5	4.0	5.3
Too far away	4.4	6.1	3.1	5.0	2.5
Too expensive / no money	28.6	16.3	19.0	23.0	32.7
Had to work	1.1	2.5	0.1	5.2	1.7
Child not interested	2.5	3.5	2.7	6.1	3.5
Parent didn't value education	57.8	67.3	71.5	55.5	50.4
Illness	0.9	0.5	0.4	0.7	0.7
Others Specify	0.3	0.9	0.7	0.5	3.3

Similar occurrences are observed at the district level with relatively high percentages for parents not interested in education, the high cost of education and distance of schools from homes. As a matter of fact, exceptionally long distances to schools are mostly common in Falaba and Koinadugu where it is reported by 10.9 percent and 9.4 percent of respondents respectively.

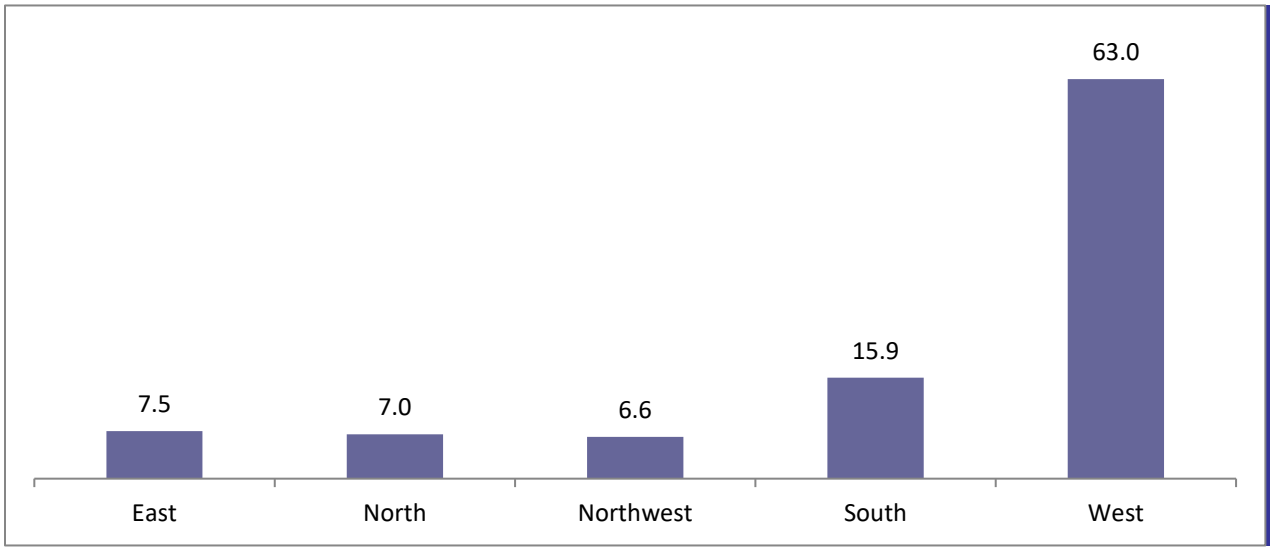
Table 2.2: Percentage Distributions of reason for never attending school by District

District	Too young	Too Far	Expensive	Work	Child not interested	Parent not interested	Illness	Others
Kailahun	5.0	4.2	37.6	0.6	3.1	48.4	0.9	0.3
Kenema	4.0	5.6	28.4	1.8	3.1	56.5	0.7	0.0
Kono	4.6	2.8	17.1	0.7	0.9	71.9	1.3	0.7
Bombali	2.6	2.3	13.2	6.1	2.9	71.8	0.4	0.7
Falaba	4.3	10.9	27.0	2.7	6.6	47.9	0.4	0.2
Koinadugu	3.9	9.4	26.1	1.7	4.1	53.9	0.7	0.2
Tonkolili	2.1	4.6	9.6	1.2	2.2	78.4	0.4	1.6
Kambia	1.7	2.7	18.4	0.0	1.9	74.9	0.4	0.2
Karene	2.9	2.8	20.8	0.3	2.8	69.2	0.3	1.0
Port Loko	2.9	3.7	18.4	0.0	3.4	70.3	0.6	0.8
Bo	4.3	4.2	13.7	4.2	4.5	68.2	0.5	0.3
Bonthe	4.9	5.5	36.9	5.1	13.5	33.8	0.2	0.1
Moyamba	2.9	6.2	27.4	1.6	5.7	53.6	1.2	1.5
Pujehun	4.1	4.7	22.3	10.3	3.7	54.1	0.7	0.2
Western Area Rural	7.9	4.1	33.0	1.6	5.4	43.1	0.3	4.7
Western Area Urban	3.9	1.7	32.5	1.8	2.4	54.3	0.8	2.5

Most exceptional in Bonthe district is the fact that 13.5 percent of children are not interested in education. It is outstanding to note that in Pujehun and Bombali with10.3 percent and 6.1 percent respectively contained children that never attended formal school because of domestic work.

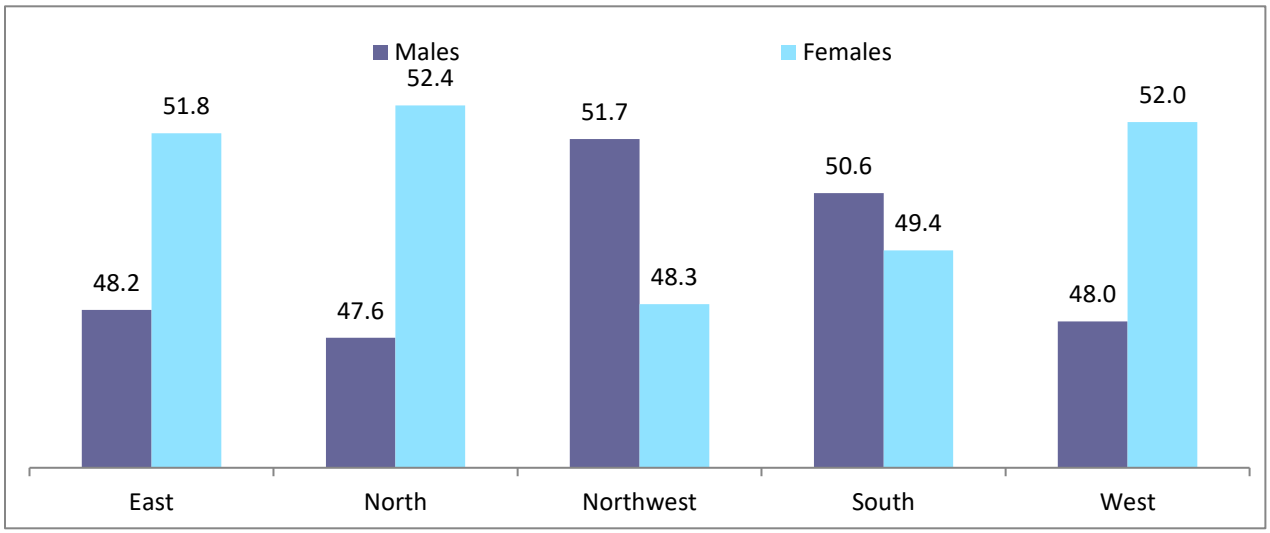
The 2018 SLIHS also investigated about household members who ever attended Pre- School or Nursery and discovered that they account for 11.9 percent of the population constituting 48.6 percent males and 51.4 percent females. At the regional level, the distribution is as shown in Figure 2.6 below:

Figure 2.6: Regional Percentage Distribution of Ever Attended Pre-school or Nursery



The results in Figure 2.6 show that the West accounts for the largest share (63.0 percent) of those who ever attended Pre-school followed by the South (15.9 percent). In Figure 2.7, it is worth noting that more females than males attended pre-schools in the East, North and West whilst in the Northwest and Southern regions, number of males surpass the number of females.

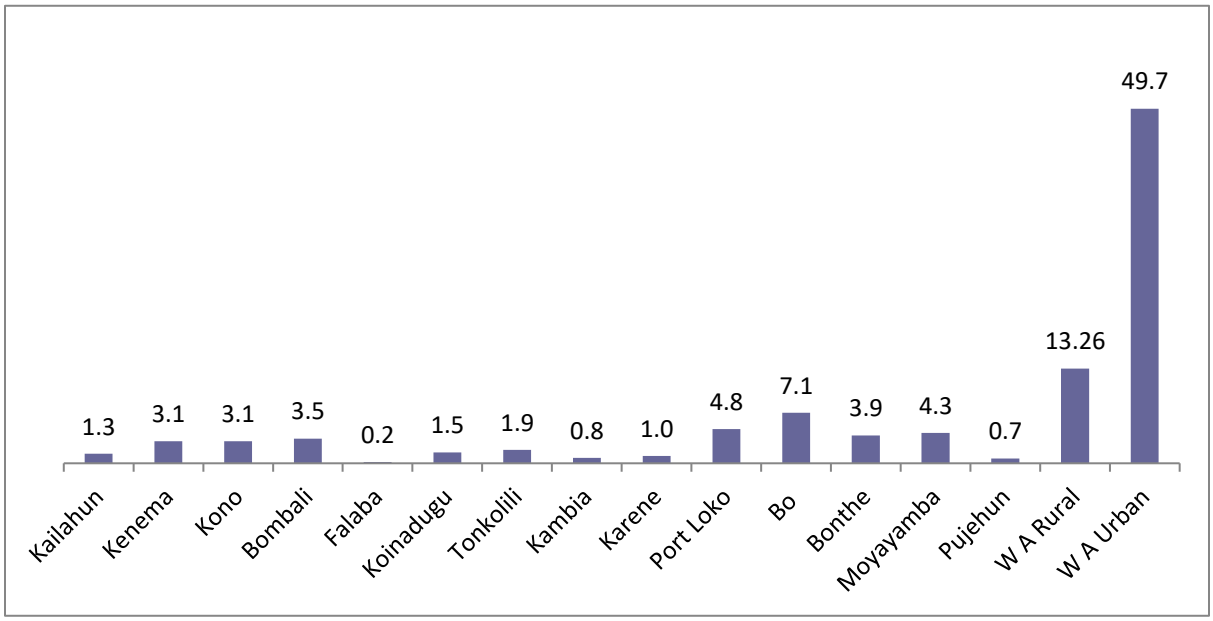
Figure 2.7: Regional Sex Differences in Ever Attended Pre-school or Nursery



District level results in Figure 2.8 below show that Western Urban alone accounts for almost half (49.7 percent) of ever attending Pre-school children in Sierra Leone. The results in other districts show that a lot more sensitisation needs to be done, by the Ministry of Basic Education and other

education stakeholders including District and Local Council Authorities, to encourage parents to send their children to Pre-school.

Figure 2.8: Ever Attended Pre-school or Nursery by District



The 2018 SLIHS collected data regarding 3,028 Pre-Schools in Sierra Leone and their distribution by districts and ownership type are displayed in Table 2.3. The Western Area Urban and Western Area Rural districts with 1,593 and 267 Pre-schools respectively have the highest number of Pre-schools amongst districts in the country, while Falaba and Kambia have the least number of pre-schools with 4 and 12 Pre-schools respectively. The fact that Public or Government Pre-schools are totally absent in Falaba and Karene is a concern particularly for the education ministry which aims at the equitable distribution of educational inputs including facilities. Moreover, Karene is a serious concern not only for the ministry, but equally so for the Missions and Private individuals who have no Pre-schools in the district. Notwithstanding the huge cost of Private Pre-schools it is observed that overall, they account for 59.6 percent of total number of Pre-schools in the country.

Table 2.3: Percentage Distribution of Pre-schools by district and type of ownership

District	Public	Community	Private	Mission	Total
Kailahun	44.2	9.5	24.9	21.5	29
Kenema	16.0	14.7	51.1	18.2	89
Kono	8.4	13.0	72.5	6.1	97
Bombali	57.3	5.9	39.0	17.9	172
Falaba	0.0	100.0	0.0	0.0	4
Koinadugu	38.7	29.2	30.2	1.9	48
Tonkolili	17.8	21.0	8.3	53.0	42
Kambia	49.9	8.5	25.0	16.6	12
Karene	0.0	49.0	44.5	6.5	31
Port Loko	30.9	15.3	42.1	11.7	148
Bo	28.3	8.2	50.5	13.0	264
Bonthe	22.7	43.8	7.8	25.8	127
Moyamba	44.9	38.3	13.7	3.1	79
Pujehun	19.4	27.0	15.2	38.5	26
Western Area Rural	18.4	3.4	76.8	1.5	267
Western Area Urban	22.3	2.7	71.6	3.4	1,593
Sierra Leone	**739**	**249**	**1,805**	**235**	**3,028**

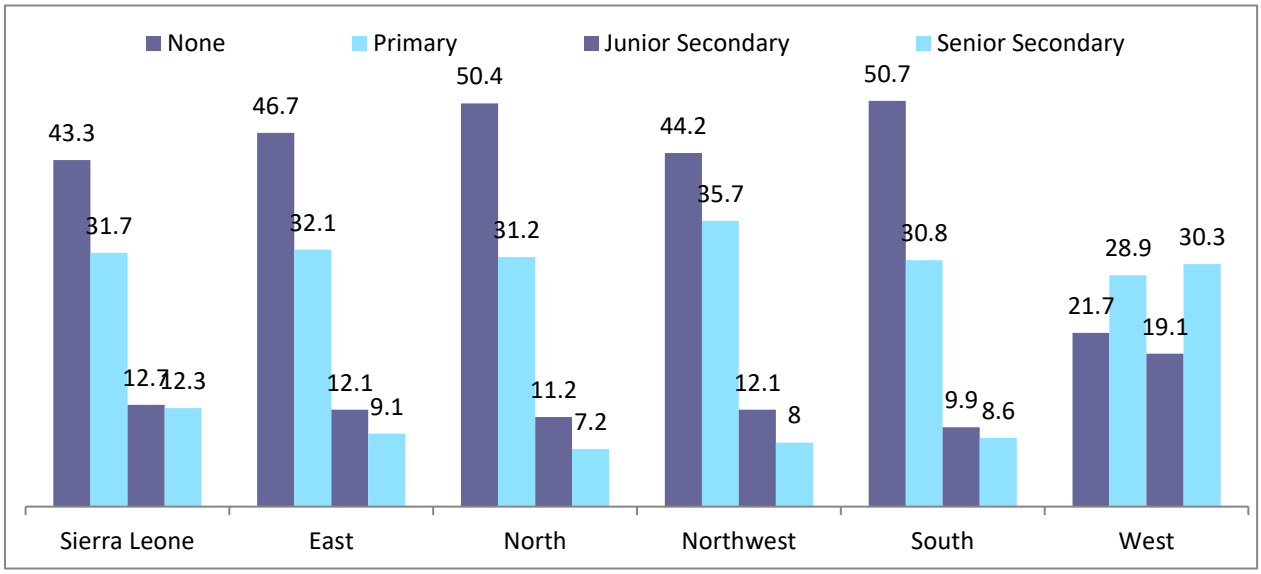
2.2 Educational Attainment and Highest Level Completed

This indicator pinpoints the potential level of human development to be achieved in an economy. In the technological world, educational attainment and level of schooling completed helps international organisations to estimate human development in a country. Sierra Leone has lagged behind in educational attainment due to the 10-year civil war and is only catching up now with recent developments.

2.2.1 Educational Level Completed, Still in School, Higher Education and Drop Out

In terms of educational levels completed, national and regional results are displayed in Figure 2.9 for stakeholders in education to note. Overall at least 4 out of every ten Sierra Leoneans did not complete any level of education. Corresponding figures for primary, JSS and SSS are 3, 1 and 1.

Figure 2.9: National & Regional Percentage Distributions of Educational Level Completed



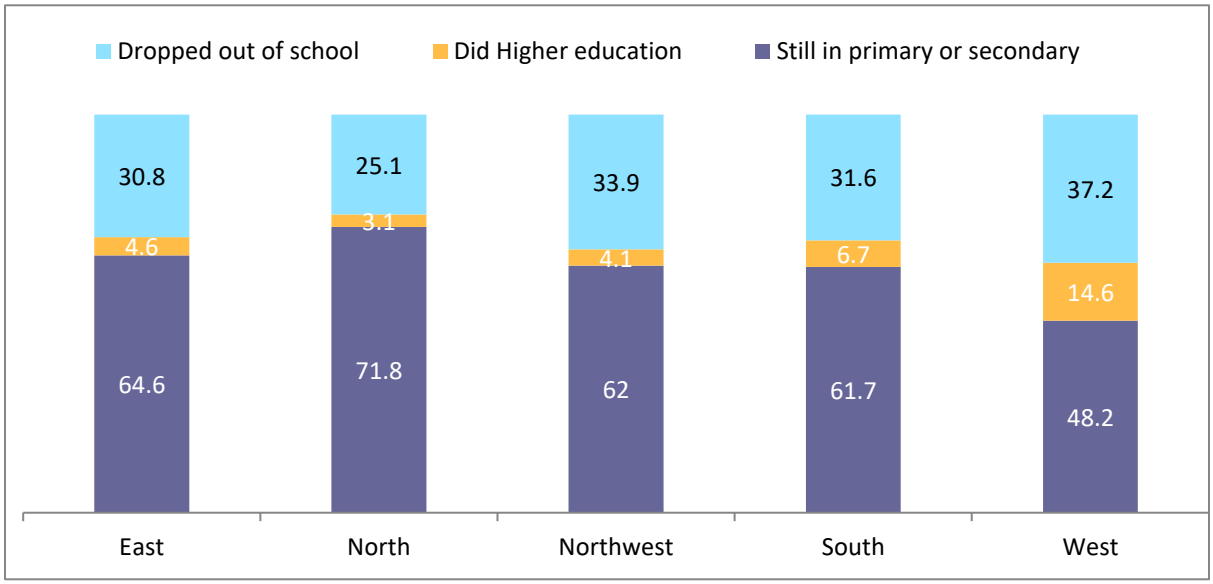
A similar trend is observed in the districts as displayed in Table 2.4 which follows. Falaba 68.3 percent tops districts that have not completed any level of education. This is followed by Pujehun (57.3 percent), Moyamba (54.9 percent), Bonthe (52, 7 percent) and Kambia (51.9 percent). Alternatively, Senior Secondary level completion in most districts is far below 10 percent: with Falaba 2.4 percent, Karene 4.6 percent, Pujehun 4.7 percent and Tonkolili 5.3 percent.

Table 2.4: Percentage Distributions of Educational Level Completed by Districts

District	None	Primary	Junior Secondary	Senior Secondary
Kailahun	45	33.5	13.3	8.2
Kenema	46.3	31.2	11.7	10.8
Kono	49.8	31.9	10.9	7.4
Bombali	41.8	31.7	14.4	12.1
Falaba	68.3	24.7	4.6	2.4
Koinadugu	51.2	28	11.5	9.3
Tonkolili	49.2	34.1	11.4	5.3
Kambia	51.9	30.9	10.1	7.1
Karene	48.9	37.1	9.4	4.6
Port Loko	37.7	37.8	14.5	10
Bo	44.1	32.4	11.9	11.6
Bonthe	52.7	28.9	9.2	9.2
Moyamba	54.9	29.9	8.5	6.7
Pujehun	57.3	30.2	7.8	4.7
Western Area Rural	**27.6**	**31.6**	**20.1**	**20.7**
Western Area Urban	**19.6**	**27.9**	**18.7**	**33.8**

Amongst those who ever attended schools throughout the country, 60.8 percent were still in primary or secondary schools, 7.2 percent in pursuit of higher education while 32 percent either dropped out of school or did no higher education. Figure 2.10 shows the percentage distributions in each of the five regions with highest and least percentages from the West and North alternatively as shown: Those in primary or secondary schools range between 48.2 percent and 71.8. Whilst those who dropped out of school range between 37.2 percent and 25.1 percent those who did higher education have the smallest range of 14.6 percent and 3.1 percent.

Figure 2.10: Percentage Distributions of Still in School, Higher Education and Drop Out by Region



At the district level, Table 2.2.5 shows extremely high and extremely low percentages for those still in primary and secondary schools and those who did higher education respectively. While percentages for the former range between 47 percent (W A Urban) and 74.9 percent (Tonkolili), those for the latter range between 1.8 percent (Karene and Tonkolili) and 16,4 percent (W A Urban).

Table 2.5 show alarming percentages of drop outs in all districts (ranging from 20.9 percent (Falaba to 39.3 (W A Rural) and so this is a concern for all stakeholders in the education sector**.** In this regard, accelerated efforts to fund the aforementioned school project cannot be overemphasized.

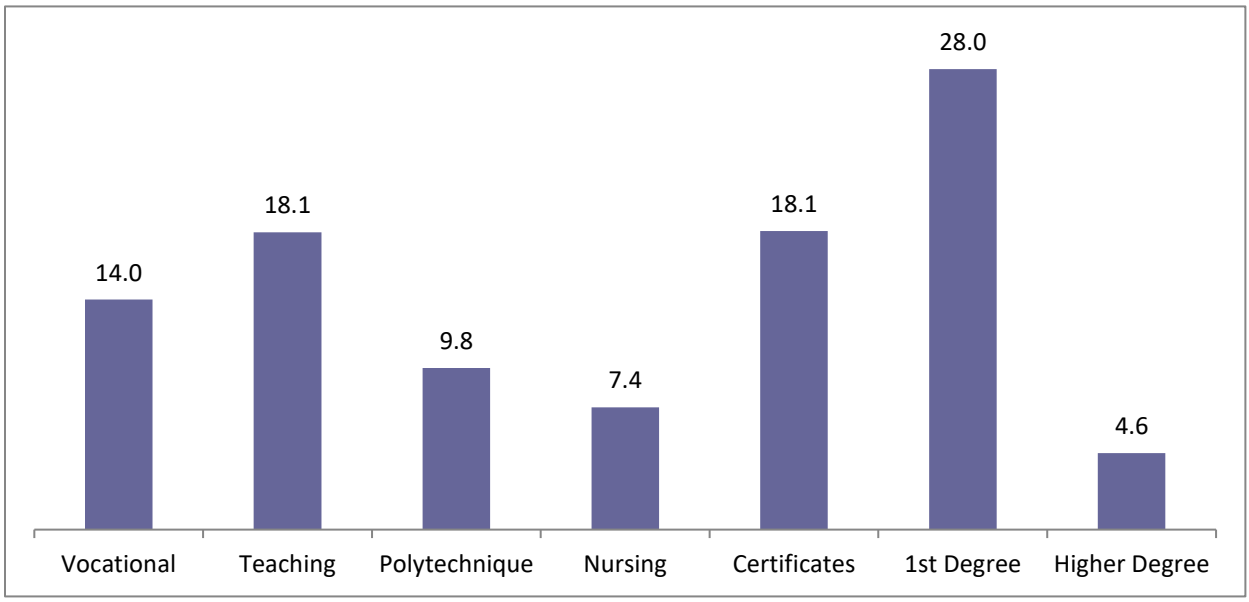
Table 2.5: Percentage Distributions of Still in School, Higher Education and Drop Out by District

District	Still in primary or secondary	Did higher education	Dropped out of school
Kailahun	60.4	3.4	36.2
Kenema	64.6	6.3	29.1
Kono	71.0	3.1	25.9
Bombali	64.8	5.5	29.7
Falaba	77.0	2.1	20.9
Koinadugu	71.8	3.3	24.9
Tonkolili	74.9	1.8	23.3
Kambia	65.5	3.0	31.5
Karene	63.4	1.8	34.8
Port Loko	59.9	5.4	34.7
Bo	59.5	8.6	31.9
Bonthe	60.2	7.2	32.6
Moyamba	63.3	5.6	31.1
Pujehun	66.6	2.9	30.5
Western Area Rural	51.7	9.0	39.3
Western Area Urban	47.0	16.4	36.6

2.2.2 Highest Level / Courses Completed and Highest Qualification Obtained

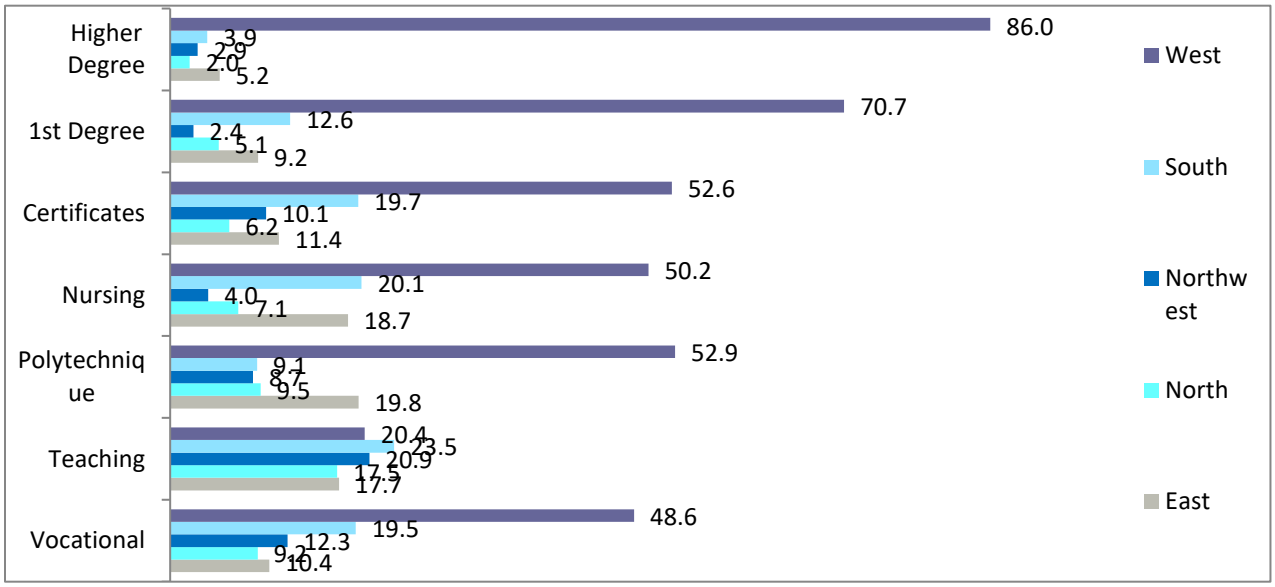
Educational attainment is mainly determined by an individual's highest level of education or courses completed. The 2018 SLIHS obtained information on educational attainment concerning 270,492 and the national results are presented in Figure 2.11.

Figure 2.11: National Percentage Distributions of Highest Level/Courses Completed



At the regional level, results from the western area (86 percent higher degree, 70.7 percent 1st degree,52.9 percent poly-technique, 52.6 percent certificates, 50.2 percent nursing, 48.6 percent vocational) surpasses all except in teaching where the south and north west regions with 23.5 percent and 20.9 percent respectively have higher values. Figure 2.12 also shows the status of other regions in terms educational attainment.

Figure 2.12: Regional Percentage Distributions of Highest Level/Courses Completed



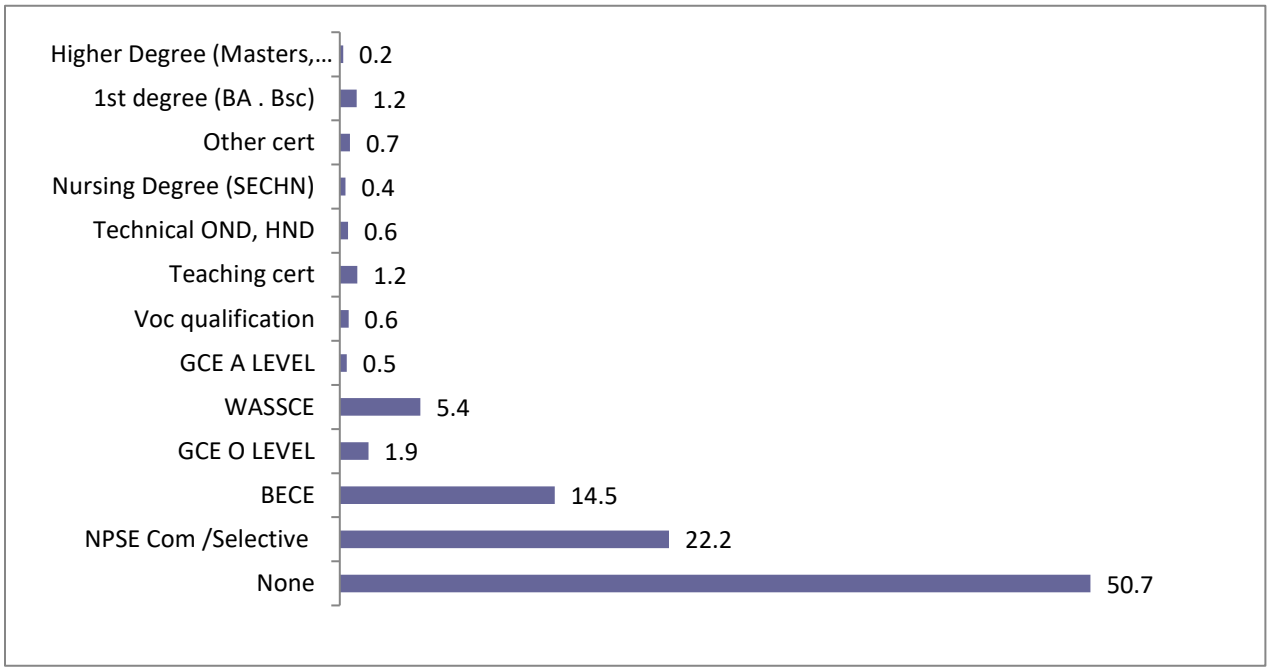
The status of districts regarding educational attainment is displayed in Table 2.3.3. As expected, the Western Area Urban district takes exceptional leads in all categories of attainment for Sierra Leoneans with higher degree (73.6 percent), first degree (62.7 percent), poly-technique (49.6 percent), Certificate (41.7 percent), Vocational (40.4 percent), Nursing (39.1 percent) and Teaching (14.9 percent).

With a concentration of the foregoing in one district, other districts are bound to attract the attention of limited professionals from the Western Area Urban district. Sierra Leoneans with higher degrees are mostly required in Karene, Kambia, Koinadugu, Falaba, Bonthe, Moyamba, Pujehun, Bombali, Kenema and Tonkolili where their presence is mostly less than 2 percent.

The worst results are observed in Falaba where apart from Teaching (2.1 percent) and Vocational (0.9 percent), there is the complete absence of Sierra Leoneans with other educational attainments. Other districts with limited educational attainment that require specific attention are Pujehun, Koinadugu, Bonthe, Moyamba, Tonkolili, Kailahun and Kono.

The 2018 SLIHS also investigated the highest qualifications obtained by household members and results are presented in Figure 2.3.5 where the reader can observe that over half of the population, 50.7 percent has no qualifications while 22.2 percent have gone through the National Primary School Examinations. Additionally, 14.5 percent and 1.9 percent are holders of the Basic Education and Ordinary respectively including Advanced Level (0.5 percent) and WASSCE (5.4 percent). It is also clear that far less than 2 percent of Sierra Leoneans with a first or higher degree, Holders of certificates from technical and vocational institutions, qualified teachers, nurses and other certificates all account for only 2.5 percent of the population.

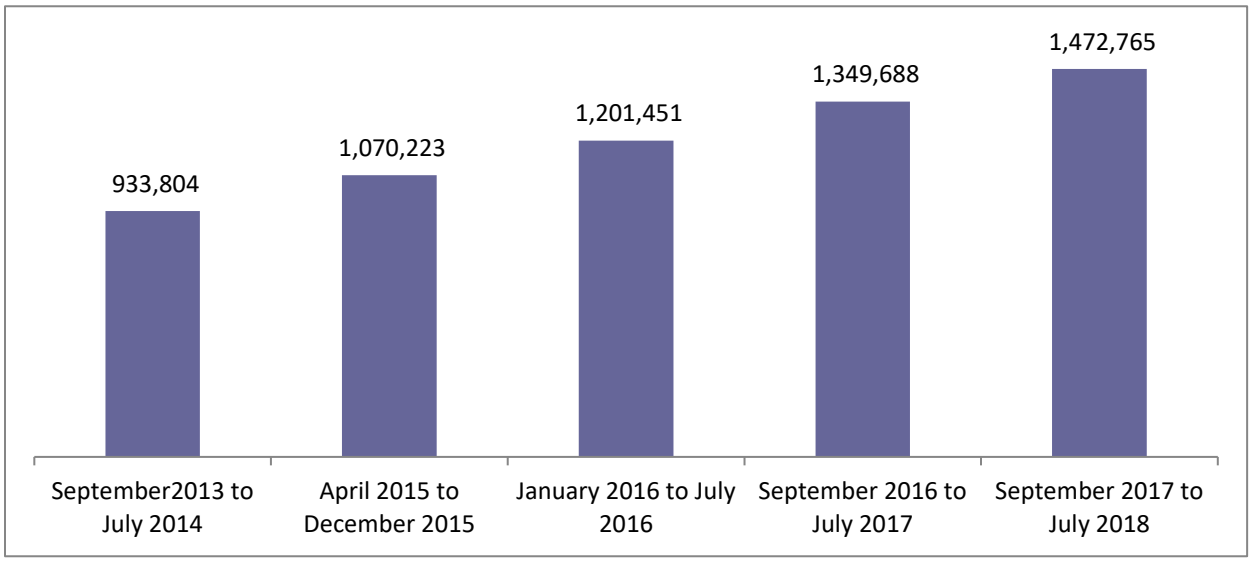
Figure 2.13: National Percentage Distributions of Highest Qualification Obtained



2.3 School Level Enrolment and Gross Enrolment Ratios

Enrolment in education is usually perceived in terms of school levels and refers essentially to the total number of pupils or students enlisted/enrolled in each school level within an academic year. The 2018 SLIHS captured information showing enrolment trends for five academic years, regarding all primary schools and the overall results are shown in Figure 2.14 Between September 2013 and July 2018, a 57.7 percent increase in primary level enrolment is observed.

Figure 2.14: Primary Level Total Enrolment Trends



Minimal sex differences were observed in primary level enrolment throughout the five year period. However, apart from 2013 / 2014 academic year when slightly more boys 50.4 percent than girls 49.6 percent were enrolled in all primary schools, in all other subsequent years investigated by the 2018 SLIHS, the percentages of girls slightly exceed those for boys as shown in Figure 2.15.

Figure 2.15: Primary Level Total Enrolment Trends by sex

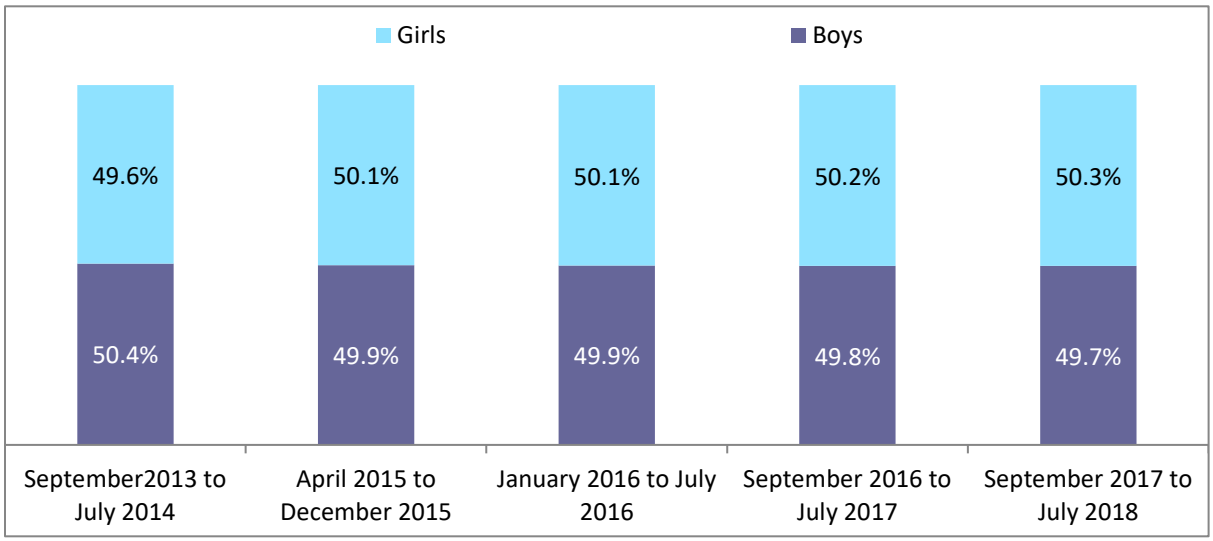


Figure 2.16 explains that at the Junior Secondary School level, an increase of 71.8 percent in national enrolment was observed as 236,659 pupils in September 2013 increased to 406,548 pupils by July 2018. Although marked disparities for boys and girls were observed in 2013/2014

academic year, little or no differences were observed in subsequent academic years as shown in Chart 2.4.4 below.

Figure 2.16: JSS Level Total Enrolment Trends

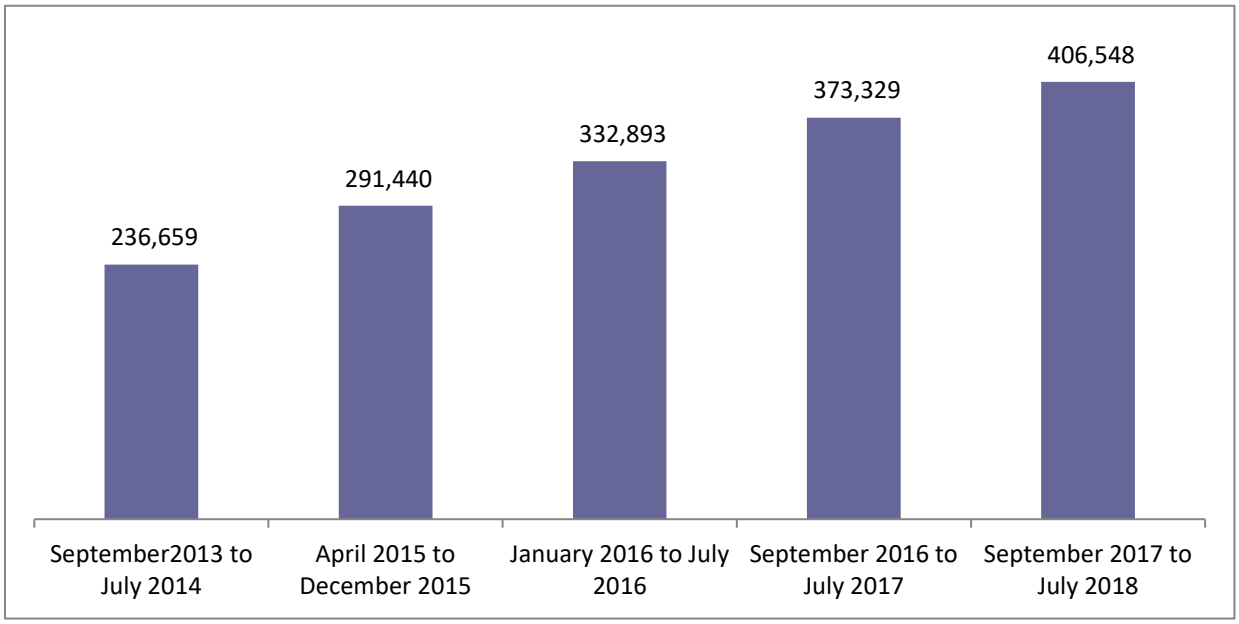
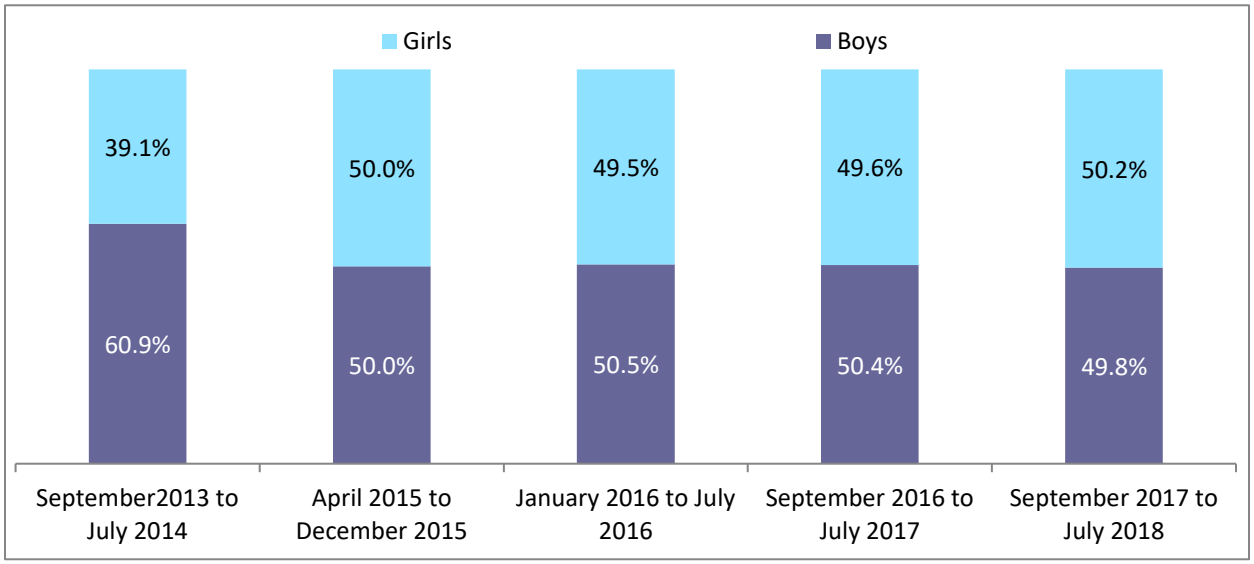
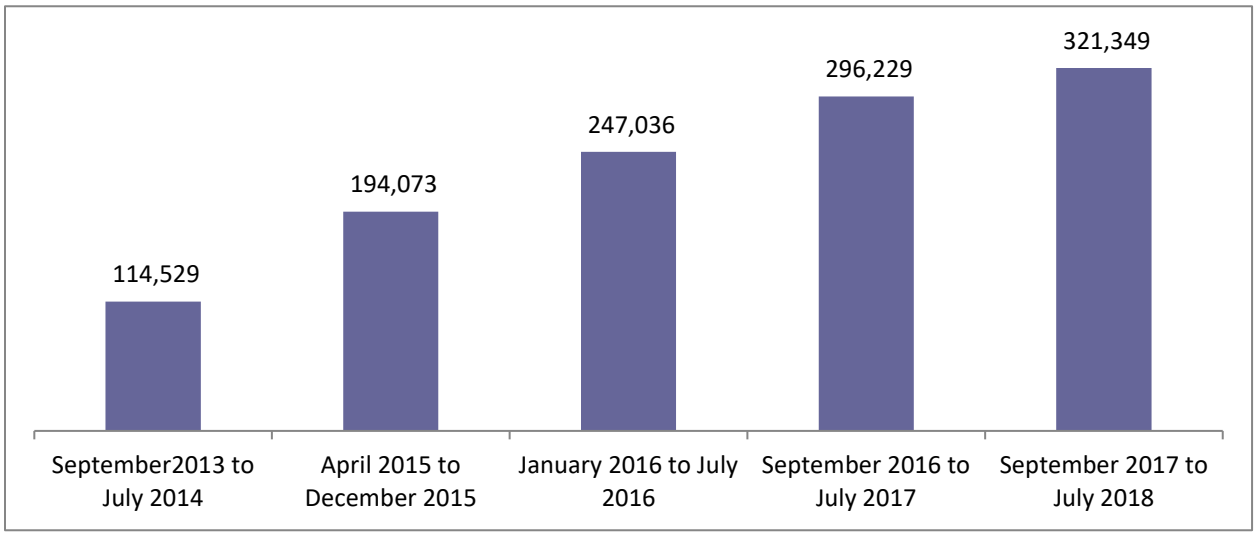


Figure 2.17: JSS Level Total Enrolment Trends by sex



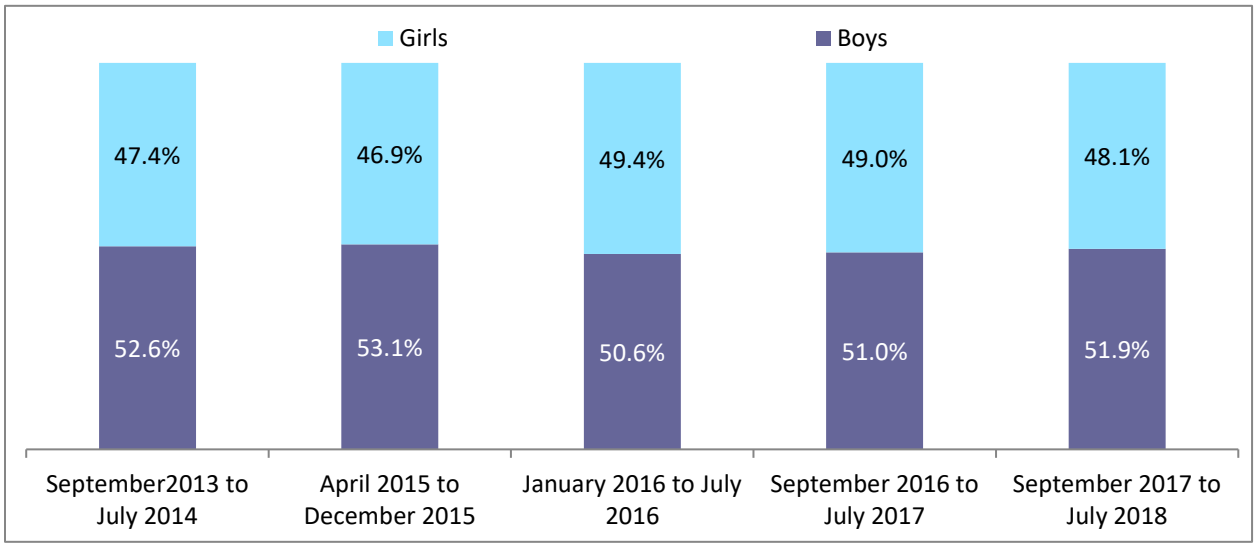
At the Senior Secondary School level, total enrolment increased from 114,529 pupils in September 2013/2014 academic year to 321,349 pupils in September 2017/2018 academic year as demonstrated in Figure 2.18 below.

Figure 2.18: SSS Level Total Enrolment Trends



At the Senior Secondary School level, marked disparities between boys and girls are evident throughout the 2018 SLIHS. At the onset in September 2013 / 2014 academic year, enrolment for boys and girls were 52.6 percent and 47.4 percent respectively. This is the common occurrence in education that should be tackled holistically to acquire gender parity. September 2017 / July 2018 when percentages for Boys and Girls stood as 51.9 percent and 48.1 percent respectively as demonstrated in Figure 2.19.

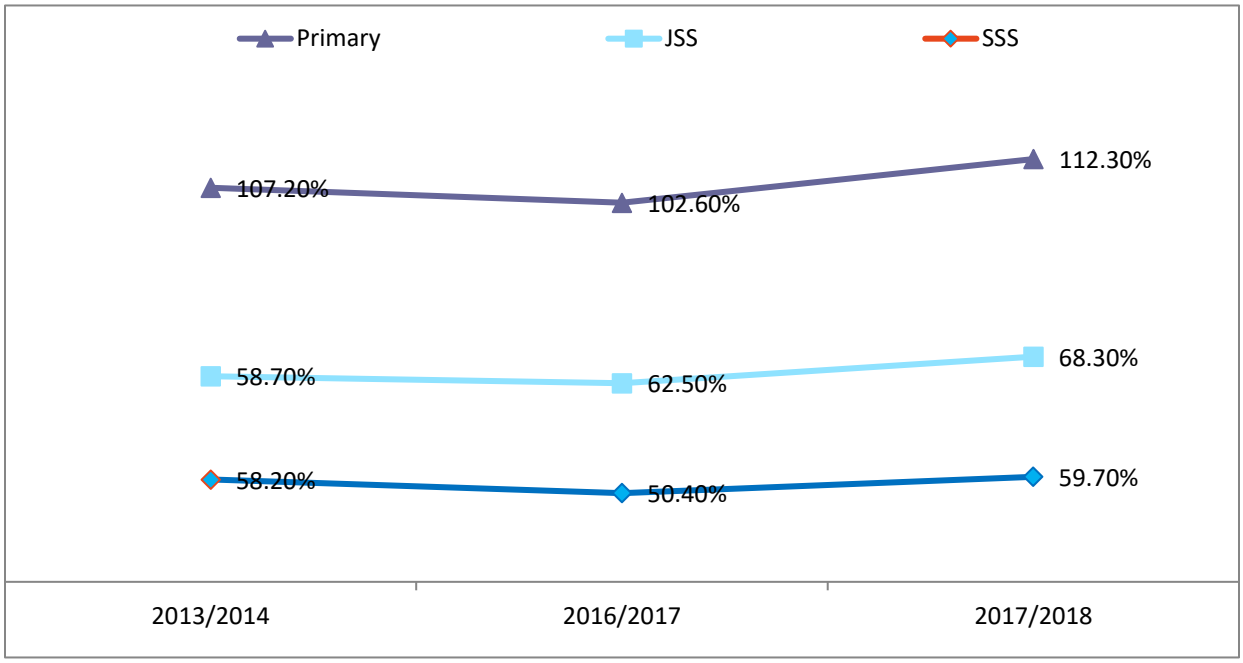
Figure 2.19: SSS Level Total Enrolment Trends by sex



Gross enrolment is the number of students enrolled in a given level of education, regardless of age, expressed as a percentage of the official school age population corresponding to the same

level of education. The total Gross Enrolment Ratios (GERs) for Primary, Junior Secondary School and Senior Secondary School are computed for 2013/2014, 2016/2017 and 2017/2018 academic years and the results are shown in Figure 2.20.

Figure 2.20: Trends in Gross Enrolment Ratios for Primary, JSS and SSS



Higher GERs for the Primary level indicates a high degree of participation, whether pupils belong to the official age group or not. GERs approaching or exceeding 100percent indicates that Sierra Leone is, in principle, able to accommodate all of its school-age population, but it does not indicate the proportion already enrolled. The achievement of GERs of 100percent at the Primary level is a necessary but not sufficient condition for enrolling all eligible pupils in school at that level. Since the GERs exceeds 90percent at the Primary level of education, the aggregate number of places for pupils is approaching the number required for universal access of the official age group. However, the interpretation is only meaningful if one can expect the under-aged and over-aged enrolment to decline in the future to accommodate pupils from the expected age group. Additionally, GERs exceeding 100 percent at the Primary level suggest the inclusion of over-aged and under-aged pupils due to early or late entrants and class repetition.

Alternatively, the general level of participation at the JSS and SSS levels is worrying since the GERs are far below 100 percent.

2.4 Literacy and Numeracy

Figure 2.21: National and Regional Literacy Rates by Sex

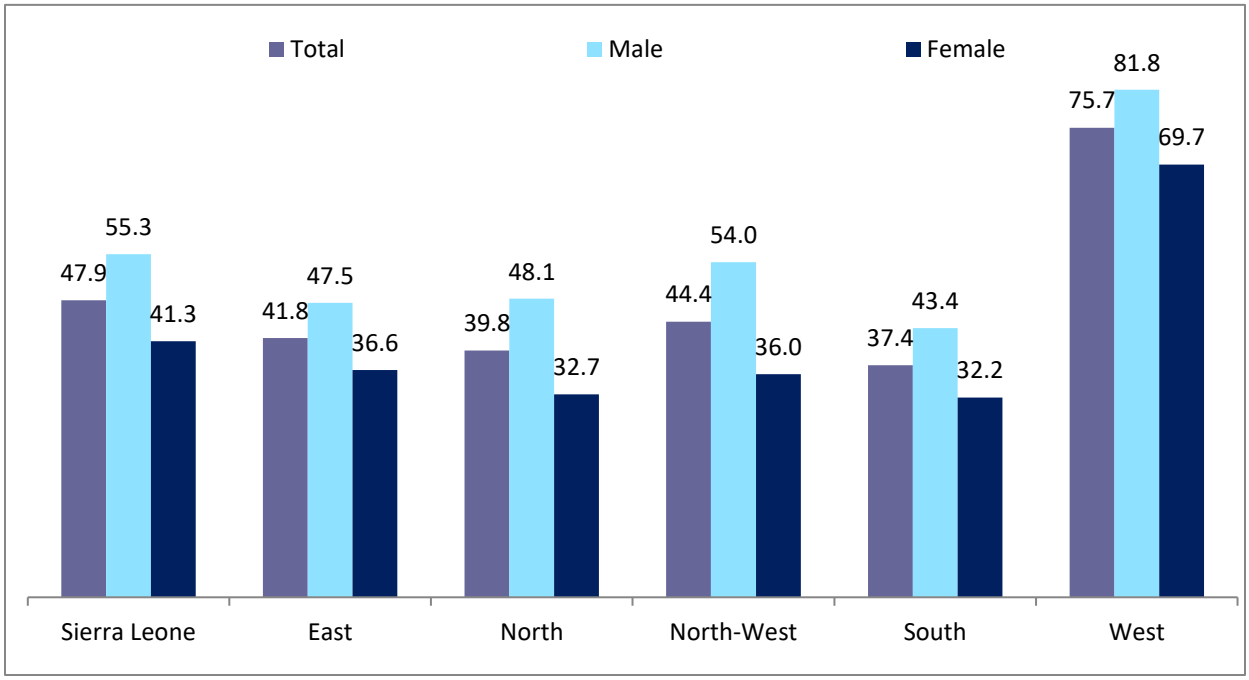
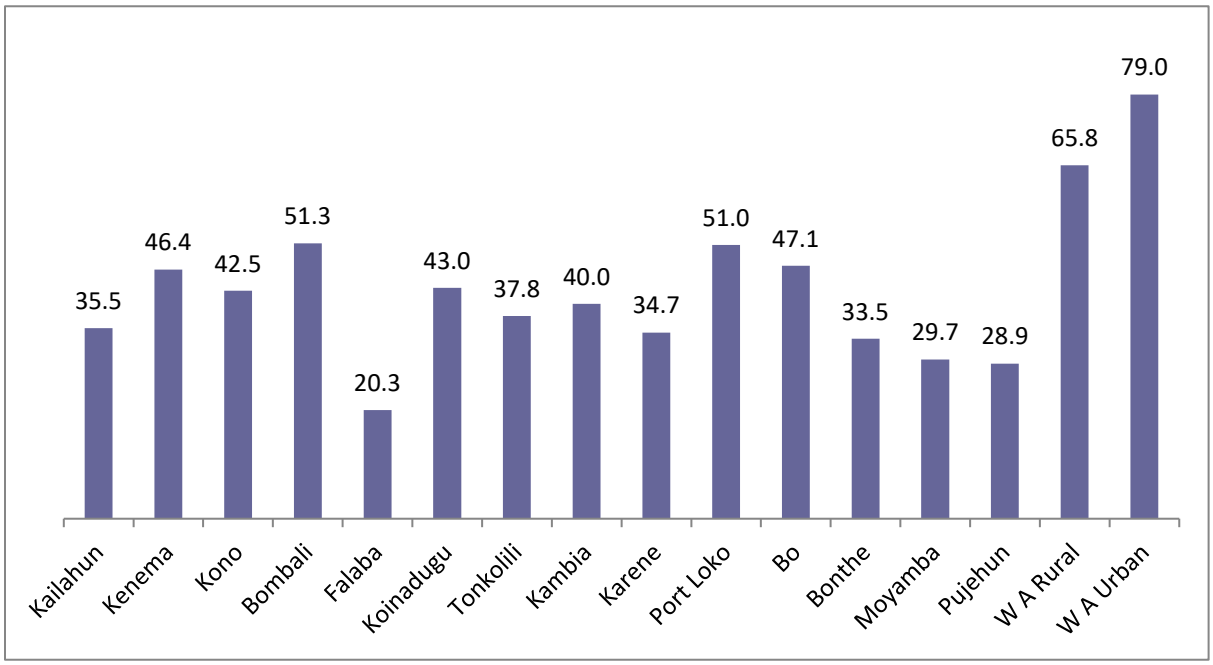


Figure 2.21 illustrates the level of literacy in Sierra Leone and shows that national literacy level is still below 50 percent. However, the gender disparity still looms in the sector. All the three regional figures (East, North, North-West and South) fall below the national average and the West looks like an outlier with almost 78 percent functional literacy.

Figure2.22 shows total literacy (can read, write English and at least one local language and perform arithmetic operations) depicts that Bombali, Port Loko, Western Rural and Western Urban Districts recorded higher levels than the national average.

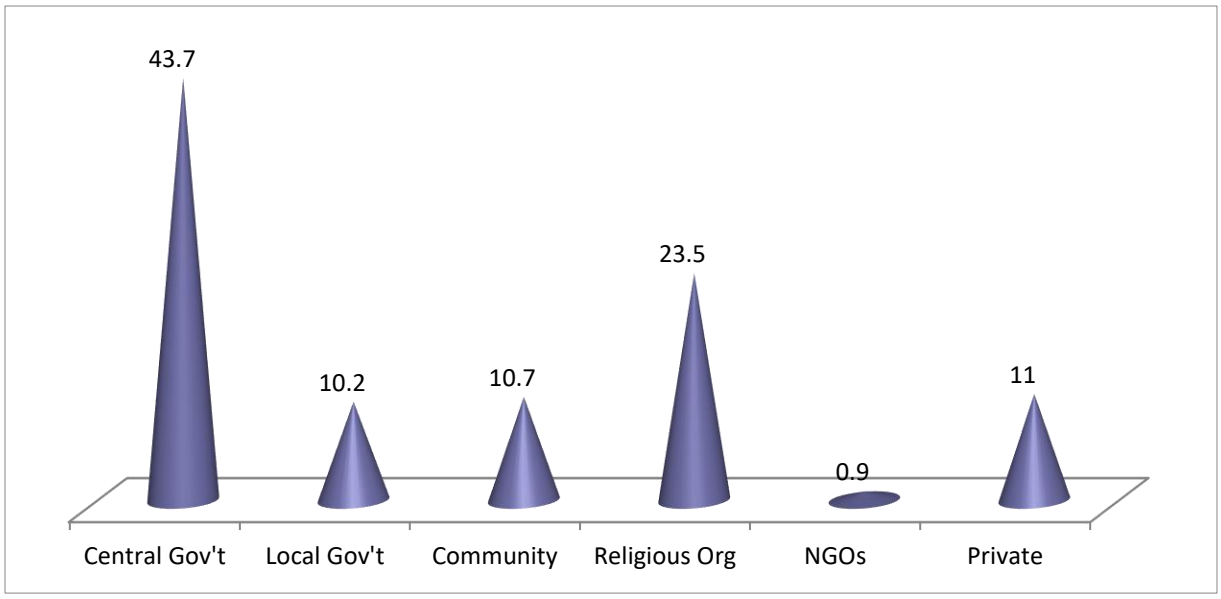
Figure 2.22: Total Literacy Rates by Districts



2.5 School Ownership

School ownership depicts the sort of Private Public Partnership that exists in the educational sector. Figure 2.23 shows the GoSL as the major player in this sector followed by religious organisations with the Private sector, local government and Community playing fairly reasonable roles as owners of schools and missions.

Figure 2.23: Percentage Distribution of Schools by Ownership



CHAPTER THREE - HEALTH ISSUES AND DISABILITY

3.0 Introduction

The availability of credible data on the health conditions of the population is crucial for planning, policy formulation and monitoring and evaluation of programmes that are developed and implemented for better outcomes within the health sector. The Sierra Leone 2018 Integrated Household Survey (SLIHS-2018) data was collected on protection against malaria by asking respondents whether or not they slept under a mosquito net and especially a treated net, the night preceding the interview. The survey also collected data on the health conditions of household members for the past four weeks preceding the interview; the type illness, whether or not a health facility or medical practitioner was consulted for the illness and the expenditure incurred in seeking medical attention. Information was also collected about preventive health care and vaccination for children 5 years and under; fertility, prenatal and post-natal care.

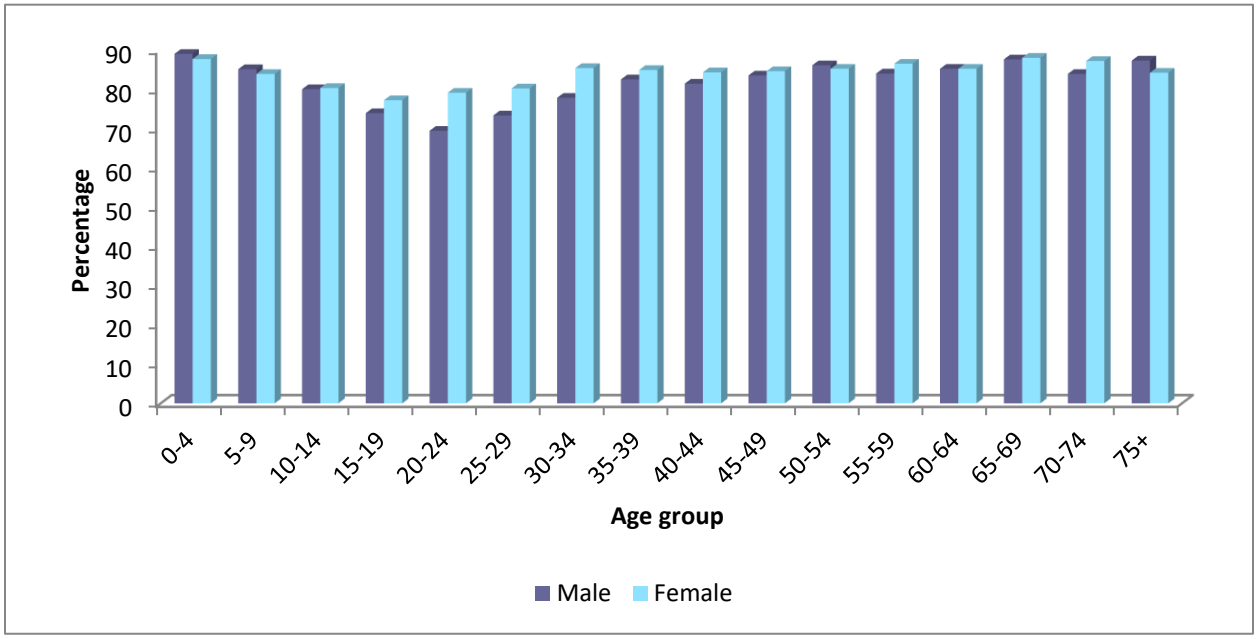
3.1. Protection against malaria

Malaria is still considered the world's highest killer disease especially among women and children. One of the objectives of the Roll Back Malaria (RBM) initiative is to devise measures for malaria control and prevention. The intervention areas among others include: monitoring and evaluation to assess the extent of implementation of several malaria control and protection strategies. One of these strategies is the supply of insecticide treatment nets to households in order to increase the number of people especially pregnant women and under-five children that sleep under a bed net. Other strategies include advocacy, information, education communication and social mobilization. To find out whether the population used one of the preventive methods against malaria, the SLIHS-2018 asked all household members whether or not they slept under a mosquito net. The results from Figure 3.1 show that more children age 0-4 years slept under a mosquito net the night preceding the interview for both male and female than any persons (89.1 and 87.8 percent respectively). As age increases, the percentage of persons that slept under a mosquito net reduces from 85.2 percent males and 80.4 percent females for age 5-9 years to 74.0 percent males and 77.3 percent females for age 15-19 years. There is a further decrease to 69.5 percent for males 20-24 years old.

It is expected that when children grow older from 5 to 9 years, they no longer sleep with their mothers as younger children do, so the likelihood for them to sleep under a mosquito net reduces. However, as age increases from 40 years and above the percentage of persons sleeping under a mosquito net is maintained at above 80 percent for both males and females. However, more females in the childbearing age group sleep under a mosquito net more than their men

counterparts. This is probably due to childbearing preventive care for pregnant women and lactating mothers.

Figure 3.1: Percentage by sex of population that slept under any mosquito net according to age group



There are variations in the percentage of persons that slept under a mosquito net within the administrative divisions of the country. Table D1.1 showed the percentage of persons that slept under a mosquito net by sex and by administrative division.

In Sierra Leone, slightly more females than males slept under a mosquito net (83.2 and 81.5 percent respectively). The Western Region shows a striking difference in the percentage of persons that slept under a mosquito net; less than half (48.6 percent) of males in the Western Area slept under a mosquito net and this compares to just more than half (52.1 percent) of their female counterparts. The Southern Region recorded the highest percentage of both males and females that slept under a mosquito net (92.7 and 93.7 percent respectively). More rural residents slept under a mosquito net more than their urban counterparts. Nine out of every 10 males or females in the rural areas slept under a mosquito net compared to just about two-thirds of each in the urban areas. Within the districts, more than 97 percent of males in Bonthe, Pujehun and Falaba slept under a mosquito whilst less than half (46.6 percent) of males in the Western Area Urban slept in under a mosquito net. The situation for females showed that almost all females (98.7 percent) in Kailahun District slept under a mosquito net; whilst the percentage

of females that slept under a mosquito net is almost the same as males in Bonthe, Pujehun, Falaba and Western Area Urban (97.6, 98.1, 96.9 and 48.9 percent respectively)

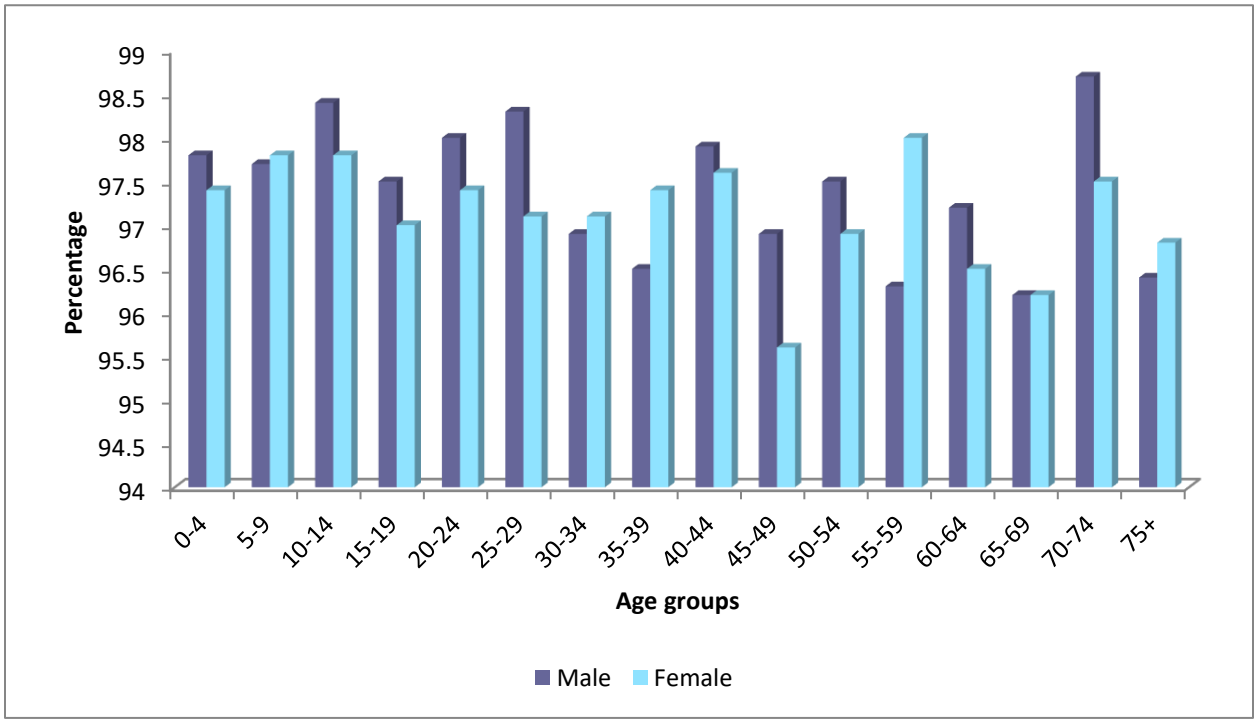
Table 3.1: Percentage of persons that slept under a mosquito net by sex and Administrative divisions

Administrative division	Male	Female	Total male	Total Female
Sierra Leone	81.5	83.2	3481656	3780135
Region				
East	87.2	89.2	742662	800187
North	88.9	89.3	773878	858705
North West	87.6	88.2	609224	660544
South	92.7	93.7	699579	769343
West	48.6	52.1	656313	691356
Place of residence				
Rural	90.0	91.4	2194666	2388265
Urban	67.0	69.0	1286990	1391870
District				
Kailahun	96.2	98.7	256611	270670
Kenema	82.3	85.8	301214	338320
Kono	82.6	81.9	184837	191197
Bombali	91.1	89.9	194640	198408
Falaba	97.5	96.9	106959	127346
Koinadugu	95.5	94.7	120779	130351
Tonkolili	82.8	84.9	351500	402600
Kambia	92.9	93.8	179322	191430
Karene	91.0	91.4	129553	135740
Port Loko	82.9	83.8	300349	333374
Bo	89.1	91.2	274940	317786
Bonthe	97.8	97.6	104496	114058
Moyamba	90.8	91.3	163825	168875
Pujehun	97.7	98.1	156318	168624
Western Area Rural	54.2	60.8	176393	185536
Western Area Urban	46.6	48.9	479920	505820

An insecticide treated bed net is found to be more effective in preventing malaria than an ordinary net that is not treated. A treated net repels mosquitoes and therefore considered to be a better preventive measure. Out of those that slept under a mosquito net, the SLIHS-2018 further investigated whether the net was treated with insecticides or dipped into some kind of

medicine. The results from table 3.2 presented the percentage of persons that slept under a treated mosquito net by five-year age group and sex. It can be seen from table 3.2 that of those that slept under a mosquito net, more that 9 out of every 10 for both males and females for all age groups slept under a treated mosquito net. Interestingly, more males between 15 and 29 years slept under a treated net than their female counterparts; on the contrary, slightly more females between 30 and 39 years slept under a treated net than males in the same age bracket.

Figure 3.2: Percentage of persons that slept under a treated mosquito net by five year age group and sex



There are slight variations in the percentage of those that slept under a treated net by administrative division. Table 3.2 showed the percentage to persons that slept under a treated net by sex and administrative division.

Again, out of those that slept under a net, more than 9 out of every 10 males or females slept under a treated net (97.6 and 97.3 percent for males and females respectively). There is slight sex variations in the percentage of persons that slept under a treated net in the regions but in most of them, more than 98 percent of both males and females slept under a treated net except for the North-Western Region where the percentages are about 95 percent for males and females and Western Region where slightly more males (96.1 percent) than females (95.1 percent) slept under a treated net.

Slightly more rural residents slept under a treated net than their urban counterparts (97.9 and 97.7 percent for both males and females in rural areas compared to 96.9 and 96.5 for both males and females in the urban areas). In each case more males than females slept under a treated net. District level disaggregation showed that all of those that slept under a mosquito net in Falaba and Bothe Districts slept under a treated net. Whilst more than 9 out **of every 10** for both males and females slept under a treated net in all other districts; Karene has about 4 out of every 5 for both males and females that slept under a treated net.

Table 3.2: Percentage of persons that slept under a treated net by sex and by administrative division

New Administrative division	Male	Female	Total male	Total Female
Sierra Leone	97.6	97.3	2837077	3144330
District				
Kailahun	99.8	99.6	246899	247,098
Kenema	97.2	97.3	248024	248,218
Kono	99.0	98.8	152666	152,864
Bombali	94.8	94.5	177360	177,549
Falaba	100.0	100.0	104267	104,467
Koinadugu	99.8	99.8	115361	115,561
Tonkolili	99.3	99.3	291200	291,399
Kambia	96.4	96.0	166524	166,716
Karene	84.5	81.9	117854	118,020
Port Loko	99.8	99.9	249058	249,258
Bo	98.0	97.7	245078	245,274
Bonthe	100.0	100.0	102165	102,365
Moyamba	98.6	97.0	148715	148,911
Pujehun	98.1	98.8	152799	152,996
Western Area Rural	96.3	94.9	95667	95,858
Western Area Urban	96.1	95.2	223440	223,631

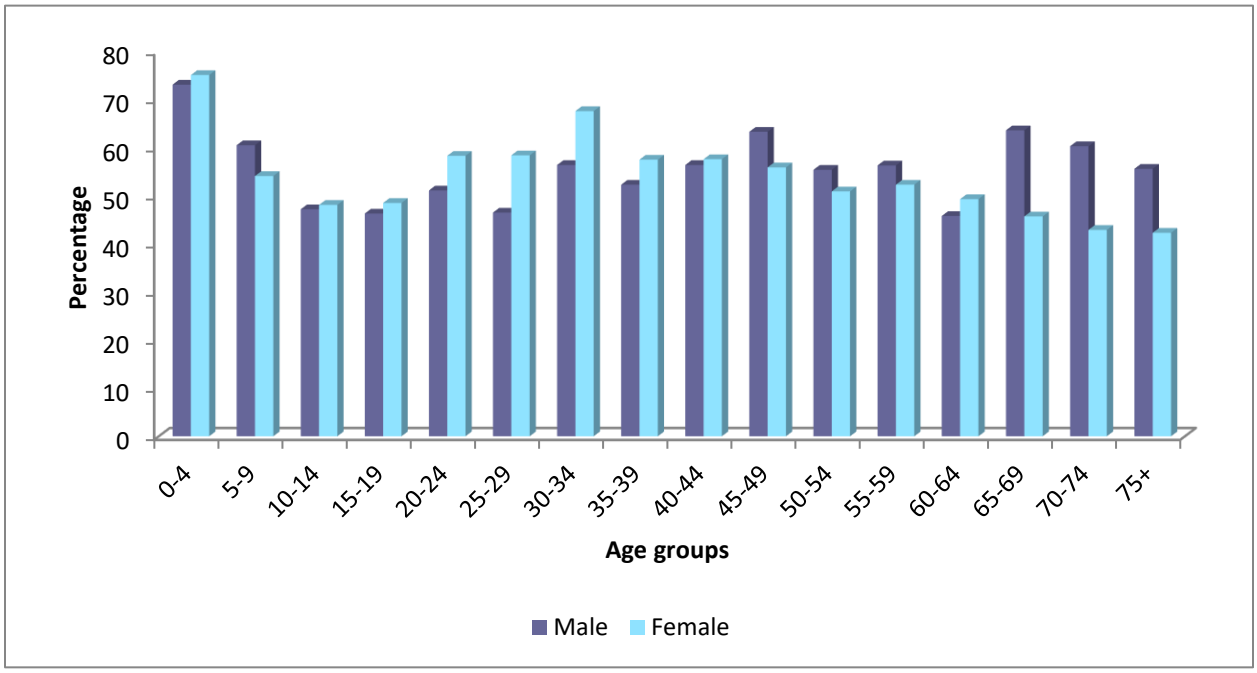
3.2 Health conditions four weeks preceding the interview

Figure 3.3 shows that there are slight variations between sexes in the different age groups in reporting and illness or injury for the past four weeks preceding the interview.

It can be seen that nearly one-third of children 0-4 years, both male and female reported an illness or injury (32.0 and 31.9 percent respectively). The percentage of those that reported an illness or injury decreases as age increases from 5 to 19 years; 23.2 to 14.9 percent for males and 23.2 to 16.8 percent for females. This means that the school-going age population is less

susceptible to illness or injury. As expected, older people reported an illness or injury that the younger people. Nearly half of those age 75 years and above reported an illness or injury for the past 4 weeks preceding the interview (49.5 and 48.1 percent of males and females respectively).

Figure 3.3: Percentage distribution of persons who reported sick or injured in the 4 weeks preceding the interview by sex and age group



Across the regions, slightly more females reported an illness or injury than males. Table 3.3 presented the percentage of persons that reported sick or injured in the past 4 weeks preceding the interview by sex and administrative division. Less people in the Eastern Region reported an illness or injury than their counterparts in the other regions. Just about one in every 5 males or females reported an illness or injury in the past 4 weeks preceding the interview in the Eastern Region. There are slight differences in reporting an illness between rural and urban residents; however, more females in both rural and urban areas reported an illness or injury than their male counterparts (26.4 and 25.7 percent females in rural and urban areas respectively, compared to 25.4 and 23.3 percent males in rural and urban areas respectively). More people in the rural areas report an illness or injury than their urban counterparts.

Among some districts, there are slight differences regarding to illness or injury; with the exception of Tonkolili District where the percentage of males and females reporting an illness or injury jumped to 37 and 41 percent respectively. For all other districts, the percentage is between 20 and 33 percent for both males and females. Kailahun and Falaba District showed a slight

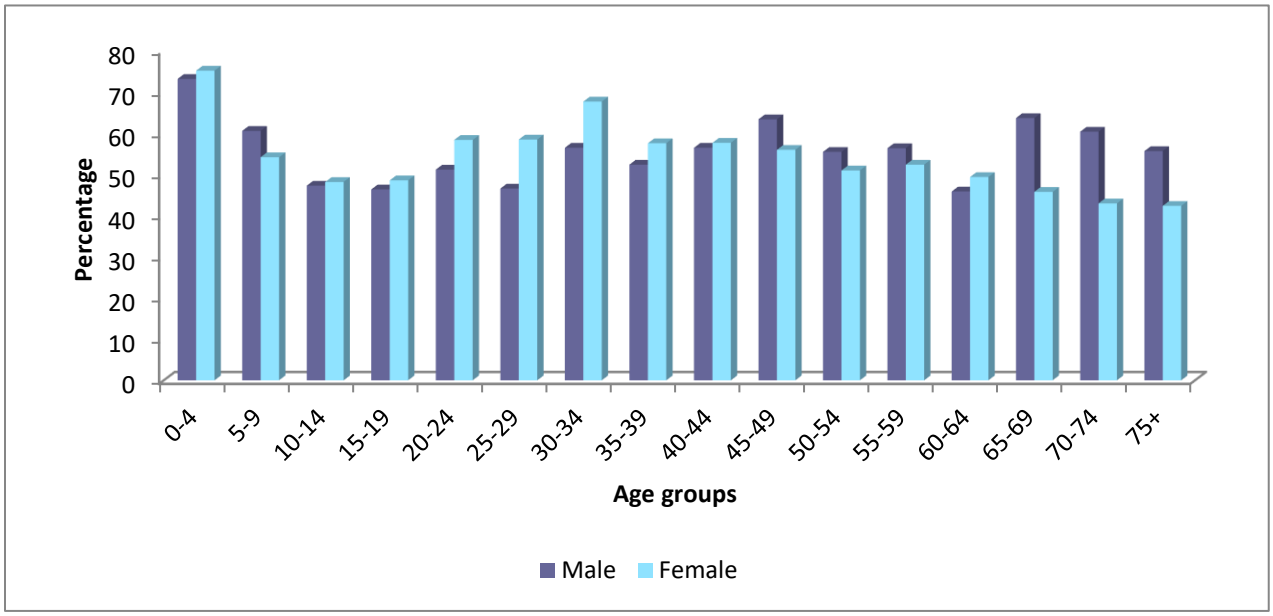
departure from the rest of the other districts where less that 20 percent of both sexes reported an illness or injury in the past 4 weeks preceding the interview.

Table 3.3: Percentage of persons that reported sick or injured in the past 4 weeks by sex and administrative division

New Administrative division	Male	Female	Total males	Total females
Sierra Leone	24.6	26.1	3481656	3780135
District				
Kailahun	17.4	18.3	256611	270670
Kenema	20.2	22.2	301214	338320
Kono	20.4	19.9	184837	191197
Bombali	22.8	23.4	194640	198408
Falaba	18.2	16.2	106959	127346
Koinadugu	14.1	15.4	120779	130351
Tonkolili	37.4	41.8	351500	402600
Kambia	24.5	24.3	179322	191430
Karene	26.5	28.2	129553	135740
Port Loko	29.1	31.0	300349	333374
Bo	33.0	30.6	274940	317786
Bonthe	24.6	29.0	104496	114058
Moyamba	25.3	24.9	163825	168875
Pujehun	22.1	21.7	156318	168624
Western Area Rural	26.5	33.1	176393	185536
Western Area Urban	20.0	22.0	479920	505820

Those who fell ill or injured were also asked whether they visited a health facility or consulted a medical practitioner for the illness or injury. Figure 3.3 presents the percentage of persons that fell ill or injured in the past 4 weeks preceding the interview by sex and age group. The findings are that more children (0-4 years, 73.1% males and 75.1% females) visited a health facility or medical practitioner for an illness or injury than any other age group. Considering the child bearing age of 15-49 years for females, more of those between 30 and 34 years visited a health facility or medical practitioner than their colleagues in the other age groups. The percentage of females visiting a health facility decreases as the age increases from 40 to 49 years and further decreases from 50 to 75 years.

Figure 3.4: Percentage distribution of persons who reported an illness or injury and visited a health facility or medical practitioner by sex and age group



For the country as a whole, nearly 6 out every 10 of those that reported an illness or injury visited a health facility or medical practitioner (58.5 and 57.7 for males and females respectively).

In the Northern Region, exactly half of those that fell ill or injured visited a health facility or medical practitioner. More people in the Eastern Region reported to a health facility with more than two-thirds (69.5 and 70.6 percent of males and females respectively), whilst just nearly 6 out of every 10 in the other regions visited a health facility or medical practitioner. A similar situation is observed within rural and urban dwellers; again nearly 6 out of every 10 for both rural and urban residents visited a health facility or medical practitioner when they fall ill or injured.

Fewer people in Tonkolili District visited a health facility or medical facility when the fell ill or injured in the past 4 weeks before the interview (45.4 and 47.1 percent for males and females respectively), followed by Karene District with 48.8 and 52.6 percent of males and females respectively. However, more than two-thirds of those in Kailahun and Kenema Districts visited a health facility or a medical practitioner when they fall ill or injured.

Table 3.4: Percentage and Total number of persons who reported an illness or injury and visited a health facility or medical practitioner by sex and Region

	Male(percent)	Female(percent)	Total males	Total females
Sierra Leone	58.5	57.7	856530	967834
Region				
East	69.5	70.6	143240	162703
North	50.0	50.0	212222	255496
North West	59.6	59.0	165673	188067
South	58.7	56.7	192385	209083
West	58.4	56.5	143010	172485

Appendix 3 shows the percentage of persons that consulted various medical practitioners by sex and age group. Nearly three-quarters (74.7 percent) of male children age 0-4 years were seen by a nurse when they fall ill or injured whilst only 11.1 percent were seen by a doctor. No child of this age group was taken a spiritualist for consultation. This shows that there is increasing awareness in the country about seeking medical attention in a health facility instead of opting for spiritual healing.

More females than males in the 20-24 years age group consulted a nurse when they fall ill or injured (58.1 and 31.8 percent respectively).

There are variations across the country regarding the type of medical practitioner consulted. (See Appendix 3) which shows that the percentage of persons by type of medical practitioner consulted by administrative division and sex.

In Sierra Leone, slightly more than half (51.1 percent) of the males that fell ill in the past 4 weeks before the interview reported that they consulted a nurse/SRN and slightly more than one-fifth (23.7 percent) visited a doctor. More than half of the males (54.9 percent) in the Western Area visited a doctor whilst just more than one-fifth (22.3 percent) of males went to a nurse/SRN when they fell ill or injured in the past 4 weeks before the interview. The reverse of this situation is observed in the other regions. More than half of the males in the each of the Eastern, Northern, North-Western and Southern regions (55.1, 58.3, 53.1 and 59.1 percent respectively) whilst just about one-fifth of males in the Eastern and Northern Regions (20.4 and 22.8 percent respectively) consulted a doctor for their illness or injury.

A similar situation is also observed in most of the districts (except Western Area Rural and Western Area Urban and Kono districts), where more than half of the visits were made to a nurse/ SRN and just around 20 percent to a doctor. Access to a doctor is limited by males in Falaba and Pujehun Districts (6.2 and 6.4 percent respectively) compared to access to a nurse/SRN; more

than three-quarters of males reported that they consulted a nurse/SRN in Falaba and Pujehun Districts (79.5 and 75.6 percent respectively).

Six out of every 10 (60.1 percent) females in Sierra Leone that fell ill or injured in the past for weeks preceding the interview reported that they consulted a nurse/SRN compared to just nearly one-fifth that visited a doctor. Slightly more than two-thirds (67.4 percent) of females in North-Western Region consulted a nurse/SRN compared to just about one-tenth (9.9 percent) that visited a doctor. As expected, females in the Western Region had more access to a doctor than their counterparts in the rest of the other regions; more than 2 out of every 5 (43.9 percent) females reported that they had seen a doctor, compared to less than 1 out of every 5 in the Eastern and Northern Regions (17.5 and 18.7 percent respectively). Conversely, about 1 out of every 3 (34. 8 percent) females in the Western Area consulted a nurse/SRN compared to nearly 2 out of every 3 females in the Eastern and Northern Regions (62.8 and 65.8 percent respectively). This shows that whilst those in the Western Area, where the country's capital is located had more access to a doctor, those in the other regions had similar access to a nurse/SRN.

Across the districts, nearly half (49.2 percent) of the females in the Western Area reported that they had seen a doctor compared to less than one-third (27.0 percent) that visited a nurse/SRN. Females in Falaba and Pujehun are more likely to see a nurse than their counterparts in the rest of the other districts (79.2 and 80.3 percent respectively) and the least to visit a doctor when they fell ill or injured in the past 4 weeks preceding the interview. No female in Falaba district visited a doctor and only 3.8 percent of females in Pujehun District visited a doctor.

Overall, more people consulted a nurse/SRN than any of the other medical practitioners when they fell ill or injured in the past 4 weeks preceding the interview. However, females had more access to see a nurse/SRN than their male counterparts in Sierra Leone (60.1 and 51.1 percent respectively), compared to access to a doctor which is 23.7 and 19.2 percent for males and females respectively. Females in the rural areas had more access to a nurse/SRN than their male counterparts (72.6 and 62.8 percent respectively). Visit to CHOs is made by just 13.5 percent of males and 10.5 percent of females in the country. Traditional healing is less than 1 percent whilst having medication from medicine vendor is less than 2.4 percent for both males and females. There is increasing awareness in the country about getting medical advice from trained medical personnel.

3.2.1 Type of illness

Malaria is the most common illness that was reported by respondents who consulted a medical practitioner when they fell ill for the past 4 weeks preceding the survey. Tables 3.5.and 3.6 presents the percentage distribution of person that reported sick or injured in the past 4 weeks by type of illness diagnosed and by age group and sex in Sierra Leone.

Malaria is common with children 5-9 years; about two-thirds of children (65.6 and 68.6 percent of male and female respectively) in this age group reported malaria compared to about half of those aged 0-4 years who also reported ill of malaria (49.3 and 52.1 percent male and female respectively). Malaria is reported across the different age groups more than any of the ailments regardless of the fact that more people slept under a mosquito net; this could mean that sleeping under a mosquito net might not be the most effective way of preventing malaria as mosquitoes might have bitten people during day time before going sleep under a mosquito net.

As expected, more children in the 0-4 years and adults 75 years and above were affected by cough or cold; this is likely due to low resistance to cold at young and old age respectively. Nearly 1 out of every 5 (19.4 percent) male children age 0-4 years and more than 1 out of every 5 male adults 75 years and above were affected by cold or cough in the past 4 weeks preceding the interview. A slightly different situation is observed for female children and adults of the same age groups; less than 1 out of every 5 (17.8 percent) female child age 0-4 years and also less than 1 out of every 5 (16.7 percent) female adult age 75 years and above.

The prevalence of hypertension is seen to be increasing with age from 65 to 75 years for females; 1 out of every 5 (20.3 percent) females aged 75 years and over reported hypertension as an illness in the past 4 weeks preceding the interview. Hypertension is reported much earlier by females than males; the data shows that this health condition manifests in males at age 35 years and above while in females it started much earlier at age 25 years.

Appendix 3 shows the percentage distribution of persons that reported sick or injured in the past 4 weeks according to type of illness diagnosed by sex and regions. In Sierra Leone, almost half (49.8 percent) of the respondents were diagnosed of malaria. This is followed by cold/cough which was reported by 14.3 percent of respondents. Typhoid was reported by 2.5 percent of respondents followed by hypertension with 2.1 percent of respondents. Those who reported for preventive care were 6.5 percent.

The prevalence of malaria seemed to be uniform across the five regions for both males and females; with the exception of males in Eastern Region, where 45.9 percent reported malaria, in the rest of the other regions, malaria is reported by about half of the respondents for both male and female ranging between 47.5 percent of females in the Northern Region to 54.6 percent of males in the Western Area.

Cold or cough is mostly reported by respondents in the Western area than those in the other regions. Nearly one-fifth of both males and females (18.9 and 18.8 percent respectively) in the Western Area reported cold or cough in the past 4 weeks preceding the interview. Respondents in the Northern Region are least affected by cold and cough compared with their counterparts in the rest of the other regions. About one-tenth of both males and females (11.9 and 10.9 percent

respectively) in the Northern Region reported cold or cough in the past 4 weeks preceding the interview, followed by those in the Eastern Region with slightly above one-tenth of both males and females (12.9 and 11.1 percent respectively) reported a cold or cough during the period.

Appendix 3 presents the percentage distribution of persons that reported sick or injured in the past 4 weeks according to type of illness diagnosed by sex and by district. As expected, malaria is the most common illness reported in the districts. There are sex differentials in reporting malaria across the districts. Females are more likely to report malaria than their male counterparts in most districts. In Kailahun District, nearly two-thirds (65.8 percent) females reported malaria, compared to about 6 out of every 10 males (59.5 percent). More than two-thirds of females (67.8 percent) and over half (54. 5 percent) of males in Koinadugu District reported malaria. Kenema District shows a slight departure from the other districts in reporting malaria; less than two-fifths (37.8 percent) of males and slightly above two-fifths of females (42.1 percent) of females reported malaria compared to other districts where malaria is reported by about half of the respondents.

Cold or cough is common among males in the Western Area Rural District than in the rest of the other districts; more than 1 out of every 5 males (23.7 percent) reported that they suffered from cold or cough, compared to less than 1 out of every 5 males that reported cold or cough in the other districts. Overall, more males reported cold or cough that their female counterparts across the districts.

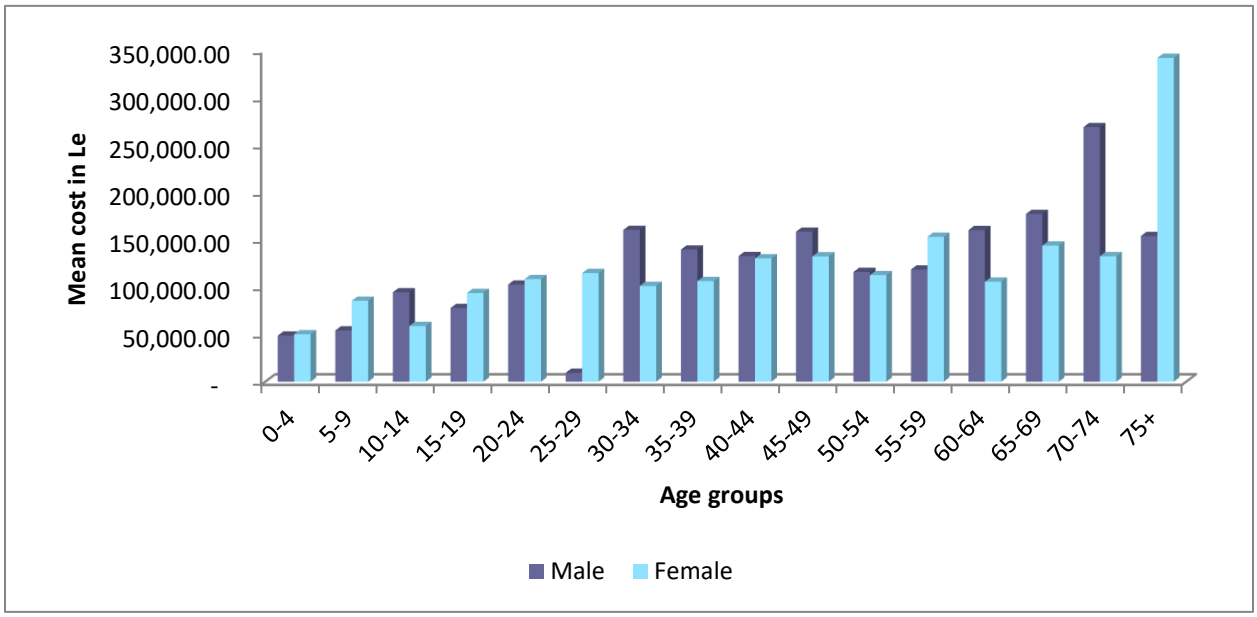
Although hypertension is not commonly reported, the results of the 2018 SLIHS show that 6.2 and 5.6 percent of females reported the condition in Bombali and Koinadugu Districts respectively. Across the districts, fewer males suffered from hypertension compared to their female counterparts. However, 4.0 percent of males and 4.2 percent of females reported hypertension in the Western Area Urban and Western Area Rural Districts respectively.

3.3 Cost of consultation

Within the Free Health Care Programme, it is expected that children under five years of age, pregnant women and lactating mothers will not pay for medical consultations (in government health facilities). The 2018 SLIHS asked all household members who reported ill or injured and visited a health facility, about the amount paid to see a health practitioner, buy medicines, cost of X-ray and other medical supplies. Figure 3.5 presents the mean cost of consultations, purchase of medicines, X-ray and other medical supplies by sex and age group. The cost for these services is least for children 0-4 years who are catered for by the Free Health Care; Le48, 650 and Le50, 150 for male and female children respectively. Within the Free Health Care programme, one would not expect any cost for medical services from children 0-4 years, the amount incurred could probably be due to seeking medical attention outside government health facilities.

Generally, females of child bearing age tend to pay less than their male counterparts except for the 25-29 years age group where females pay more for medical services (Le114, 800 and Le93, 810 respectively).

Figure 3.5: Mean cost of consultation, purchase of medicine, X-Ray and other medical supplies by sex and age group



As can been seen from Table 3.5, overall, mean cost of consultation, purchase of medicine, X-ray and other medical supplies is about Le103, 910 for males and Le103, 810 for females in Sierra Leone who fell ill or injured within the past 4 weeks preceding the interview and consulted a medical practitioner. The mean cost of these services varies across the regions with North-West paying less the Le70, 400(Le64, 400 and Le49, 710 for males and females respectively). Residents in the Western Area paid more than their counterparts in the other regions (Le180, 250 and 172,680 for males and females respectively).

Variations were also observed with the rural and urban residents; urban residents paid for consultations and other medical services than their rural counterparts (Le134, 300 and Le130, 090 for males and females respectively), compared to Le84, 890 and 85,679 for males and females respectively in the rural areas. This could be attributed to the fact that more residents in the urban areas seek medical services from a doctor with probably higher cost than a nurse from who most rural residents sought medical services.

Across the districts, variations are also observed; residents in Kambia District paid less than their counterparts in the other districts (Le56, 240 and Le45, 770 for males and females respectively). As expected, residents in the Western Area Urban District paid more than those in the rest of the other districts (Le192, 360 and Le178, 460 respectively).

Table 3.5: Mean cost of consultation, purchase of medicine, X-Ray and other medical supplies by administrative division and sex

Administrative division	Cost Le)	
	Male	Female
Sierra Leone	103,910.00	103,810.00
Region		
East	94,010.00	90,020.00
North	123,260.00	139,750.00
North West	64,400.00	49,710.00
South	76,700.00	86,890.00
West	180,250.00	172,680.00
Place of residence		
Rural	84,890.00	85,670.00
Urban	134,300.00	130,090.00
District		
Kailahun	104,710.00	109,090.00
Kenema	92,520.00	81,720.00
Kono	82,980.00	78,860.00
Bombali	91,060.00	94,210.00
Falaba	158,410.00	31,770.00
Koinadugu	109,060.00	104,650.00
Tonkolili	140,140.00	176,380.00
Kambia	56,240.00	45,770.00
Karene	77,940.00	59,260.00
Port Loko	64,930.00	48,920.00
Bo	81,500.00	100,120.00
Bonthe	64,850.00	91,500.00
Moyamba	70,130.00	81,070.00
Pujehun	79,320.00	56,570.00
Western Area Rural	141,140.00	154,740.00
Western Area Urban	192,360.00	178,460.00

3.4 Disability

The lack of available and universally acceptable data collection tools made it impossible to include disability in the Millennium Development Goals (MDGs) “Disability” is a popular topic globally especially with the coming of the Sustainable Development Goals (SDGs) which aims at “leaving no one behind”. People with disability are the most disadvantaged and the most at risk of being left behind. The need of disaggregating data by disability status becomes very necessary in ensuring the equalization of opportunities and equitable development of all.

In Sierra Leone disability is an area that has attracted the interest of central government, local councils and advocacy groups. Therefore, there is always the need for trustworthy measures of

disability prevalence, the incidence, the nature and the severity suffered by people living in communities and the country as a whole.

In an effort to get improved estimates on disability prevalence in the country, the Sierra Leone Integrated Household Survey (SLIHS) of 2018 used a different approach in measuring disability when compared to what was used in the 2015 Sierra Leone Population and Housing Census (SLPHC) and other surveys done by Stats SL. Two approaches were used; one asked about difficulties using the Washington Group (WG) six sets of functioning and the traditional questions of measuring disability. Using the traditional questions, the SLIHS of 2018 did not ask if "anyone in the households suffered from any form of disability" rather it asked, "Do you [does NAME] have any part of their body that does not work well?" The question was asked for every member of the household irrespective of age whilst the WG six sets of questions of seeing, hearing, walking or climbing steps, self-care, remembering or concentrating, and Communication were asked for persons 5 years and older.

According to the WG standards of classifying disability, persons who answered in the six domains as having "a lot a difficulty and cannot do at all" are persons considered as disabled. Whilst persons with "no difficulty and some difficulties" in all six domains are considered as not disabled.

Table 3.6 below shows that there are 310, 973 persons with disability in Sierra Leone accounting for 4.3 percent of the total population whilst 6,950,916 accounting for 95.7 percent are not disabled. When compared with the 2011 SLIHS which gave a national prevalence of 2.9 and the 2015 Population and Housing census (SLPHC) which gave a prevalence of 1.3, the SLIHS 2018 national prevalence of 4.3 percent is highest. Looking at regional divide, the northern region has the highest number of these persons with disability (96,236) followed by the Eastern region (72,460). The Western area has the least number of persons with disability (36,205).

Table 3.6: Count and percentage distribution of persons with and without disability by region

Region	With disability		Without disability		Total	
	Count	Percent	Count	Percent	Count	Percent
East	72,460	1	1,470,389	20.2	1,542,849	21.2
North	96,236	1.3	1,536,347	21.2	1,632,583	22.5
North West	47,029	0.7	1,222,739	16.8	1,269,768	17.5
South	59,043	0.8	1,409,977	19.4	1,469,020	20.2
West	36,205	0.5	1,311,464	18.1	1,347,669	18.6
Total	**310,973**	**4.3**	**6,950,916**	**95.7**	**7,261,889**	**100**

Map 3.1 below shows the prevalence of disability by district. Tonkolili district has the highest number of persons with disability (20percent) followed Kailahun (9.8percent). Bonthe district has the lowest number of persons with disability (1.6percent).

Map 3.1: Disability prevalence by district

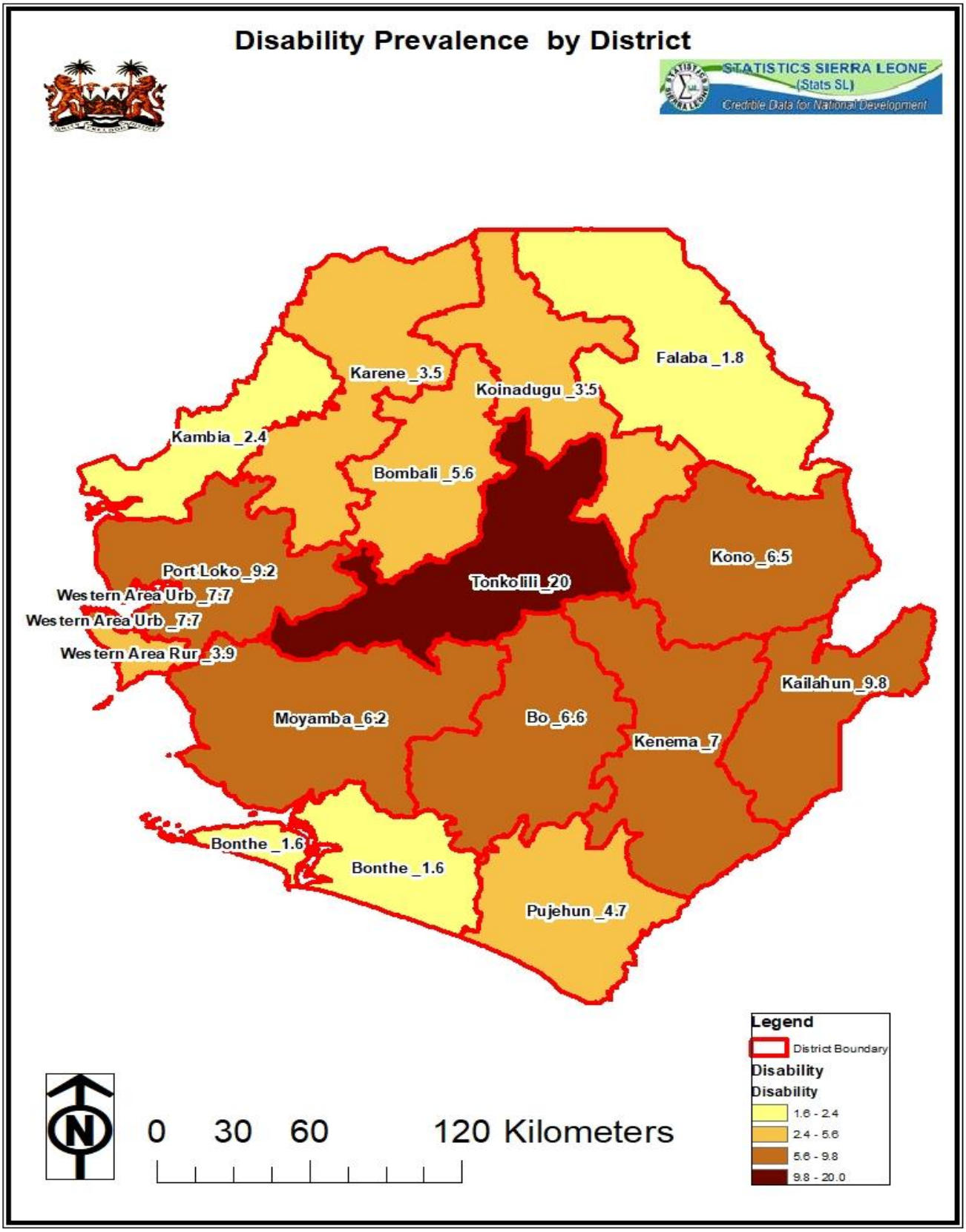


Table3.7 shows sex and district distribution of disability prevalence. The 2018 SLIHS findings show that there are more females with disability 50.1 percent compared to their male counterpart 49.9 percent. The situation seems different from the 2011 SLIHS wherein there were more males with disability than females (1.6 and 1.3 percent respectively).

A shift in the level of incidence of disability from males to females is of concern because findings have shown that disabled women and girls are "…at the corner of disability and womanhood – with two 'minority' identities, a double dose of discrimination and stereotyping and multiple barriers to achieving their life goals. While many women with disabilities derive enormous strength, resilience and creativity from their multiple identities, they also face the consequences of discrimination…." [2]

Tonkolili district has the highest number of disabled persons (62,250) followed by Kailahun (30,560) whilst Bonthe has the least number (4, 977).

There are more males and females with disability in Tonkolili district when compared with other districts.

[2] *Girls and Young Women with Disabilities, Harilyn Rousso, 2001*

Table 3.7: Count and percentage distribution of persons with disability by district and sex

DISTRICT	MALE		FEMALE		TOTAL PERSONS WITH DISABILITY BY DISTRICT	
	Count	percent	count	percent	Count	percent
Kailahun	15,929	5.1	14,631	4.7	30,560	9.8
Kenema	9,688	3.1	12,050	3.9	21,738	7
Kono	13,172	4.2	6,990	2.3	20,162	6.5
Bombali	9,116	2.9	8,436	2.7	17,552	5.6
Falaba	1,645	0.5	3,988	1.3	5,633	1.8
Koinadugu	6,464	2.1	4,337	1.4	10,801	3.5
Tonkolili	29,500	9.5	32,750	10.5	62,250	20
Kambia	4,290	1.4	3,168	1	7,458	2.4
Karene	4,935	1.6	5,878	1.9	10,813	3.5
Port Loko	14,318	4.6	14,440	4.6	28,758	9.2
Bo	9,202	3	11,224	3.6	20,426	6.6
Bonthe	2,828	0.9	2,149	0.7	4,977	1.6
Moyamba	8,340	2.7	10,750	3.5	19,090	6.2
Pujehun	8,073	2.6	6,477	2.1	14,550	4.7
Western Area Rural	5,129	1.6	7,136	2.3	12,265	3.9
Western Area Urban	12,600	4.1	11,340	3.6	23,940	7.7
TOTAL	**155,229**	**49.9**	**155,744**	**50.1**	**310,973**	**100**

Figure 3.6 below shows percentage distribution of persons with disability by residence. In many countries especially in Sub Saharan Africa, the rural area is characterized by poverty and backwardness. The 2018 SLIHS findings show that 7 in any 10 persons with disability in Sierra Leone live in these rural communities.

Figure 3. 6: Disability prevalence by residence

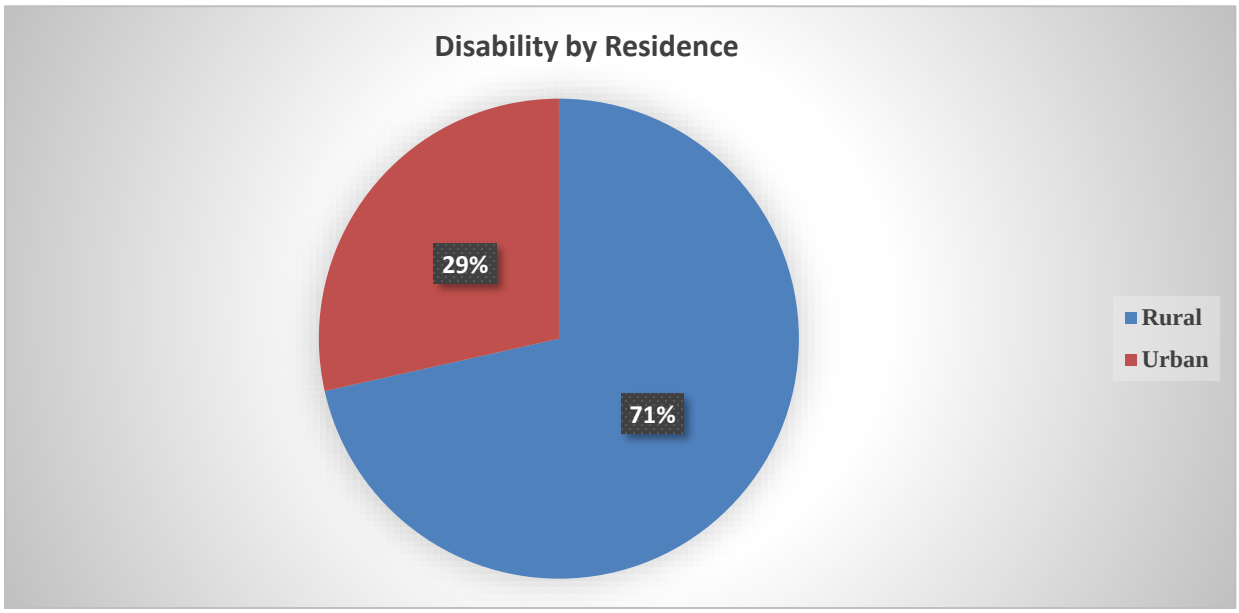


Table 3.8 below shows disability by type. Persons with limited use of feet or legs accounted for 31.6 percent of the disabled population followed by those with visionary problems (29.1percent). Females suffered more from limited use of feet or legs and visionary problems (17.4percent and 13.2percent respectively).

Table3.8: Count and percentage distribution of persons with disability by type of disability and sex

Type of Disability	Male		Female		Total	
	Count	percent	Count	percent	Count	percent
Limited use of feet/legs	44,068	14.2	53,984	17.4	98,052	31.6
Loss of leg/foot	3,112	1	4,061	1.3	7,173	2.3
Limited use of arms/hands	14,128	4.5	8,037	2.6	22,165	7.1
Loss of hand/arm	956	0.3	314	0.1	1,270	0.4
Problem with back/spine	12,586	4	13,475	4.3	26,061	8.3
Hearing Difficulty	13,242	4.3	15,391	4.9	28,633	9.2
Deaf (unable to hear)	1,106	0.4	3,323	1.1	4,429	1.5
Vision Problem	49,473	15.9	41,166	13.2	90,639	29.1
Blind	5,451	1.7	3,936	1.3	9,387	3
Speech Impairment	2,006	0.6	2,720	0.9	4,726	1.5
Mute (unable to speak)	1,984	0.7	1,293	0.4	3,277	1.1
Mental Retardation	1,407	0.4	1,527	0.5	2,934	0.9
Mental illness	3,348	1.1	2,780	0.9	6,128	2
Other specify	2,362	0.8	3,737	1.2	6,099	2
Total	**155,229**	**49.9**	**155,744**	**50.1**	**310,973**	**100**

According to WHO, rates of disability are increasing due to population ageing and increases in chronic health conditions among other causes[3]

Table 3.9 below, shows that the main causes of disability for both males and females in Sierra Leone is as a result of diseases or illness (41.2 percent and 45.4percent for males and females respectively). About 21 percent of females are disabled as a result of aging.

Table 3.9: Percentage distribution of disability by sex and cause of disability

Cause of disability	Male	Female
Congenital (from birth	18.2	17.4
Disease / Illness	41.2	45.4
Transport Accident	4.4	2.5
Occupational Injury	7.3	2.7
War	1.6	1.4
Aging	14.2	20.9
Other	13.1	9.7
Total	**100**	**100**

3.4.1 Disability and employment

Persons in employment or the employed population comprise all those of working age who, in a short reference period, were engaged in any activity to produce goods or provide services for pay or profit.

The notion of pay or profit refers to work carried out in exchange for remuneration payable in cash or in kind. It includes remuneration in the form of wages or salaries for time worked or for work done or in the form of profits derived from the goods and services produced for sale or barter. In accordance with the international guidelines on employment-related income, this includes remuneration, whether actually received or not, payable directly to the person performing the work or indirectly to a household or family member.

The employed population in the 2018 SLIHS is measured in relation to one week or seven days, so as to produce a snap-shot picture of employment at a given point in time.

[3] WHO disability and health 2018

The employed population comprises two main groups:

1. Persons employed, at work i.e. who worked for at least one hour for pay or profit in the short reference period.

2. Persons employed, not at work —i.e. who had a job but did not work in the short reference period due to temporary absence from the job, for example due to sick leave, annual leave, maternity leave, etc., or due the nature of their working time arrangement, such as shift work, compensatory leave for over time.

Table 3.10 below shows that among the population with disability, 162, 208 are within the working ages of 15 to 64 years. Among the population with disability, a total of 93,843 (57.8percent) persons were employed the last week preceding the survey interview whilst among persons without disability, 63.1 percent where employed.

Table 3.10: Count and percent distribution of employment Status of persons with and without disability

	With disability		Without disability	
Employment status (Last week)	**count**	**percent**	**count**	**percent**
Employed	93,843	57.8	2,044,390	63.1
Not employed	3,244	2	70,389	2.2
Inactive	65,121	40.2	1,125,374	34.7
Total	**162,208**	**100**	**3,240,153**	**100**

Table3. 11 below shows that of the 57.8 percent of persons with disability employed in table D5 above, 74.4 percent are self - employed. Fifteen percent are engaged help without pay in households or businesses. Only 6.7 percent are regular employees. On the other hand 8.2 percent of persons without disability are regular employees whilst 58.8 percent are self-employed.

Table 3.11: Percentage distribution of type of employment Status of Persons with and without disability

Type of employment status	With Disability	Without Disability
Employee regular	6.7	8.2
Employee casual or seasonal	3.3	4.2
Self -employed without regular employees	13.8	3.5
Self-employed with regular employees	60.6	53.3
Member of producer's cooperative	0.0	0.2
Help without pay in HH farm or business	15.1	29.6
Paid apprenticeship	0.5	1.0
Total	**100.0**	**100.0**

Persons with disabilities are at most times disadvantage when it comes to enrollment and completion of school. This is especially acute in Sub-Saharan Africa. Table 3.12 below shows the level of school completion by persons with and without disability. The 2018 SLIHS shows that among the disabled population, two thirds have never been to school. Less than 10 percent have completed upper secondary education.

Table 3.12: Percentage distribution of level of primary and secondary education completed among persons with and without disability.

Level completed	With disability	Without disability
None	67.4	42.0
Primary	15.6	32.5
Lower secondary	8.0	13.0
Upper secondary	9.0	12.5
Total	**100.0**	**100.0**

3.5 Social Transfers

Social transfers are non-contributory and include a range of allowances and benefits aimed at specific vulnerable groups, such as the very poor, destitute, elderly and very young have been in Sierra Leone for a while now. An understanding of how persons with disability in Sierra Leone benefit from these transfers becomes an interesting topic.

The 2018 SLIHS asked households about social programs any member of the household has benefited from in the last 6 months before the survey. Table 3.13 below shows various social transfer programs from which persons with disability and those without disability benefited from.

The findings show that more females with disability benefited from social transfers than their male counterparts. The largest proportion of those with disability benefited more from other in-kind transfers (seeds, bed nets, and livestock etc.) when compared with other transfers.

Table 3.13: Social Transfers to households with Disability

	With disability		
Program	**Male**	**Female**	**Total**
Cash for work	31,552	593,448	625,000
Cash transfers (no work)	24,574	520,207	544,781
Food for work	23,681	555,020	578,701
Food (no work)	18,892	569,579	588,471
Medicines or medical supplies	21,364	559,553	580,917
Micro-loans	22,448	569,947	592,395
Other in-kind transfers (seeds, bed nets, livestock)	41,516	1,171,303	1,212,819

3.6 Functioning

The 2018 SLIHS apart from the traditional disability questions also made use of the WG short-set of functioning which are; vision, hearing, mobility, cognition, self-care and communication. These questions were asked for persons 5 years and above. The tables below show the level of difficulties in the six domains of functioning.

Difficulty seeing even when wearing glasses

In Table 3.14 below, respondents who were using aid to see were asked if they have difficulty seeing even when using the aid, 97.3 percent reported no difficulty, 2.2 percent of persons have some difficulty seeing, 0.3 have a lot of difficulty seeing and 0.2 cannot see at all.

Table 3.14: Count and percentage distribution of difficulty seeing even when wearing glasses

	Count	Percent
No - No difficulty	5,998,860	97.3
Yes - Some difficulty	132,890	2.2
Yes - a lot of difficulty	21,094	0.3
Cannot do at all	10,916	0.2
Total	**6,163,760**	**100**

Difficulty hearing even when using hearing aid

In Table 3.15 respondents who were currently using hearing aid were asked if they were having difficulty in hearing even when using hearing aid, 98.8 percent reported that they were not experiencing 'no difficulty' in hearing when using hearing aid whilst 0.2 percent stated that they experience 'a lot of difficulty' even with the use of the hearing aid. Overall, 0.1 percent stated that they 'cannot do at all' with the use of the hearing aid.

Table 3.15: Count and percentage distribution of difficulty hearing even when using hearing aid

	Count	Percent
No - No difficulty	6,088,639	98.8
Yes - Some difficulty	57,311	0.9
Yes - a lot of difficulty	14,061	0.2
Cannot do at all	3,749	0.1
Total	**6,163,760**	**100**

Difficulty walking or climbing stairs

Difficulty in walking or climbing steps is another form of disability for person's age five years and above. In table 3.16 below, persons who stated that they had no difficulty in walking or climbing steps account for 97.1 percent whilst about 0.1 percent cannot walk or climb steps at all. Also about 2.2 percent had some difficulty and 0.5 percent had a lot of difficulty.

Table 3.16: Count and percentage distribution of difficulty walking or climbing stairs

	Count	Percent
No - No difficulty	5,985,553	97.1
Yes - Some difficulty	138,211	2.2
Yes - a lot of difficulty	32,480	0.5
Cannot do at all	7,516	0.1
Total	**6,163,760**	**100**

Difficulty remembering or concentrating

Table 3.17 shows that some people have difficulty in remembering or concentrating so for this study questions were asked on this form of disability for persons age five years and above and the responses from the respondents stated that overall 0.1 percent cannot do at all and 98.5 percent had no difficulty whatsoever in remembering or concentrating.

Table 3.17: Count and percentage distribution of difficulty remembering or concentrating

	Count	Percent
No - No difficulty	6,076,913	98.5
Yes - Some difficulty	66,578	1.1
Yes - a lot of difficulty	16,441	0.3
Cannot do at all	3,828	0.1
Total	**6,163,760**	**100.0**

Difficulty washing all over or dressing

The difficulty of washing all over or dressing was classified into four categories of which 98.5 percent of the respondents had no difficulty. About 0.2 percent cannot wash all over or get dressed, 1.0 percent had some difficulty, and the remaining 0.3 percent reported to have a lot of difficulty. Although a large percent of 98.55 reported of having no difficulty but the remaining,

1.5 percent of persons who are challenged needs to be taken into consideration with regards to the above-mentioned challenge.

Table 3.18 shows the six core domains of functioning which are vision, hearing, mobility, cognition, self-care and communicating for persons age 5 and over. The prevalence of these six core domains were classified into 'Some difficulty', 'A lot of difficulty' and 'Unable to do it'. The prevalence of persons with some difficulty is highest amongst the core domain of vision and mobility with 2.2 percent and lowest with communicating with 0.7 percent. A lot of difficulty was highest for core domain mobility and lowest for both hearing and communicating with 0.2 percent. The prevalence for persons five years and above who were unable to do it for the six domains considered was lowest for hearing, mobility and cognition with 0.1 percent and highest for communicating with 0.4 percent.

By the WG standards, persons who responded "a lot of difficulty" and "cannot do at all" in any of the six domains are considered persons with disability.

Table 3.18: Percentage distribution of six core domains of functioning

Prevalence (weighted percent) by domain and degree of difficulty

Core Domain	Some difficulty	A lot of difficulty	Unable to do it
Vision	2.2	0.3	0.2
Hearing	0.9	0.2	0.1
Mobility	2.2	0.5	0.1
Cognition	1.1	0.3	0.1
Self-Care	1.0	0.3	0.2
Communicating	0.7	0.2	0.4

3.7 Child preventive health

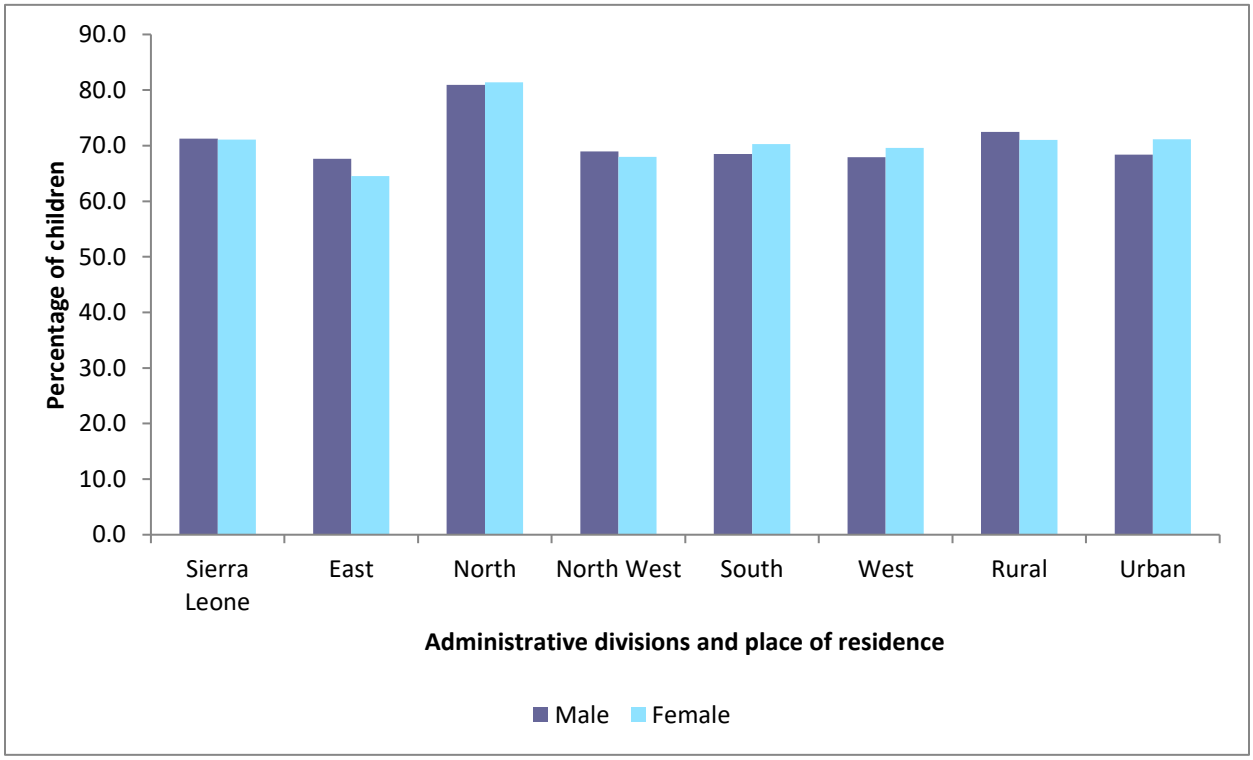
Preventive health care for children below 6 years is essential for the healthy growth and development into adulthood. The early years are critical because this is the period of life when the brain develops most rapidly and has a high capacity for change, and the foundation is laid for a healthy wellbeing throughout life. The World Health Organization therefore recommended a continuum of care from conception to 8 years of life to prevent the child from the risk factors of poor growth and development as well as death. Child preventive health care usually starts when the mother is pregnant and continues beyond 5 years of life by following various guidelines prescriptions. Pregnant women should attend antenatal care throughout the pregnancy and should ensure that delivery is done in a health facility by a skilled birth attendant; the newly born

child should be vaccinated against childhood killer diseases and should be provided with proper care against environmental threats.

To ensure that preventive health care is effectively practiced, the 2018 SLIHS asked mothers and caregivers of children under 6 years of age whether they possess an under-5 vaccination card (yellow card) or any other paper that shows the vaccinations the child has taken. Those that cannot produce a yellow card were asked to provide a verbal report of their children vaccination. Figure E 1 presents the percentage of children under 6 years of age that have taken the first round of all the vaccine by region and place of residence.

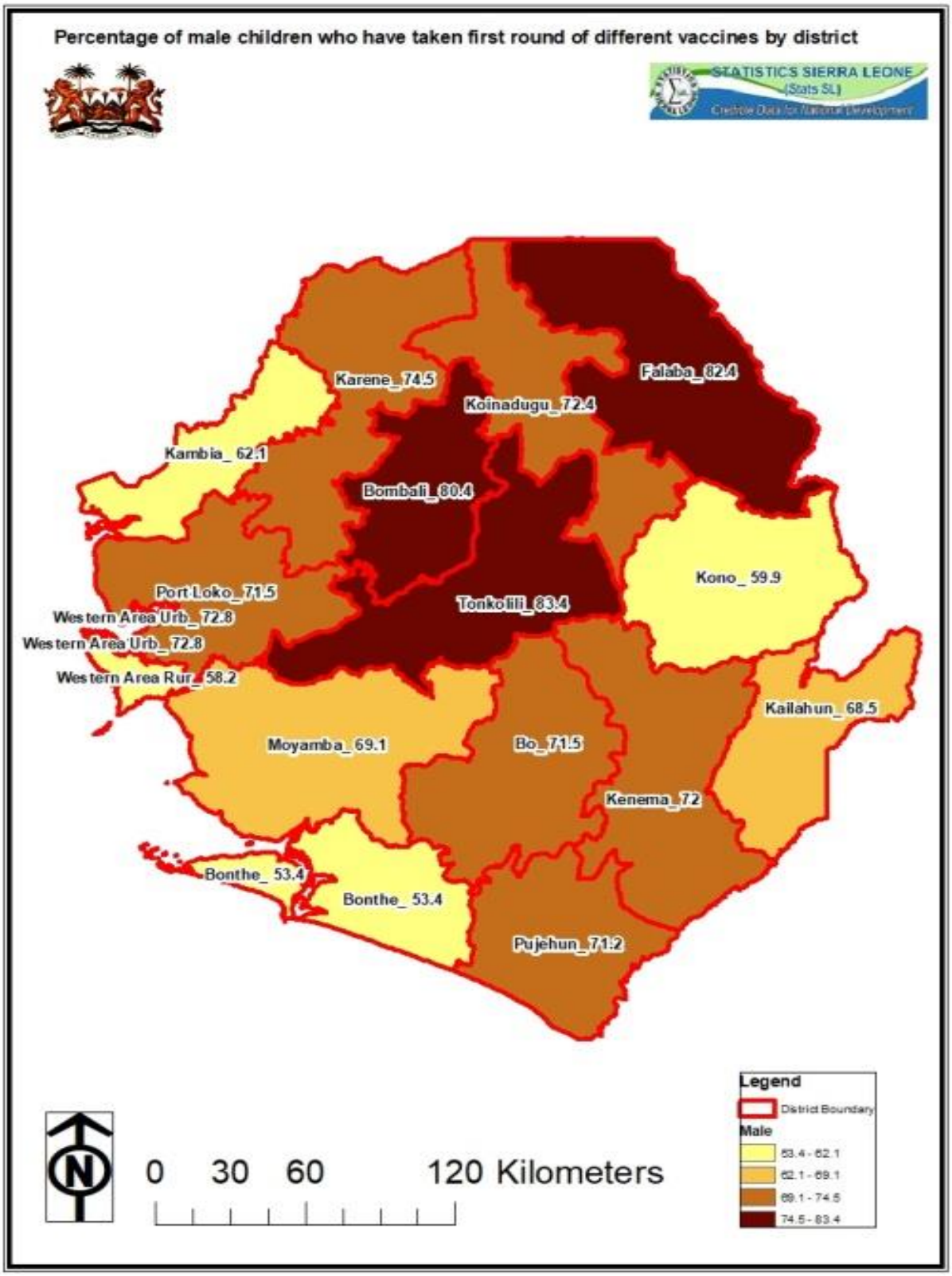
It can be seen from Figure 3.7 that just about 71 percent of both males and females have taken the first round of all the vaccines in Sierra Leone. Across the regions, vaccination coverage for this first round is higher in the Northern Region with 4 out of every 5 children vaccinated (80.1 and 81.4 percent, male and female respectively). The lowest coverage is observed in Eastern Region where just about two-thirds of children received all the first round of the vaccines (67.7 and 64.5 percent, male and female respectively). More children in the rural areas received this first round of vaccination their urban counterparts. About 72 percent of male children and 71 percent of female children were vaccinated in the rural areas compared to about 68 percent of male children and 71 percent of female children in the urban children.

Figure 3.7: Percentage of children that have received the first dose of all the vaccines by sex according to region and place of residence



As can be seen from the Maps 3.2(a) and (b) below, there were variations in terms of vaccination coverage across the districts. More children in Falaba District received the first dose of all vaccines with slightly more than 4 out of every 5 children being vaccinated (82.4 and 86.4 percent, male and female respectively). The lowest coverage is observed in Bonthe District with a little more than half of male children and 3 out of every 5 female children vaccinated.

Map 3.2: Percentage of children that have received the full dose of the first round of the different vaccines by sex



In terms of those that are fully vaccinated, that is those that have received the total doses of all vaccines in the various rounds of vaccination, Map 3.2 showed that just about half of the children in Sierra Leone received all the vaccines (52.7 and 51.0 percent, male and female respectively). Within the regions, full vaccination coverage is higher in the Northern Region with two-thirds of children fully vaccinated (69.3 and 68.9 percent, male and female respectively) The lowest coverage is observed in the Eastern Region with 40 percent of males and 37 percent of females fully vaccinated. More children in the rural areas were fully vaccinated than their rural counterparts. About more than half of the children in the rural areas were fully vaccinated compared to less than half in the urban areas.

There is need to step up efforts in the immunization campaign days to ensure that children under 6 years of age are fully vaccinated against child hood killer diseases. It is also important that mothers and care-givers of children under 6 years of age keep the yellow card in a safe place that they can be easily produced when required.

Map 3.3: Percentage of children that have received the full dose of the first round of the different vaccines by district

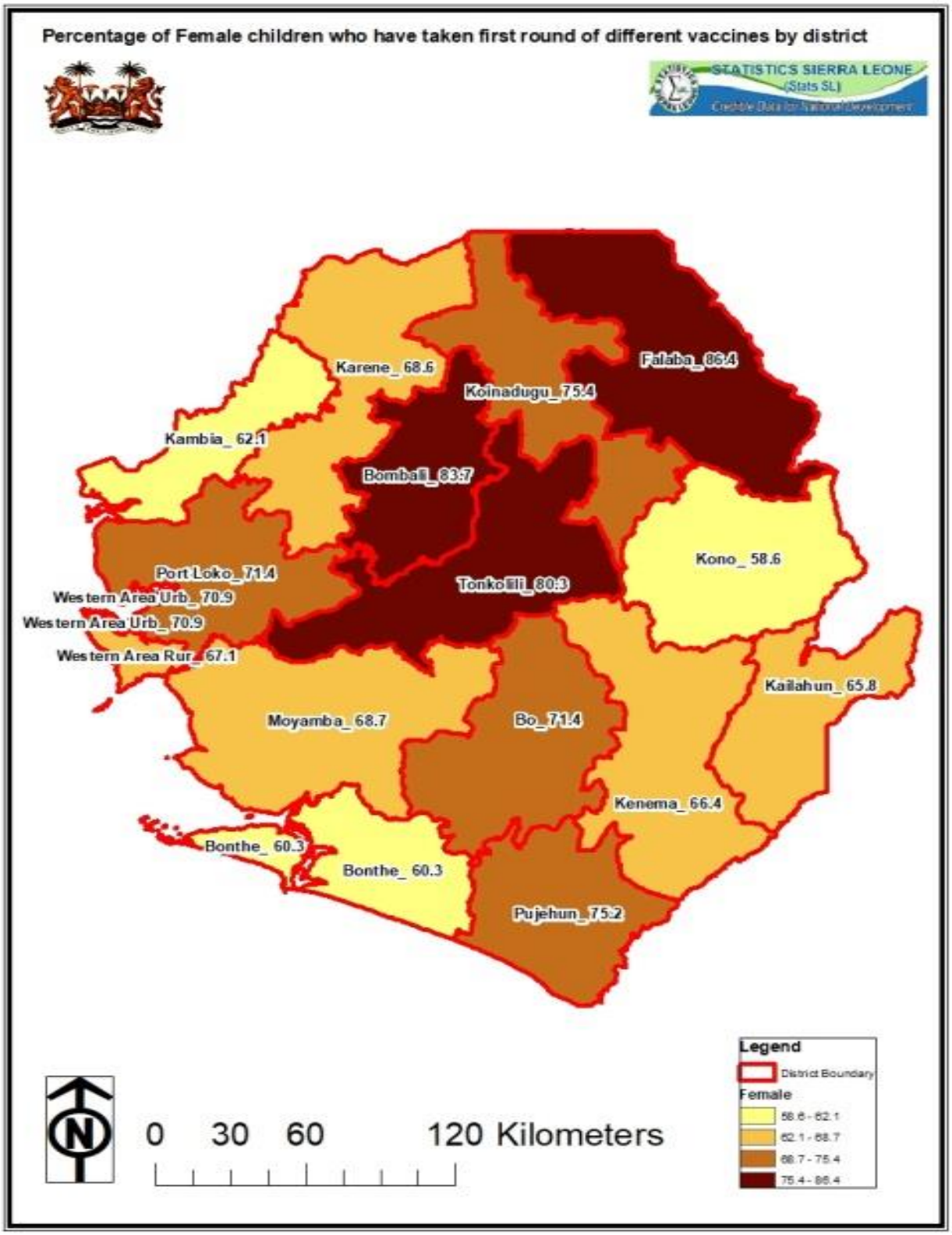


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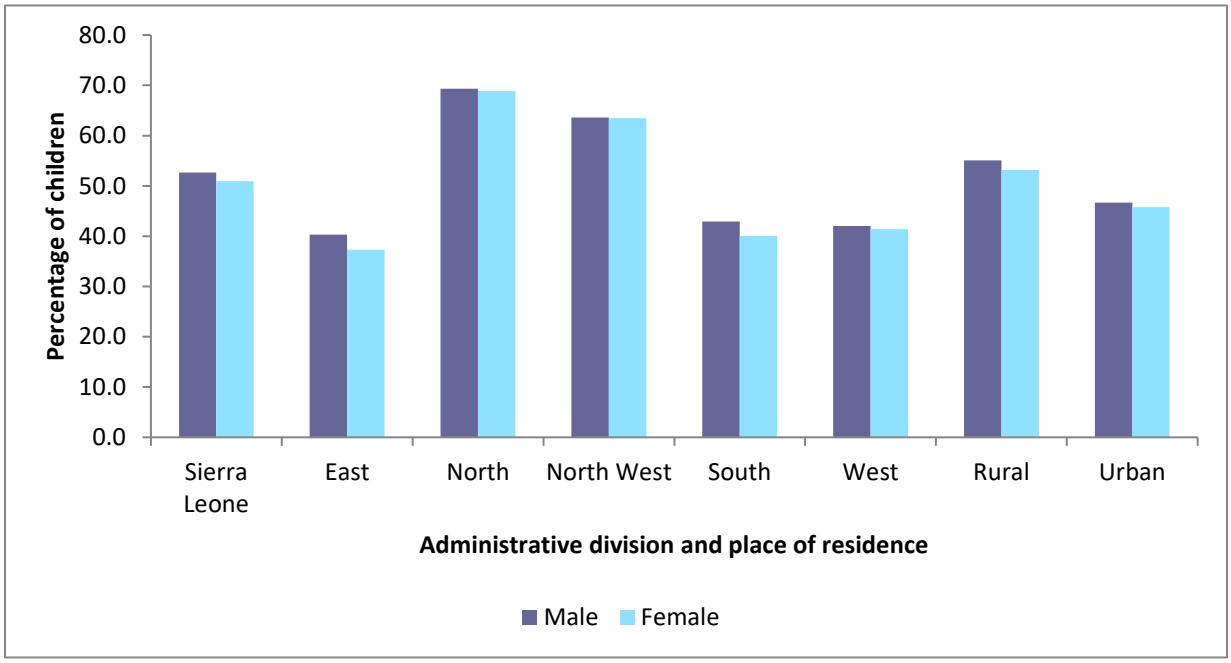
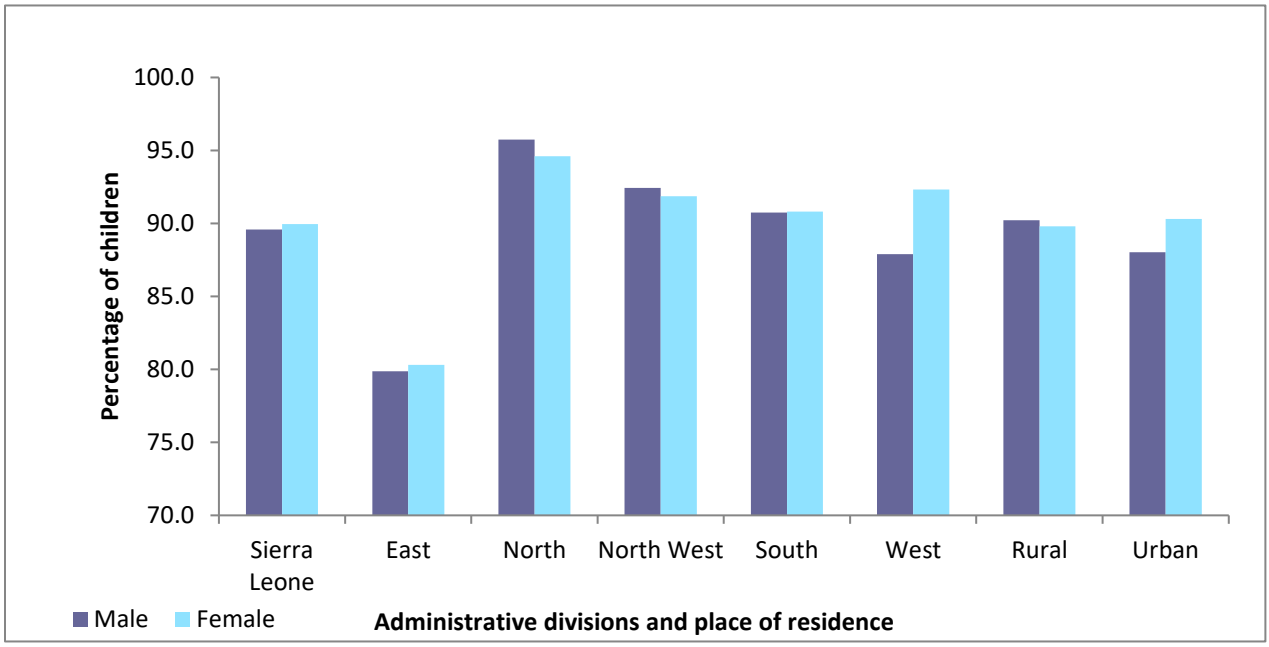
Figure 3.8: Percentage of children that have taken the full dose of all vaccines by sex according to region and locality



Full vaccination coverage within the districts is poor. As can be seen in Map 3.3, with the exception of Falaba District where about three-quarters of children were fully vaccinated, full coverage in the other district is below 70 percent. Bo District recorded the lowest full vaccination coverage of 32 percent males and 27 percent females.

Vaccination coverage for those that have received one kind of vaccination or the other is relatively high in the country; figure 3.9 showed that 9 out of every 10 children in Sierra Leone have received a vaccine. More children in the Northern Region have received one kind of vaccine or the other than the rest of the children in the other regions. About 95 percent of children in the Northern Region have received at least one vaccine compared to the Eastern Region where 4 out of every 5 children have received a vaccine. About 9 out of every 10 children in both the rural and urban areas have received one kind of vaccination or the other.

Figure 3.9: Percentage of children that have received at least one kind of vaccination by sex according to region and place of residence



Differentials were also observed across the district for those who received one kind of vaccination or the other. Map 3.5 shows that almost every child in Bombali District has received one kind of vaccination or the other (97 percent for both male and female). The lowest coverage of at least one kind of vaccine is observed in Kono district (73 and 74 percent, male and female respectively).

3.8 Lifetime fertility

Lifetime fertility refers to the number of children ever born alive to women in various age groups, as of the time the 2018 SLIHS data was collected. The expected pattern is that the number of children would increase with age; with the lowest number of children among women 15-19 years. The 2018 SLIHS asked all women of child bearing age (15-49 years) about the total number of children born alive in their life time up to the time of the interview. Table 3.19 shows that in Sierra Leone by the time a woman completes her fertility cycle she would have had on average 6 children and this shows an increase of 1 child from the 2015 Population and Housing Census (PHC) data of 5 children.

There are variations in the mean number of children ever born by region and place of residence. Among the regions, the highest mean number of children ever born was recorded in the Northern Region with 7.1 children. The lowest mean number of children of 4.5 was reported in the Western Region. The Western Area also reported the lowest mean number of children ever born during the 2015 PHC of 4.2 children. Variations were also observed in lifetime fertility in the rural and urban areas, women in the rural areas had a mean number of children ever born of 6.7

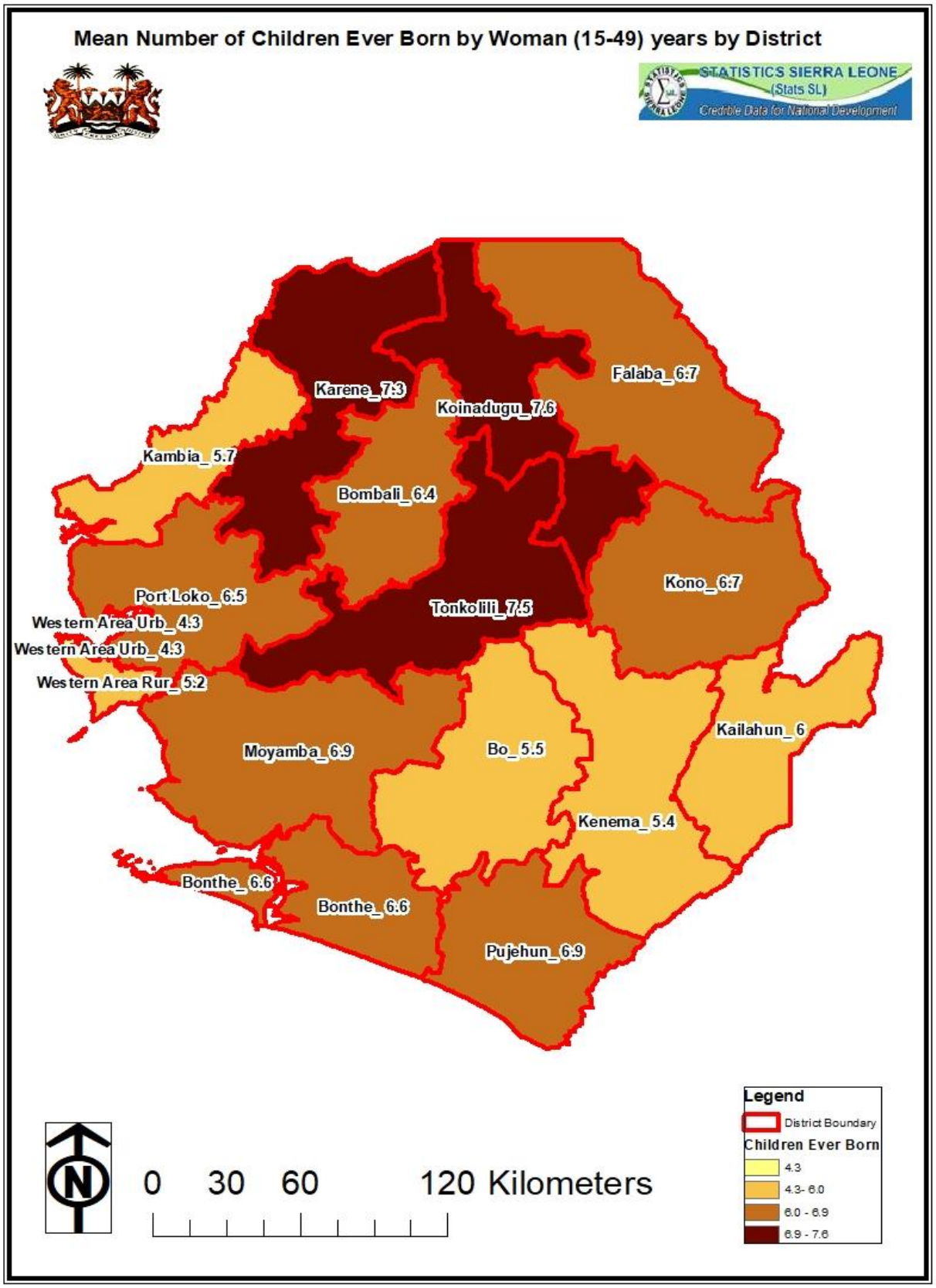
compared to 5.0 in the urban areas. Again, a slight difference is observed between the 2015 PHC and the 2018 SLIHS; the 2015 PHC reported 5.9 and 4.7 children for rural and urban women respectively.

Table 3.19: Mean number of children ever born by women 15-49 years by region and locality

	Age group						
Administrative Division	**15-19**	**20-24**	**25-29**	**30-34**	**35-39**	**40-44**	**45-49**
Sierra Leone	1.3	1.8	2.9	4.1	4.9	5.6	6.2
Regions							
East	1.1	1.8	3.0	4.0	4.9	5.8	6.0
North	1.2	1.7	3.2	4.6	5.3	5.9	7.1
North West	1.3	2.1	3.2	4.3	5.4	6.2	6.5
South	1.6	2.1	3.1	4.5	5.2	5.9	6.4
West	1.4	1.5	2.1	2.7	3.5	4.1	4.5
Place of residence							
Rural	1.3	2.0	3.3	4.6	5.4	6.1	6.7
Urban	1.3	1.6	2.3	3.0	3.9	4.6	5.0

In terms of the districts, the map 3.6 shows that Koinadugu District reported the highest mean number of children of 7.6 compared to the Western Urban with 4.3 children. This shows a slight difference when compared to the 2015 PHC results where Kambia District recorded the highest mean number of children ever born of 6.1 children compared to the 2018 SLIHS where Kambia recorded 5.7 children. The Western Area Urban remained to be the district with the lowest mean number of children ever born; however, there is a slight increase in the mean number of children ever born from the 2015 PHC and the 2018 SLIHS of 3.9 and 4.3 children respectively.

Map 3.4: Mean number of children ever born by women 15-49 years by district



The results of the 2018 SLIHS showed that by the time a girl child reaches the age of 19, she already had about two children. This means that a child is already pregnant at about 18 years when she is supposed to be in the last year of senior secondary school. Early marriage and teenage pregnancy could be a major factor for this unpleasant situation of our girl children in Sierra Leone. There is need to enforce policies that all girl children should go to school and stay until they complete senior secondary education and local authorities should formulate bye-laws that will prevent early marriage and teenage pregnancy. More investment is also required in advocacy for family planning and effective use of contraceptives across the country.

3.9 Knowledge about the transmission of Ebola

Knowing about how a certain disease can be transmitted from one person to the other is a major step in the prevention process of that disease; as people will avoid the risk factors that might lead to the spread of the disease. When the Ebola virus disease breakout in Sierra Leone few people had knowledge about how the disease is transmitted from a sick person to a healthy person. The lack of knowledge led to the death of many Sierra Leoneans including medical personnel. In order to prevent the spread of the disease, a robust education and awareness campaign was launched across the country to share knowledge about the risk factors of Ebola and how such factors can be avoided. In order to ascertain whether Sierra Leoneans have acquired knowledge about the risk factors of the transmission of Ebola, the 2018 SLIHS asked respondents about the various ways in which Ebola can be transmitted from one person to the other.

Appendix 3 present the percentage of people according to the various ways by which Ebola can be transmitted by sex and administrative division.

Among the different ways of preventing the spread of the Ebola virus disease, more than half of males (57.2 percent) in Sierra Leone know that having contact with a sick person can spread the disease to another person, whilst only 14.5 percent are aware that contact with bodily fluids of a sick person can spread the disease and 8.7 percent either don't know of any way by which Ebola can be transmitted or attributed the spread of the disease to supernatural and other means. Slightly more than half (52 percent) of females in Sierra Leone know that having contact with a person sick with Ebola can spread the disease to another person and about 16 percent know that contact with bodily fluids of a sick person can spread Ebola. About 12 percent either don't have any knowledge about how Ebola can be transmitted or said, Ebola is spread by supernatural and other means.

Having contact with a sick person is recognized as a way of transmitting Ebola by many Sierra Leoneans than any of the other ways listed in the 2018 SLIHS questionnaire. More than 6 out of every 10 males (63.6 percent) in the Eastern Region recognized that contact with a sick person

can spread Ebola than their counterparts in the other regions. Less than half (47 percent) of males in the Southern Region realized that Ebola can be transmitted by having contact with a sick person, whilst 15 percent either don't know of any ways that Ebola can be transmitted or stated that Ebola can be transmitted by supernatural and other means.

Similarly, more females (about 57 percent) in the Eastern Region recognized that contact with a sick person can spread the Ebola virus disease than their counterparts in the other regions. Less than half (45 percent) of females in the Southern Region know that Ebola can be spread by getting contact with a sick person, whilst 17 percent either don't know of ways that Ebola can be transmitted or said Ebola can be transmitted by supernatural and other means.

More urban than rural males know that Ebola is spread through contact with a sick person; 6 out of every 10 males (60 percent) in the urban areas know that Ebola can be transmitted through contact with a sick person, compared to more than half (55.4 percent) in the rural areas. More than 1 out of every 10 males in the rural areas either doesn't know of any way that Ebola can be transmitted or attributed the spread of Ebola to supernatural and other ways.

Knowledge of females about the transmission of Ebola also shows that about half (50.5 and 54.0 percent, rural and urban respectively) know that contact with a sick person can spread Ebola and nearly 15 percent in the rural areas either don't know of any ways that Ebola can be transmitted or said, Ebola can be transmitted by supernatural and other means.

Across the districts, three-quarters (75 percent) of males in Falaba District recognized that Ebola can be transmitted by having contact with a sick person compared to just about one-third (35 percent) in Bonthe District where nearly one-quarter (24.6 percent) either don't have any knowledge about how Ebola can be transmitted or indicated that Ebola can be transmitted by supernatural and other ways. A similar situation is also observed for females in Falaba and Bothe Districts; 72 percent of females in Falaba recognized that Ebola can be transmitted by having contact with a sick person compared to almost 35 percent in Bonthe District where also more than one-quarter (about 28 percent) either don't have any knowledge about how Ebola is transmitted or stated that Ebola can be transmitted by supernatural and other means.

The results of the 2018 SLIHS revealed the knowledge gap about the ways in which Ebola can be transmitted. Majority of Sierra Leonean across the board recognized that Ebola can be transmitted by having contact with a person sick with Ebola, only a few recognized that Ebola can be transmitted by eating a fruit chewed by a bat; about 10 percent did not have any knowledge about how Ebola can be transmitted. This is a concern in the event that there is another outbreak of the disease; therefore, continuous investment is required to sustain knowledge sharing and advocacy about the transmission of Ebola in the country. The government, through the Ministry of Health and Sanitation should provide financial and logistical support to increase knowledge

sharing and practice towards preventing another outbreak and spread of the disease. Non-governmental and Civil Society organization should include a programme for knowledge sharing on the risk factors of Ebola in their work plans. This will increase awareness about the prevention of an outbreak and help to save the lives of our people.

3.10 Deaths

The 2018 SLIHS asked questions on deaths in order to establish the number of person who died 12 months prior to the 2018 survey. These questions included, name of persons that died, their relationship with the head of household, sex, registration of death were asked at household level.

Table 3.27 below shows the count and percentage distribution of persons that died 12 months before the 2018 SLIHS by sex, region and district.

A total of 175,087 persons were reported dead nationally of which 88,316 (50.4percent) were males and 86,771 (49.6percent) were females. The regional distribution shows that more people died in the northern region (58,395) whilst the Western region had the least (18,761).

At district level, Tonkolili district recorded the highest number of deaths (33,275) followed by Kenema (17,272). Most of the persons that died in Tonkolili district were females (21,625). Bonthe district recorded the least number of deaths (4,067) when compared to other districts.

Table 3.20: Count and percentage distribution of household deaths by sex region and district

Region	count	percent	count	percent	count
East	18,909	49.7	19,165	50.3	38,074
North	26,281	45	32,114	55	58,395
North West	18,265	57.4	13,582	42.6	31,847
South	14,542	51.9	13,468	48.1	28,010
West	10,319	55	8,442	45	18,761
Sierra Leone	88,316	50.4	86,771	49.6	175,087
District					
Kailahun	5,872	38.6	9,336	61.4	15,208
Kenema	9,986	57.8	7,286	42.2	17,272
Kono	3,051	54.5	2,543	45.5	5,594
Bombali	6,256	56.3	4,856	43.7	11,112
Falaba	4,370	62.8	2,592	37.2	6,962
Koinadugu	4,005	56.8	3,041	43.2	7,046
Tonkolili	11,650	35	21,625	65	33,275

Table 3.20 Cont'd

Region	count	percent	count	percent	count
Kambia	7,188	67.7	3,438	32.4	10,626
Karene	3,135	60.1	2,082	39.9	5,217
Port Loko	7,942	49.6	8,062	50.4	16,004
Bo	4,160	50.6	4,062	49.4	8,222
Bonthe	2,240	55.1	1,827	44.9	4,067
Moyamba	3,360	54.6	2,800	45.5	6,160
Pujehun	4,782	50	4,779	50	9,561
Western Area Rural	2,899	48.2	3,122	51.9	6,021
Western Area Urban	7,420	58.2	5,320	41.8	12,740
National	**88,316**	**50.4**	**86,771**	**49.6**	**175,087**

Table 3.21 shows that out of the 175,087 reported deaths, 24.2 percent died as a result of malaria/typhoid and fever. Other long-term illnesses (cancer, heart problem) accounted for 18.5 percent of deaths. About 20 percent of females died as a result of other long-term illnesses (cancer, heart problem). Suicide is the least cause of death in Sierra Leone (0.2).

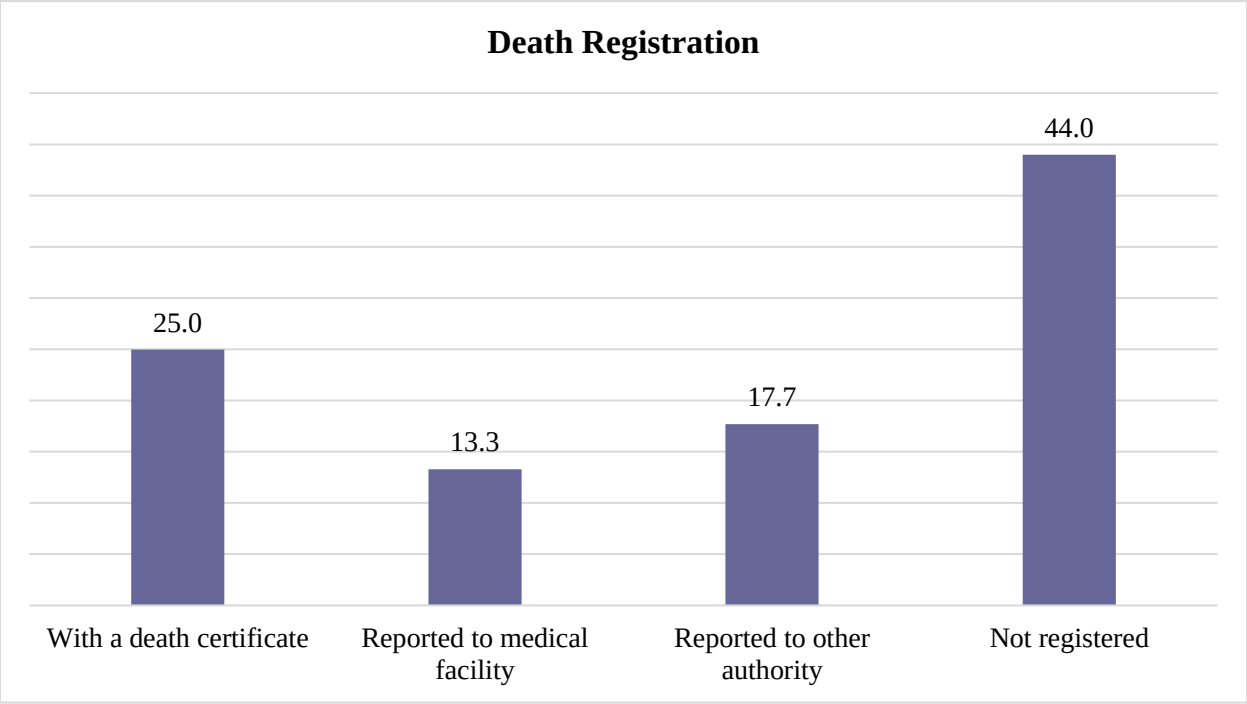
Table 3.21: Percentage distribution of cause of death by sex

Cause of death	Male	Female	Total
Malaria / typhoid / other fever	24.6	23.8	24.2
Diarrhea / vomiting disease	4.5	2.9	3.8
Pneumonia /TB /other chest infection	4.6	3.2	3.9
Other long-term illness (cancer, heart problem)	17	19.9	18.5
Other acute illness	11	12.9	11.9
Sudden natural death (Heart attack, stroke)	13.3	8.2	10.8
Old age	8.8	13.2	11
Road accident	2.6	0.8	1.7
Other accident	2.1	1.7	1.9
Childbirth related	0	5.3	3.5
Suicide	0.2	0.3	0.2
Witchcraft	6.1	2.9	4.5
Other	4.2	4.9	4.2
Total	**100**	**100**	**100**

Death registration provides important information about: the decedent, the cause of death, and final disposition. Death certificate is the source for state and national mortality statistics. It is needed for a variety of medical and health-related research efforts.

In Sierra Leone, the registration of deaths was intensified as a result of the Ebola scourge which saw the demise of thousands of people. The 2018 SLIHS findings show that death registration has lagged behind again. 44 percent of deaths in the 12 months prior to the 2018 SLIHS were reported not registered. Exactly 1/4 of deaths were registered and issued with a death certificate. Slightly above 10 percent were reported to a medical facility.

Figure 3.10: Percentage distribution of cause death



CHAPTER FOUR - PERCEPTION OF WELLBEING

4.0 Introduction

In general, wellbeing is the ability of the household to afford basic necessities of life as well as the extent of poverty of the household. It can be defined as the availability of resources and presence of conditions required for reasonably comfortable, healthy, and secure living. This section highlights the general welfare indicators of the household, measured by the household's perceptions of well-being in terms of adequacy or inadequacy of variables such as:

Social Assistance; Perceived Status of Household income; Perception of economic wellbeing; Road accidents of households; Perception of the impact of Ebola; Social amenities; Household sources of Loans and those with Bank Accounts; Household Participation in Osusu Scheme and Money Transfers into and outside the household.

4.1 Social Assistance

The survey asked households on their perception toward basic social assistance for the past six months such as cash for work, cash transfers requiring no work, food for work, provision of food without doing any work, medicine or medical supplies, micro loans, other in-kind transfers (seeds, bed nets, livestock) and other social assistance the households were unable to specify.

Table 4.1 below shows that assistance in unspecified Other-in-Kind Transfers and Medicines were reported in the highest proportion of 90percent and 72.4percent respectively. Other Districts are seen not to benefit from Cash Transfers notably Western Rural, Western Urban, Koinadugu, Bonthe, Kambia, Kenema and Kailahun. Though Social amenities like Cash for Work, Cash Transfer and Food for Work tend to be carried out in many Districts, Kailahun is entirely a different case as the survey result indicates.

Data provided inferred that Social assistance for now does not seem to be a contributory factor to prevent the poor or the vulnerable from shocks and falling below a certain poverty level. SLIHS collected data on social safety nets that any household member had received and had controlled.

Table 4.1: Types of social assistance available by District

District	Cash for Work	Cash Transfer	Food for Work	Food-No Work	Medi-cine	Micro Loans	Other-in-Kind Transfers	Other
Kailahun	0	0	0	0	4.1	1.4	8.9	0
Kenema	2.1	0	0.1	0	1.9	1.8	4.5	0.4
Kono	0.6	0.6	0.6	0	2.9	0.8	7	0
Bombali	0.1	0.5	1.1	2.5	6.6	1.8	8.4	0.3
Kambia	1.9	0	0	0	0.5	0.5	7.3	0.5
Koinadugu	0	0	0.4	0	2.1	2.5	0.3	0
Port Loko	0.5	1.3	0.3	0	12.9	1.5	13.3	0.3
Tonkolili	1.7	0.4	0.4	10	15	2.6	24.8	0.4
Bo	0.6	1.4	0	0	3.9	2.1	0.8	0
Bonthe	0.3	0	0.3	0	5.8	1.7	1.4	0
Moyamba	0.3	0.9	0	0	0	0	2.7	0.5
Pujehun	0.2	0.4	1.5	0	6.1	0	0.6	0
Western Area Rural	0.3	0	0.7	0.7	5.7	2	4	0
Western Area Urban	0.3	0	0.2	0.2	4.9	2.7	6	0
Totals	**8.9**	**5.5**	**5.6**	**13.4**	**72.4**	**21.4**	**90**	**2.4**

Source 2018 SLIHS Data

4.2 Perceived Status of Household

The survey asked households on their perception towards how a household looks at it self-compared to their counterpart households. The SLIHS 2018 collected data on the perception of households on responses on households: Very unstable; Unstable; somewhat stable, stable and Very stable.

Tale 4-2 below shows the perceptions of household with regards to the status of households across the 14 administrative divisions of the country. Data collected shows that households in Kailahun and Western Urban Districts described their households as "**stable".** Very few households in the country reported to have very stable status.

Port Loko, Kenema, Tonkolili and Bo recorded the highest number of households reporting very unstable and unstable status. Note also tat Western Urban recorded the highest number of households perceived to be unstable

Tale 4.2: Perceptions of household status

District	Very Unstable	Unstable	Somewhat Stable	Stable	Very Stable
Kailahun	50,007	1,674	188	90,802	0
Kenema	42,506	65,349	3,009	1,490	516
Kono	33,858	20,363	20,296	1,297	476
Bombali	30,436	56,192	4,528	628	0
Kambia	24,072	35,190	288	570	0
Koinadugu	29,910	40,347	1,396	2,127	0
Port Loko	46,751	63,164	1,804	2,461	120
Tonkolili	74,375	25,350	800	1,075	3,150
Bo	35,858	63,646	4,310	1,746	0
Bonthe	25,284	9,765	4,417	2,247	707
Moyamba	32,640	22,620	2,460	1,145	1,035
Pujehun	23,787	33,837	798	456	342
Western Area Rural	15,610	44,377	4,460	1,784	669
Western Area Urban	34,580	118,020	26,740	7,980	1,540
Total	**488,600**	**648,227**	**76,980**	**25,194**	**8,555**

Table 4.2: Source 2018 SLIHS

4.3 Perception of economic wellbeing.

The survey examined perceived economic wellbeing of the households and results generally show that all Fourteen (14) administrative divisions of Sierra Leone have households that are perceived to be fairly rich, especially Port Loko, Kenema, Bo and Tonkolili Districts. The study revealed also that Tonkolili and Kailahun Districts had the highest prevalence of perceived poverty.

Table 4.3: Perception of Household economic wellbeing

DISTRICT	Poor	Fairly Poor	Moderate	Fairly Moderate	Rich	Fairly Rich
Kailahun	22,767	59,258	8,777	188	0	90,990
Kenema	7,057	66,417	38,066	1,330	0	112,870
Kono	8,217	18,389	48,585	853	246	76,290
Bombali	16,524	45,204	21,844	8,064	148	91,784
Kambia	4,842	39,162	16,116	0	0	60,120
Koinadugu	4,387	46,029	22,134	1,230	0	73,780
Port Loko	9,689	48,986	54,663	962	0	114,300
Tonkolili	37,775	43,225	23,300	450	0	104,750
Bo	11,580	57,752	34,906	1,224	0	105,462
Bonthe	4,326	17,360	18,585	1,414	735	42,420
Moyamba	7,840	21,440	27,515	2,265	840	59,900
Pujehun	7,749	40,797	10,449	225	0	59,220
Western Area Rural	4,460	16,279	41,701	4,014	446	66,900
Western Area Urban	8,680	68,880	106,400	4,620	140	188,720
Total	**155,893**	**589,178**	**473,041**	**26,839**	**2,555**	**1,247,506**

4.4 Road accidents of households

Road accidents are perceived to create devastating effects in the form of shocks to the household consequently affecting their wellbeing in an event where household death is experienced. These can lead to income effects, loss of assets or both. The survey asked household respondents whether they have been affected by any road accident in the last 12 months, and the degree or magnitude of it. The largest proportion of households 56.94 percent reported to have been affected only by Minor injury. Death which is the most felt painful effect of road accidents is reported to be 2.69percent in the past one year.

4.5 Perception of the impact of Ebola

An Ebola virus epidemic in Sierra Leone occurred in 2014, along with the neighboring countries of Guinea and Liberia. The Epidemic had an untold consequence on this country and as such, the 2018 SLIHS studies had a question to investigate the impact of Ebola. Table 4.4 shows that the proportion of households affected by the Epidemic on a small, Moderate, and Large scales.

The households that perceived that the Ebola impacted on a large scale are households of Kono, Kambia, Bonthe, Port Loko and Tonkolili Districts. Kailahun recorded small scale proportion of 2.3percent, moderate scale proportion of 47.54percent and large scale proportion of 50.16 of the perceived Ebola virus impact. This trend is demonstrated in all the Districts according to the SLIHS data shown in Table 4.4.

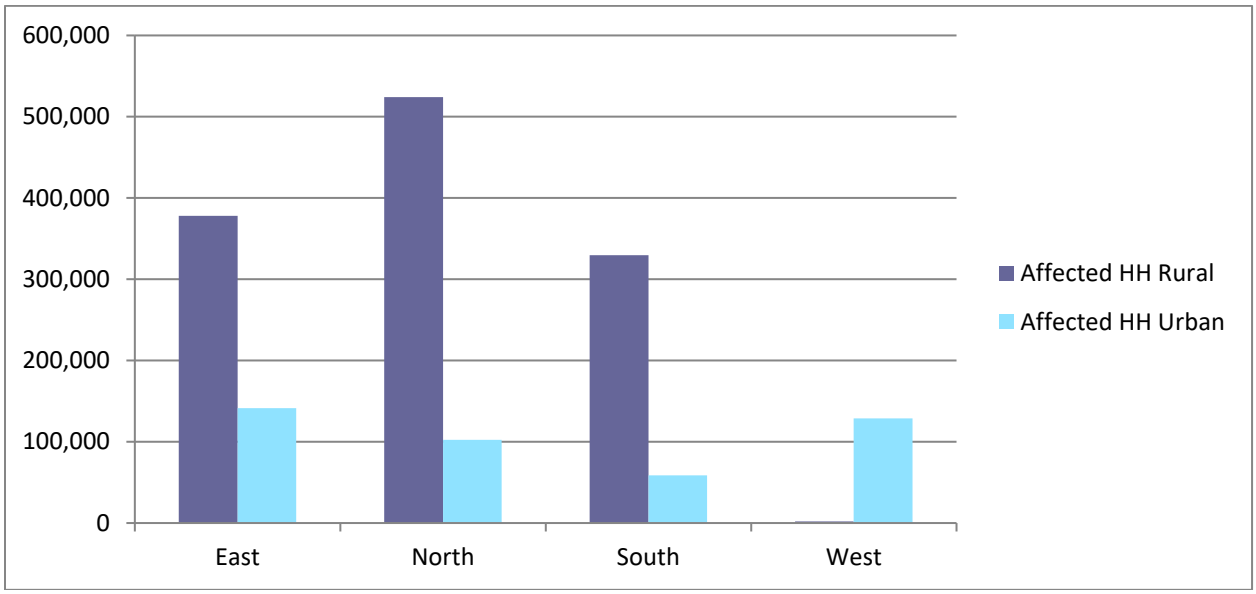
Table 4.4: Proportion of households affected by the Epidemic on small, moderate and large scales

District	Small	Moderate	Large	Total
Kailahun	13,817	285,704	301,432	600,953
	2.3	47.54	50.16	100
Kenema	4,001	30,147	49,371	83,519
	4.79	36.1	59.11	100
Kono	4,971	2,658	128,332	135,961
	3.66	1.95	94.39	100
Bombali	13,011	60010	101,400	174,421
	7.46	34.41	58.14	100
Koinadugu	9,156	51,762	63,076	123,994
	7	42	51	100
Tonkolili	22,300	9,650	79,050	111,000
	20.09	8.69	71.22	100
Kambia	4,020	12,330	95,316	111,666
	3.6	11.04	85.36	100
Port Loko	5,355	14,257	53,688	73,300
	7.31	19.45	73.24	100
Bo	76,676	18,890	94,280	189,846
	40.39	9.95	49.66	100
Bonthe	14,672	1,323	82,229	98,224
	14.94	1.35	83.72	100
Pujehun	3,534	9,576	40,803	53,913
	6.56	17.76	75.68	100
Western Area Rural	3,345	6,244	3,345	12,934
	25.86	48.28	25.86	100
Western Area Urban	27,020	63,280	27,300	117,600
	22.98	53.81	23.21	100
National	**203,977**	**308,583**	**1,153,126**	**1,665,686**

Source 2018 SLIHS

Figure 4.1 shows the number of households affected by the Ebola virus by Regions and by locality. In all the regions, the Ebola virus affected the rural households more than the urban households. Western urban had more households affected by the virus than western rural as an exception to the other regions.

Figure 4.1: Number of households affected by the Ebola virus by Regions and locality



Source 2018 SLIHS

4.6. Social amenities.

The SLIHS 2018 investigated access to social amenities which made the study to look at means of access like vehicle, Motorcycle, Bicycle, Foot, Canoe and Boat. Social amenities are vital components to Welfare assessment in modern times. The survey asked households how they access social amenities like schools, food markets, health clinics and hospitals.

The survey results indicate that a greater proportion of households, about 69percent access social amenities by walking on foot, 23percent use motorcycles and 7 percent use vehicles. The study further reveals that, about 1percent access social amenities using Bicycles, Canoes and Boats. The data may attempt to reveal to us that the use of Bicycles which use tube a popular means of commuting is becoming unpopular with the advent of Motor Bikes (Okada). The use of Canoes and Boats is limited to riverine areas in the country.

4.7. Household sources of Loans and those with Bank Accounts

Introduction

Credit is an important source of additional finance for households and the interest in understanding the characteristics of demand for credit for investment in both agricultural and non-agricultural enterprises is becoming more important for the Sierra Leone government because of the increasing role placed on small scale economic activities as tools for poverty alleviation

4.7.1 Sources

The survey provides information on access to credit and loans for business or farming purposes from either formal or informal sources and on the constraints faced in accessing credit during the 12 months of the survey. Formal loans include money borrowed from financial institutions with interest, security and conditions for payment well-laid down while informal loans refer to borrowing from friends, relatives, private money-lenders and communal groups without any formal agreement describing the terms of payment. This chapter highlights the proportion of persons who had access to loans and credit, and the sources of loans.

Table 4.5 shows the main sources of credits/loans. The data shows that credits/loans are mainly acquired from relatives/friends/neighbors in all Districts with a proportion of 53.36percent. Traders are also a source of credit/loans with a proportion of 20.71percent. Money Lenders, Micro finance institutions, cooperatives and commercial Banks show low proportions of 6.56percent, 5.37percent, 4.47 and 0.5percent respectively.

Table 4.5: Sources of credit/loans

District	Commercial	Co-operation	Micro-finance Institution	Other Formal	Money Lender	Trader	Farmer/ Fisherman	Relative/Friend/ Neighbor	Other Informal	Total
Kailahun	0.3	17.63	1.34	7.75	11.11	16.29	3.87	41.76	0	100
Kenema	0.7	2.15	2.47	1.6	16.8	17.85	6.98	50.79	0.68	100
Kono	1.8	0	6.1	0	4.09	17.37	0	67.5	3.17	100
Bombali	0.2	2.71	7.99	0.67	8.27	21.34	3.72	55.12	0	100
Koinadugu	2.9	0	9.62	0	1.47	13.57	1.47	69.46	1.47	100
Tonkolili	0	4.85	6.7	1.26	11.85	24.88	1.15	48.57	0.74	100
Kambia	0.8	0.76	2.23	0	3.78	48.13	6.04	38.31	0	100
Karene	0.2	0.38	0.75	0.38	4.77	19.02	4.19	69.37	0.95	100
Port Loko	0.6	0.55	2.8	0	0.28	36.01	9.68	46.67	3.41	100
Bo	0.4	11.55	4.23	3.87	3.81	8.96	2.71	59.16	5.36	100
Bonthe	0.7	16.82	4.37	10.51	3.1	16.75	6.31	40.74	0.7	100
Moyamba	0.7	3.29	5.67	1.4	7	18.21	2.1	59.53	2.1	100
Pujehun	0	0.45	0.45	4.47	3.57	3.57	0.89	59.37	27.24	100
Western Area Rural	0.7	0.74	15.56	0	1.48	6.67	0.74	72.59	1.48	100
Western Area Urban	0.8	0.84	17.93	1.12	2.52	11.48	0.28	64.43	0.56	100
Total	**0.5**	**4.47**	**5.3**	**2.04**	**6.56**	**20.71**	**4.11**	**53.86**	**2.41**	**100**

Source 2018 SLIHS

4.7.2 Reasons for taking Loans

To a large extent people seek to secure loans on purpose and the 2018 SLIHS respondents that responded 'Yes' that they took loans are not an exception. The survey result indicates that households seek to acquire loans do so to expend on Consumer goods to a percentage of 32.9percent. Other reasons for acquiring loans according to the survey data is do Business, undertake housing, to spend on Education, agriculture and health with proportion of 14.97percent, 13.6percent, 12.62percent 9.72percent and 9.27percent respectively. Table 4.8 shows the statistics obtained from the survey.

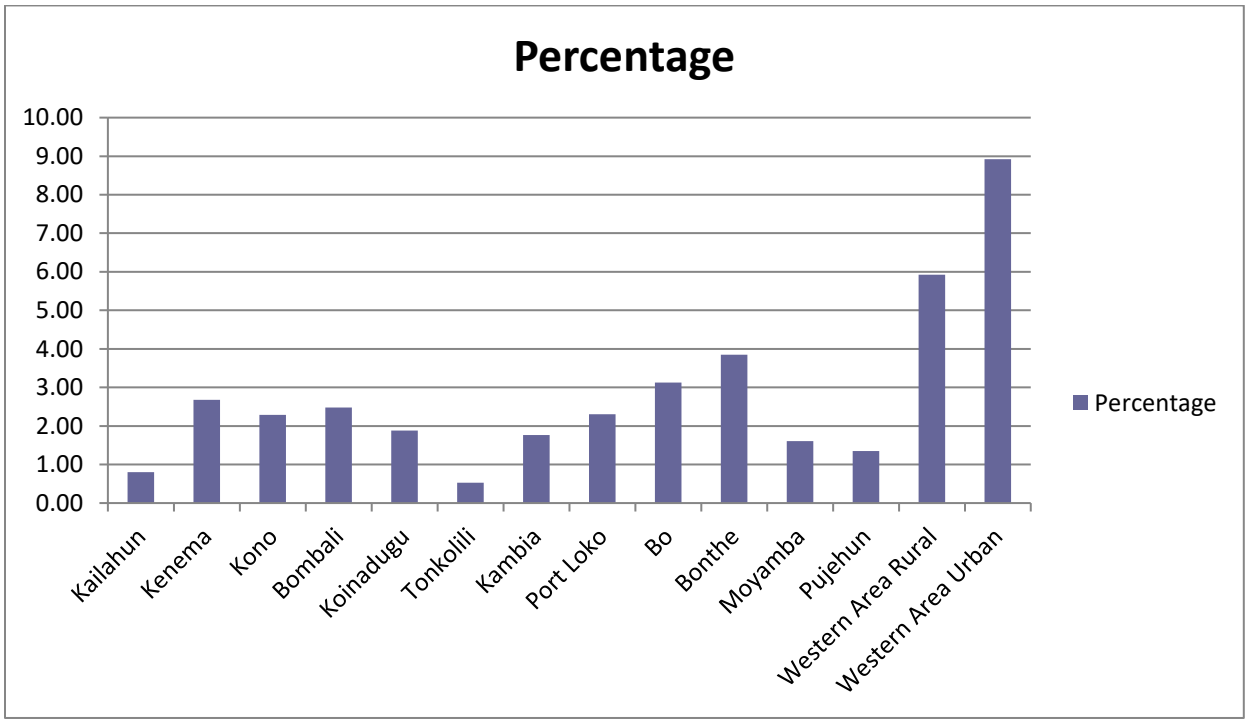
Table 4.6: Purpose of Loans/Credit

District	Buy Land	Agriculture	Business	Housing	Education	Health	Weddings	Consumer Goods	Other	Total
Kailahun	1.45	12.73	8.29	13.3	22.07	10.47	1.45	29.14	1.09	100
Kenema	0.95	7.08	11.44	12.01	11.21	16.17	2.32	35.85	2.95	100
Kono	0.91	0.91	16.47	14.51	22.62	13.17	0.91	30.06	0.43	100
Bombali	3.58	8.71	15.26	14.31	8.75	7.41	2.31	37.37	2.31	100
Koinadugu	0	2.94	14.59	25.68	10.41	4.75	0	41.63	0	100
Tonkolili	3.06	5.26	14	15.32	16.2	8.41	4.44	31.55	1.76	100
Kambia	3.76	49.02	11.19	3.76	5.27	4.5	1.51	19.49	1.49	100
Port Loko	3.9	14.74	14.56	6.21	8.19	8.03	1.15	41.46	1.76	100
Bo	3.27	1.93	12.48	34.86	16.73	6.61	0.18	20.54	3.39	100
Bonthe	4.2	1.4	18.99	8.71	13.88	7.57	2.1	39.91	3.24	100
Moyamba	1.4	5.6	12.18	9.1	10.78	11.21	4.2	44.82	0.7	100
Pujehun	0	3.57	10.27	15.18	13.4	12.94	1.34	41.07	2.23	100
Western Rural	0	0	38.52	12.59	5.19	9.63	4.44	27.41	2.22	100
Western Urban	0.84	0	35.2	16.76	14.8	6.7	2.23	12.29	11.17	100
Total	**2.44**	**9.72**	**14.97**	**13.6**	**12.62**	**9.27**	**2.06**	**32.89**	**2.46**	**100**

The 2018 SLIHS investigates if anyone in the household had a Bank Account. Data collected during the 12 months of SLIHS data collection indicates that households from all the Districts own Bank accounts with varying proportions. Figure 4.2 shows that Western area Urban and western area Rural are seen to have the number of households that had Bank accounts during the period the data was collected. The bar chart shows that Western area Urban has the highest number of households with Bank accounts followed by Western area Rural. The data represented in the bar

chart further that Tonkolili and Kailahun Districts accounts for the households with the least Bank accounts during the time of interview.

Figure 4.2: Percentage distribution of Households with Bank Accounts by District

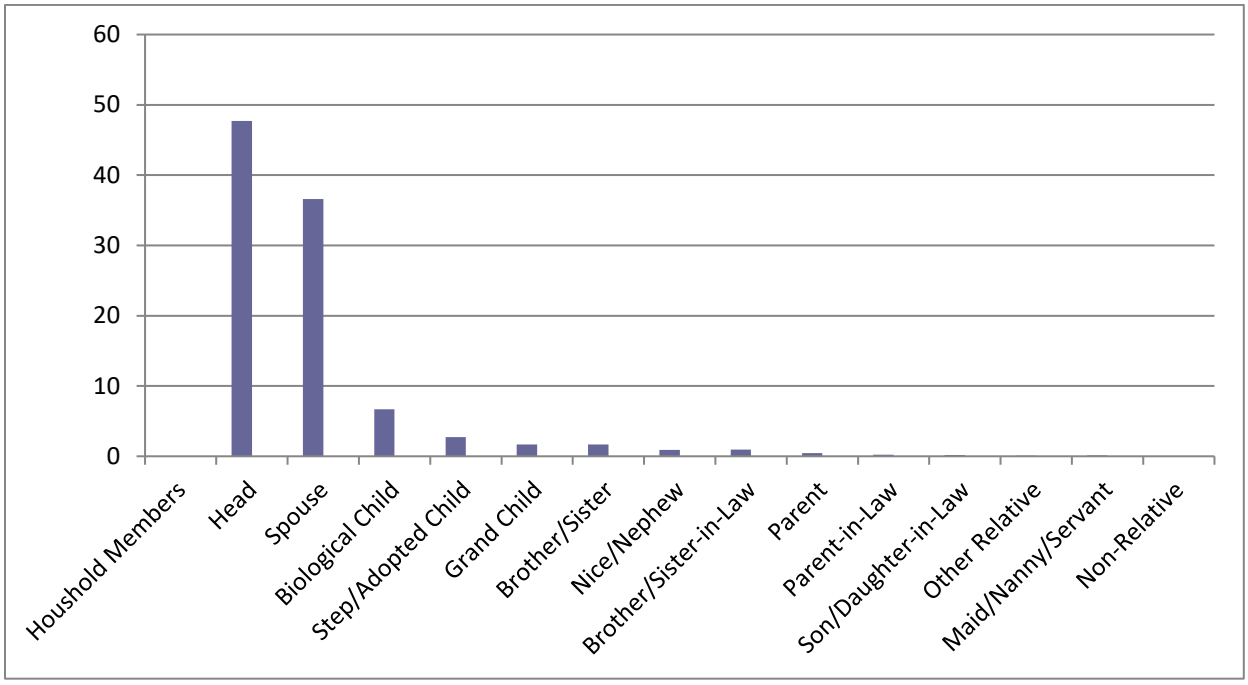


Source 2018 SLIHS

4.8 Household participation in Osusu Scheme.

As a form of micro financial capital found not only in Sierra Leone, Osusu aims at financial accumulation. An Osusu scheme continues to conduct turns until each member has a chance to use the money. Once each member has done so, the group may either discontinue using the Osusu or restart the process. The 2018 SLIHS investigates if in the last 12 months any member in the household participated in an Osusu. The data discussed here looks at the participation of household members in an Osusu Scheme. The data clearly shows us the participation of every category of household member. Household heads and spouses show a significant lead in Osusu schemes as showed in the Bar Chart (Figure 4.4) below.

Figure 4.3: Household members involved in Osusu schemes



Source 2018 SLIHS Data

4.9 Money Transfers into and outside the household

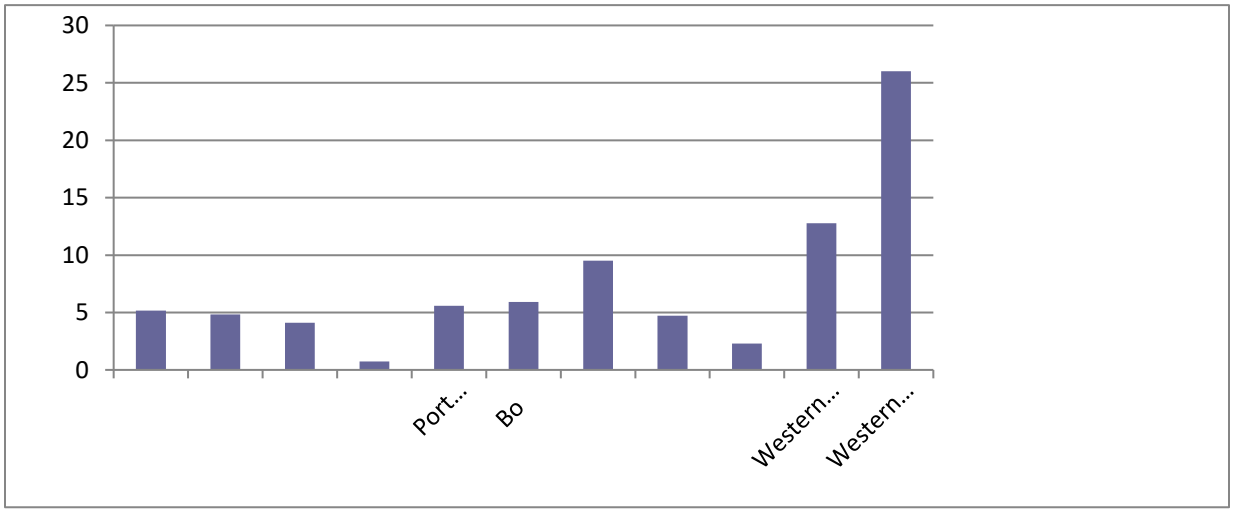
The survey also collected information on income transfers to and from households. Income transfers and remittances to parents and relative to a large extent contribute to the wellbeing of households. Table 4.9 below shows income transfers to every District within the country in different proportions. The households not having transfers are far higher than those getting remittances however. The survey report indicates that West Rural Districts households get more remittances to a proportion of 16.7percent followed by Kenema District with a proportion of 12.45percent. Kailahun District had the least cash transfer at the time the data was collected.

Table 4.7: Cash transfer into Households

District	Received	Not Received	Total
Kailahun	5,174	85,816	90,990
Kenema	33,618	79,252	112,870
Kono	10,223	66,067	76,290
Bombali	19,860	71,924	91784
Kambia	15,174	44,946	60,120
Koinadugu	16,418	57,362	73780
Port Loko	25,258	89,042	114,300
Tonkolili	16,975	87,775	1o4,750
Bo	25,670	79,694	105,364
Bonthe	8,904	33,516	42,420
Moyamba	17,290	42,610	59,400
Pujehun	8,883	50,337	59,220
Western Area Rural	21,408	45,492	66,900
Western Area Urban	45,080	143,780	188,860
Total	**269,935**	**977,613**	**1,247,548**

The survey investigated cash transfer from the households to other households for various reasons not stated in this study. The SLIHS 2018 revealed that high proportion of the households in the western urban send money outside to other households. Western Rural also send money outside the household to a considerable proportion. The figure 4.4 shows the Districts that send money outside the households.

Figure 4.4: District that send money outside their Households

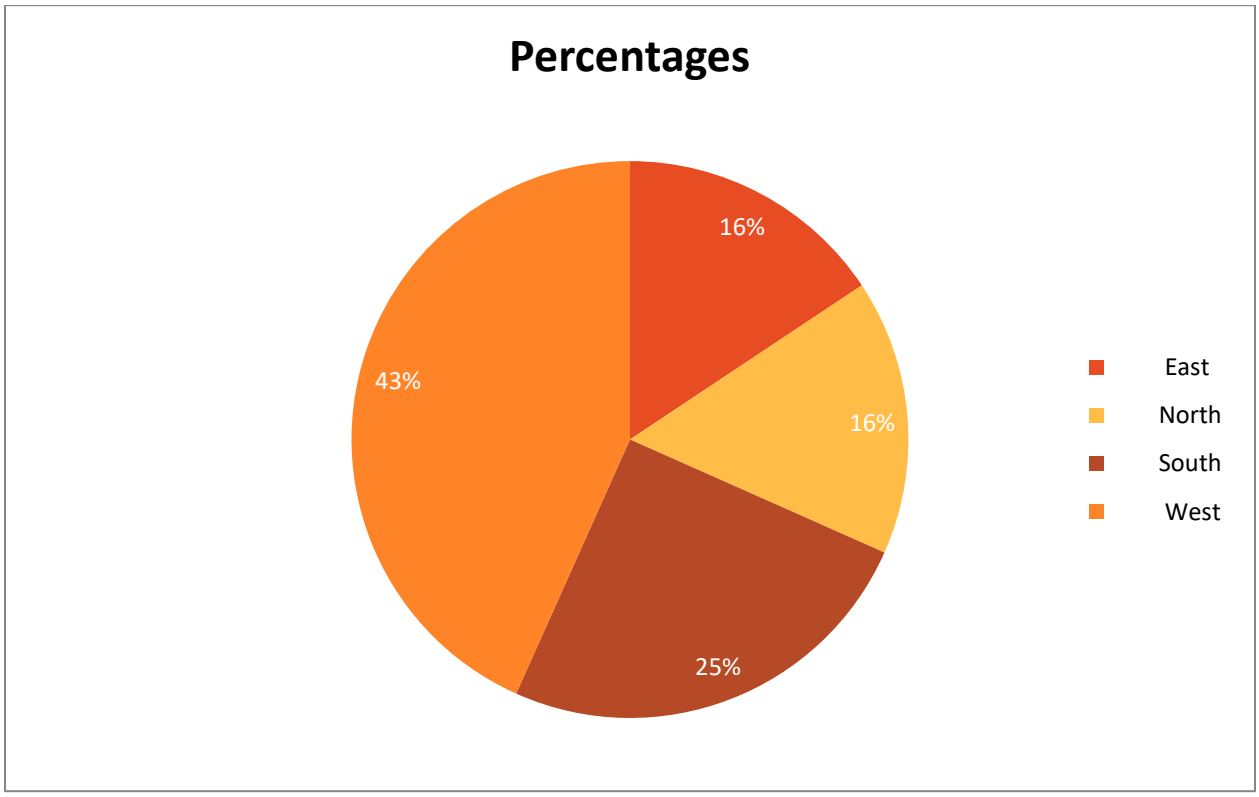


Source 2018 SLIHS Data

a) Regional Cash Transfer

The SLIHS data is further analyzed to have a regional outlook of households that send money outside the other people outside the household. It see that the western region households sends more money outside than any other region followed by the Southern region. Fig 4.5 shows the proportion that sends money outside their households.

Figure 4.5: Percentage distributions of Households that transfer cash by Region



Source 2018 SLIHS

CHAPTER FIVE - EMPLOYMENT AND TIME USE

5.0 Introduction

The labour force is all people who are of working age, and able and willing to work. A critical point is that the **labour force** includes both the employed, and the unemployed. The employed population consists of persons who are working while the unemployed population consists of persons who are not working but who are looking for work and are available for work.

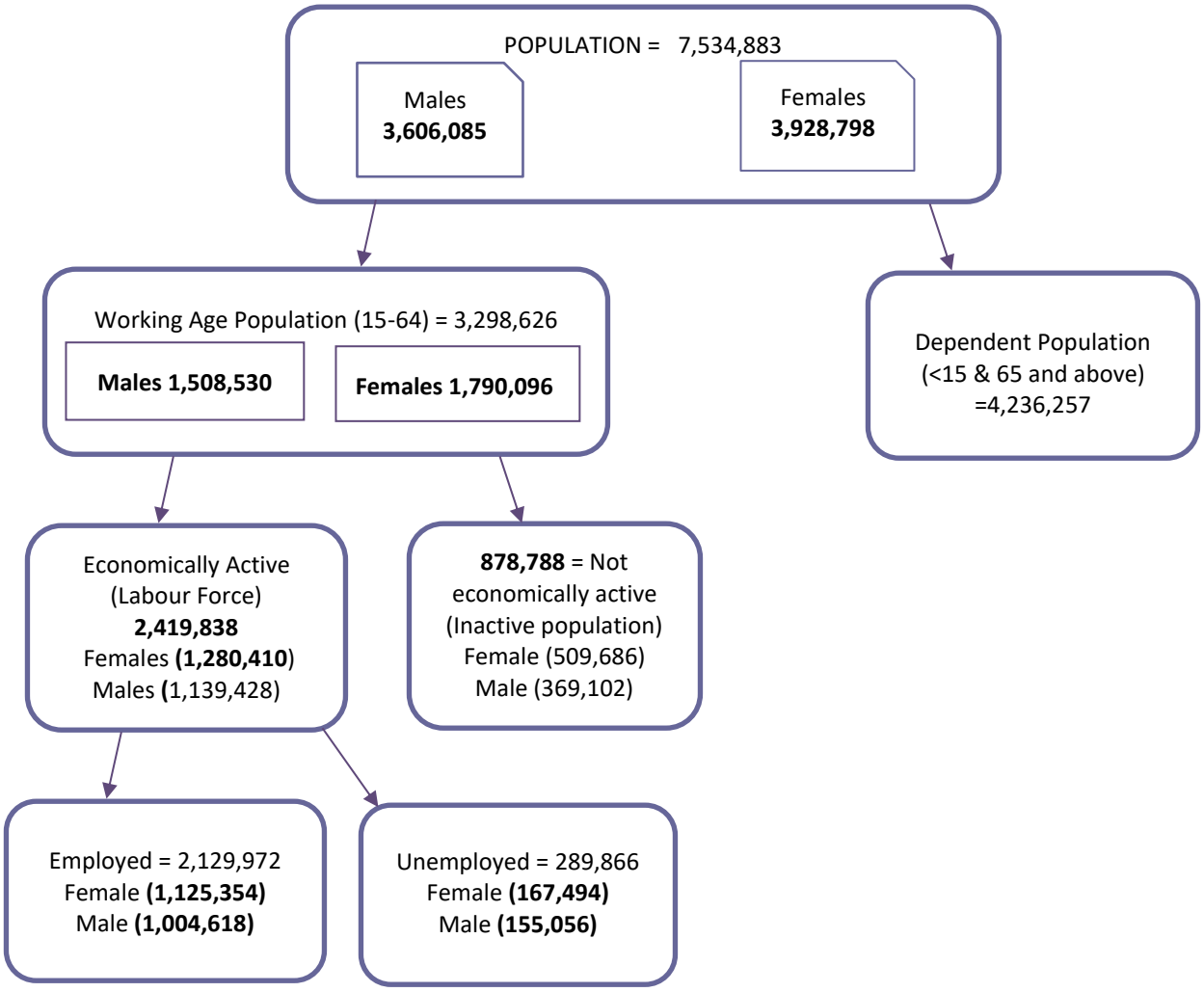
5.1. Characteristics of the Labour Force

The Labour Force consists of all the people who are able to work in a country. It can also be explained as the total number of people who are eligible to work (including employed and unemployed people in a country).

The economically inactive population comprises all persons who were neither, "employed" nor "unemployed" during the short reference period used to measure "current activity". This population is split into four groups:- Attendants in educational institutions;- Retired;- Engaged in family duties; - Other economically inactive.

The Labour Force as an indicator is measured by the Labour Force Participation Rate which is on the chat below.

Figure 5.1: The distribution of the census working age population (15-64 years) by economic activity



The working age population is defined as those aged 15 to 64. The basic indicator for employment is the proportion of the working age population aged 15-64 who are employed. The age dependency ratio is the ratio of dependents (people younger than 15 or older than 64) to the working-age population.

Figure above shows that the total population of Sierra Leone was 7,534,883 persons in 2018 of which 3,606,085(47.9percent) are males and 3,928,798 (52.1percent) are females. Also, there are 4,460,087 persons in the dependent population which accounts for about 59.2 percent of the

total population; whereas 3,074,796 persons constitute the working population 15-64 years. Of the working age population, 2,745,418 persons were economically active, 1,425,196 were females. Of the economically active population, 2,428,053 persons were employed during the period of the survey, of which 1,258,442 were females.

The unemployed total is 317,365, which shows that the number of the unemployed has increased by 264,627 (a percentage increase of about 83.4 per cent over the seven-year period 2011 to 2018).

Table 5.1: Key Labour Market Indicators from the 2018 SLIHS by Sex

Indicators LABOUR FORCE PARTICIPATION RATE	Male percent	Female percent	Total percent
Labour Force Participation rates (National)	75.5	71.5	73.4
Labour Force Participation rates (Urban)	65.5	59.9	62.7
Labour Force Participation rates (Rural)	83.6	79.6	81.6
Employment			
Employment rate (National)	41.5	46.5	88
Employment rate (Urban)	93.9	92.9	93.4
Employment rate (Rural)	84.6	85.3	85
Proportion of Employee regular	9.8	2.9	6.3
Proportion of Employee casual	5.8	0.7	3.2
Proportion of Self -employed with employees	4.7	3.1	3.9
Proportion of Self-employed without employees	51.9	53	52.5
Public/National government Sector	30.3	47.3	38.8
Private Sector	65.7	50	57.9
6. Help without pay in the HH	26.3	40.1	33.2
NGO/Foreign Mission	4	2.77	3.4
Paid apprentices	1.3	0.1	0.7
Unemployment			
Unemployed rate (National)-ILO Definition	2	1.1	3.0
Unemployment Rate (National)- Relaxed Definition	5.6	6.4	12
Unemployed rate (Urban)-Relaxed Definition	6.1	7.1	6.6
Unemployed rate (Rural)-Relaxed Definition	15.4	14.7	15.1

The Table 5.1 above illustrates that the labour participation rate increased by 8.0 percentage points from 65.4 percent in SLIHS 2011 to 73.4 percent in SLIHS 2018. Table 5.1 above also shows that those employed, 52.5 percent were self-employed without employees, 3.93 percent were self-employed with employees, 38.8 percent were working for the public/national government sector while 57.9 percent were working for the private sector. This high contribution of the private sector to employment underlines the growing strides of the private sector and other opportunities faced by the sector in the country.

ILO definition of unemployment**:** The standard definition of unemployment is based on three criteria that have to be met simultaneously. The 'unemployed' comprise all persons within the

age limits specified for measuring the economically active population, who during the reference period were:

(a) 'without work' – were not in paid employment or self-employment as specified by the international definition of employment;

(b) 'currently available for work' – were available for paid employment or self-employment during the reference period; and

(c) 'seeking work' – had taken specific steps in a specified recent period to seek paid employment or self-employment.

In terms of unemployment, the rates computed following the ILO recommendations show that Sierra Leone has an unemployment rate of 3.0 percent of the economically active population nationally, while the urban areas have a higher rate of 4.5 percent and the rural areas have a lower rate of 3.8 percent unemployment rate.

5.2. Economically Active Population

Economically active population comprises all persons of either sex who furnish the supply of labour for the production of economic goods and services as defined by the United Nations System of National Accounts during a specified time-reference period.

Table 5.2: Total economically Active population (Labour Force) by Sex, Locality and Age group

Age group	Male LFS		Female LFS		National		
	Rural	Urban	Rural	Urban	Rural	Urban	Total
15-19	89,834	24,532	102,204	33,057	192,038	57,589	249,627
20-24	64,758	44,018	98,799	60,449	163,557	104,467	268,024
25-29	80,229	61,915	127,645	83,683	207,874	145,598	353,472
30-34	76,028	69,783	104,196	63,947	180,224	133,730	313,954
35-39	97,201	69,323	133,472	66,449	230,673	135,772	366,445
40-44	80,163	53,566	79,196	41,805	159,359	95,371	254,730
45-49	68,172	46,172	63,952	32,983	132,124	79,155	211,279
50-55	61,891	32,007	68,184	29,866	130,075	61,873	191,948
55-59	43,788	25,082	40,807	15,467	84,595	40,549	125,144
60-64	36,821	14,145	22,429	11,820	59,250	25,965	85,215
Total	**698,885**	**440,543**	**840,884**	**439,526**	**1,539,769**	**880,069**	**2,419,838**

From Table 5.2 above, the total economically active population (Labour Force) in Sierra Leone is estimated at 2,419,838 which is about 73.4 percent of the working age population and is greater than the 2,240,844 estimated in SLIHS2011. The survey results estimated that Labour Force

Participation is lower for both the early and late working ages. The Labour Force Participation for age group 15-19 is 249,627 accounting for about 10.3 percent of the economically active population. It will be argued that the reason for the low Labour Force Participation in this age group is due to the fact that most members of this group are students in educational establishment. This age group is followed by 55-59 and 60-64 in terms of low Labour Force Participation. As such, it can be concluded that the effective Labour Force Participation is contributed by all persons in the cumulative age group 20-54. Also, the table above shows that the Labour Force Participation is lower for female than males as well as for the urban areas and rural for age groups in the range (40-64). This trend of participation can be attributed to the fact that most household and other family activities such as cooking, laundering and child care are carried out by women.

As can be seen in table above, the trend in Labour Force Participation is higher in the rural areas than urban areas for all the age groups. This explains the fact that most of our Labour Force is in the rural area and engaged in unpaid family work and/or self-employed activities.

Table 5.3: Total economically Active and Inactive population (Labour Force) by Sex, Locality and Age group

Age group	Economically active population 15-64 years							
	Economically Active			Economically Inactive		Percentage (percent) economically active		
	Employed	Unemployed	Total (Labour Force)	Not in Labour Force	Total Working Age Population	Employed	Unemployed	Total
15-19	210,932	38,695	249,627	418,078	667,705	8.7	1.6	10.3
20-24	220,705	47,319	268,024	184,937	452,961	9.1	2.0	11.1
25-29	309,254	44,218	353,472	86,701	440,173	12.8	1.8	14.6
30-34	282,276	31,678	313,954	37,815	351,769	11.7	1.3	13.0
35-39	327,029	39,416	366,445	24,978	391,423	13.5	1.6	15.1
40-44	228,335	26,395	254,730	17,370	272,100	9.4	1.1	10.5
45-49	191,072	20,207	211,279	14,840	226,119	7.9	0.8	8.7
50-55	170,805	21,143	191,948	29,193	221,141	7.1	0.9	7.9
55-59	112,058	13,086	125,144	26,137	151,281	4.6	0.5	5.2
60-64	77,506	7,709	85,215	38,739	123,954	3.2	0.3	3.5
Total	**2,129,972**	**289,866**	**2,419,838**	**878,788**	**3,298,626**	**88.0**	**12.0**	**100.0**

Table 5.3 above indicates that about 21.4 per cent of the economically active population is youth in the age group 15-24 years. This implies that government should design strategies to generate or create jobs that youths would be able to undertake. The total number of the employed (paid employment, self-employed without employees, self-employed with employees (employers), paid apprentices) is 2,129,972. The unemployed total is 289,866 which show that the number of the unemployed has increased by 237,128.

5.3. Labour Force Participation Rates

Labour force participation rate is defined as the section of working population in the age group of 15-64 in the economy currently employed or seeking employment. People who are still undergoing studies, housewives and persons above the age of 64 are not reckoned in the labour force.

The labour force participation rate is the measure to evaluate working-age population in an economy. The participation rate refers to the total number of people or individuals who are currently employed or in search of a job. People who are not looking for a job such as full-time students, homemakers, individuals above the age of 64 etc. will not be a part of the data set.

Tables below show the changing patterns of labour force participation rates at national, regional, sex as well as differences in the participation rates of the urban and rural populations. The survey result in table below, gives the labour force participation rate in Sierra Leone as 73.4 percent in SLIHS 2018 which is greater when compared to 67.1 percent in SLIHS 2011. This means that the volume of the supply of labour available to engage in the production of goods and service in the economy has increased in SLIHS 2018.

The overall pattern of the rural labour force participation rate shows similar trend to that of urban in terms of the national, regional and gender dimensions. Labour force participation rate in the rural area is 81.6 percent which is higher than 62.7 percent participation rate in the urban areas. The high rural participation rate for all the regions over urban might be attributed to the fact that only a small proportion of the working-age population in the rural area can afford to remain outside of the labour force. This shows that economic inactivity is not a frequent occurrence in the rural areas.

Table 5.4: Labour Force Participation rate by Sex, locality and region

Region	Rural			Urban			National		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
East	19.4	17.0	18.1	11.4	10.8	11.1	15.8	14.4	15.1
North	17.1	17.5	17.3	7.1	7.6	7.4	12.6	13.4	13.1
North West	21.6	21.4	21.5	6.7	7.1	6.9	15.0	15.6	15.3
South	24.7	22.8	23.6	5.3	5.3	5.3	16.0	15.6	15.8
West	0.8	1.0	0.9	35.0	29.0	31.9	16.1	12.5	14.1
Total	**83.6**	**79.6**	**81.4**	**65.5**	**59.9**	**62.6**	**75.5**	**71.5**	**73.4**

Further analysis of table 5.4 above, shows that the male LFPR is 75.5 percent, slightly higher than the national (73.4 percent), whereas the female LFPR is 71.5 percent. The lower LFPR of females compared to males for most of the regions might be due to the fact that most of the work done by women are not remunerative or paid for such as home domestic work, raising of children, care for the aged/sick etc.

Also, the Labour Force Participation is higher in the Southern region (15.8 percent), followed by the North West region (15.3 percent), Eastern regions (15.1 percent), Western region (14.1 percent) and the lowest is in the Northern region (13.1 percent). But in the rural locality, the highest Labour Force Participation was in the Southern Region (23.6 percent) with the other regions having almost similar participation rates.

Table 5.4 above shows that the Labour Force Participation is lower for female for all groups in the effective age range. This trend of participation can be attributed to that fact that most household and other family activities such as cooking, laundering and child care are carried out by women.

Table 5.5: Labour force participation rate by Age Group

Age Group	Labour force participation rate
15-19	7.6
20-24	8.1
25-29	10.7
30-34	9.5
35-39	11.1
40-44	7.7
45-49	6.4
50-55	5.8
55-59	3.8
60-64	2.6
Total	**73.4**

The table above indicates that labour force participation indicates the potential for persons to work. The table above shows the labour force participation by age group. The table shows that age groups 25-29 and 35-39 have the highest labour force participation rate, followed by 30-34 and 20-24 age groups. The 60-64 age groups recorded the lowest participation rate.

Table 5.6: Employment and unemployment rates by age (15-64 years) and sex

	Male		Female	
Age group	**Employment Rate**	**Unemployment Rate**	**Employment Rate**	**Unemployment Rate**
15-19	4.0	0.8	4.8	0.8
20-24	3.7	0.8	5.5	1.1
25-29	5.2	0.6	7.5	1.2
30-34	5.5	0.5	6.2	0.8
35-39	6.2	0.7	7.3	0.9
40-44	4.9	0.6	4.5	0.5
45-49	4.2	0.5	3.7	0.4
50-55	3.3	0.6	3.7	0.3
55-59	2.6	0.3	2.1	0.3
60-64	1.9	0.2	1.3	0.1
Total	**41.5**	**5.6**	**46.5**	**6.4**

The table 5.6 above reveals that, from age group 15-19 through to 30-39 years, the female employment rate surpasses that of males, but from 40-44 through to 60-64 male employment rate is higher than female employment rate. In total, the female employment rate (46.5 percent) is greater than the male employment rate (41.5 percent).

Despite this parity in employment rate, females are more likely to be unemployed than their males' counterparts. The unemployment rate is 6.4 percent for females greater than 5.6 percent for males.

5.4. The Currently Employed

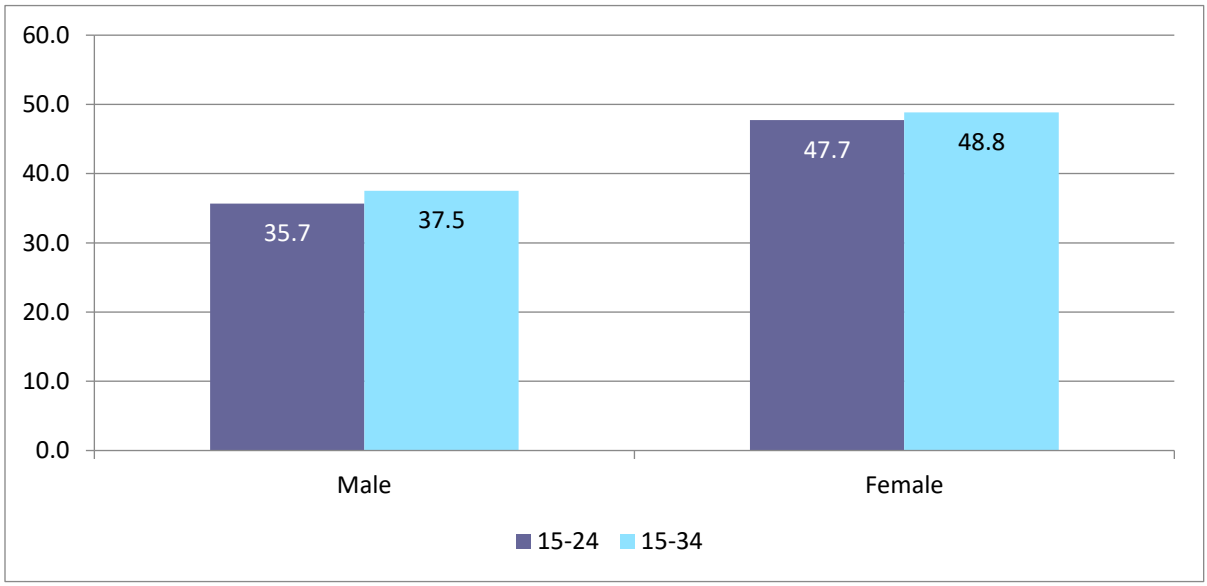
The currently employed means to hire or engage the services of (a person or persons); provide **employment** for; have or keep in one's service employment with reference to the past seven (7) days and it is a widely used indicator in the Labour market analysis. The SLIHS 2018 estimated that there are 2,129,972 persons who were currently employed in Sierra Leone. This shows that there were more currently employed persons in SLIHS 2018 than in SLIHS 2011.

Table 5.7: Currently Employed Population by Age Group, Sex and locality

Age Group	Male			Female			National		
	Rural	Urban	Total	Rural	Urban	Total	Male	Female	Total
15-19	74,024	21,739	95,763	86,540	28,629	115,169	95,763	115,169	210,932
20-24	51,997	36,891	88,888	80,613	51,204	131,817	88,888	131,817	220,705
25-29	72,047	54,904	126,951	104,567	77,736	182,303	126,951	182,303	309,254
30-34	65,608	67,209	132,817	88,712	60,747	149,459	132,817	149,459	282,276
35-39	82,235	67,295	149,530	114,533	62,966	177,499	149,530	177,499	327,029
40-44	66,795	52,034	118,829	69,084	40,422	109,506	118,829	109,506	228,335
45-49	57,641	45,077	102,718	56,754	31,600	88,354	102,718	88,354	191,072
50-55	50,093	30,465	80,558	61,776	28,471	90,247	80,558	90,247	170,805
55-59	38,181	24,279	62,460	34,544	15,054	49,598	62,460	49,598	112,058
60-64	32,462	13,642	46,104	19,855	11,547	31,402	46,104	31,402	77,506
Total	**591,083**	**413,535**	**1,004,618**	**716,978**	**408,376**	**1,125,354**	**1,004,618**	**1,125,354**	**2,129,972**

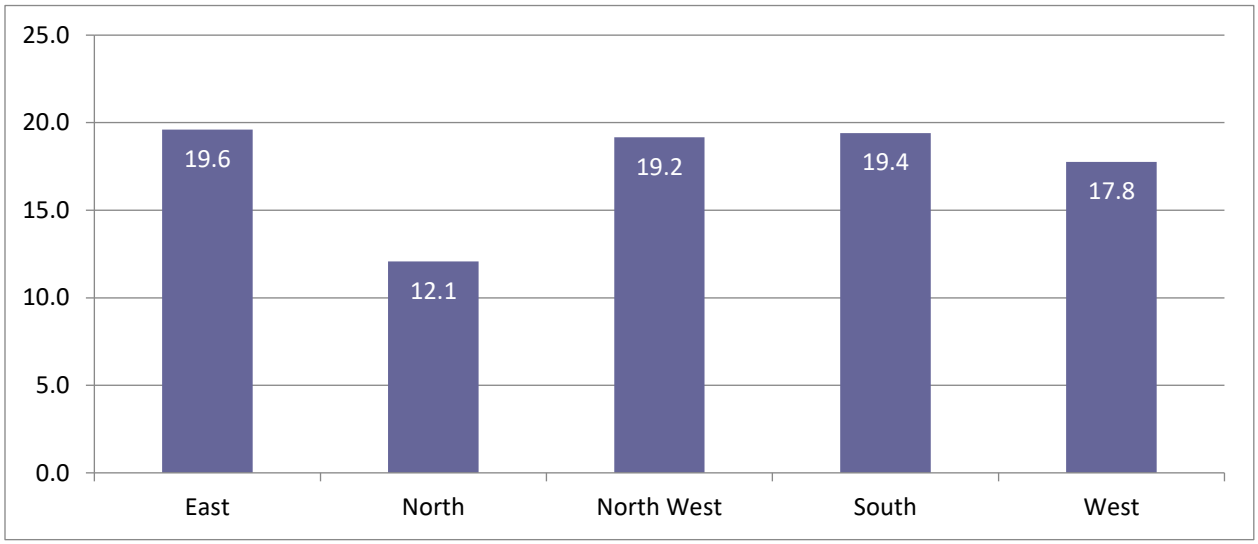
Table 5.7 above shows that the currently employed female population 1,125,354, accounts for about 52.8 percent of total currently employed population, compared to 1,004,618 of males that are currently employed, about 47.2 percent. The currently employed population in the rural area is 1,308,061 representing 61.4 percent more than two-thirds of the total currently employed population, compared to urban locality which accounts for about 38.6 percent. The survey reveals that the currently employed female population slightly increased by 0.5 percentage point while the currently employed male population slightly decreased by 0.5 percentage point in SLIHS 2018 when compared with SLIHS 2011. The rural area employs more of the population because of the high proportion of people in unpaid family work and self-employment in agriculture in the rural areas. For all the specific age groups, there is more currently employed population in the rural area than in the urban area.

Figure 5.2: Employment Rate by Age Group (15-24 and 15-34) and Sex



The Figure 5.2 shows a pattern of employment that does not match developing countries where the female employment rate for age group 15-24 is almost at par with the employment rate for the age group 15-34. In the age group 15-34 both the employment rates for male and female surpass that of age group 15-24. This shows that at the age group 15-24 most of them are attending school

Figure 5.3: Percentage Distributions of Persons Employed By Region



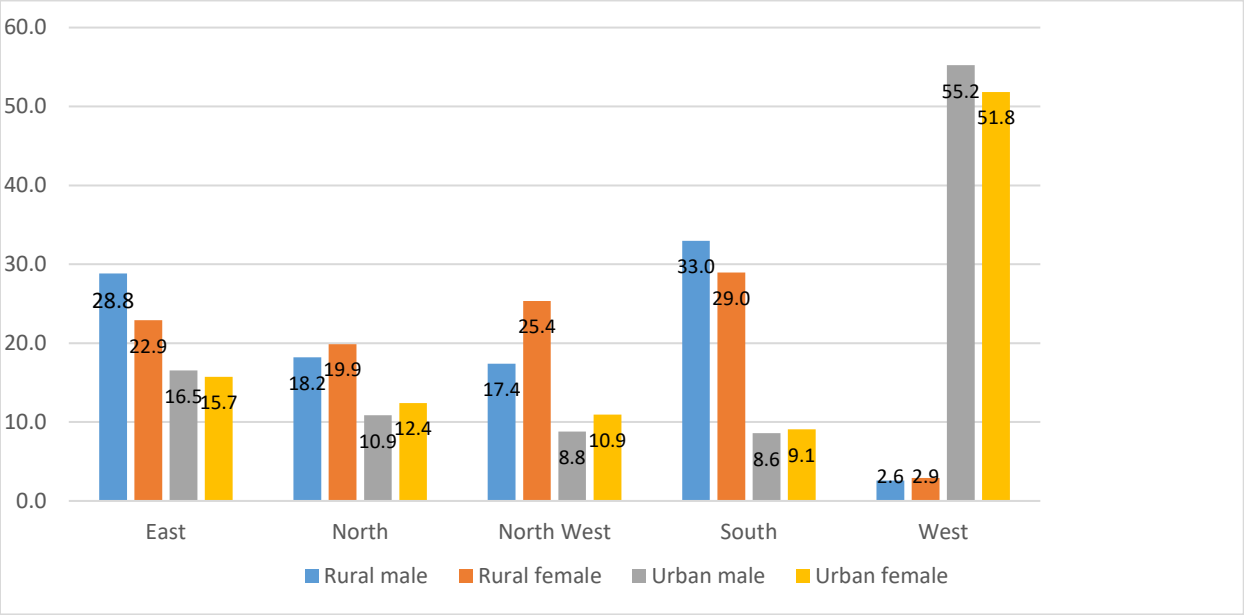
The survey results in the figure above (Figure 5.3) reveals the percentage of persons employed by regional. The Eastern region has highest 19.6 of the working age population were employed follow by the Southern region with 19.4 percent, North-West with 19.2 percent, Western region with 17.8 percent and the Northern region recorded least, 13.7 percent of the working age population were employed.

The high percentage of employed persons in the Eastern region might be due to the high level of economic activities taking place in the mining industry and plantations.

5.4.1. Current Employment for the Last 12 Months

The currently employed means to hire or engage the services of (a person or persons); provide **employment** for; have or keep in one's service employment with reference to the last 12 months and it is a widely used indicator in the Labour market analysis. The SLIHS 2018 estimated that there are 1,662,964 persons who were currently employed in Sierra Leone in the last 12 months. This shows that there were more currently employed persons in the last 12 months in SLIHS 2018 than in SLIHS 2011.

Figure 5.4: The Currently Employed Persons for the last 12 Months by Region, Rural-Urban and Sex



The figure 5.4 above shows that the currently employed female population 879,903, accounts for about 52.9 percent of total currently employed population in the last 12 months, compared to 783,061 of males that are currently employed, about 47.1 percent. The currently employed population in the rural area is 778,725 representing 46.8 percent less than two-thirds of the total currently employed population in the last 12 months, compared to urban locality which accounts for about 53.2 percent. The Western region employs more of the population in last 12 months when compared to the other regions.

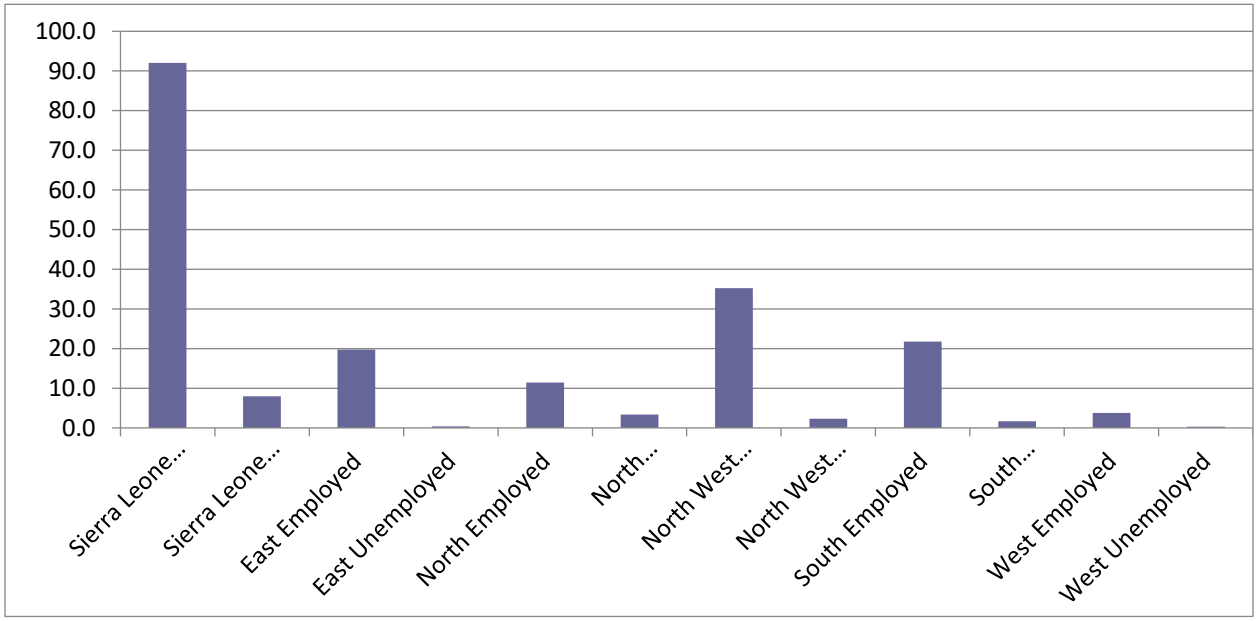
5.5. Child Labour in Sierra Leone

Introduction and definition of terms

Child labour has been defined by the ILO Convention No. 138. There are considerable differences in the many kinds of work children do. Classification depends on the child's age, the type and hours of work performed, the conditions under which it is performed, and the objectives pursued, and may vary from country to country, as well as among sectors within countries. Child labour is, thus, different from child work in that the former is likely to be harmful to the child, whilst the latter is harmless or skills developing. Child work refers to any activity (light work) that can be beneficial and can enhance a child's physical, mental, spiritual, moral or social development without interference with schooling, recreation and rest. The UN thus defines child work as "children's participation in economic activity that does not negatively affect their health

and development or interfere with their education". The ILO also contends that work which does not interfere with the children's education is permitted from the age of 12 years (ILO Convention No. 138). Helping parents in their household activities and business after school can contribute positively to the development of the child. When such work is truly part of a socialization process (a means of transmitting skills from parents to their children), it is not child labour. Light work can increase children's status as family members and citizens and help them gain confidence and self-esteem. Child labour is generally restricted to the 'worst form' activities, involving the nature of work or intensity of work that is mentally, physically, socially or morally harmful to the health and development of children and which deprives them of education.

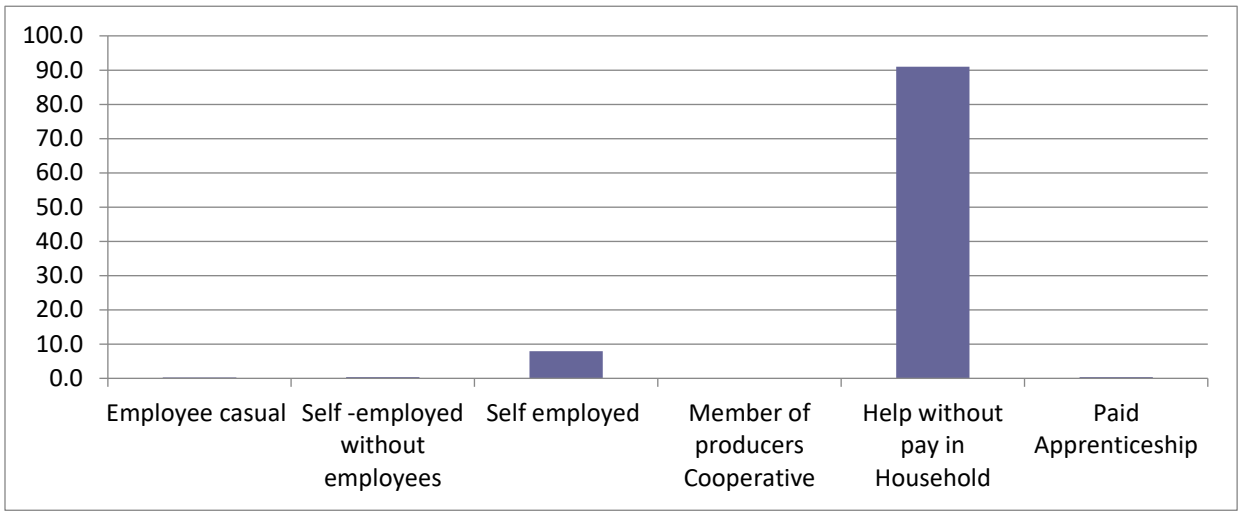
Figure 5.5: Distribution of employed and unemployed children by age group 10-14 years by region



For the purposes of the SLIHS 2011, "working children" and "employed children" are synonymous. Unpaid apprentices in training are considered to be "employed" and their employment status is considered to be that of "employee".

Figure 5.5 above shows the regional distribution of labour force participation of children 10-14 at the regional level. The employment rate in the North West region is the highest, followed by the Southern Region, Eastern Region, Northern Region and the least is Western Area. The employed persons were regarded as those in paid employment, self-employment and those engaged as "unpaid". The high employment of children in the North West Region could be attributed to the agriculture and iron ore mining activities in that part of the country.

Figure 5.6: Percentage of children aged 10-14 years by status of employment



The Figure 5.6 above shows the percentage distribution and status of employed children, 10 to 14 years. The analysis reveals the majority of children are either help without pay in Household (91.0 percent) or self-employed (7.9 percent). Next is self-employed without employees (0.4 percent) and then 0.1 percent employed by members of producers cooperatives.

5.6 Employment in the informal sector

Definitions of the informal sector are many and include characteristics that may seem contradictory.

The term often appears as a catch-all for all economic activities that do not belong to the formal sector, with activities as diverse as street vending or market hawking, domestic labour, hand-made crafts and sweatshop activities. Even criminal enterprises such as sex work, dealing in drugs or alcohol, the black market and sales of stolen goods are included in the informal economy. But the majority of products and services produced in the sector are legal, and its products are often sold through the formal economy. Lack of regulation (of the employer) and protection (of the employee) characterize the informal economy.

Misra , P and Alam M.S (2014) said: “In the developing country context, the informal sector is sometimes defined in terms of the activities of the enterprises (ILO, 1972) and sometimes in terms of the kind of work done by individuals as employees or as self-employed people (Hart,1973). In 1972, the ILO characterized the informal sector as: (a) ease of entry, (b) reliance on indigenous resources, (c) family ownership of enterprise, (d) small scale of operation, often defined in terms of hired workers less than ten, (e) labour-intensive methods of production and adapted technology, (f) skills acquired outside the formal school system, (g) unregulated and competitive markets.”

5.5.1 Features of Informal Economy

According to the ILO, the informal economy can be differentiated from the formal economy on the basis of the type of enterprise and conditions of employment.

According to a draft paper for the Expert Group Meeting on Accounting for the Informal Sector in National Accounts 2, "the informal economy is made up of unregistered establishments, household unincorporated enterprises and unregistered employment with no social security.

Thus, employment in the informal economy is defined as the sum of employment in unregistered establishment, unregistered employment in the formal economy and unpaid family workers".

The operational significance and vital role of the informal economy is clearly shown below by number of persons employed in the informal sector in the figure 5.6 below. The figure shows that the Northern Region alone contains more informal workers than the Northern, Southern, North Western and Western regions. The North Western Region has the second largest number of informal sector workers. This could be because both regions (North Western and Eastern) are highly agrarian and engaged in mining (gold, diamond and ore). The region that has the least number of informal sector workers is the Northern region.

Figure 5.7: Number of Persons employed in the Informal sector

Figure 5.7 below shows that the rural area has a lower proportion of informal sector employment than the urban areas. The graph shows that urban informal employment is twice that of the rural informal employment. This is due to the expansion informal sector employment in the urban areas of Sierra Leone, where family contributions to work, casual and seasonal work are common and the contribution of women is hardly recognized or given value. As a result, the informal sector is very prominent in urban areas nowadays and paid employment is minimal.

Figure 5.8: Distribution of paid employees in the Informal sector by locality

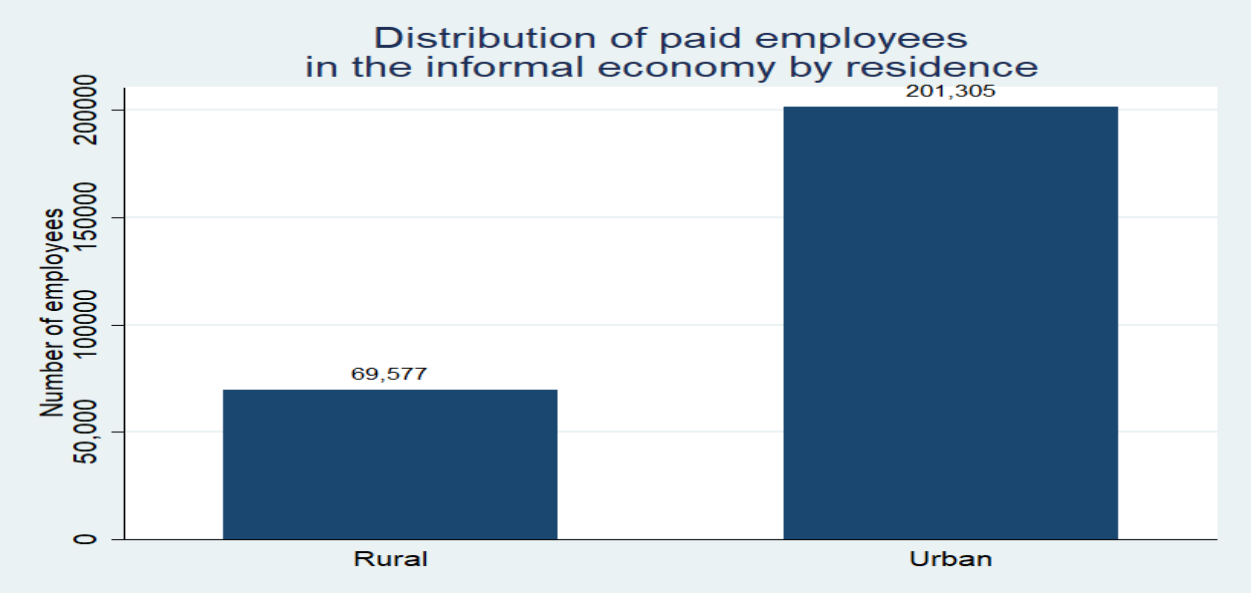


Table 5.8: Percentage distribution of hours of work by Gender and Locality

Hours of work/ day	Male			Female		
	Rural	Urban	Total	Rural	Urban	Total
1 hr	1.5	2.6	1.8	1.5	2.6	1.8
2 hrs	3.9	6.3	4.7	3.9	6.3	4.7
3 hrs	5.5	4.6	5.2	5.5	4.6	5.2
4 hrs	3.7	3.1	3.5	3.7	3.1	3.5
4-6 hrs	24.3	15.1	21.1	24.3	15.1	21.1
7-9 hrs	39.8	33.4	37.6	39.8	33.4	37.6
10-12 hrs	15.3	20.9	17.2	15.3	20.9	17.2
13-15 hrs	5.4	12.0	7.7	5.4	12.0	7.7
16-18 hrs	0.6	2.0	1.1	0.6	2.0	1.1
19-24 hrs	0	0	0	0	0	0
Total	**100**	**100**	**100**	**100**	**100**	**100**

The survey result in Table above shows that majority of the paid working population about 37.6 percent worked between 7-9 hours per day, followed by 21.1 percent that worked between 4-6 hours per day and about 17.2 percent worked between 10-12 hours per day. The survey reveals that the paid working population that worked between 7-9 hours declined by 8.2 percentage point from 45.8 percent in SLIHS 2011 to 37.6 percent in SLIHS 2018. Similarly, the paid working population that worked between 4-6 hours and 10-12 hours declined by 1.6 and 3.4 percentage points from 22.7 percent and 20.6 percent in SLIHS 2011 to 21.1 percent and 17.2 percent in SLIHS 2018 respectively.

A total of about 76 percent of the paid employed population worked between 4 -12 hours per day. There is nobody that worked for more than 18 hours per day as indicated in Table above. There is more paid employed population in the urban area than rural areas working for more than 7 hrs. Per day and about 3.3 percent of the paid employed population worked between 12-16 hours per day.

5.7 Secondary Occupation in Sierra Leone

This report covered secondary occupation which is a component of the Employment and Time Use Module in the SLIHS 2018. **Secondary occupations** are all tasks undertaken in addition to regular employment that do not relate to private life. These include extra work in other employment, performing assignments, or conducting a personal business in addition to one's ordinary employment. It is immaterial if the activity provides payment or no.

This chapter will secondary occupation focusing on persons who having been gainfully employed and reported to be involved in secondary occupation in the last 12 months (not the last 7 days).

What is the reason for engaging in secondary occupation? What is the regional disparity and Time spent on secondary occupation and their earnings.

5.7.1 An analysis of employed persons engaged in secondary occupations

SLIHS 2018 collected data on secondary employment and the result is shown in Table 5.9 below. The age group with the highest number of employed persons with secondary occupation male/female total is between 35-39 years old (96, 331 persons), followed by 30-34 years (76,623 persons) and this is factual because within these age brackets that male and female are most productive. By sex, the males between the age group 35-39 (43,082 persons) and females of 35-39 (53,2498 persons) are involved in secondary occupation.

The Northern region has the principal share of employed persons involved in secondary occupation (312,642) followed by the Southern region (124,241 persons) in SLIHS 2018 (see Table 5.9) while the Western region has the lowest number of 82,208 persons in 2018, compared to the Northern (262,697) and Western region (70,803) of 2011. This demonstrates that a greater number of people have gotten more involved in secondary occupation in other to meet the basic needs of life.

Table 5.9: Employed persons with secondary activities by age group, sex, and locality

Categories	Male			Female			Total
Age Groups	**Urban**	**Rural**	**Total**	**Urban**	**Rural**	**Total**	
15-19	15,228	2,752	17,980	19,045	5,528	24,573	42,553
20-24	14,581	4,752	19,333	26,174	8,633	34,807	54,140
25-29	20,742	7,363	28,105	32,997	13,129	46,126	74,231
30-34	22,455	11,956	34,411	31,185	11,027	42,212	76,623
35-39	29,639	13,443	43,082	41,218	12,031	53,249	96,331
40-44	21,761	8,378	30,139	22,645	6,709	29,354	59,493
45-49	18,424	8,733	27,157	17,514	6,364	23,878	51,035
50-54	19,186	4,464	23,650	20,526	6,838	27,364	51,014
55-59	13,978	3,999	17,977	10,177	2,573	12,750	30,727
60-64	8,880	2,639	11,519	5,778	2,679	8,457	19,976
65+	14,024	3,181	17,205	7,151	3,252	10,403	27,608
Total	**198,898**	**71,660**	**270,558**	**234,410**	**78,763**	**313,173**	**583,731**

Table 5.10: Employment Type by Sex and Locality

Employment Type	Male			Female			National		
	Rural	Urban	Total	Rural	Urban	Total	Male	Female	Total
Employee regular	30,868	119,884	150,752	6,150	41,202	47,352	150,752	47,352	198,104
Employee casual or seasonal	27,443	61,674	89,117	2,875	8,256	11,131	89,117	11,131	100,248
Self -employed without regular employees	48,862	24,263	73,125	33,767	17,596	51,363	73,125	51,363	124,488
Self- employed with regular employees	603,171	197,680	800,851	561,871	309,808	871,679	800,851	871,679	1,672,530
Member of producers cooperative	2,939	463	3,402	866	140	1,006	3,402	1,006	4,408
Help without pay in HH farm or business	354,686	51,036	405,722	572,870	86,551	659,421	405,722	659,421	1,065,143
Paid apprenticeship	9,373	11,181	20,554	731	1,641	2,372	20,554	2,372	22,926
Total	**1,077,342**	**466,181**	**1,543,523**	**1,179,130**	**465,194**	**1,644,324**	**1,543,523**	**1,644,324**	**3,187,847**

5.8 Non-Farm Enterprise

Non-farm enterprises include all other activities namely, mining, manufacturing, utilities, construction, commercial transport, financial and personal services.

For the 2018 Sierra Leone Integrated House Hold Survey (SLIHS), Non-farm enterprise activities include: Mining and Quarrying, Manufacturing, Electricity gas and Air Conditioning Supply, Construction, Wholesale and retail Trade, Transportation and storage, Accommodation and food Services Activities, Information and communication, Financial and insurance Activities, Real estate activities, Professional scientific and Technical Activities, Administrative and support service activities, Public administration, Education, Human health and social activities and All Other service act.

About 886,209 non-farm activities were investigated, over 71.0 percent of them were wholesale and retail trade, and the less than 29percent covered some kind of manufacturing (for instance food, beverages, textiles or clothing) and other services. This shows that there were more non-farm enterprise activities in 2018 SLIHS than in 2011 SLIHS. This is probably due to the fact that the 2018 SLIHS provider more spaces for the questionnaires to capture up to 10 nonfarm enterprises while as the 2011 made space for not more than 3 non-farm enterprises according to their importance to the households. Probably this is as a result of economic growth and stability in the country as compared to 2011. Another reason could be some people in the Agricultural sector have moved into the non-farm business.

It is often argued that African economies need to become less dependent on agriculture in order for poverty to decrease. However, very little is known about the characteristics, constraints and opportunities of nonfarm enterprises (Lanjouw & Lanjouw, 2001), which makes it difficult to assess how this class of enterprises might contribute to poverty reduction. There is dispute in the literature regarding precisely this issue as evidence in the discussion from Barrett et al. (2001), Davis & Bezemer (2003) and Reardon et al. (2002). One view is that non-farm activities provide a dynamic Pathway out of poverty; a less optimistic view is that non-farm enterprises are set up by households primarily as a survival strategy, perhaps as a substitute for agriculture for the landless.

5.8.1 Characteristics of Non-Farm Enterprises

Apart from agricultural data, detailed information was also collected on all non-farm enterprises or businesses operated by households. Respondents were asked whether, during the previous 12 months, any household member had operated his or her own business or trade, or worked as

a self-employed professional or craftsman or fisherman. If they did, details were collected on the type of activity undertaken, and the person in the household who was responsible for that activity. Up to ten activities were listed in order of importance, in terms of how much money they brought into the household. Detailed information was then collected for these business activities, covering basic background information about how the business was operated, the expenditures incurred, the assets of each business, the revenues received, and estimates of net income and inventory of each business.

Table 5.11: Proportion of Non-Farm Enterprise activities by region and national distribution

ISIC Rev 4	East	North	North West	South	West	National Distribution
Mining and Quarrying	19	42.2	8.5	13.4	16.8	4.13
Manufacturing	11.6	15.7	21.3	29.6	21.8	8.64
Electricity, gas, and Water supply	18.3	41.3	0	6	34.4	0.18
Construction	10.9	17.6	14.6	12	44.9	3.26
Wholesale and retail trade	14.2	14.4	24.1	15.5	31.8	71.42
Transportation and storage	23.4	15.3	20.6	17.3	23.4	4.47
Accommodation and food service activities	14.1	12.2	20	16.7	37	4.08
Information and communication	33.5	7.5	10.8	8	40.2	0.44
Financial and insurance activities	0	0	0	58.3	41.7	0.04
Real estate activities	0	100	0	0	0	0.05
Professional scientific and technical	0	3.9	14.1	0	82	0.23
Administrative and support service activities	0	0	0	30.7	69.3	0.3
Public administration and defense	0	68.8	0	0	31.3	0.05
Education	9.1	11.4	13.3	15	51.2	0.37
Human health and social work activities	6.9	5.3	18	31	38.8	0.49
All Other service activities	11.7	12.1	13	4.1	59.1	1.85
Regional Distribution	14.3	15.7	22	16.5	31.5	100

It can be seen from the table 5.11 that 42.2 percent of the mining and quarrying activities were carried out in the Northern region while 19.0 percent were carried out in the East, approximately 16.8 percent were carried out in the west, 13.4 percent in south and less than 10.0 percent were carried out in the north west. The high proportion of mining activities in the north and east were as a result of the boom in the iron ore mining and other minerals in that part of the country, although it fell down in 2016 in terms of production due to the decrease in international market price and also the Ebola. In 2011 SLIHS, the south had the highest mining activities followed by the north and then the east, the western area had the least mining activates. This change in

pattern came about due to the increase in mining activities in the north and also the new demarcation of the Northern Province.

Manufacturing is a key non-farm activity when discussing the non-farm enterprise. More manufacturing activities were carried out in the south (29.6 percent) followed by west (21.8 percent), north west (21.3 percent), north (15.7 percent) and east (11.6 percent).

The table above also revealed that there were more construction activities operated in the west than anywhere in the country (44.9 percent), followed by 17.6 percent were operated in the north, 14.6 percent were operated in the north west, 12 percent in the south and a little above 10 percent in the east. The high percentage of construction activities in north in 2011 SLIHS report was be attributed to the reconstruction activities and reallocation of mining companies in the region during the collection period, but as for 2018, those mining activities has fall as to compared to 2011.

Wholesale and retail trades have 71.42 percent of the Non-Farm enterprises activities and the remaining 28.58 percent is distributed among the other 15 sectors.

The wholesale and retail trade is carried out more in the west region (31.8 percent) this is probably due to the fact that a lot of commercial activities are taking place in the western region than the north west, south, north, and east with 24.1 percent, 15.5percent 14.4 percent and 14.2 percent respectively. There were changes in the pattern of the distribution of wholesale and retail trade as compared to the 2011 SLIHS, as in 2011 SLIHS, the north took the lead followed by the west, south and east.

The table above, shows that transportation and storage activities was almost fairly distributed among the regions, the east and the west had 23.4 percent transport and communication activities, followed by north west 20.6 percent, south 17.3 percent, the least 15.3 percent was in the south. The high percentage of transportation and storage is due to the high job opportunities in those areas.

More than half of the accommodation and food service activities were operated in the west, 37.0 percent, 20.0 percent in the North West, 16.7 percent in south, 14.1 percent in the east, 12.2 percent in the north which has the least distribution.

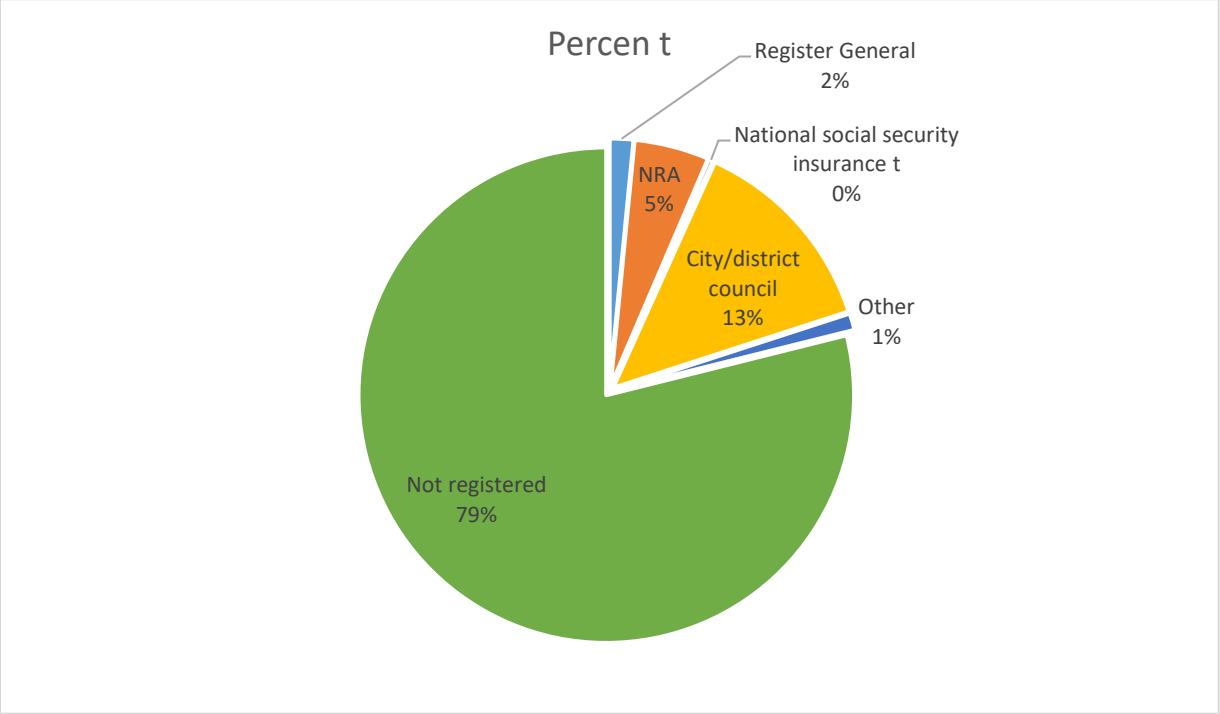
Table 5.12: Proportion of Non-Farm Enterprise activities by Locality

Economic activities by ISIC rev. 4	Rural	Urban	Total
Mining and Quarrying	5.48	3.13	4.13
Manufacturing	11.39	6.6	8.64
Electricity, gas, and Water supply sewage	0.16	0.2	0.18
Construction	2.38	3.92	3.26
Wholesale and retail trade	70.33	72.23	71.42
Transportation and storage	4.68	4.32	4.47
Accommodation and food service activities	3.7	4.36	4.08
Information and communication	0.2	0.62	0.44
Financial and insurance activities	0	0.07	0.04
Real estate activities	0	0.12	0.05
Professional scientific and technical a	0.08	0.35	0.23
Administrative and support service activities	0.19	0.38	0.3
Public administration and defense	0.04	0.06	0.05
Education	0.25	0.46	0.37
Human health and social work activities	0.45	0.52	0.49
All Other service activities	0.56	2.69	1.85
Total	**100**	**100**	**100**

The table 5.12 above reveals that the wholesale and retail trade tend to be the largest non-farm enterprise activities operated in the country with approximately 71.4 percent which is almost the same as the 2011 SLIHS whish was 71.1 percent, while a smaller percentage of non-farm enterprise activities were operated by other services.

From the table above, it can be observed that greater percentage of the wholesale and retail trade was operated in the urban than in the rural area. This is probably due to the fact that lots of commercial activities are taking place in the urban area than the rural. Trade is prominent among the non-farm activities in both the urban and rural part of the country. The second highest of non-farm enterprise activity has seen to be manufacturing with rural area has (11.4 percent) being greater than urban (6.6 percent). The table also shows that there was more Construction work being carried out in the rural area (3.9 percent) than in the urban (2.4 percent) while other non-farm activities numbers are very small.

Figure 5.9: Proportion of Registration of Non-Enterprise activities



The Sierra Leone Integrated Household Survey (SLIHS 2018), collected registered and non-registered non-farm activities data directly from each relevant household member and separately for each type of agency at a disaggregated level.

The figure 5.9 above shows that majority of non-farm enterprise activities were not registered which account for like 78.9 percent followed by those who registered with the local or district council 13.3 percent, National Revenue Authority 4.9 percent, Office of the Register and Administrator General 1.6 percent, those that registered with other offices besides the ones listed above accounted for 1.1 percent and 0.3percent registered with National Social Security and Insurance Trust (NASSIT).

Table 5.13: Proportion of Non-Enterprise activities registered with Government agency

ISIC CODE) office	Register General	NRA	NASSIT	Local Council	Other Reg	New National
Mining and Quarrying	4.6	5.9	0.0	2.9	26.3	7.9
Manufacturing	7.2	10.1	16.5	9.1	0.0	8.6
Electricity, gas, and Water supply sewage	1.1	0.0	23.3	0.1	0.0	4.9
Construction	7.0	3.7	8.8	3.2	0.0	4.5
Wholesale and retail trade	38.6	51.7	0.0	68.3	26.5	37.0
Transportation and storage	26.4	20.7	31.9	6.3	45.7	26.2
Accommodation and food service activities	2.0	2.4	0.0	3.2	0.0	1.5
Information and communication	0.0	1.3	0.0	0.9	0.0	0.4
Financial and insurance activities	1.0	0.0	0.0	0.1	0.0	0.2
Real estate activities	0.0	0.0	0.0	0.4	0.0	0.1
Professional scientific and technical a	0.0	1.3	5.5	0.2	0.0	1.4
Administrative and support service activities	2.0	2.3	0.0	0.2	0.0	0.9
Public administration and defense	3.2	0.0	0.0	0.0	0.0	0.6
Education	3.7	0.0	8.3	0.5	0.0	2.5
Human health and social work activities	1.3	0.3	5.8	1.4	1.5	2.0
All Other service activities	2.0	0.3	0.0	3.3	0.0	1.1
Total	**1.6**	**4.9**	**0.3**	**13.3**	**1.1**	**21.1**

The table 5.13 above shows that majority of non-farm activities are registered with the government agencies. Of those that said they are registered, over 37.0 percent of wholesale and retail trade were registered with either the registrar general or local council or national revenue authority or ministry of trade or other agencies, 26.2 percent of those that said they are registered are operating in the transportation and storage sector which is the second highest group that are registered, mining, quarrying and manufacturing sectors all have registration rate little below 10.0 percent, the remaining sectors have less than 5.0 percent registration rate.

Table 5.14: Non-Farm Enterprise Revenue by Region

Region	Sum Total (Le.000)	Frequency
East	1,605,425,340	129,056
North	678,607,608	144,636
North West	773,945,220	198,685
South	1,049,080,836	149,547
West	5,144,594,286	283,477
Total	**9,251,653,290**	**905,401**

From the table 5.14 above, national revenue on non-farm enterprises was over 9.2 trillion Leones, western area had around 55.0 percent of the total which is 5.1 trillion Leones, followed by east, south, and north west, the northern region had the least revenue which is just over 678 billion Leones.

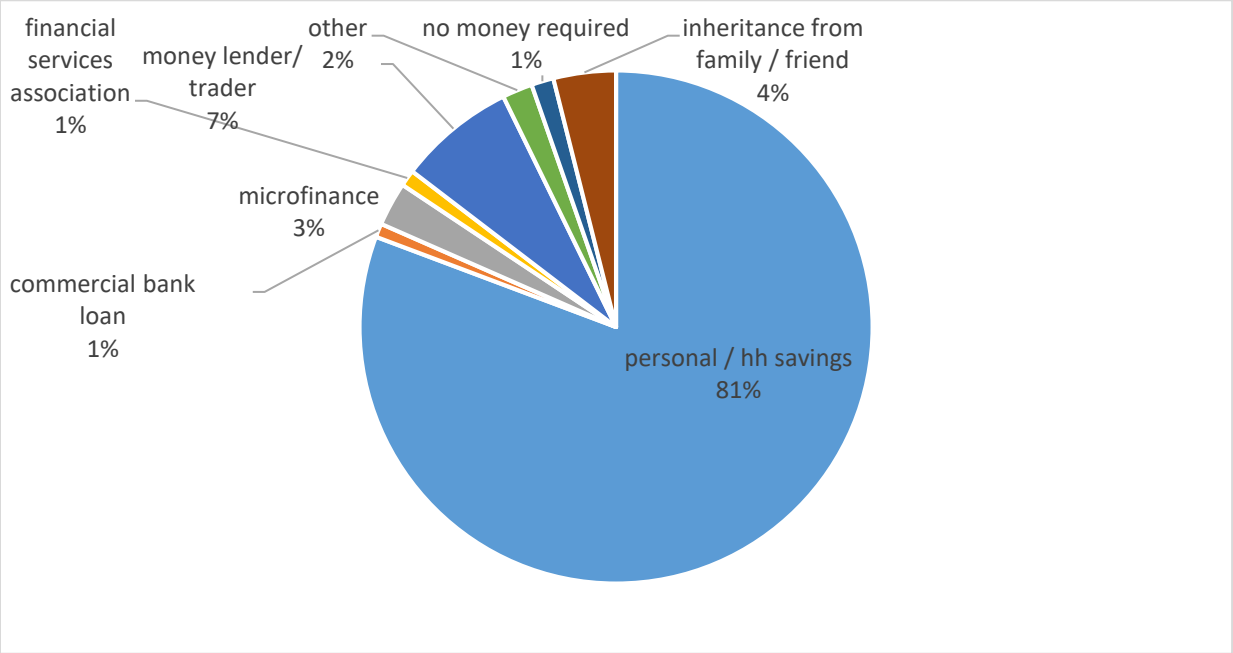
Table 5.15: Non-Farm Enterprise Expenditure by Region

Region	Sum Total (Le. 000)	Frequency
East	1,144,055,868	134,914
North	933,257,148	150,272
North West	1,112,916,000	200,415
South	880,937,184	154,203
West	4,380,785,412	285,157
Total	**8,451,951,612**	**924,961**

From the table above, national expenditure on non-farm enterprises was over 8.4 trillion Leones, western area had slightly over 50 percent of the total which is about 4.3 trillion Leones, followed by East, North West, and North, the Southern Region has the least which is just over 880 billion.

These results show that on revenue and expenditure, only the North West and the north did not have surplus of revenue over expenditure although the national figure shows surplus, on the other hand the rest of the other 3 regions reported surplus.

Figure 5.10: Sources of funds to start-up the business



From the figure 5.10 above, over 80.0 percent of those that are engaging in non-farm enterprises got their startup capitals from either their personal savings or household savings, 7.0 percent got their from money lender or a trader, about 4.0 percent got it their capital from inheritance from a family member or friend, microfinance institutions provided around 3.0 percent and the remaining other sources of startup capitals are all around 2.0 percent or less.

5.9 Migration

Migration is a normal human activity. Human beings have always moved from 'one country, locality, [and] place of residence to settle in another'. Therefore, migration is the movement by people from one place to another with the intentions of settling, permanently or temporarily in a new location. The movement is often over long distances and from one country to another, one region to another, one town to another; indeed, this is the dominant form globally.

5.9.1 Definition of Key Terms

The terms "Immigration" and "Emigration" are used to refer to movements between countries. Internal migration, which is movement between areas within a country, has terms such as: in-migrant, non-migrant and return-migrant; in addition, international migration deals with the movement of people across countries. The terms in-migrants, return-migrants and non-migrants have been used to show the migration status of the population within the country, for the purpose of this report. Migrants- A migrant is an individual who have crossed a chiefdom boundary for at least six months. A migrant must have resided in an area for longer than six months to be considered a migrant to that area. This eliminated the problem of classifying people visiting towns and school children returning home at vacation time as migrants. Migrants consist of both in-migrants and return-migrants.

In-migrants- Persons who were born outside their current place of residence; this means that in-migrants were people who were not born in their present residence/location but came from other places to settle in their current location.

Return-migrants- Persons born at their current place of residence but had moved out and lived outside their localities for a year or more. For a migrant who had left his place of birth and moved to another area and then returned home again he or she has resided in that place for six months or more and have returned for six months or more to be considered a migrant. An individual who satisfied these criteria was defined as a return migrant since he or she had returned to his/her home area after a period of residence elsewhere.

Non-migrants- Persons born at their current place of residence and have never moved away for a year or more. A non-migrant was defined as an individual who had resided in his/her chiefdom of birth all his or her life or who had not resided elsewhere for more than six months.

Rural Urban Migration- this is also known as urbanization, which refers to the movement of population from the country sides to the cities. Countries around the world are experiencing the loss of population in rural areas due to people moving to urban areas. Sierra Leone is experiencing urbanization that is vast population moving from the rural areas to the cities.

Individuals choose to move from rural areas to cities for reasons that include hoping to gain a better career or job or to attend school; a desire for technology; and a desire to experience metropolitan life. Young adult leaving in rural areas may be seeking higher education or job opportunities that are not available in their towns. Older adults may be leaving to find jobs and may migrate with their entire family in search of better opportunities Rural- Rural migration was defined as the migration done within intraregional boundaries. A rural-rural migrant was defined as an interregional migrant if he or she moves to an area inside the same resource region and interregional migrant if he or she moves across a resource region boundary.

5.9.2 Migration Pattern

Of the total population of Sierra Leone 15 years and over, about 26 percent are migrants; while about 25.5 percent are in-migrants, 0.8 percent are return-migrants and 73.8 percent are non-migrants (Table below). The percentage figures for the migrant status are almost the same as that of 2011 SLIHS (return-migrant 1.7 percent, non-migrant 74.9 percent, and in-migrant 23.4 percent). This clearly shows that about three-quarters of the population either did not move or moved for less than one year from their places of residence as was the case of 2011 SLIHS.

Table 5.16: Distribution of migrants by status and sex (percent)

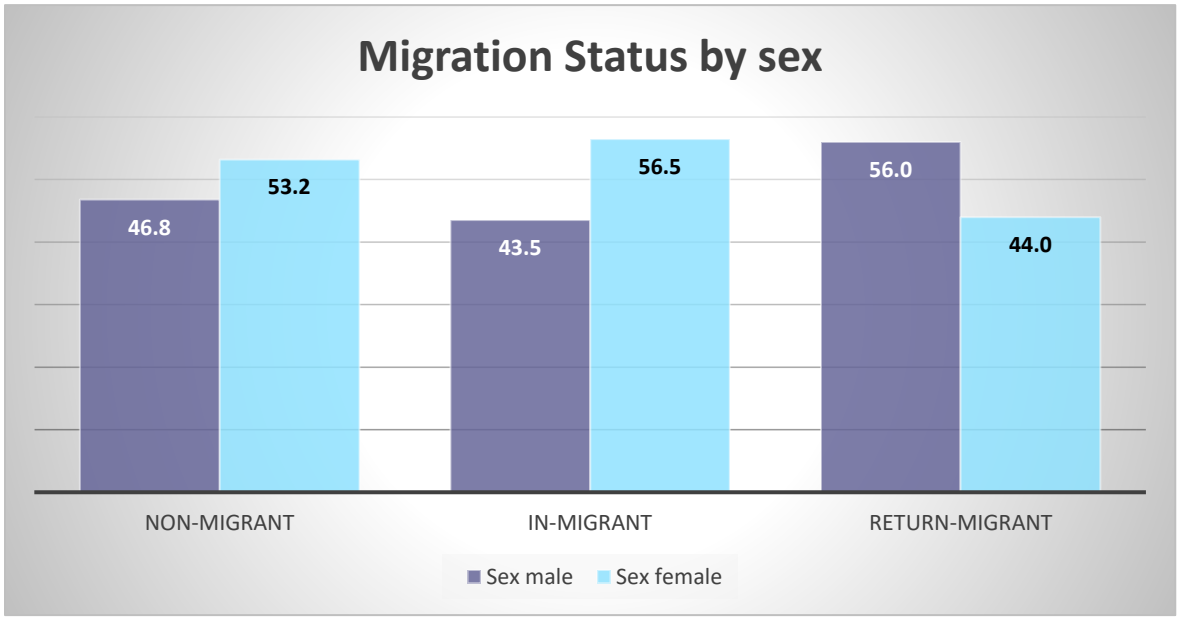
Migrant Status	Freq.	Percent	Sex		Total
			Male	Female	
Non-migrant	3057071	73.8	46.8	53.2	73.8
In-migrant	1054767	25.5	43.5	56.5	25.5
Return-migrant	32016	0.8	56.0	44.0	0.8
Total	**4143854**	**100**	**46.0**	**54.0**	**100**

5.9.3 Migration status by sex

From the figure below, the percentage of female (53.2 percent) that are not migrating is higher than that of the male (46.8 percent) that are not migrating, same so for the in-migrant with

female 56.5 percent and male 43.5 percent, but for return-migrant, male 56.0 percent and female 44.0 percent which means more males are returning to their original place of birth than female. In general females are involved in migration than males because of marriage and currently in Sierra Leone, they are more than the male population in the country.

Figure 5. 11: Migration Status by Sex



5.9.4 Extent of Migration

The table 5.17 below describes inter-regional migration pattern. The migration trend shows that the Western Area still remains the highest receiver of in-migrants with a share of 47.0 percent followed by the Southern region with 23.2 percent, the northern region has least percentage of in-migrant which is 16.3 percent. The East and North-West received close proportions of in-migrants (19.6 percent and 20.3 percent respectively). The highest percentage of in-migrants recorded in the Western Area may be attributed to the availability of employment opportunities and accessibility to social amenities like electricity, water supply and recreational facilities. In-migrant followed the same trend as that in 2011, whereas in 2011 SLIHS, Western area had the percentage 31.4 percent and Northern region had the lowest 19.6 percent.

Additionally, 1.2 percent of the return migrants were recorded in the eastern region and 1.0 percent in the northern region, all the other regions have less than 1 percent. The return migrant followed different pattern as that in 2011 SLIHS. The 2011 SLIHS recorded the southern region with the highest percentage of return migrant of 2.7 percent followed by the western area with 1.9 percent, the north had the lowest percentage 1.1 percent.

As for non-migrant, the Northern region recorded the highest percentage with 82.7 percent, followed the east with 79.1 percent, north 79.0 percent, the Western Area recorded the lowest percentage 52.8 percent. Comparing the 2011 to the 2018 SLIHS, the non-migrant followed the same pattern. As in 2011 SLIHS, the north had the highest 79.3 percent followed by the east 78.1 percent, the western area had the lowest 31.4 percent.

Table 5.17: Distribution of Migrants by Region

Migrant Status	East	North	North West	South	West	Total as per migration Status
Non-migrant	79.1	82.7	79.0	76.2	52.8	73.7
In-migrant	19.6	16.3	20.3	23.2	47.0	25.5
Return-migrant	1.2	1.0	0.8	0.6	0.2	0.8
Total per region	**21.0**	**21.3**	**16.8**	**20.0**	**20.9**	**100**

5.9.5 Age Distribution of Migrants and Non-migrants

The age distribution of migrants and non-migrants has also shown a vast difference between the young and the old. The younger people are moving more as compared to the older people. The table below shows the percentage distribution of migrant status by the different age groups

Table 5.18: Age Distribution of Migrants and Non-migrants

Age Group	Migrant Status			Total
	Non-migrant	In-migrant	Return-migrant	
15-19	19.5	12.7	17.6	17.8
20-24	13.0	12.9	10.0	12.9
25-29	12.5	14.4	11.3	13.0
30-34	9.6	11.0	13.1	10.0
35-39	10.4	11.5	10.2	10.7
40-44	6.9	9.1	7.7	7.5
45-49	6.2	7.4	6.4	6.5
50-55	6.4	6.2	8.0	6.4
55-59	4.3	4.6	3.1	4.4
60-64	3.3	3.6	2.9	3.4
65-69	2.7	2.7	4.2	2.7
70-74	2.0	1.6	3.0	1.9
75-79	1.5	1.2	2.7	1.4
80+	1.7	1.1	0.0	1.5

From Table 5.19 above, migration in general happens more among people in the age category 15 to 39 years and the number dwindles with increase in age, it follows the same pattern as that of the 2011 SLIHS. The highest percentage of non-migrant is 19.5 percent, which are people of age category 15 to 19 years, and the lowest percentages is 1.5 percent, which are people of age category 75 to 79 years.

For the in-migrants, the highest percentage is 14.4 percent, which are people within the age category of 25 to 29 years and the lowest percentage is 1.1 percent, which are people who are 80 years plus.

Furthermore, when we look at the return-migrant, the highest percentage is 17.6 percent, which are people that falls in the age bracket of 15 to 19 years, and the lowest percentage is 0.0 percent for people of 80 years' plus.

5.9.6 Migration Flow

Migration flow focuses on the changes in the movement of the population between rural and urban localities in the country. In the past the country experienced a high level of urbanization – the passage from a predominantly rural to urban towns/cities. In the 2004 and 2015 Population and Housing Census, some towns that were originally rural settlements emerged as urban towns given the threshold of a population of 2000 and over.

The table below shows the movement between urban/urban, rural/urban and rural/rural within the regions of Sierra Leone. For non-migrants, the rural areas have a greater proportion of percentages than that of the urban towns and cities except for western area that reveals the opposite. Looking at the in-migrant pattern, the rural areas have a higher percentage rate in the north, North West, and south; but the remaining other two regions have lower percentages as compared to the urban towns and cities whereas the east and the western area have a higher percentage rate. For the return-migrant, all the regions have a higher percentage rate for the urban towns and cities except for western area where the rural area has a higher percentage rate than the urban area; this is because, most parts in the western area are urban towns and city.

Table 5.19: Distribution of Urban/Rural Dwellers by Region (Percent)

Region	Non-migrant			In-migrant			Return-migrant			National		
	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban	Total	Non-migrant	In-migrant	Return-migrant
East	55.4	23.7	79.1	8.6	11	19.6	0.8	0.4	1.2	79.1	19.6	1.2
North	66.3	16.4	82.7	8.9	7.4	16.3	0.8	0.2	1	82.7	16.3	1
North West	66.2	12.7	79	11.8	8.5	20.3	0.7	0.1	0.8	78.9	20.3	0.8
South	65.7	10.5	76.2	15.2	7.9	23.2	0.5	0.1	0.6	76.2	23.2	0.6
West	1	51.8	52.8	1.8	45.2	47	0	0.2	0.2	52.8	47	0.2
Total	**50.9**	**23**	**73.8**	**9.3**	**16**	**25.5**	**0.6**	**0.2**	**0.8**	**73.8**	**25.5**	**0.8**

5.9.7 Proportion of migrant status by educational level

Table 5.20 below, shows the proportion of migrant's educational level nationally; it shows that, of those that did not go to school, 0.1 were non-migrants and 0.2 percent were in-migrants. Nationally, 0.1 percent of the population 15 years and above who were involved in migration did not go to school. Those people that attained incomplete primary, incomplete junior secondary and incomplete senior secondary school have the greater proportions of the distributions for non-migrant, in-migrant, and return-migrant.

For non-migrant, incomplete junior primary school has the highest percentage of 24.8 percent followed by incomplete primary school 21.9 percent, incomplete senior secondary school 19.5 percent, the lowest percentage is 0.1 percent which represent those that had no level of education.

The highest percentage for in-migrant by educational level are those with incomplete junior secondary school educational level 20.4 percent, followed by incomplete senior secondary school 20.1 percent, and the lowest among them are those that said they had no form of education 0.2 percent.

For return-migrant, incomplete junior secondary school have the highest percentage 29.1 percent, followed by incomplete primary with 24.7 percent, the lowest are those with postgraduate level of education and those with no form of education.

Table 5.20: Proportion of migrant status by educational level

Education Level	Non-migrant	In-migrant	Return-migrant	Total
None	0.1	0.2	0.0	0.1
Primary school Incomplete	21.9	16.7	24.7	20.5
Primary school Complete	6.7	5.7	4.3	6.4
Junior Secondary School Incomplete	24.8	20.4	29.1	23.6
Junior Secondary School Complete	7.0	6.6	4.5	6.9
Senior Secondary School Incomplete	19.5	20.1	13.6	19.6
Senior Secondary School Complete	9.3	12.8	10.6	10.3
Other Certificate	3.4	5.7	4.8	4.1
First Degree	3.7	6.4	2.3	4.5
Postgraduate degree	0.4	1.1	0.0	0.6
Tertiary non-Degree	3.2	4.4	6.1	3.5
Total	**100**	**100**	**100**	**100**

5.9.8 Proportion of migrant by marital status and rural-urban

Table 5.21 below shows the proportion of migrants by marital status at the locality level. According to the table below, 45.8 percent of migrants at the Rural level were engaged in monogamous marriage slightly lower than that of the 2011 SLIHS which was 48.4 percent and in the urban area those that were engaged in monogamous marriage were 40.3 percent an increase from 37.0 percent in the 2011 SLIHS. At the Rural level, 19.4 percent of migrants were in polygamous marriages while 5.8 percent of Urban migrants were engaged in polygamous marriages which as compared to the 2011 SLIHS, the urban had 4.5 percent and rural 15.0 percent. Polygamous marriages were far more common among migrants in the rural areas than those in the urban areas. In the Rural locality, 0.8 percent of migrants were in informal/loose relationship while 1.6 percent of urban migrants were engaged in this kind of relationship, which as compared to the 2011 SLIHS, rural localities had 0.5 percent whiles urban localities had 1.3 percent. From the table we can also see that the percentage rate of separated, divorced, and widowed are very low except for those that had never married in both the Rural and urban localities which are 22.0 percent and 43.0 percent respectively. Those that have never got married are more in the urban towns than in the rural areas.

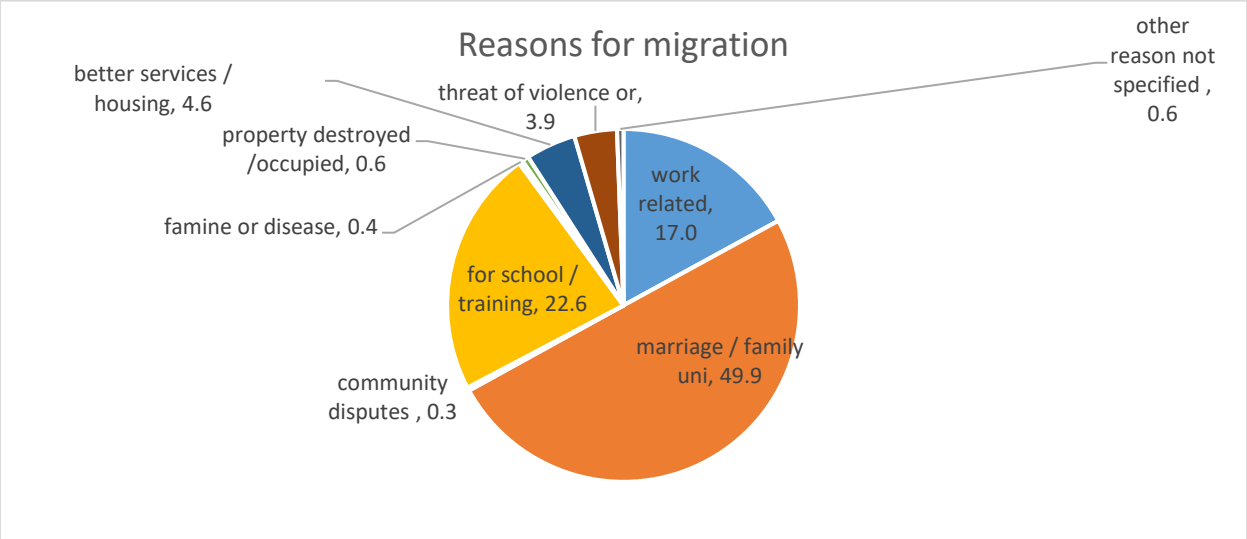
Table5.21: Proportion of migrant by marital status and rural-urban

Marital Status	Rural				Urban			
	Non-migrant	In-migrant	Return-migrant	Total	Non-migrant	In-migrant	Return-migrant	Total
Married monogamous	44.6	51.9	54.3	45.8	34.9	48.0	45.5	40.3
Married polygamous	18.8	22.6	16.3	19.4	5.3	6.5	7.1	5.8
Informal / loose union	0.9	0.6	0.0	0.8	1.4	1.7	1.6	1.6
Divorced	0.6	0.7	1.3	0.6	0.8	1.1	0.0	0.9
Separated	2.8	2.1	3.8	2.7	2.2	2.6	5.5	2.4
Widowed	9.0	7.2	3.8	8.7	5.2	7.1	1.1	6.0
Never married	23.3	14.9	20.5	22.0	50.1	32.9	39.2	43.0
Total	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

5.9.9 Reasons for Migration

Figure 5.11 below shows the distributions of the reasons why people do migrate. 49.9percent of the migrants said they migrated mainly for marriage and family reunion reasons which is almost half of the total migrant population, 22.6 percent said they migrated mainly for schooling purposes, while 17.0 percent of them said they migrated because of job/work related issues, those that said they migrated because of better services/housing and threat of violence are 4.6 percent and 3.9 percent respectively, the other remaining reasons are all below 1 percent (the least among them are those that said they migrated because of community dispute which is 0.3 percent).

Figure 5.12: Reasons for Migration



CHAPTER SIX - HOUSING CONDITIONS

6.0 Introduction

Human beings have a right to basic needs that enable them to live a decent life. Housing is one of the basic needs of all human beings that have impact on the health, welfare, social and economic productivity of the individual. The demand for housing remains high in most developing countries including Sierra Leone. The international declarations on the implementation of housing rights include emphasis on the physical structure such as the provision of drinking water, sanitation facilities, land and building material as well as security. For many years, the housing environment has been acknowledged as one of the main settings that affect human health.

Therefore, the 2018 SLIHS collected detailed information on housing characteristics relating to information about the type of dwelling units, occupancy status of households, housing expenditure, physical characteristics of household dwelling units, households' source of energy, water and sanitation, this information shows the spatial distribution by region, district and residence, the characteristics of housing in Sierra Leone

6.1 Types of Housing and ownership by regions and locality

Table 6.1: Percentage of household's type of dwelling by Region and Locality

Region	Single dwelling unit	Multiple units in building	Dwelling with Multiple Structures
East	87.2	10.8	2.0
North	95.7	2.0	2.3
North West	92.6	6.9	0.6
South	91.8	6.1	2.1
West	48.7	41.5	9.7
Residence			
Rural	93.8	4.8	1.4
Urban	65.2	28.1	6.7
Sierra Leone	**82.8**	**13.8**	**3.4**

Source: 2018 SLIHS

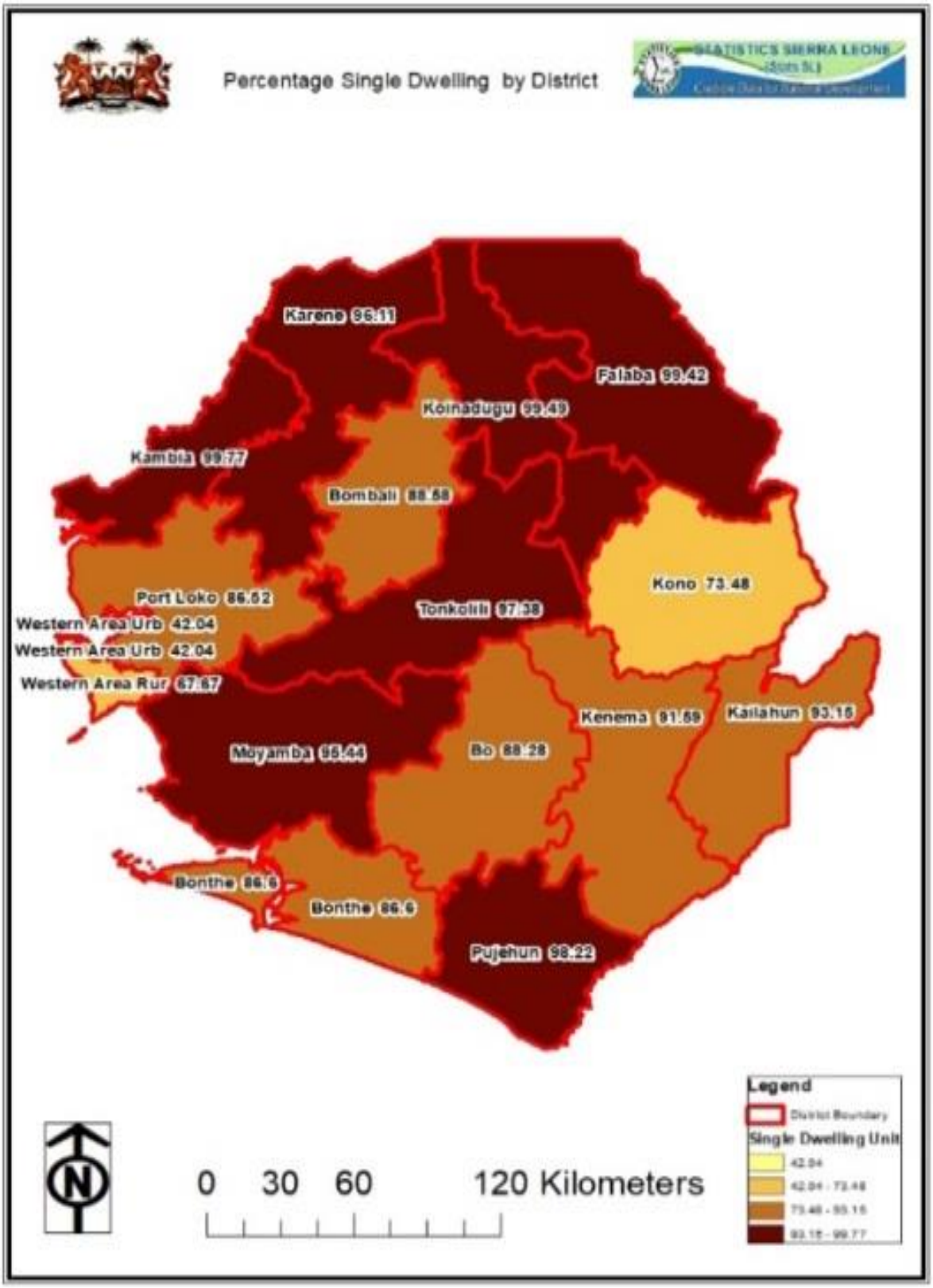
Analyzing the type of dwelling units occupied by households in Sierra Leone will provide some indication of the wellbeing of households. Therefore, Table 6.1 presents percentage of household

type of dwelling by Region, and locality). Single dwelling unit is the most common type of dwelling in Sierra Leone accounting for 82.8percent, followed by multiple units in building 13.8percent. At the residence level, 93.8percent of single dwelling units were accounted for in rural areas and 65.2percent in urban area which may be related to the Sierra Leone nuclear family system and nature of housing at the rural areas.

For all regions, except Western area (48.7percent) and North (2.0percent) region show lower percentage of household single dwelling units and multiple units in building respectively.

At district level, Kambia had the highest percentage (99.8percent) followed by Koinadugu (99.5percent), Falaba (99.4percent) and Pujehun (98.2percent) of households with single dwelling units. Multiple units in building was the next most common type of dwelling in which Western urban accounted for 47.1percent followed by Kono (26.1percent) and Western rural (25.7percent). For the category of dwelling with Multiple Structures on the same compound, Western Urban followed by Western rural and Kailahun had the largest percentage of 10.8percent, 6.7percent and 4.4percent respectively

Map 6.1a: Percentage Of Single Dwelling Unit By District



Map 6.1b: Percentage Of Dwelling With Multiple Structures By District

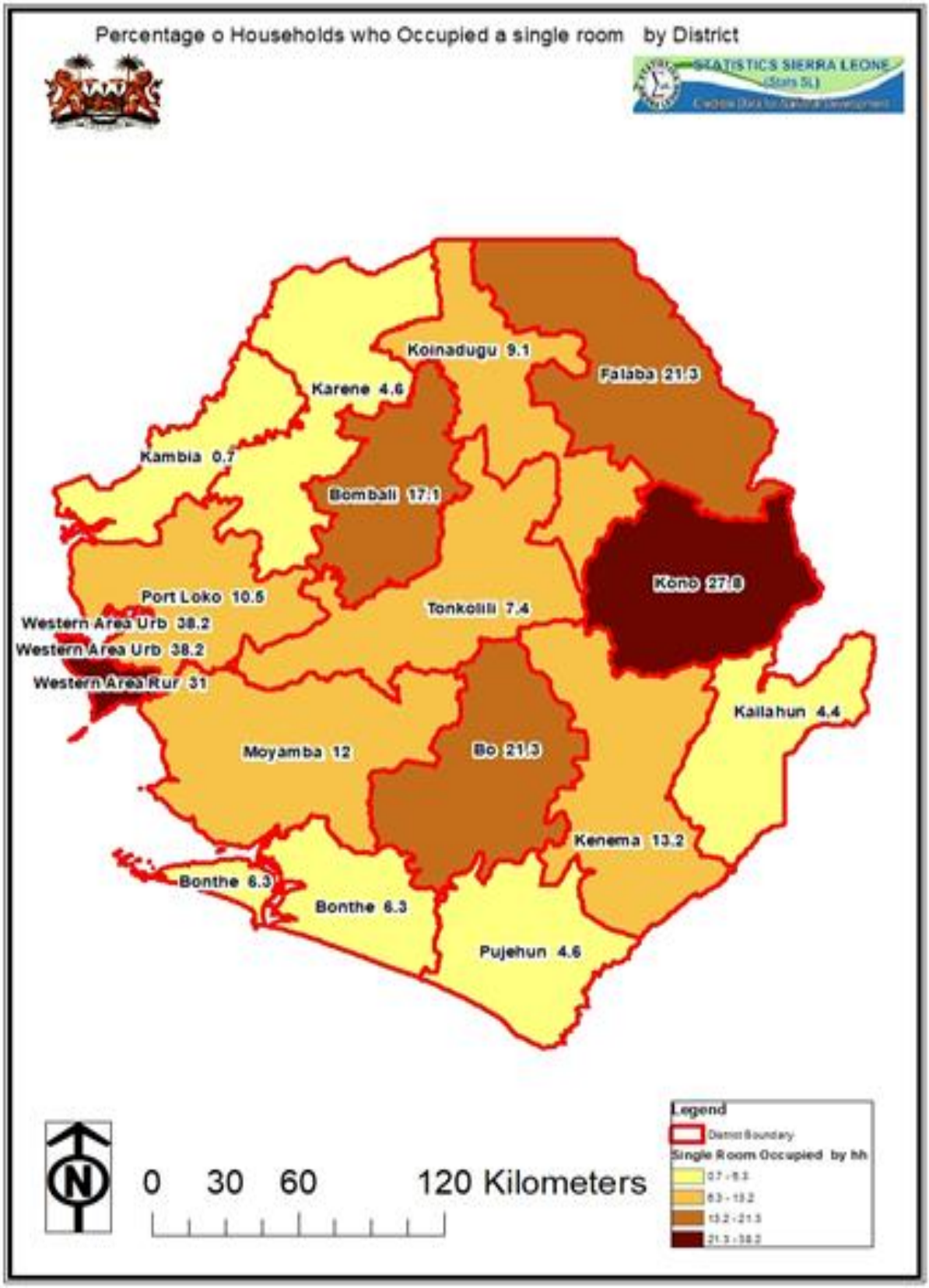
6.2 Rooms used for sleeping

The number of people sleeping in a room is a major determinant of crowding and this has health implications for household members. Therefore, sleeping rooms in a dwelling unit inhabited by households excludes bathrooms, toilets, kitchens, pantry and store because they are not supposed to be used as sleeping rooms.

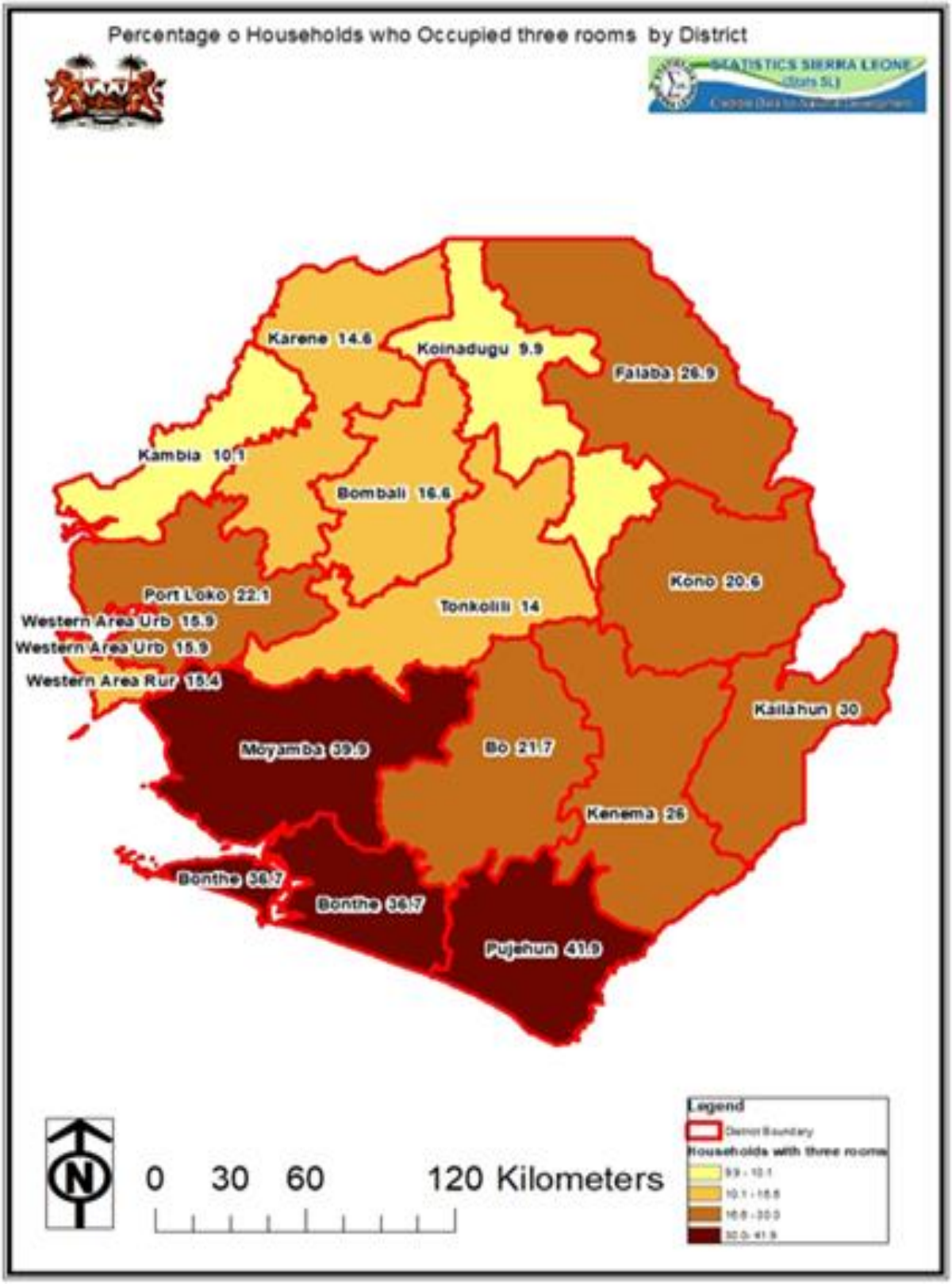
Table 6.2. Percent information on the number of rooms occupied by Households by Region, Residence and District (Decide Regions. Locality or Districts). Overall, 20.5percent and 21.9percent of households occupied 2 and 3 rooms respectively. A large percentage of households live in indwelling with one room (36.4percent) in the west and (32.7percent) in the south followed by the East (25.9percent) of households occupying three rooms. However, 25.8percent of households in the North West occupy a dwelling with four rooms while 17.3percent households occupy five rooms in the North. In comparison, only 27.8percent and 26.2percent of urban households live in 1 and 2 rooms, while 25.5percent and 21.6percent of household occupied three and four rooms in the rural areas. Urban areas had higher percentages of households using single rooms for sleeping (27.8percent) compared to rural areas (10.1percent).

The 2018 SLIHS data shows that within each district, most of the structures have three rooms or less and the analysis shows that 41.9percent, 39.9percent and 36.7percent, of households occupied 3 rooms in Pujehun, Moyamba and Bonthe district respectively. Except for western area urban where 31.0percent of household occupied a single room and 28.1percent occupied 2 sleeping rooms, the other districts are mainly dominated by 2 sleeping rooms. Also, Kambia (0.7percent) accounted for the least percentage of households using a single room for sleeping followed by Kailahun (4.4percent).

Map 6.2a: Percentage Of Household Who Occupied Three Rooms By District



Map 6.2b: Percentage of household who occupied a single room by District



6.3 Share of Dwelling Unit

Table 6.2: Percentage of household with Shared dwelling by District

District	Shared Dwelling	Unshared Dwelling
Kailahun	52.5	47.5
Kenema	61.3	38.7
Kono	51.7	48.3
Bombali	55.4	44.6
Falaba	40.8	59.2
Koinadugu	39.6	60.4
Tonkolili	60.9	39.1
Kambia	44.2	55.8
Karene	43.5	56.5
Port Loko	54.8	45.2
Bo	64.9	35.1
Bonthe	37.2	62.8
Moyamba	37.5	62.5
Pujehun	45.7	54.3
Western Rural	52.2	47.8
Western Urban	41.0	59.0
Sierra Leone	**50.6**	**49.4**

From Table 6.2, sharing dwelling seems to be a normal and common phenomenon in Sierra Leone. About 50.6percent of Sierra Leoneans share their dwellings. This represents a slight decline of 2.8percent when compared to the 2011 SLIHS (53.4percent). About 50percent of those who share their dwelling were in urban settings.

By district level, Bo district reported the highest number of shared dwellings (64.9percent) followed closely by Kenema district (61.3percent), Tonkolili district (60.9percent), Port Loko district (54.8percent) and western rural (52.2percent). In terms of unshared dwellings Bonthe district reported the highest number (62.8percent), then Moyamba district (62.5percent), Koinadugu (60.4percent), Falaba district (59.2percent) and Karene (56.5percent). At national level (50.6percent) reported to have shared dwellings and (49.4percent) reported unshared dwellings.

6.4 Length of stay in Dwelling Unit

Table 6.3: Average number of years Spent in dwelling by occupancy status by Region

Region	Owned by member of household		Rents		Free by family /Friend		Free by other		Nomadic / Temporary	
	Rural	**Urban**	**Rural**	**Urban**	**Rural**	**Urban**	**Rural**	**Urban**	**Rural**	**Urban**
East	7.9	8.1	8.4	5.4	6.0	7.9	2.1	5.5	5.0	5.5
North	8.0	7.3	2.5	5.0	8.3	8.3	4.6	2.8	3.4	0.0
North West	6.5	7.7	4.5	4.7	8.0	7.6	8.7	3.0	0.0	0.0
South	7.5	8.9	7.1	4.4	8.2	7.3	5.0	6.1	5.0	6.0
West	8.6	7.5	2.4	6.7	2.8	8.1	0.0	7.6	4.0	1.8

Source: 2018 SLIHS

Table 6.3 shows that western region has highest number of years Spent in dwelling by occupancy owned by member of household for the rural area which account about 8.6 years on average, closely followed by the North the North with 8.0 years on average. For urban area the southern region has the highest number of years Spent in dwelling by occupancy owned by member of household. For rents, the Eastern province has the highest number of years spent in dwelling by occupancy in the rural area which account 8.4 years on average follow by southern province which account 7.1 years. For urban area the western region has the higher number of years spent on rent which account 6.7 years follow by the Eastern province with 5.4 years. Length of stay in dwelling Unit for free by family or friend in more in Eastern rural area which account 8.3 years on average closely follow by North-west. For urban area, the Northern region reported the highest number of free by family or friends.

Length of stay in dwelling free by other has been reported higher in the North-west region which account 8.7 years on average follow by the North with 4.6 years on average. For the urban area the western region reported the highest number which account 7.6 years on average follow by southern area with 6.1 years on average. For Nomadic or temporary, the southern region reported the highest number for the rural areas which account 5.4 years follow by eastern region. For the urban area the southern region reported the highest number for temporary settlement which accounts 6.0 follow by the eastern region. For district level Bombali district shows the highest number of years Spent in dwelling by occupancy Owned by member of household which account 9.0 years on average for rural areas, follow by western rural which account 8.6 years. For urban settle Karene reported the highest number of years spent on dwelling owned by member of household which account 10.0 years on average followed by Moyamba with 9.6 years, Bo with 9.3 years and western with 8.9 years.

The forward explains that households in rural areas spent long time in dwelling units occupied than those in urban areas. For instance, 9.3 years compared to 7.3 years on average households have spent less than 20 years in their dwelling unit in the rural and urban areas respectively.

6.5 Occupancy Status of Households

Table 6.4: Percentage occupancy status by Region, Residence and District

Region	Owned	Rents	Free by family/Friend	Free by others	Nomadic / temporary
East	58.8	15.2	24.1	1.9	0.1
North	59.0	10.9	26.5	2.7	1.0
North West	65.8	3.0	29.1	2.2	0.0
South	64.4	11.6	21.7	2.0	0.3
West	24.0	53.6	16.1	5.3	1.0
Residence					
Rural	69.8	2.7	25.3	2.0	0.3
Urban	28.8	46.4	19.9	4.2	0.7
District					
Kailahun	68.3	10.4	17.9	3.5	0.0
Kenema	53.6	21.0	25.2	0.0	0.2
Kono	55.1	12.5	29.8	2.7	0.0
Bombali	55.8	16.9	25.0	2.3	0.1
Falaba	64.8	9.1	15.4	4.5	6.1
Koinadugu	72.7	10.8	8.5	8.0	0.0
Tonkolili	54.1	7.9	37.6	0.4	0.0
Kambia	76.2	0.8	22.7	0.2	0.0
Karene	69.6	0.3	24.3	5.8	0.0
Port Loko	57.7	5.5	35.1	1.7	0.0
Bo	46.9	20.5	29.4	2.5	0.7
Bonthe	81.6	8.1	10.3	0.0	0.0
Moyamba	70.1	3.6	22.0	4.3	0.0
Pujehun	77.3	6.3	16.1	0.3	0.1
Western Rural	39.5	24.7	17.4	15.2	3.3
Western Urban	18.5	63.9	15.6	1.8	0.2
Sierra Leone	**54.0**	**19.5**	**23.2**	**2.8**	**0.5**

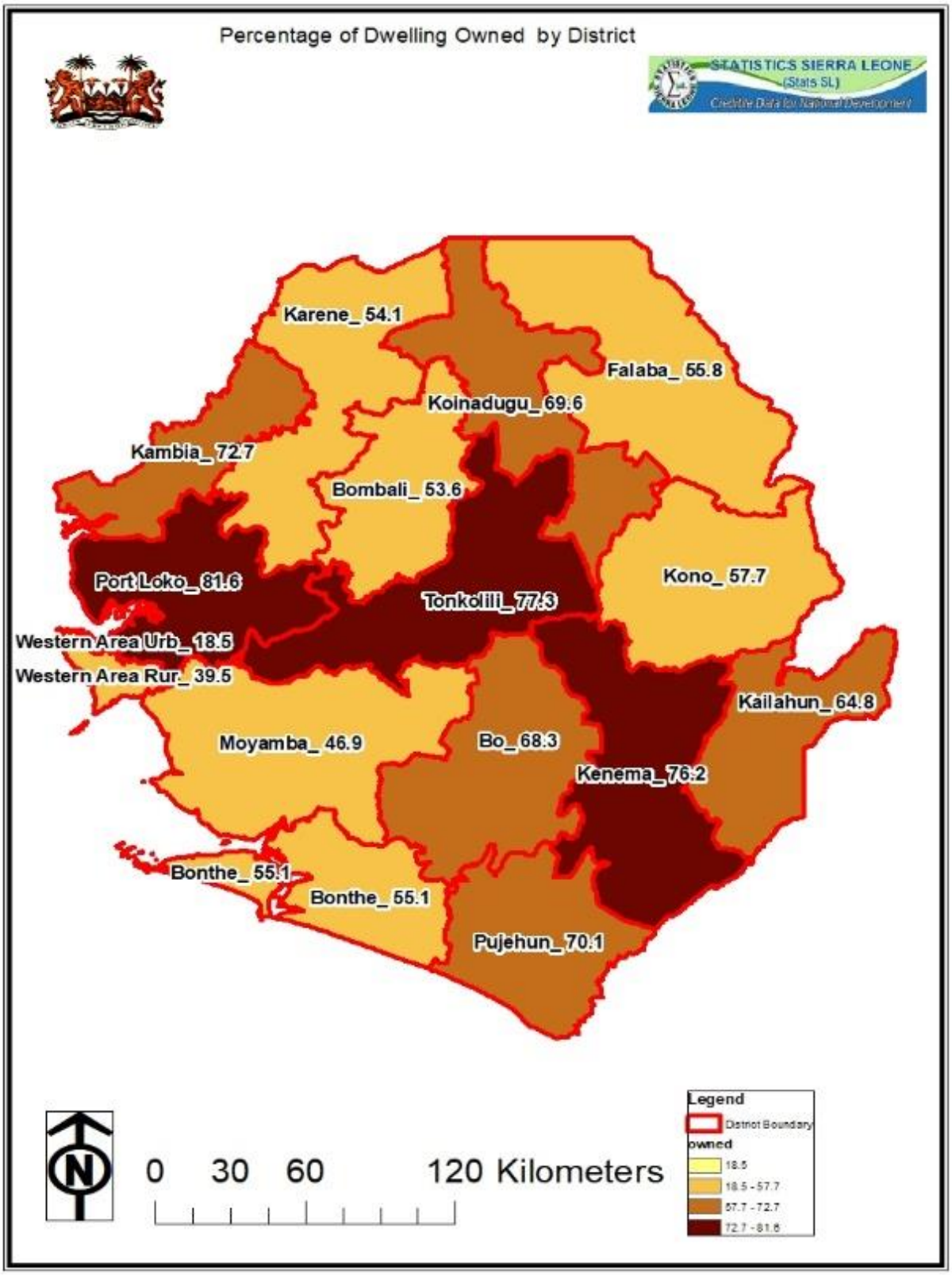
Source: 2018 SLIHS

In general, the 2018 SLIHS reported the percentage of household occupancy status. Table 6.4 shows that 54.0percent of households in Sierra Leone lived in owners occupied dwellings with 19.5 percent in rented and 23.2 percent occupied by family and friends. However, in urban areas, though a majority (46.4 percent) of households rent their dwellings, a sizable 19.9 percent had

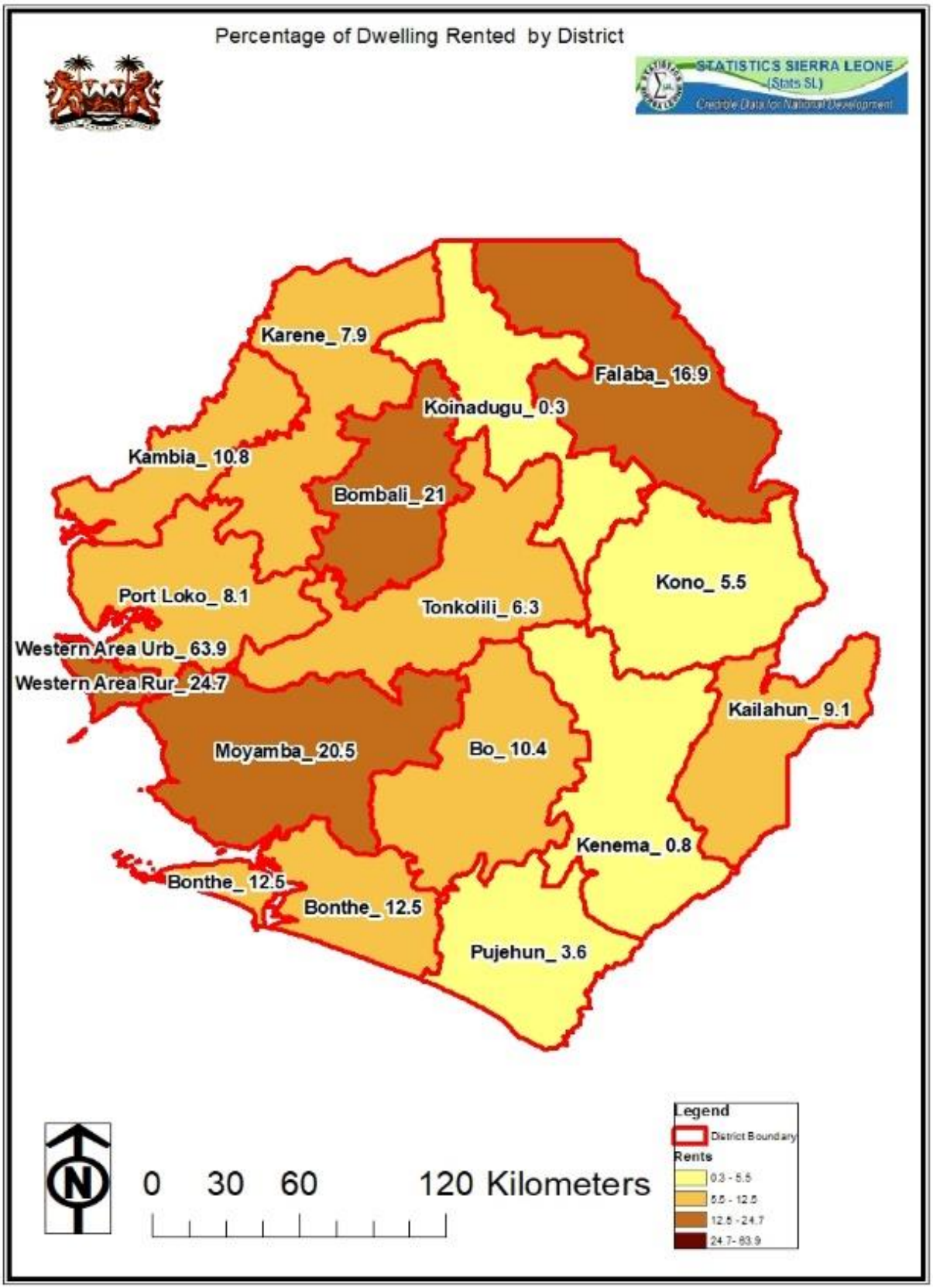
dwellings occupied by their family or friends compared to rural areas where 2.7 percent rented their dwellings while only 25.3 percent is occupied by family or friends. In the North West however, owner's occupied dwellings (65.8 percent) was the main form of occupancy status followed by family or friends (29.1 percent). Moreover, in the Western Area, 53.6 percent of rented dwellings were the main occupancy status of households followed by the Eastern Region (15.2 percent). Overall the percent of households living in rented premises increased from 16.7 percent in 2011 to 19.5 percent in 2018.

In terms of occupancy status, Bonthe recorded the highest level, 81.6 percent, and Western Urban the lowest, 18.5 percent of households owning the dwellings. Kambia was next with 76.2percent. Karene and Kailahun districts had 69.6 percent and 68.8 percent respectively. The next occupancy status is rent. Most of in the Western Urban (63.9 percent) followed by Kenema (21.0 percent) and Bo (20.5 percent). Households who lived in Rented dwelling was least common in the Karene District (0.3 percent). Therefore, dwelling for rent was most common in the Western area Urban, that is, most of the dwelling units are commercialised. (see Maps 6.3 a & b)

Map 6.3a: Percentage of dwelling owned



Map 6. 3b: Percentage of dwelling Rented



6.6 Acquisition of Dwelling

Table 6.5: Percentage of dwelling acquisition by District

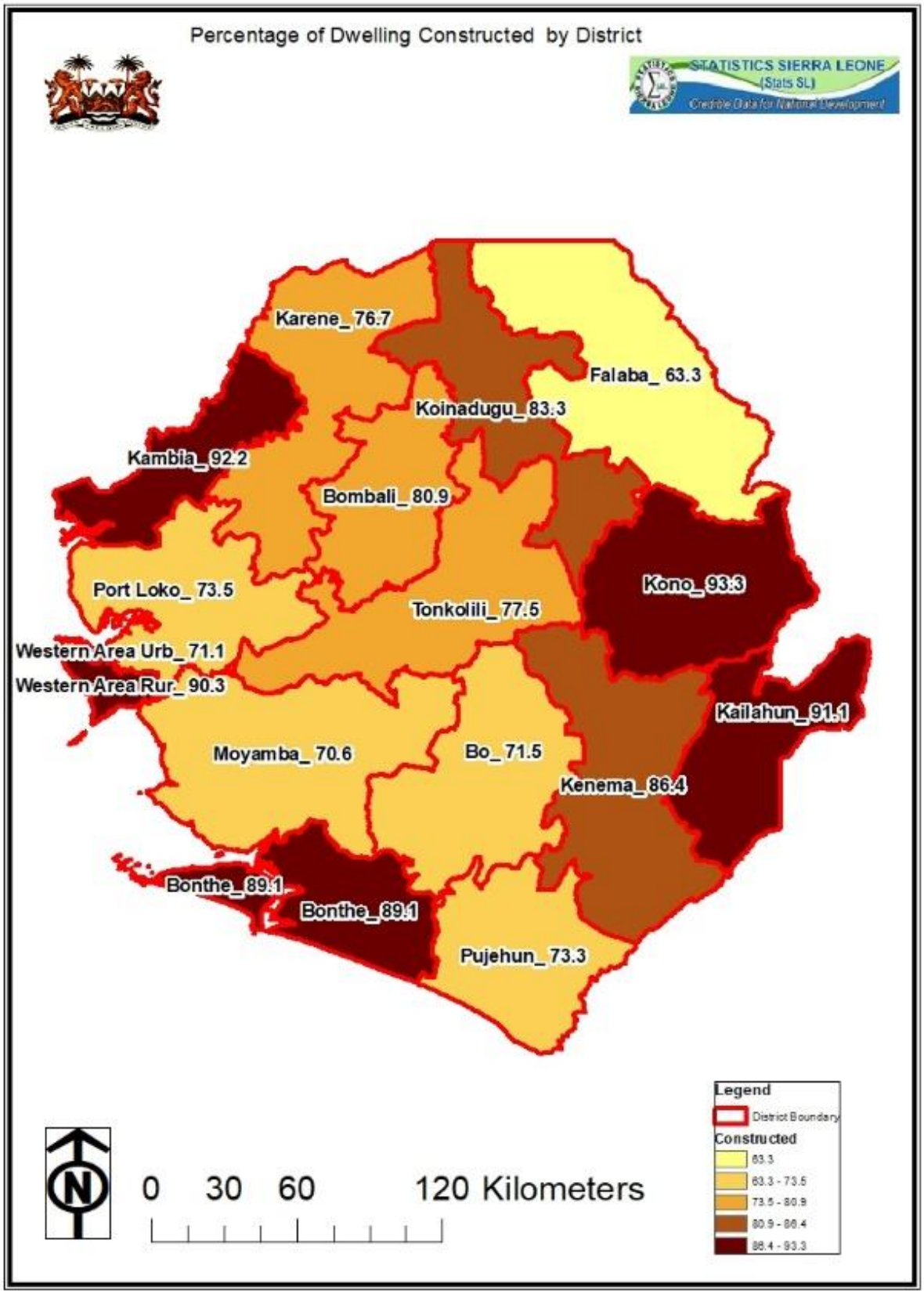
	Purchased	Constructed	Inherited	Other
District				
Kailahun	2.9	71.5	25.5	0.1
Kenema	2.1	80.9	17.0	0.0
Kono	0.2	89.1	10.5	0.2
Bombali	0.5	63.3	36.2	0.0
Falaba	0.0	91.1	8.9	0.0
Koinadugu	0.2	92.2	7.6	0.0
Tonkolili	0.3	76.7	23.0	0.0
Kambia	0.5	86.4	13.2	0.0
Karene	0.2	83.3	16.4	0.0
Port Loko	2.3	93.3	4.3	0.1
Bo	0.1	70.6	29.3	0.0
Bonthe	0.0	73.5	26.4	0.1
Moyamba	0.3	73.3	26.4	0.0
Pujehun	0.0	77.5	22.5	0.0
Western Rural	7.2	90.3	2.1	0.4
Western Urban	11.5	71.1	17.0	0.4
Sierra Leone	**1.7**	**79.5**	**18.7**	**0.1**

Source: 2018 SLIHS

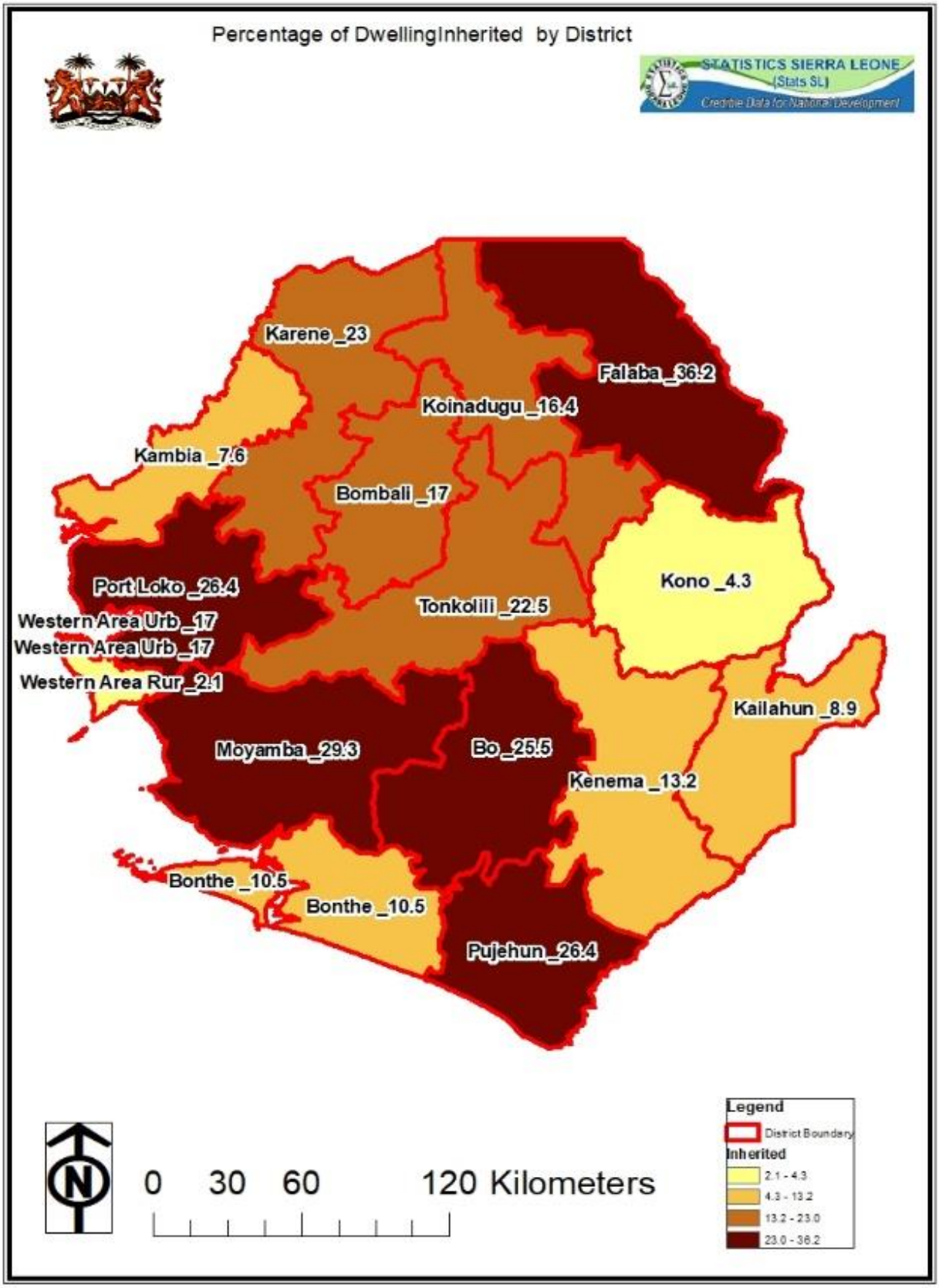
Table 6.5 presents the percentage of dwelling acquisition by District. Overall, 79.5 percent of households constructed the house in which they dwell, with a wide margin between those who purchased and inherited; only 1.7 percent of households purchased their dwelling. Regionally, a higher percentage of households constructed their dwelling. The table further reveals that, in the North West (88.6 percent), West and East (79.4 percent), North (78.7 percent) with the South showing 73.7 percent of households constructed houses they dwell. On the other hand, inherited units accounted for 26.2 percent of the total dwelling units in the South followed by the North (21 percent), whereas the West show the least proportion (10.6 percent) of inherited dwelling unit. In fact, this type of acquisition accounted 18.7 percent of the total dwelling units in the country. Constructing a dwelling unit in rural areas seems to be common as it contributes 80.2 percent of the housing units occupied compared to 77.4 percent of urban areas. Households who purchased their dwelling units seem not common in rural areas and it accounted for only 0.2 percent. This may be as a result of free access to land in rural areas. Whereas urban areas portrays a slightly different picture in that 7.2 percent of the households occupying a dwelling unit through purchasing them.

At the district level; there are higher occurrences of constructed dwellings in both Port Loko (93.3 percent) and Koinadugu (92.2 percent) than in Falaba (91.2percent), Western Rural (90.3 percent) and Kono (89.1 percent) districts. Bombali accounted for 63.3 percent as least households with constructed dwellings. Inherited dwellings are also significantly more common in Bombali (36.2 percent) followed by Bo (29.3 percent) and Moyamba (26.4 percent) and lower in Western Rural with (2.1percent) followed by Port Loko (4.3 percent). Table 6.5 further indicates that 11.5 percent of the households in the Western urban purchased their dwelling units while Falaba, Bonthe and Pujehun purchase of dwelling units is not common. (Also see Maps 6.4a& b).

Map 6.4a: Percentage of dwelling units Constructed



Map 6.4b: Percentage of dwelling units Rented



6.7 Land Lord Type

Table 6.6: Percentage distribution of different types of Land Lords by District

	Relative / friend	Private individual	Other
District			
Kailahun	44.1	55.9	0.0
Kenema	17.5	82.5	0.0
Kono	12.1	87.9	0.0
Bombali	30.6	69.1	0.3
Falaba	49.2	50.8	0.0
Koinadugu	3.9	96.1	0.0
Tonkolili	19.6	80.5	0.0
Kambia	28.6	71.4	0.0
Karene	13.6	86.4	0.0
Port Loko	38.5	61.0	0.6
Bo	9.3	90.7	0.0
Bonthe	1.9	98.1	0.0
Moyamba	3.3	96.7	0.0
Pujehun	49.9	50.1	0.0
Western Rural	3.0	96.3	0.7
Western Urban	11.4	86.8	1.9
Sierra Leone	**15.1**	**83.9**	**1.0**

Source: 2018 SLIHS

Table 6.6 above shows that the highest percentage of dwelling units are owned by private individuals which accounted for 83.9 percent nationally. This is distributed as follows 87.9 percent, 87.0 percent, 77.9 percent, 74.3 percent and 62.4 percent in the Western, Southern, Eastern, Northern, and North-west regions respectively. Relative/friends and others owned less than 20 percent of dwelling units occupied by households nationally. The table further reveals that 98.1 percent, 96.7 percent and 96.3 percent of dwelling units are owned by private individuals in Bonthe, Moyamba and Western Rural district respectively. While 49.9 percent, 49.2 percent, and 44.1 percent of landlords are relatives or friends in Pujehun, Falaba and Kailahun districts respectively.

6.8: Type of Document to back Occupancy Status

Table 6.7: Percentage of Households with document to occupancy status by Region

Region	Certificate of Occupancy	Freehold	Receipt of Payment	Others	None
East	0.4	6.6	74.3	-	18.7
North	-	0.5	58.0	-	41.5
North West	-	21.1	48.2	-	30.8
South	3.1	3.1	76.6	-	17.2
West	1.7	0.2	90.1	0.1	7.9
Sierra Leone	**1.4**	**2.3**	**81.0**	**0.1**	**15.2**

Source: 2018 SLIHS

The tendency to prepare a document to clarify the occupancy status of household is not unusual in Sierra Leone. In this regard, households were asked about the documents in possession to back up their Occupancy status. From the table above shows that only 1.4percent of the respondent produce certificate of occupancy, 2.3 percent shows "freehold" and large number shows receipt of payment which account 81.1percent nationally.

The data shows that about 90 percent of the households in the Western Area, 76.6 percent in the Southern, 74.3 percent in the Eastern Region, 58.0 percent in the Northern Province and 48.2 percent in the North-west region produce receipt of payment for occupancy. No document to back up occupancy status (7.9 percent) shows the least in the western area. In terms of residence, the urban area has the highest number, 84.4 percent of the respondents produced receipt of payment for occupancy and rural 45percent produce receipts for occupancy. At the district level, 93.2 percent, 93.1 percent, 89.6 percent and 89.9 percent reported the receipts for payment of occupancy, Western rural, Bonthe, Western urban and Bo districts respectively.

Generally, the mean amount of rent paid by households in Sierra Leone is Le 1, 871,000 per household with a median value of Le 600,000. The mean rent paid by urban residence is Le 2,013,000 with a median value of Le 700,000. While in the rural areas Le 27,000 is paid as rent showing an increase in the Median value of Le 144,000. Evidence from data shows that the mean annual rent paid by households were higher in the West (Le 2,794,000), North West (Le 900,000) and South (Le 888,000) with a median value of Le 1,560,000, Le 600,000 and Le1,000,000 respectively. At the district level, Western Urban (Le3,077,000) and Bo (Le1,034,000) reported the highest annual mean rent paid by households with similar median values while Port Loko

and Moyamba district reported the lowest mean annual rent with a higher median value of Le480,000 and Le450,000 respectively.

Table 6.8: Household Mean expenditure (Le '000) on minor constructions

Region	Owned by member of household	Rents	Free by family /friend	Free by other	Nomadic / Temporary
East	452	292	407	525	550
North	1,211	232	306	235	
North West	801	83	512	151	
South	451	399	381	144	
West	1,383	734	819	841	525
Residence					
Rural	634	475	292	219	
Urban	1,176	590	727	632	528
Sierra Leone	**801**	**584**	**477**	**457**	**377**

Source: 2018 SLIHS

Table 6.8 shows that Le 801,000, Le584, 000 and Le 477,000 are paid for minor constructions per annum on Owned, rented and free by family or friend dwelling unit in Sierra Leone. The Table shows that the amount spent on minor constructions is higher in the west (Le 1,383,000) followed by the North (Le 1,211,000) for dwelling owned by member of household and lower amount spent on minor construction on rented dwelling in the north west region (Le 83,000) but high in the west and southern region, Le(734,000) and Le(399,000) respectively. For urban residence, Le 1,176,000 is used on minor construction on owners dwelling unit and Le 634,000 in the rural while expenditures on rented dwelling units in the rural areas is reported as Le 475,000 and urban Le 590,000. Therefore, expenditure on rent for minor constructions is higher in western region than the other regions.

6.9 Housing by Construction Material

Table 6.9: Percentage of HHs that used Construction material of outside walls by District

	Mud and Wattle, Mud brick	Mud brick plastered with cement	Wooden Boards	Corrugated iron/Iron Sheet	Cement Block	Others
District						
Kailahun	61.8	31.7	0.1	0.3	6.1	0.0
Kenema	54.9	29.6	0.0	3.4	12.1	0.0
Kono	64.1	25.8	0.2	0.0	7.1	2.8
Bombali	51.8	25.2	2.8	0.2	20.1	0.0
Falaba	76.5	18.0	0.7	0.0	4.8	0.0
Koinadugu	42.9	51.5	0.2	0.1	0.8	4.6
Tonkolili	62.5	35.0	0.0	0.0	2.1	0.3
Kambia	41.7	48.3	0.0	0.0	10.1	0.0
Karene	44.4	53.5	0.0	0.1	1.9	0.0
Port Loko	44.9	41.0	0.0	3.1	11.1	0.0
Bo	46.1	34.6	0.2	0.1	19.0	0.0
Bonthe	48.1	40.2	0.0	0.0	11.2	0.5
Moyamba	75.0	14.1	0.1	0.1	7.1	3.6
Pujehun	69.8	26.8	0.0	0.0	3.4	0.1
Western Area Rural	7.3	34.2	0.2	12.9	45.5	0.0
Western Area Urban	0.3	21.6	4.8	20.3	52.5	0.6
Sierra Leone	**44.8**	**31.6**	**0.9**	**4.4**	**17.6**	**0.6**

Source: 2018 SLIHS

The main construction materials for outside walls were Mud and Wattle, Mud brick, Mud brick plastered with cement, wooden boards, corrugated iron sheet and cement block. Table 6.9 indicates that, in Sierra Leone, the percentage of outside walls constructed with Mud and Wattle brick decreased from 2011 to 2018. In 2011, 58.9percent of dwelling units had outside walls constructed of Mud and Wattle brick. The percentage declined to 44.8 percent in 2018. While the percentage of dwelling units outside walls constructed of Cement Block decreases from 28.9 percent in 2011 to 17.6 percent in 2018. In the rural areas, the percentage with outside walls of cement block decreased over the last seven years: from 6.7 percent in 2011 to 3.4 percent in 2018. This may be evidence of changes in the increase in price of cement. However, the data further shows that the use of cement block for the construction of outside wall of dwelling units in the urban areas increased from 22.2 percent in 2011 to 40.6 percent in 2018.

There are wide regional variations in materials used for the construction of outside walls. Mud and Wattle brick outside walls were predominant in the East (59.7percent), North (58.9percent)

and Southern (58.2 percent) regions. The other region with fairly high percentage of dwellings with Cement block is the Western region (50.7 percent), compared to the Southern (11.6 percent), East and North Western (8.8 percent) regions respectively. 7.1 percent of dwelling unit in the North shows the lowest percentage of outside wall made of cement block while only 18.4 percent of outer walls of buildings were made of Corrugated Iron Sheet in Western Area.

Table 6.9 further reveals that, about 76.5 percent of the dwelling units in Falaba district are constructed with Mud and Wattle brick while 75.0 percent and 69.8percent in Moyamba and Pujehun respectively with Mud and Wattle brick, 52.5 percent with Cement block Western Urban.

6.9.1 Floor material of dwelling unit

Table 6.10: Percentage of HHs with Main flooring material by Region, Residence and District

Region	Earth/Mud	Tile	Wood	Concrete/cement	Stone
East	61.9	2.6	0.0	35.5	0.0
North	61.0	1.9	0.2	36.5	0.5
North West	51.4	4.8	0.7	43.0	0.0
South	62.1	2.3	0.0	35.6	0.0
West	1.7	20.4	2.0	75.9	0.0
Residence					
Rural	71.7	1.5	0.3	26.4	0.2
Urban	9.3	14.3	1.1	75.3	0.0
District					
Kailahun	70.6	0.1	0.0	29.3	0.0
Kenema	54.1	3.6	0.1	42.2	0.0
Kono	62.9	4.3	0.0	32.8	0.0
Bombali	42.1	3.8	0.1	52.1	2.0
Falaba	85.6	0.0	0.0	14.5	0.0
Koinadugu	46.7	5.0	0.2	48.2	0.0
Tonkolili	68.7	0.3	0.3	30.8	0.0
Kambia	53.7	0.5	0.0	45.9	0.0
Karene	62.5	0.6	3.3	33.6	0.0
Port Loko	45.1	9.4	0.0	45.5	0.0
Bo	49.6	4.3	0.1	46.1	0.0
Bonthe	58.0	0.5	0.0	41.4	0.0
Moyamba	85.7	0.5	0.0	13.8	0.0
Pujehun	63.3	1.9	0.0	34.8	0.0
Western Area Rural	4.3	21.8	0.0	73.8	0.1
Western Area Urban	0.8	19.9	2.7	76.6	0.0
Sierra Leone	**47.7**	**6.4**	**0.6**	**45.2**	**0.1**

Source: 2018 SLIHS

Type of materials used for the floor of a dwelling unit affects the appearance and quality of the dwelling and has health implications. As shown in Table 2.2.1, the percentage of dwelling floors made with earth or mud nationally declined from 55.2 percent in 2011 to 47.7 percent in 2018, while the proportion made of concrete increased from 39.3 percent to 45.2 percent. In 2011, the percentage of floors made of tiles, Wood or stone put together was 3.4 percent, but this increased to 7.1 percent in 2018.

In all the regions, concrete or cement was the most common material for floors ranging from 35.5 percent in Eastern region to 75.9 percent in Western Area in 2018. However, south (62.1 percent), East (61.9 percent), and North (61.0 percent) shows that the main material for floor was earth or mud. Therefore, in all the regions, except Western Area which shows the least (1.7 percent) of the dwelling used mud or earth as floor materials. Only 20.4 percent of floors were made of tiles in western Area followed by 4.8 percent and 2.6 percent in the North West and East respectively. In urban and rural areas, the most common material for floors was Concrete or cement with 75.3 percent in urban areas and 26.4 percent in rural areas. In rural areas 71.7 percent of floors were constructed from earth or mud compared to 9.3 percent in urban areas. The proportion is distributed at district level as 85.7 percent, 85.6 percent, 70.6 percent and 58.7 percent in Moyamba, Falaba, Kailahun and Tonkolili district respectively using earth or mud as main flooring material. Whereas 76.6 percent, 738 percent, 52.1 percent and 46.1 percent in Western Urban, Western rural, Bombali and Bo districts respectively used concrete or cement as main flooring material.

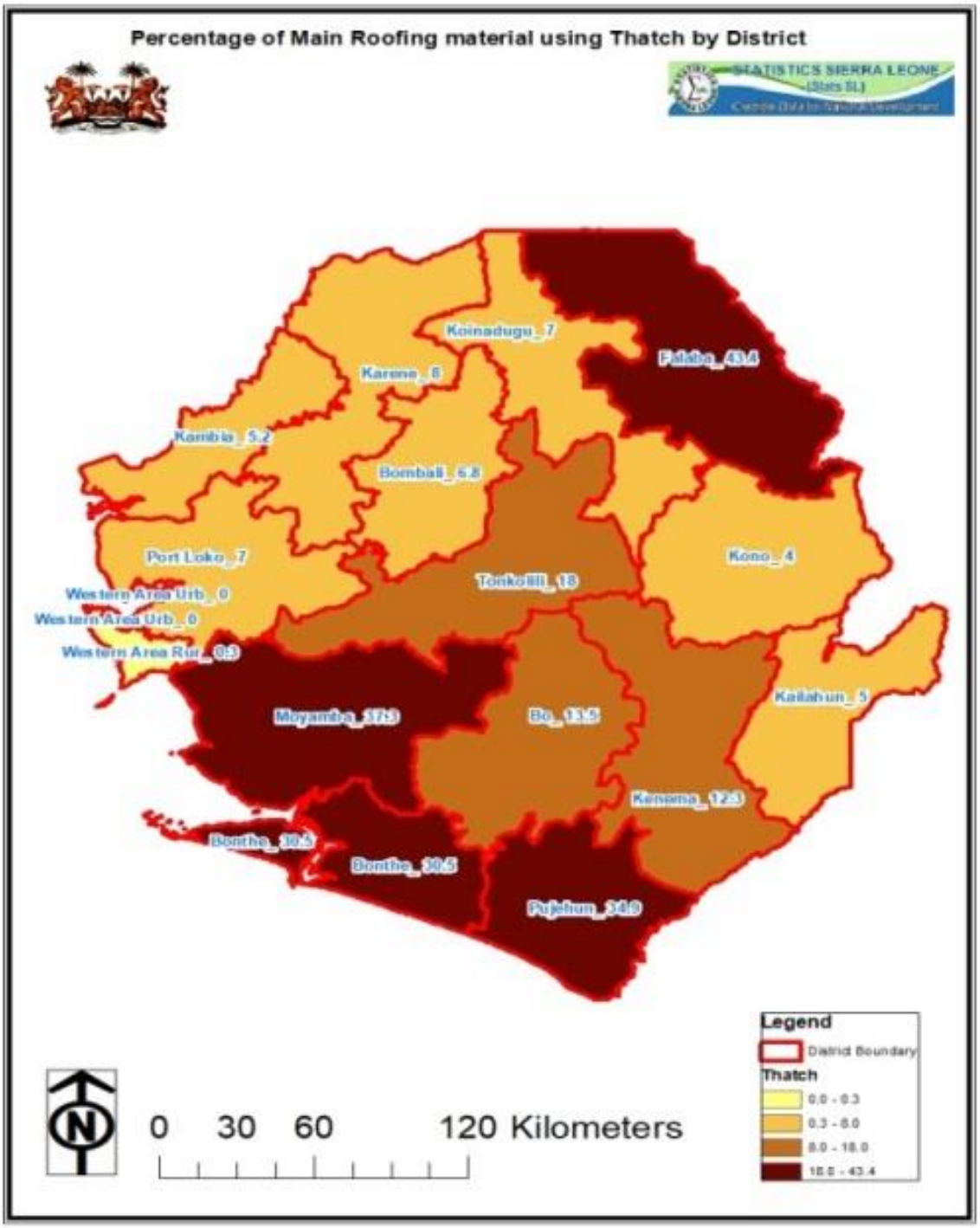
6.9.2 Roofing material of dwelling unit

Data in 2018 shows that 84.6 percent of dwelling units in Sierra Leone were roofed with corrugated iron sheets. The other two main materials used for roofing were Thatch (11.8 percent) and concrete or cement (3.1 percent). Less than one percent of roofs were made of Tarpaulin. Between 2011 and 2018, the percentage of dwellings with corrugated iron sheets as the main roofing material increased from 73.3 percent to 84.6 percent. In contrast, the proportion of dwelling units with Thatch decreased from 20.7 percent to 11.8 percent.

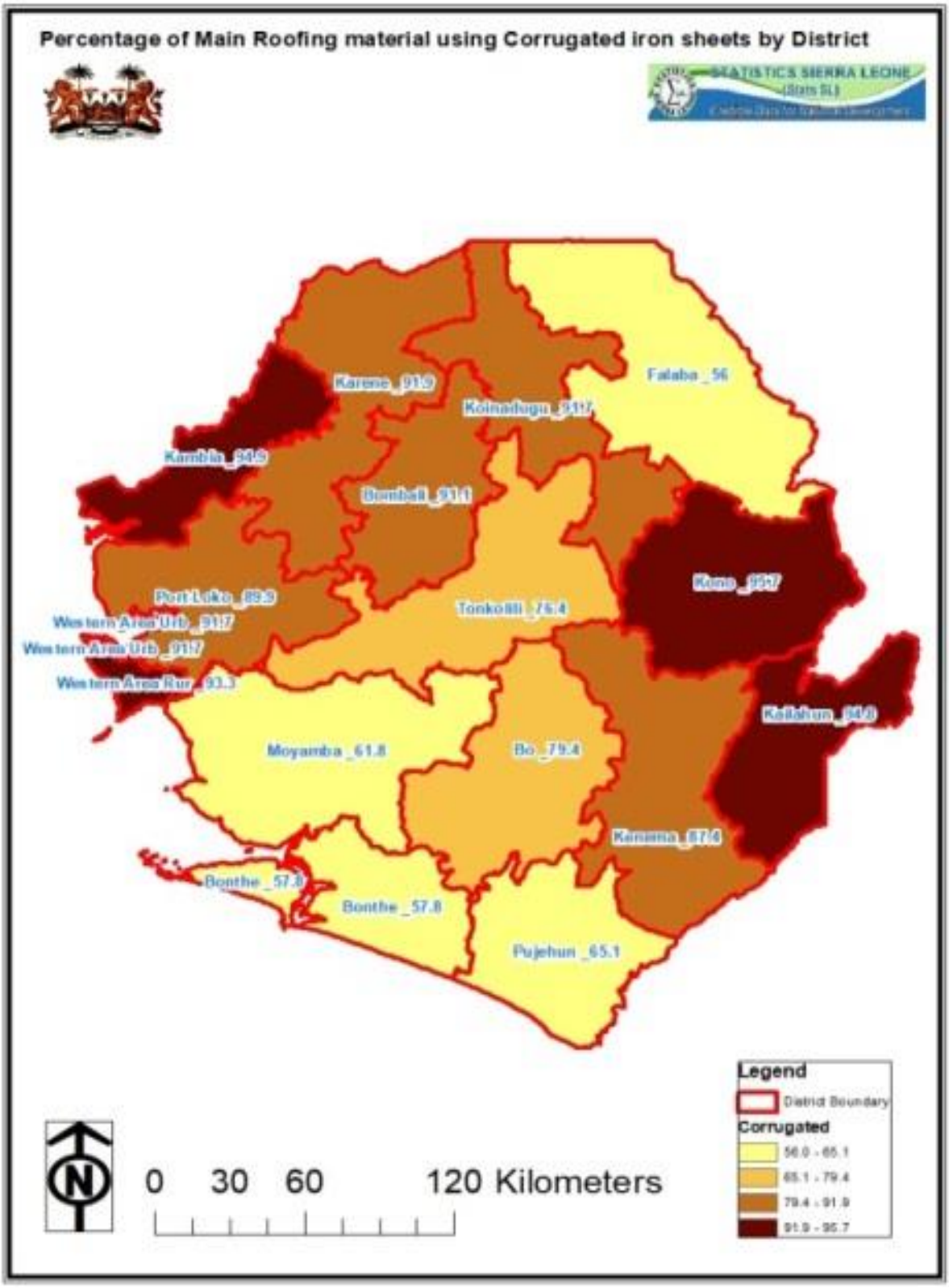
While the most common material for roofs were Corrugated Iron Sheet in all five regions. The regions with the highest percentage of roofs made up of Corrugated Iron Sheet were Western Area (92.1 percent), East (92.0 percent) and North West (91.8 percent) regions. Southern region had the highest percentage of roofs made of thatch (26.3 percent), followed by Northern region (17.3 percent).See Map Between rural and urban areas, however, the proportion using Corrugated Iron Sheet was higher in urban (93.4 percent) than rural area (79.1 percent), while

the proportion using thatch was higher in rural (18.5 percent) than urban areas (1.1 percent) reflecting the use of materials available in the immediate environs. At district level the use of Corrugated Iron Sheet was fairly common in Kambia district (94.9 percent), Kailahun (94.8 percent) and Western Rural (93.3 percent). In Falaba, Moyamba and Pujehun district, 43.3 percent, 37.3 percent and 34.9 percent of roofs were made of mud or earth products respectively.

Map 6.5a: Percentage of Households with Thatch as Main Roofing Material By District



Map 6.5b: Percentage of Households with CI Sheets As Main Roofing Materials



6.10 Location of main cooking area in dwelling unit by District

Table 6.11: Percentage of the HHs location of kitchen by District

	outdoor	Enclosed Detached	Enclosed Attached	Indoor Without partition	Indoor with partition	hh does not cook
District						
Kailahun	63.2	35.1	0.0	0.1	0.0	1.7
Kenema	57.3	40.9	1.6	0.0	0.1	0.2
Kono	82.4	10.2	0.2	0.1	0.2	6.8
Bombali	58.9	37.6	1.1	0.1	1.1	1.2
Falaba	81.1	18.8	0.2	0.0	0.0	0.0
Koinadugu	91.0	8.6	0.1	0.0	0.1	0.3
Tonkolili	81.1	17.3	1.6	0.0	0.0	0.0
Kambia	61.8	37.6	0.6	0.0	0.0	0.0
Karene	71.7	26.0	2.3	0.0	0.0	0.0
Port Loko	65.0	32.8	0.2	0.0	0.1	2.0
Bo	65.1	29.8	1.8	0.1	0.8	2.3
Bonthe	71.3	25.5	0.2	2.7	0.0	0.4
Moyamba	67.7	23.8	8.3	0.0	0.1	0.2
Pujehun	72.6	22.2	2.0	1.6	0.0	1.6
Western Area Rural	71.1	16.9	3.3	0.9	7.2	0.7
Western Area Urban	59.9	14.5	9.0	1.9	3.8	10.9
Sierra Leone	**67.9**	**25.1**	**2.7**	**0.5**	**1.1**	**2.8**

Source: 2018 SLIHS

The percentage distribution of main cooking locations is presented in Table 6.11 The table reveals that, in Sierra Leone 67.9 percent of households cooked outdoors followed by enclosed detached location (25.1 percent) while indoor with partition shows the lowest (1.1 percent).The percentage of households using outdoor as their cooking location decreased from 91.32 percent in 2011 to 76.8 percent in 2018 for the North followed by south from 80.7 percent to 68.3 percent respectively. Indoor partition cooking location in the West increased from 4.1 percent in 2011 to 4.7 percent in 2018.The regions with the highest percentage of households with enclosed detached cooking location were North West (32.7 percent), South (30.7 percent) and the lowest were in the Western Area (15.1 percent) and North (21.5 percent)..Outdoor Cooking locations were also fairly common within many households. For instance, it was 91.0 percent in Koinadugu, 82.1 percent in Kono, with the lowest being 57.3 percent in the Kenema district followed by Western Area (59.9 percent). In Western Rural, 7.2 percent households had indoor partition cooking location. The high proportion of household's indoor partition cooking location in the Western Rural district may be due to the nature of housing arrangements.

6.11 Source of energy

6.11.1 Main Source of Fuel for Cooking by District

Table 6.12: Percentage distribution of HHs by source of energy by District

	Firewood	Charcoal	Kerosene	Gas	Electricity	Crop residue/ saw dust	Animal waste
District							
Kailahun	97.9	2.1	0.0	0.0	0.0	0.1	0.0
Kenema	82.9	17.1	0.0	0.0	0.0	0.0	0.0
Kono	78.9	21.0	0.0	0.0	0.0	0.0	0.0
Bombali	70.6	27.5	0.0	0.0	0.0	0.0	1.8
Falaba	99.3	0.7	0.0	0.0	0.0	0.0	0.0
Koinadugu	86.5	13.5	0.0	0.0	0.0	0.0	0.0
Tonkolili	84.0	16.0	0.0	0.0	0.0	0.0	0.0
Kambia	91.1	8.9	0.0	0.0	0.0	0.0	0.0
Karene	87.5	12.5	0.0	0.0	0.0	0.0	0.0
Port Loko	82.0	18.0	0.0	0.0	0.0	0.0	0.0
Bo	81.0	19.0	0.0	0.1	0.0	0.0	0.0
Bonthe	87.1	12.8	0.1	0.0	0.0	0.0	0.0
Moyamba	97.0	3.1	0.0	0.0	0.0	0.0	0.0
Pujehun	98.2	1.8	0.0	0.0	0.0	0.0	0.0
Western Rural	24.9	75.0	0.1	0.0	0.0	0.0	0.0
Western Urban	6.8	91.9	0.1	1.1	0.0	0.0	0.0
Sierra Leone	**72.0**	**27.7**	**0.0**	**0.2**	**0.0**	**0.0**	**0.1**

Source: 2018 SLIHS

The percentage of households using firewood decreased from 78.7 percent in 2011 to 72.0 percent in 2018 and that of charcoal increased from 20.2 percent in 2011 to 27.7percent) in 2018. As shown in Table 6.7.1, firewood remains the main source of cooking fuel in rural areas, although the percentage declined from 97.2 percent in 2011 to 95.2 percent in 2018. In contrast, only 32.8 percent in urban areas used firewood, a decline from 50.1percent in 2011. In urban areas, charcoal was the most common energy source for cooking, with an increase from 48.8 percent in 2011 to 66.7 percent in 2018. The use of gas as source of energy for cooking increased in urban areas (Urban West and urban Bo) from 0.06 percent in 2011 to 0.2 percent in 2018.

For all the regions, firewood was the predominant source of cooking fuel. This was particularly the situation in the South (89.4 percent), East (86.7 percent), North West (86 percent), and Northern (83.2 percent) regions. Western Area had the lowest percentage of households using firewood (11.9 percent). Moreover, the use of charcoal was low in the South (10.6 percent) and Eastern (13.2 percent) regions compared to other regions. Western Area had the highest percentage of households using Charcoal (87.2 percent) and gas (0.8 percent) for cooking. In all other regions, the 2018 SLIHS data shows that no household is using gas for cooking.

Table 6.11 further reveals that firewood followed by charcoal are the dominant form of cooking fuel used by households in the districts. It shows that 99.3 percent, 98.2 percent, 97.9 percent, and 97.0 percent of households are using firewood as cooking fuel in the Falaba, Pujehun, Kailahun and Moyamba district respectively. And 91.9 percent, 75.0 percent, 27.5 percent and 21.0 percent of households in the western Urban, western rural, Bombali and Kono district respectively are using charcoal for cooking fuel. Western urban (6.8 percent) and Falaba (0.7 percent) shows the lowest households using firewood and charcoal for cooking fuel respectively.

6.11.2 Main Source of Fuel for Lighting

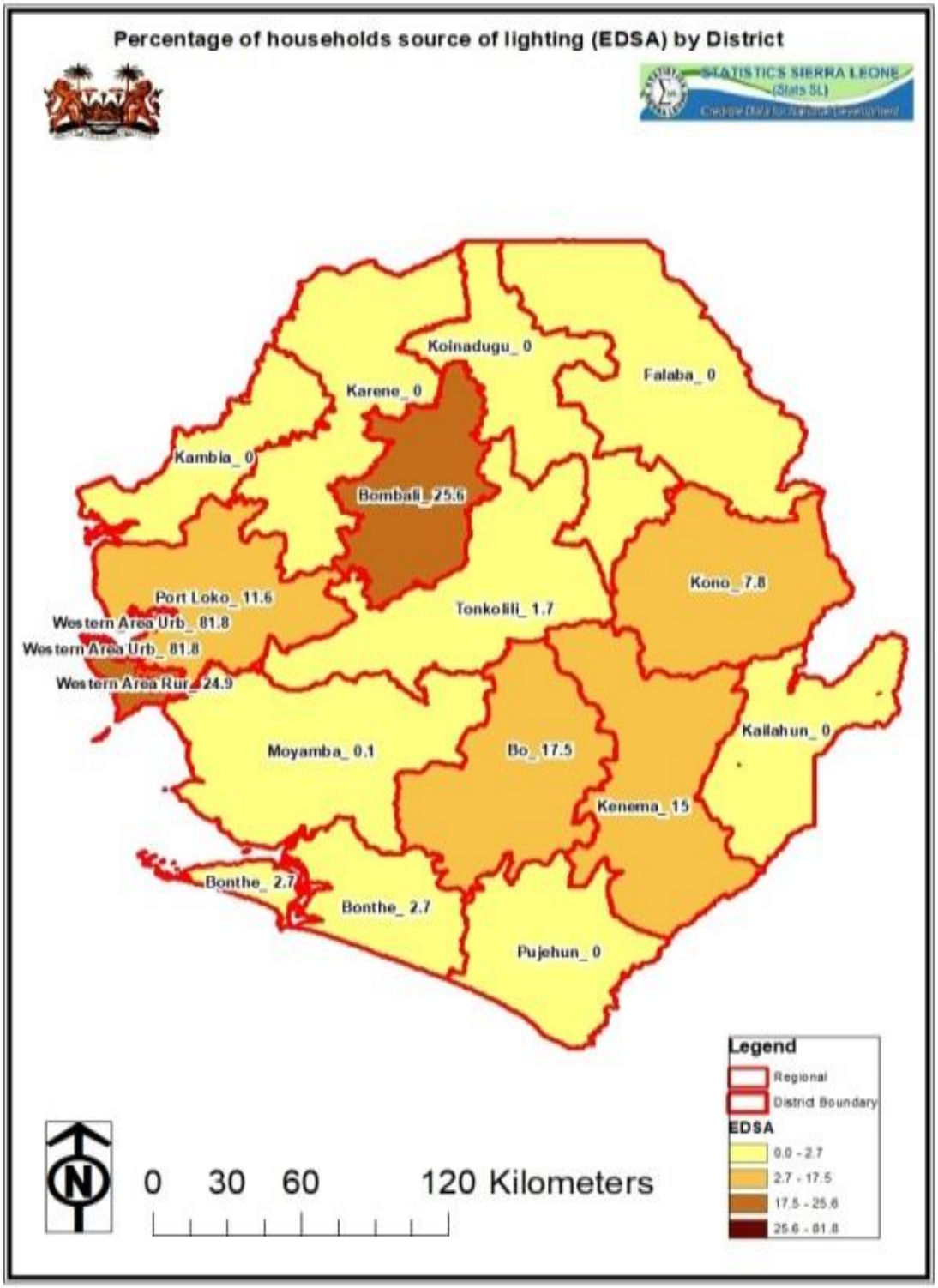
At the national level, the three main sources of non-natural lighting in households were EDSA (19.5 percent), batteries (71.1 percent) and solar panel (6.6 percent). As expected, electricity, the most modern of the three utilities, is more prevalent in urban areas (49.3 percent) than in rural (0.9 percent); following the same logic, battery is more frequently used in rural areas (89.0 percent) than in urban (42.4 percent). Other sources of lighting are also more popular in rural areas. Solar panel, for example, is used by 8.2 percent of households in rural areas compared to 3.9 percent in urban areas. The percentage of households using EDSA increased from 13.5 percent in 2011 to 19.5 percent in 2018. In 2011, 52.3 percent of households were using battery, but this increased to 71.1 percent in 2018.

At the regional level, the percentage of households which reported the use of electricity ranged from 66.9 percent in the West to 5.6 percent in North West region. The percentages were less than 10 in the East (8.2 percent), North (7.5 percent) and South (7.4 percent) regions. Battery as source of lighting was used in the North West (85.9 percent), North (85.8 percent), and Southern region (82.5 percent) in 2018 compared to North (59.5 percent), South (59.2 percent) and Western area (22.7 percent) in 2011.

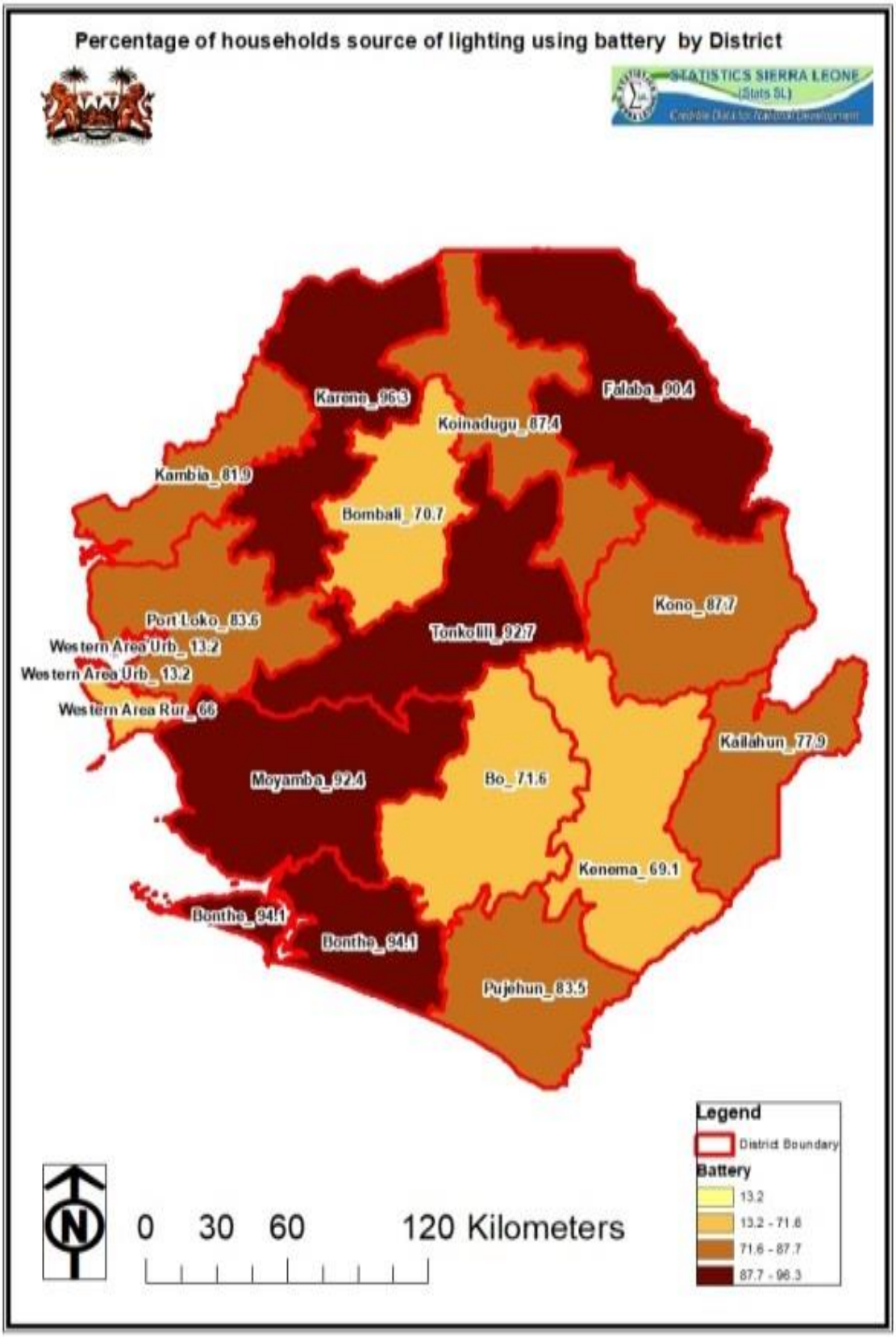
Findings further shows that 96.3 percent, 94.1 percent and 92.7 percent are using battery as lighting fuel in Karene, Bonthe and Tonkolili district respectively. While 81.8percent, 25.6 percent, 17.5 percent and 15.0 percent are using EDSA for lighting fuel in the Western Urban,

Bombali, Bo and Kenema district respectively and 19.8 percent, 15.9 percent and 14.4 percent are using main Solar Panel in Kailahun, Pujehun, and Kenema respectively.

Map 6.6a: Percentage of HHs using EDSA for lighting by District



Map 6.6b: Percentage Of House holds Using Battery For Lighting By District



6.12: Annual Payment of Electricity bill and Type of meter used

6.12.1 EDSA Connection and Average hours' electricity received

Table 6.13: Percentage of Households with EDSA connection, Average Hours received, and annual amount paid for electricity by region

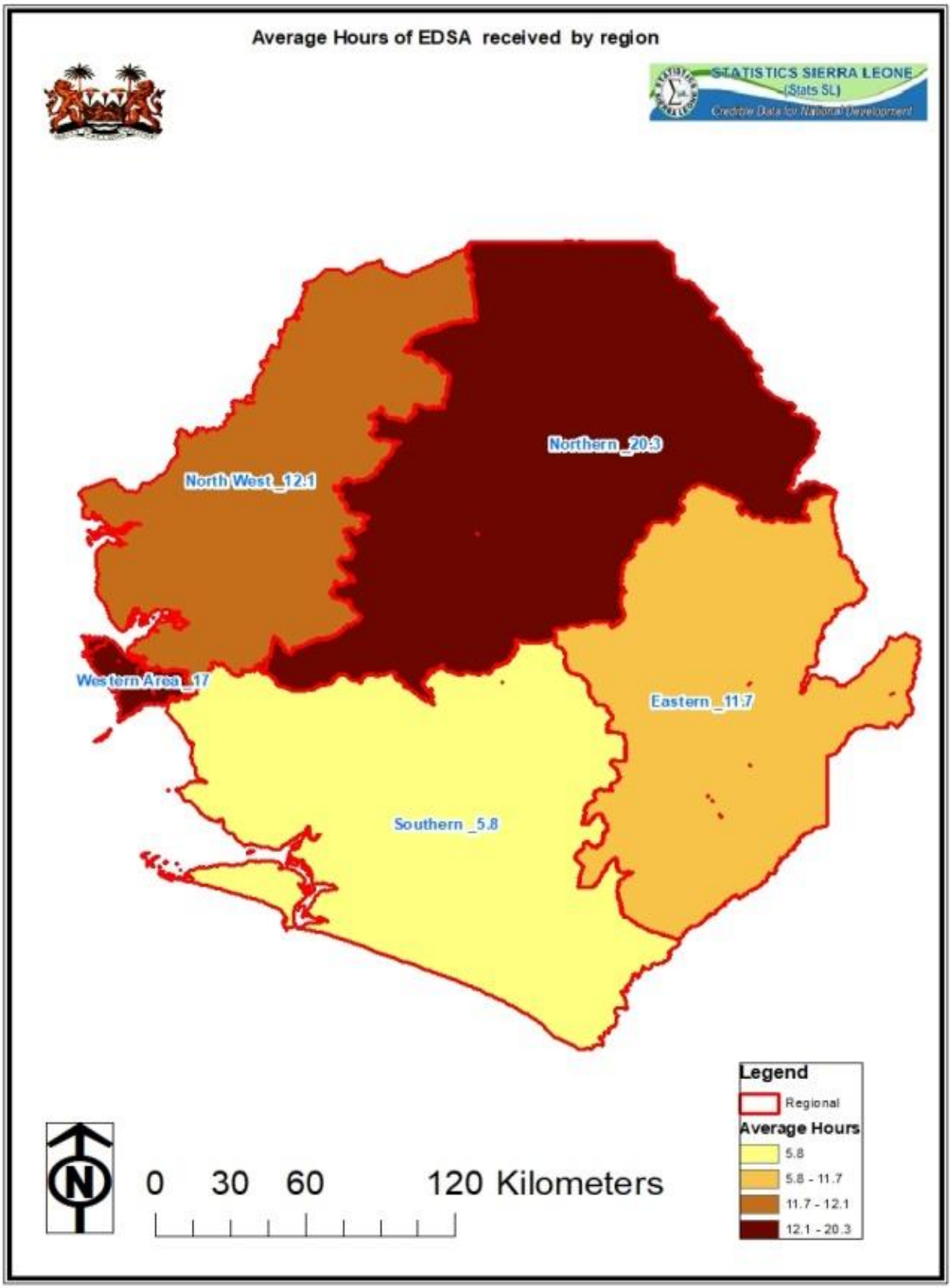
Region	Percent EDSA	Average Hrs	Annual Amount Le (000)
East	9.0	11.7	61,450
North	8.0	20.3	59,540
North West	6.0	12.1	38,270
South	9.0	5.8	64,140
West	70.0	17.0	761,100
Residence			
Rural	1.0	11.9	22,350
Urban	52.0	15.6	962,200
Sierra Leone	**21.0**	**15.5**	**984,500**

Source: 2018 SLIHS

Table 6.137.1 shows approximately 21.0percent of households have electricity in their dwellings via a grid system (national), with an average of 15.5 hours a week of electricity. The annual average cost of electricity is Le 984,500,000. However, as expected, electricity availability is much higher in the urban (52 percent) than in rural (1.0 percent). The hours of electricity availability reported are also considerably different in urban and rural areas. Electricity in urban areas is approximately Le 962,200,000 (more expensive) and in rural areas Le22, 350,000.

Regionally, Western Area households have better access (70 percent) to grid electricity and fewer average hours (17) of availability than Northern region households with 8 percent access and higher average hours (20.3), but at a lower commensurate cost compared to Western Area.

MAP 6.7: Average Hours of EDSA Received by Region



6.13 Type of Meter used by Households

Table 6.14: Percentage of household by type of meter by Region

Region	Pre-paid	Post-paid	Connected via neighbor	No meter
East	94.3	0.2	5.1	0.4
North	85.1	11.1	3.6	0.2
North West	89.1	0.0	10.9	0.0
South	93.7	0.4	0.4	5.5
West	79.2	4.0	14.5	2.4
Sierra Leone	**82.8**	**3.6**	**11.4**	**2.2**

Source: 2018 SLIHS

About 82.8 percent of households reported having Pre-paid and 11.4 percent connected via neighbors while only 3.6 percent reported having post-paid meter and 2.2 percent reported having no meter in Sierra Leone (see table 6.7.3) As shown in Table 6.7.3 the Eastern Region reported the highest percentage of households with Pre-paid meter (94.3 percent) followed by the south (93.7 percent) while Western Region reported the lowest only (79.2 percent) of households have pre-paid meters. Similarly, households with post-paid is high in the northern region (11.1 percent) followed by West (4.0 percent) and the northwest reported no household with post-paid meter. In comparison, western area (14.5 percent) reported having a higher percentage of households connected via neighbors followed by Northwest (10.9 percent) while the south shows lower percentage of (0.4 percent).

6.14 Communication coverage by Households

Table 6.15: Percentage and Number of Households with mobile phone coverage by Region and District

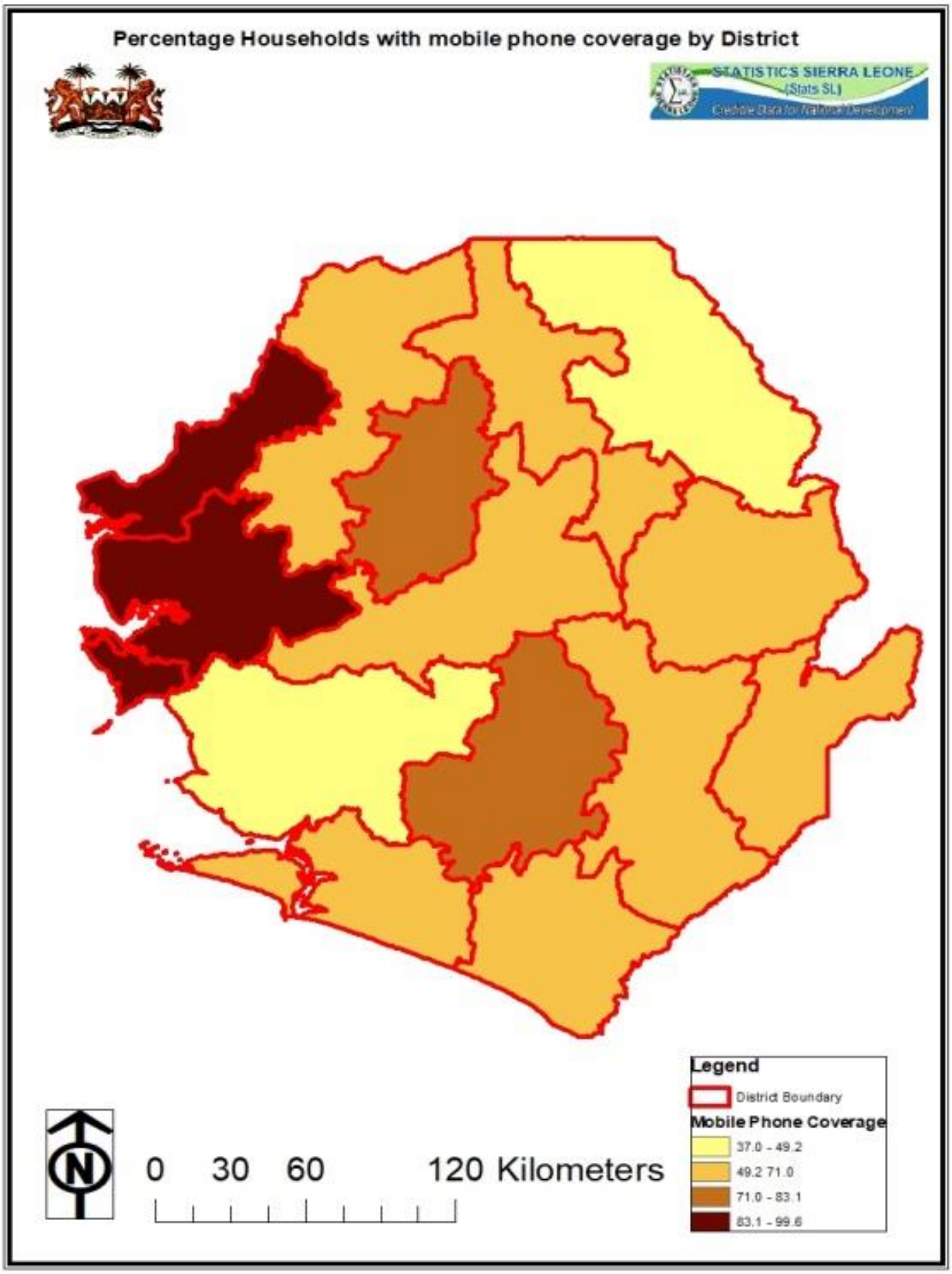
Region	Households with Mobile Phone Coverage	Rural	Urban	Percent Total
East	743,844	52.8	95.6	66.4
North	652,054	59.3	94.7	67.3
North West	727,357	87.2	99.7	89.8
South	729,886	62.0	99.8	68.3
West	1,000,116	96.7	97.7	97.7
District				
Kailahun	231,427	53.4	86.3	63.6
Kenema	307,625	48.4	99.9	68.1
Kono	204,792	57.5	100.0	67.1
Bombali	211,700	74.0	100.0	83.1
Falaba	55,136	32.2	100.0	37.0
Koinadugu	87,618	48.3	88.1	59.9
Tonkolili	297,600	66.4	91.4	71.0
Kambia	239,622	99.7	99.6	99.6
Karene	118,350	64.5	100.0	66.8
Port Loko	369,385	92.5	99.7	94.2
Bo	339,266	72.1	99.8	80.4
Bonthe	107,646	56.0	100.0	63.5
Moyamba	117,800	45.6	100.0	49.2
Pujehun	165,174	68.6	100.0	69.7
Western Rural	265,816	96.7	99.6	99.3
Western Urban	734,300		97.1	97.1
Sierra Leone	**3,853,257**	**64.6**	**97.4**	**77.2**

Source: 2018 SLIHS

Research shows that the increasing global diffusion of mobile telecommunication has contributed to narrowing the gap in telephone usage between developed and less developed countries (Geser, 2004). Sierra Leone has benefited from this global diffusion of mobile telecommunication, which is primarily the mode of communication for social and business activities. Table 6.15 presents information on the Percentage and Number of Households with mobile phone coverage by Region, Residence and District. In Sierra Leone, the table shows that

3,853,257 (77.2 percent) households have mobile phone coverage corresponding to 64.6 percent and 97.4 percent of rural and urban areas respectively. The highest number of households with mobile phone coverage is found in the West 1,000,116 (97.1 percent), followed by East 743,844 (66.4percent). The table also showed that all the other regions had more than fifty percent of households with mobile phone coverage. At district level, Falaba, Moyamba, and Koinadugu districts reported substantially low proportions of mobile phone coverage of 37.0 percent, 49.2 percent and 59.9 percent respectively. This may be due to the concentration of mobile phone network in the regional cities where telecommunications and other infrastructure are relatively well developed. Regarding coverage at residence level, mobile phone coverage is very high, about 100 percent of urban households in Kono, Bombali and Bonthe had mobile phone coverage. Also, 99.7 percent and 96.7 percent of rural households had Mobile phone coverage in Kambia and Western rural respectively.

Map 6.8: Percentage of Households With Mobile Phone Coverage By District



6.15 Sources and use of Water

6.15.1 Main source of drinking water

Table 6.16: Main source of drinking water for proportion of HHs in the dry Season by Region, Residence and District

Region	Piped	Tube well/ Borehole	Protected dug well	Unprotected dug well	Protected Spring	Unprotected Spring	Rain water	Surface Water	Bottle/sachet water	River/ stream	Other
East	13.0	33.5	21.6	9.1	0.6	10.4	0.1	0.0	1.1	10.7	0.0
North	4.6	15.7	19.5	14.5	1.2	12.8	0.4	0.9	1.3	29.2	0.0
North West	2.9	22.5	17.2	18.4	3.2	11.6	0.0	0.0	1.4	22.6	0.3
South	3.5	25.0	20.6	15.8	1.5	4.3	0.3	0.9	1.5	26.5	0.0
West	43.2	6.5	16.0	0.6	3.2	0.9	0.1	1.1	26.9	1.5	0.0
District											
Kailahun	8.9	40.1	9.8	21.8	0.0	11.4	0.3	0.0	0.0	7.8	0.0
Kenema	21.0	38.6	28.6	1.9	0.3	0.2	0.0	0.0	1.7	7.8	0.0
Kono	6.1	17.9	25.4	4.8	1.7	24.2	0.0	0.0	1.5	18.4	0.0
Bombali	1.6	30.8	20.2	12.8	1.2	7.0	0.0	2.3	4.1	19.9	0.0
Falaba	0.9	11.5	32.3	11.0	1.2	15.5	0.0	0.6	0.0	27.1	0.0
Koinadugu	6.6	12.1	28.6	0.7	0.0	27.2	0.0	1.2	1.5	22.1	0.0
Tonkolili	6.9	9.2	11.4	21.5	1.5	10.3	1.0	0.0	0.0	38.1	0.0
Kambia	6.1	2.4	21.4	26.7	7.2	18.2	0.0	0.0	0.0	18.1	0.0
Karene	0.0	33.2	15.4	17.1	1.7	15.8	0.0	0.0	0.0	16.2	0.7
Port Loko	2.2	30.1	15.4	13.9	1.4	5.6	0.0	0.0	2.9	28.4	0.2
Bo	6.5	22.4	31.0	3.7	0.7	3.0	0.2	0.8	3.0	28.7	0.0
Bonthe	1.1	22.6	12.1	24.5	0.8	6.9	0.7	0.0	2.0	29.1	0.0
Moyamba	0.5	15.8	10.0	34.9	0.0	7.0	0.5	2.3	0.0	29.0	0.0
Pujehun	3.0	40.8	18.8	11.6	5.0	2.1	0.0	0.4	0.0	18.3	0.0
Western Rural	30.3	17.3	29.0	1.0	0.0	0.7	0.3	2.7	15.0	3.7	0.0
Western Urban	47.8	2.6	11.4	0.4	4.3	1.0	0.1	0.6	31.1	0.7	0.0
Sierra Leone	**13.9**	**20.9**	**19.1**	**11.4**	**1.8**	**7.8**	**0.2**	**0.6**	**6.6**	**17.7**	**0.0**

Source: 2018 SLIHS

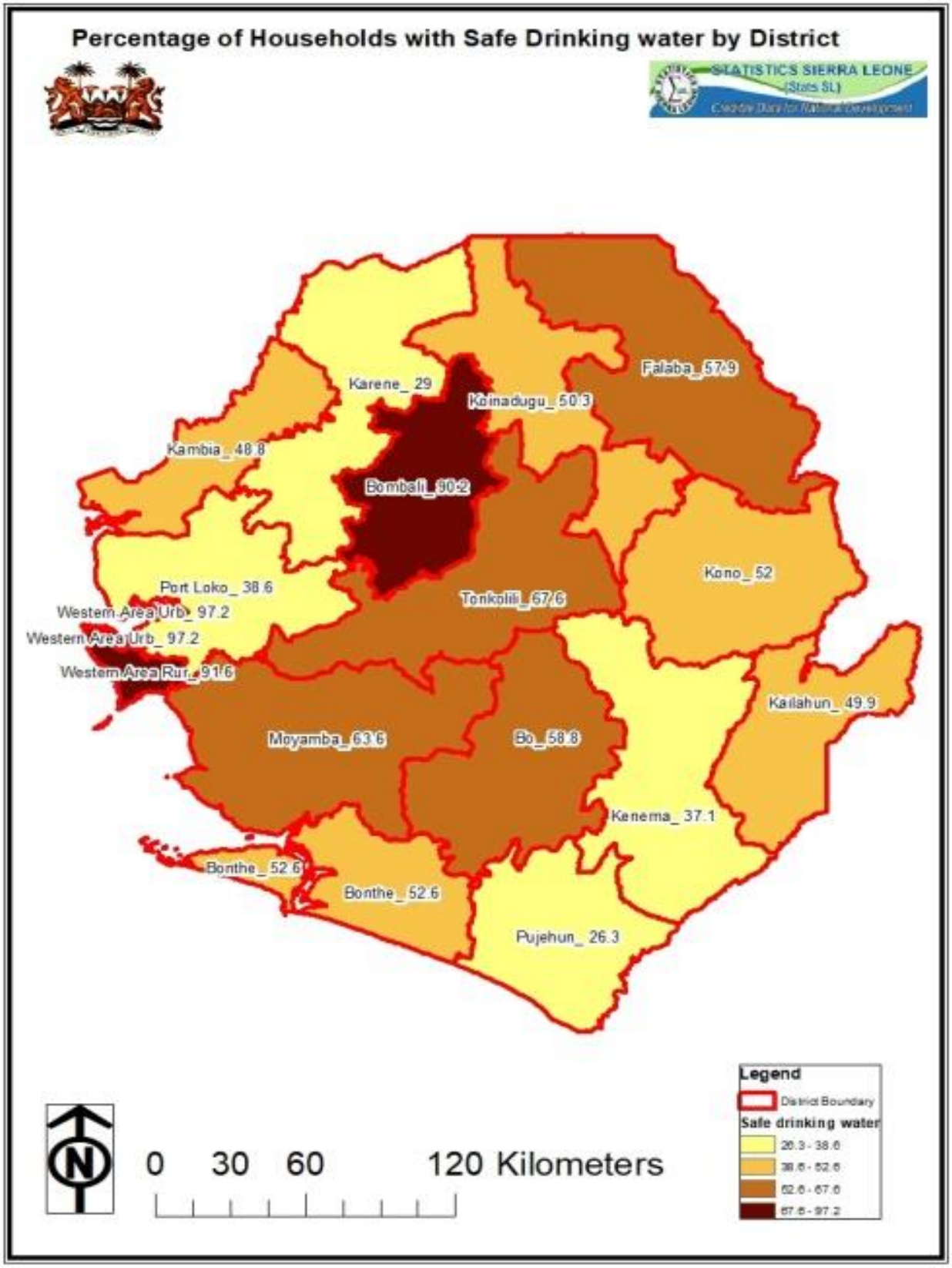
Access to improved drinking water is one of the Millennium Development Goals (Relate to SDGs MDGs) of the (United Nations General Assembly of 2002) which Sierra Leone as a member state has adopted. Therefore, monitoring of indicators that are useful to household's access to improved drinking water is of essence. Table 6.8.1 shows a number of sources that are likely to

provide improved water for drinking for households. They include piped, tube well/borehole, protected well, protected spring and bottle/sachet water.

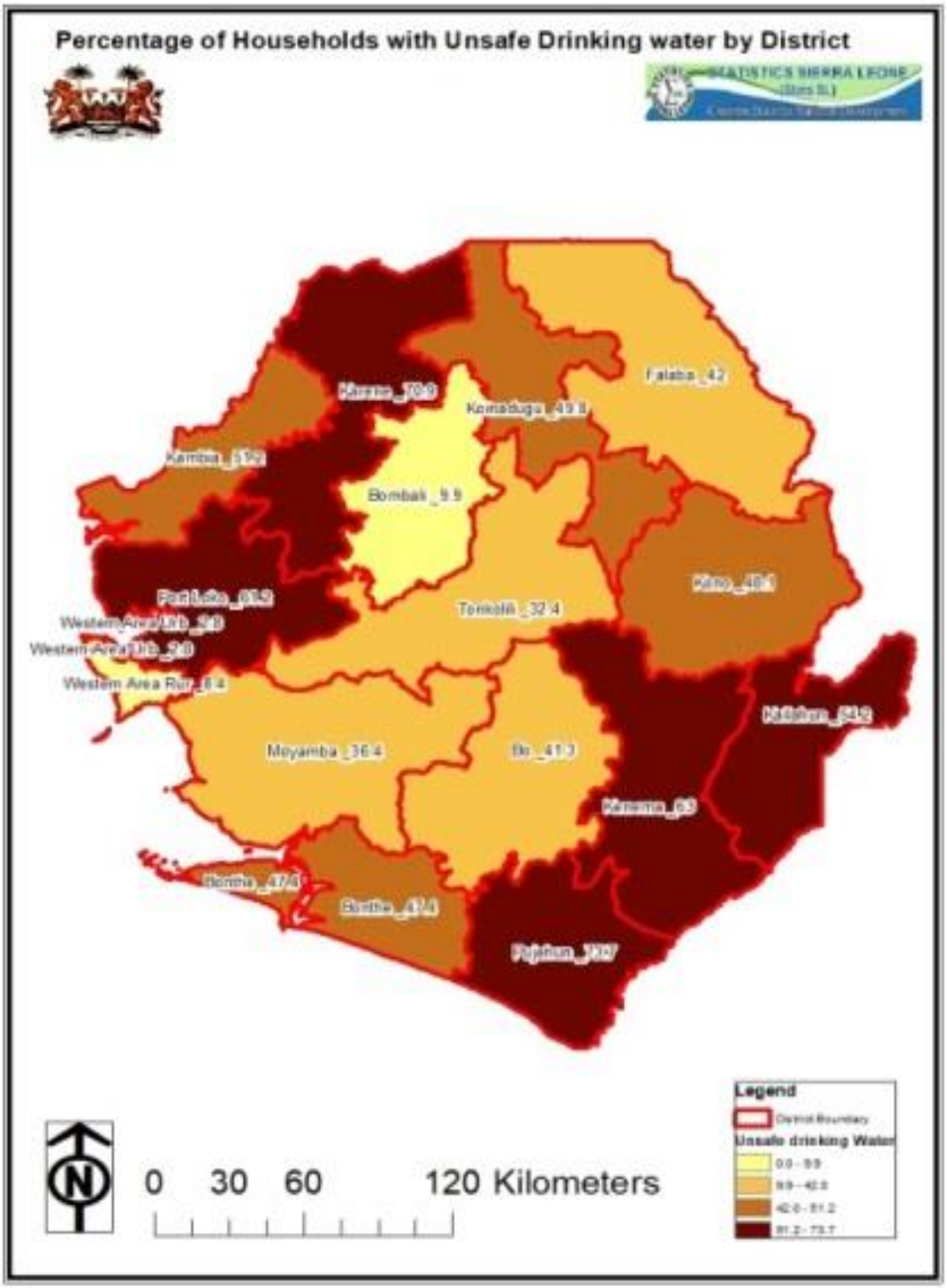
Table 6.16 therefore shows that there is a wide variation between households in the western region and those in the provincial regions in sourcing improved drinking water. In the western region, the main sources of drinking water are from piped and bottle/sachet water, 43.2 percent and 26.9 percent respectively. The main sources of drinking water in the provincial areas vary. The eastern region has tube well (33.5 percent) and protected dug well (21.6 percent) as the main sources of water for drinking. The north uses more of river/stream (29.2 percent) as the main source of drinking water. The north/west has tube well (22.5 percent) and river/stream (22.6 percent) as the main sources of water for drinking while the south also uses tube well (25.0 percent) and river/stream (26.5 percent) as the main sources of water for drinking. The table also shows that households in the urban settings use more of improved sources of drinking water (30.5 percent of piped) than those in the rural areas (3.5 percent piped). Also, 28.7 percent of households in urban areas use protected dug well as to 13.1 percent in the rural areas. Households also in the urban settings use more bottle/sachet 16.6 percent as to 0.3 percent in the rural settings.

At district level, Kenema, Western Rural, and Western Urban, 21.0 percent, 30.3 percent and 47.8 percent respectively use piped water as their main source of drinking water. Western rural and western urban 15.0 percent and 31.1 respectively use more bottle/sachet water for drinking than the rest of the other districts. At country level, tube well/borehole and protected dug well 20.9 percent and 19.1 percent respectively are the highest sources of main sources of drinking water. It stands out that there has been a tremendous increase in the use of tube well/borehole and bottle/sachet nationally as a source of improved drinking water from 2011 to 2018. SLIHS 2011 shows that 14.76 percent use tube well/borehole while SLIHS2018 shows that 20.9 percent used tube well/borehole. Also, SLIHS2011 shows that 0.83 percent of bottle/sachet as in SLIHS2018 6.6 percent as a source of improved drinking.

Map 6.9a: Percentage of Safe Drinking Water by District



Map 6.9b: Percentage of Unsafe Drinking Water by District



6.15.2 Main Source of Water for Household use

Table 6.17 shows similar sources of water for household use as that of table 6.16 - sources of drinking water. Households in the urban setting still use more of piped water and protected dug well 28.6 percent and 39.8 percent respectively as the main sources of water for household use. The other regions use more of river/stream as their main source of water for household use - eastern 68.7 percent, northern 74.0 percent, north/western 65.0 percent and southern 62.1 percent respectively. Locality level shows that urban settings use more of piped and protected dug well 16.7 percent and 39.9 percent as the main sources of water for household use while river 81.7 percent stands out as the main source of water for household use in the rural areas.

District figures show that western rural (43.6 percent) and western urban (38.8 percent) predominantly use protected dug well as the main sources of water for household use. They also use piped water. Falaba (2.3 percent) and Bo (1.2) districts also use piped water. On a whole, Sierra Leone uses more of protected dug well (21.0 percent) and river /stream (51.0 percent) as the main sources of water for household use.

6.15.3 Responsibility for the provision of main source of water

According to Table 6.17 below, the provision of improved source of drinking water is in the hands of several authorities. Amongst which are central government, the community, local government, donor agencies, etc. In the western region, central government (53.2 percent) and private company (61.1 percent) respectively do provide main sources of drinking water to households or communities. In the provinces, local government, religious body, Natural sources and donor agencies are the principal providers of sources of drinking water. Local government (34.9 percent) and donor agency are providers of sources of drinking water for the eastern region. In the north, religious body (30.2 percent) and Natural source (33.7 percent) are key providers of sources of drinking water. In the north/west, local government and religious bodies are providers of the sources of drinking water. In the south only donor agencies (40.0 percent) are key stake holders in the provision of the sources of drinking water For localities in the rural areas, the key stakeholders in the provision of sources of drinking water includes local government (61.2 percent), community (69.6 percent), donor agencies (87.1 percent), NGOs (84.7 percent) and natural sources (93.2 percent). The urban area is been provided for by central government (82.1 percent), private company (91.4 percent) and private self-supply (79.0 percent).

Table 6.17: Percentage of HHs view about responsibility for the provision of main source of drinking water by Region, Residence and District

Region	Central Govt	Local Govt	Community	Donor Agency	NGO	Private Company	Private Self Supply	Religious Body	Natural Source	Other
East	11.7	34.9	32.6	34.5	31.2	6.7	22.2	8.9	15.0	6.4
North	5.5	9.7	13.7	22.2	28.2	5.3	11.0	30.2	33.7	17.2
North West	7.4	27.8	22.3	2.8	10.9	4.3	13.6	33.0	21.2	43.1
South	10.3	17.2	17.6	40.0	27.3	9.7	22.5	27.9	27.2	9.1
West	65.0	10.5	13.8	0.6	2.5	74.0	30.6	0.0	2.9	24.1
Residence										
Rural	17.9	61.2	69.6	87.1	84.7	8.6	21.0	45.8	93.2	4.9
Urban	82.1	38.8	30.4	13.0	15.4	91.4	79.0	54.2	6.8	95.1
District										
Kailahun	0.7	6.1	20.1	4.7	8.8	3.0	1.9	0.0	1.9	0.0
Kenema	3.7	25.2	10.9	29.3	13.8	2.5	13.2	2.3	3.0	6.4
Kono	7.3	3.6	1.5	0.5	8.6	1.2	7.1	6.6	10.1	0.0
Bombali	0.9	6.7	3.6	3.1	7.6	3.4	6.6	5.3	6.1	17.2
Falaba	1.2	3.0	1.2	14.4	5.9	0.5	0.1	0.0	5.1	0.0
Koinadugu	0.7	0.0	1.2	3.0	5.5	0.8	2.3	15.5	4.7	0.0
Tonkolili	2.7	0.0	7.8	1.8	9.2	0.7	2.0	9.4	17.8	0.0
Kambia	3.7	3.4	7.4	1.1	0.6	0.6	6.3	0.0	6.6	0.0
Karene	0.7	0.6	5.3	1.2	7.3	0.0	0.1	1.3	4.2	17.2
Port Loko	3.1	23.8	9.7	0.5	3.0	3.7	7.2	31.7	10.4	25.9
Bo	5.5	8.4	6.2	12.6	8.1	6.9	10.5	22.4	10.4	4.2
Bonthe	3.1	4.7	2.0	5.8	1.5	1.7	5.8	1.1	4.9	0.0
Moyamba	0.6	0.0	6.4	0.0	4.6	0.0	5.6	3.5	7.0	0.0
Pujehun	1.2	4.1	3.0	21.6	13.1	1.0	0.6	1.0	4.8	4.9
Western Rural	11.9	4.6	2.8	0.0	0.6	13.0	16.9	0.0	0.4	0.0
Western Urban	53.2	5.8	11.0	0.6	1.9	61.1	13.8	0.0	2.5	24.1
Total	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Source: 2018 SLIHS

6.15.4 Access to water supply

Table 6.18: Distance (Mile) to Main Source of Drinking Water in the dry season by region, Residence and District

Region	less than 0.5 m	0.5 to 1 m	1 to 2 m	2 to 3 m	3 to 5 m	5 to 10 m	more than 10 m	Dwelli /compou
East	67.8	17.7	3.7	0.6	0.4	0.9	0.9	8.1
North	38.8	40.0	12.2	1.3	0.2	0.0	0.2	7.3
North West	40.0	31.4	12.4	5.0	3.1	0.4	1.7	6.0
South	59.6	20.2	7.7	1.1	0.1	0.2	0.5	10.6
West	40.9	17.1	3.6	0.6	0.4	0.4	1.0	36.1
Residence								
Rural	53.3	27.6	9.6	2.1	0.9	0.3	0.7	5.4
Urban	45.7	19.9	4.4	0.7	0.4	0.5	1.0	27.3
District								
Kailahun	71.0	21.0	1.9	0.6	0.0	0.5	2.0	3.1
Kenema	65.3	18.2	1.0	0.0	0.3	0.5	0.2	14.5
Kono	67.7	12.9	9.8	1.3	1.0	2.1	0.6	4.7
Bombali	48.2	31.9	5.9	0.2	0.3	0.0	0.5	13.0
Falaba	22.5	45.9	22.0	2.9	0.6	0.0	0.6	5.6
Koinadugu	36.9	39.8	14.9	1.2	0.0	0.0	0.0	7.2
Tonkolili	39.5	42.8	11.7	1.4	0.2	0.0	0.0	4.4
Kambia	38.5	35.3	13.3	5.3	3.4	0.0	1.9	2.4
Karene	61.2	29.4	4.0	1.7	1.3	0.0	1.0	1.4
Port Loko	31.4	29.9	15.7	6.3	3.8	0.7	1.9	10.3
Bo	60.1	19.6	9.4	0.5	0.2	0.0	0.5	9.7
Bonthe	33.1	38.5	13.9	0.0	0.3	0.4	0.0	13.9
Moyamba	53.4	20.6	6.5	4.2	0.0	0.3	0.9	14.0
Pujehun	84.0	7.7	1.5	0.0	0.0	0.4	0.2	6.1
Western Rural	48.5	6.7	4.4	1.0	0.7	1.0	1.3	36.5
Western Urban	38.2	20.8	3.3	0.5	0.3	0.2	0.9	35.9
Sierra Leone	**50.4**	**24.7**	**7.6**	**1.6**	**0.7**	**0.4**	**0.8**	**13.9**

Source: 2018 SLIHS

Overall, 50.4 percent of households in Sierra Leone were within less than 0.5 mile, followed by 0.5 to 1 mile (24.7 percent) from the main source of drinking water and 13.9 percent have their main source of drinking water within dwelling or compound as shown in Table 6.19. Approximately fifty three percent of households were within less than 0.5 mile from the main

source of drinking water in the rural area and 45.7 percent in urban. The table further reveals that 27.3 percent of households main source of drinking water were in dwelling or compound in the urban area with only 5.4 percent in rural. In the 2018SLIHS, 67.8 percent of the households in the Eastern Region can access their main source of drinking water within less than 0.5 mile, followed by south (59.6 percent) and west (40.9 percent). The region which reported the lowest percentages of accessing their main source of drinking water within less than 0.5 mile is Northern region (38.8 percent).

Table 6.18 further shows that 84.0 percent, 71.0percent, 67.7 percent and 61.2 percent of households can access their main source of drinking water within less than 0.5 mile in the Pujehun, Kailahun, Kono and Karene districts. Similarly, 45.9 percent, 39.8 percent, 38.5 percent and 42.8 percent of households in Falaba, Koinadugu, Bonthe and Tonkolili districts respectively access their main source of drinking water within 0.5 to 1 mile. Whereas 36.5 percent, 35.9 percent and 14.5 percent of households in Western Rural, Western Urban and Kenema respectively access their main source of drinking water within their dwelling or compound

6.15.5 Payment for Supply of Water

Table 6.19: Annual Payment for water and Percentage of HHs that pay for water by region and Residence

Region	Annual Amount (Le)	percent of HHs
East	3,495,000	7.7
North	1,485,000	3.6
North West	2,220,000	6.5
South	1,137,000	2.6
West	20,070,000	44.3
Residence		
Rural	3,344,000	2.6
Urban	25,060,000	30.4
Sierra Leone	**28,400,000**	**13.5**

Table 6.19 shows that 13.5 percent of households pay 28,400,000 Leones for water supply per annum nationally. At the regional level, 44.4 percent of households in the Western Area pay 20,070,000 Leones for water supply per annum followed by the east (7.7 percent) 3,495,000 Leones and North West (6.5 percent) 2,220,000 Leones while the South (2.6 percent) shows the lowest percentage of households that pay for water supply per annum. Table 6.19 further reveals that in the urban areas, payment of water supply is high, accounting for 30.4 percent with an annual payment of Le 25,060,000 Leones compared to 2.6 percent in the rural areas accounting for 3,344,000 Leones.

6.16 Sanitation and Hygiene

6.16.1 Refuse Disposal

SLIHS data shows that collection by private individuals/firms is the most popular form of refuse collection closely followed by unauthorized heap which account 45.6 percent and 39.6 percent respectively.in the residence 27.6 percent collected by private individual which shows the highest, percentage as compared to the other.by the district level the highest percentage has been reported for unauthorized heap, which has been reported more in Pujehun and Kono district which accounts for 65.7 percent and 60.4 percent respectively.

Table 6.20: Percentage of HHs by type of refuse Disposal in use by region, Locality District

Region	Collected by private individual	Take to govern-ment bin	Burn	Bury	Unauthorized heap	Dump at waterside	Other	Thrown into bush
East	1.3	5.5	17.4	18.7	23.5	3.3	0.7	29.6
North	0.6	16.6	25.8	11.5	35.6	0.4	0.0	9.5
North West	0.0	2.4	34.5	11.9	33.0	3.0	0.0	15.2
South	4.9	6.3	21.5	4.3	39.6	4.4	0.3	18.7
West	45.6	11.0	17.3	2.7	2.3	20.9	0.3	0.0
Residence								
Rural	0.3	5.4	22.3	11.4	35.7	2.8	0.3	21.8
Urban	27.6	13.3	23.2	7.4	11.7	12.5	0.2	4.0
District								
Kailahun	2.5	0.2	20.3	40.9	5.4	0.3	1.2	29.24
Kenema	0.9	9.4	20.0	6.2	13.3	7.1	0.0	43.17
Kono	0.3	6.0	10.3	10.9	60.4	1.2	1.0	10
Bombali	2.3	22.8	28.1	13.4	25.6	0.7	0.0	7.22
Falaba	0.0	0.0	49.4	4.4	20.9	0.6	0.0	24.69
Koinadugu	0.0	1.8	51.5	10.5	30.6	1.1	0.0	4.5
Tonkolili	0.0	23.9	7.0	13.1	48.6	0.0	0.0	7.3
Kambia	0.0	2.8	39.0	14.8	23.3	3.3	0.0	16.74
Karene	0.0	5.4	39.2	16.6	24.1	0.7	0.0	14.02
Port Loko	0.0	0.7	29.6	7.9	43.1	3.9	0.0	14.79
Bo	12.1	8.6	25.4	5.2	38.4	2.0	0.2	8.01
Bonthe	0.7	15.8	15.5	1.3	16.7	12.8	0.0	37.29
Moyamba	0.0	0.8	16.4	7.1	32.2	5.2	0.9	37.4
Pujehun	0.0	1.0	24.1	2.1	65.7	1.7	0.0	5.39
Area Rural	24.7	9.3	29.0	7.0	5.3	24.7	0.0	0
Area Urban	53.0	11.6	13.1	1.2	1.2	19.6	0.4	0
Sierra Leone	**10.8**	**8.5**	**22.7**	**9.8**	**26.5**	**6.5**	**0.3**	**15.0**

Source: 2018 SLIHS

CHAPTER SEVEN - INCOME AND CONSUMPTION EXPENDITURE ANALYSIS

7.1 Income Analysis

Income compilation and analysis is usually done with policy lens to understand how the pattern of income distribution can be related to patterns of economic activity and the returns to labour, capital and land, and the way in which society is structured. It is also done to estimate and establish the need for targeted actions and the impact on different socio-economic classes, how diverse patterns of income distribution influence households' well-being and people's ability to acquire the goods and services they need to satisfy their needs. In short, income distribution is a means of examining how the benefits of national product are distributed across people for economic well-being.

This section provides the standard theoretical definition of income for use in micro level statistics at the household level, including a description of its components and exclusions. It outlines how the components of income are aggregated to produce what could be referred to as final income. It also involves what an individual perceives to be an income receipt of direct benefit to him or herself. The concern is the current economic well-being: "Is the income receiving unit healthier off today as a result of the receipt (able to consume more goods and services)?"

7.1.1 Income definition: inclusion and exclusion for aggregation

For analysis of the 2018 household level distribution of income, the theoretical definition of household income is based on the definition of household income set out in the International Conference of Labor Statisticians (ICLS 2004). The analysis follows the ICLS definition with an adaptation to the type of data available in the context of Sierra Leone. Household 'income' comprises all current receipts, whether cash or in kind, that are received by the household or by individual members of the household, and which are available for, or intended to support, current consumption by the household.

In extensive terms, income refers to regular receipts such as wages and salaries, income from self-employment, interest and dividends from invested funds, pensions or other benefits from social insurance and other current transfers receivable. Large and irregular receipts from inheritances and the like are considered to be capital transfers since it is unlikely that they will be spent instantly on receipt and are 'one-off' in nature and therefore, excluded in income aggregation. Decisions on what to include and exclude along these dimensions are governed by

the extent to which the component may be 'spent today' (Final Report and Recommendations of the International Expert (Canberra) Group of Household Income Statistics (2001).

Household income includes receipts from:

- ✓ Employment (employee income and income from self-employment)
- ✓ Investment (interest, dividends, rents and royalties)
- ✓ Production of household services for own consumption (owner-occupied dwellings, unpaid domestic services-(imputed costs), renting out buildings and agric. equipment's
- ✓ Current transfers (pensions, annuities, benefits and allowances; transfers from non-profit institutions and other households i.e. cash and goods transfers).

Exclusions from the measure of Household income

Household income normally does not include capital transfers received and certain current transfers treated as offsets against expenditures. It excludes receipts that reduce the net worth of the household, through a reduction of its cash reserves, the disposal of its other financial or non-financial assets, or an increase in its liabilities. It also excludes holding/gains, losses resulting from changes in the value of assets and liabilities. These include:

- ✓ Capital transfers e.g. inheritances, lump-sum retirement benefits, life insurance claims (except annuities), compensation (except for foregone earnings), loan repayments
- ✓ Certain current transfers offset against expenditures e.g. lottery and other gambling winnings (fictitious gains), non-life insurance claims, government reimbursements of expenditure such as refund of medical expenditure.
- ✓ Receipts that result from a reduction in net worth e.g. sale of assets, withdrawals from savings and loans obtained.
- ✓ Holding gains/losses resulting from changes in the value of financial and non-financial assets and liabilities e.g. the value of shares held.

Household incomes are difficult to measure with accuracy because income is a derived variable. Income estimates from household surveys are therefore subject to certain limitations no matter how we want the estimates to be (Bakshi. a Page 106, 2008).

With the above caveat there is no universally acceptable definition of household income applicable across all countries in the world. The problem of defining household incomes arises from the fact that households produce goods and services for sale in the market as well as for self-consumption. The monetized part of household incomes can be accounted for, but it is often difficult to value the non-monetized part of household incomes. There is no consensus on the treatment of different kinds of monetary and non-monetary benefits received by households in

the estimation of household incomes (Smeeding and Weinberg (2001) and Final Report and Recommendations of the International Expert (Canberra) Group of Household Income Statistics (2001).

Given the type and nature of data collected, income receipt included in household level income aggregation in the SLIHS 2018 consists of:

- Employment income
- Cash income
- In-kind Income
- Income-Self-Employment
- Income from the sale of durable goods and Services
- Income from farming and non-farm revenue
- Rental Income
- Income received from renting Agricultural equipment and machinery
- Income from rented out building land or other assets (Non-agricultural)
- Income from agricultural land
- Current Transfers Received
- Regular inter-household Cash transfer total
- Regular inter-household cash value of goods transfer
- Regular inter-household cash value of other food transfer
- National Social Security and Insurance Trust (NASSIT)
- Dividend
- Insurance payment
- Other Income Received
- Jewelry, gold & diamonds
- Wedding
- Lottery
- Fines

7.1.2 Analysis of Total annual household Income by source

The 2018 SLIHS asked income of all person 10 years and over and referred to income received during the calendar year 2018 (both cash and in-kind income).

The estimated total household income in 2018 SLIHS was Le 18,895,989.83 million (Table7. 1). About ninety one percent of main source of income was household income from self-employment, (contributing Le 17,125,336.87 million) 91percent of total income, followed by (Le 1,001,381.91 million or 5.3 percent) income from employment income (cash and in-kind income).

Current transfers summed up to (Le 643, 850.13 or 3.4 percent) and that came mainly from Inter-household cash transfers Le 531,076.55 or 2.8 percent followed by rental income which include financial and non-financial assets as part of property income (i.e. rental income - from rent of agricultural equipment, machinery and rent from building, land and other assets /'non-agricultural land', agricultural land) and other income (Le 61,590.82 or 0.33 percent). The least contributing source to total household income is dividends.

Table 7.1: Average annual value and percentage distribution of total household Income

Income Source	Income		Households	
	Value in Leones	Percent-age	Number	Percentage
Total Income	18,895,989.83	100.00	1,219,160.00	100.00
Employment Income	1,001,381.91	5.30	251,989.00	20.67
Cash income	781,520.58	4.14	246,825.00	20.25
In-Kind income	219,861.33	1.16	38,161.00	3.13
Income Self-Employment Revenue	17,125,336.87	90.63	13,540.00	1.11
Total Non-farm Revenue	6,661,718.70	35.25	535,663.00	43.94
Total Farming Revenue	10,448,735.74	55.30	808,381.00	66.31
Income from sale of durable goods	14,882.44	0.08	25,424.00	2.09
Rental Income	63,656.00	0.34	23,846.00	1.96
Income received from renting out agricultural equipment and machinery	939.75	0.00	9,682.00	0.79
Income from rented out building land or other assets (Non-agricultural)	53,958.10	0.29	13,081.00	1.07
Income from agricultural land	8,758.15	0.05	1,559.00	0.13
Current Transfers Received	643,850.13	3.41	274,435.00	22.51
Regular inter-household Cash transfer total	531,076.55	2.81	225,624.00	18.51
Regular inter-household cash value of goods transfer	41,396.79	0.22	225,624.00	18.51
Regular inter-household cash value of other food transfer	41,739.82	0.22	95,873.00	7.86
National Social Security and Insurance Trust	29,636.97	0.16	10,051.00	0.82
Dividend	174.10	0.00	683.00	0.06
Insurance payment	174.10	0.00	683.00	0.06
Other Income Received	61,590.82	0.33	115,592.00	9.48
Jewelry, gold & diamonds	7,149.43	0.04	6,021.00	0.49
Wedding	8,532.19	0.05	20,229.00	1.66
Lottery	10,288.10	0.05	6,581.00	0.54
Funerals	33,551.70	0.18	81,713.00	6.70
Fines	2,069.39	0.01	17,535.00	1.44

Source: SLIHS 2018

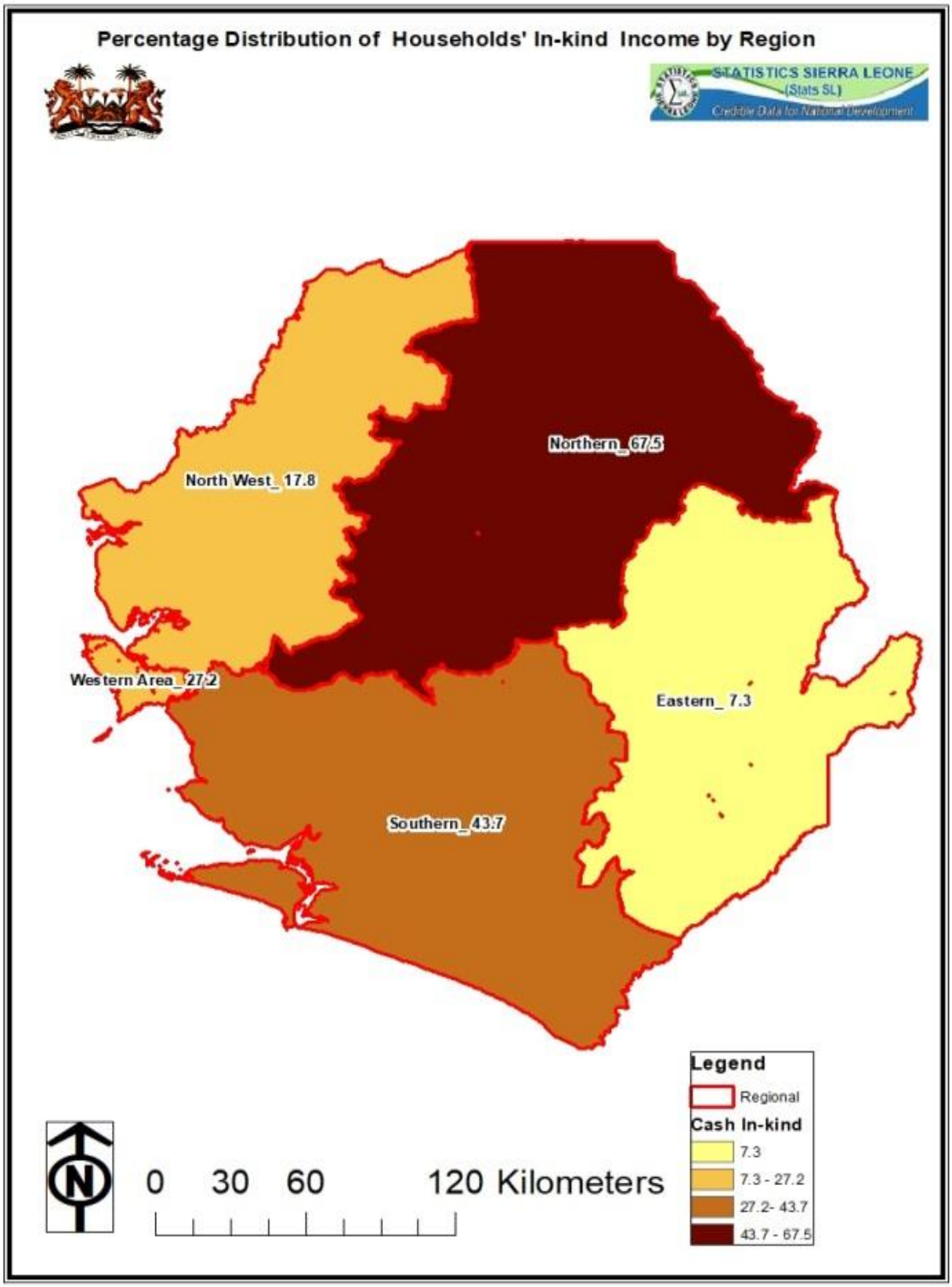
7.1.3 Average annual total households' Income by sources and category

Map7.1 below shows the percentage distribution of average annual households' employment income across region by source.

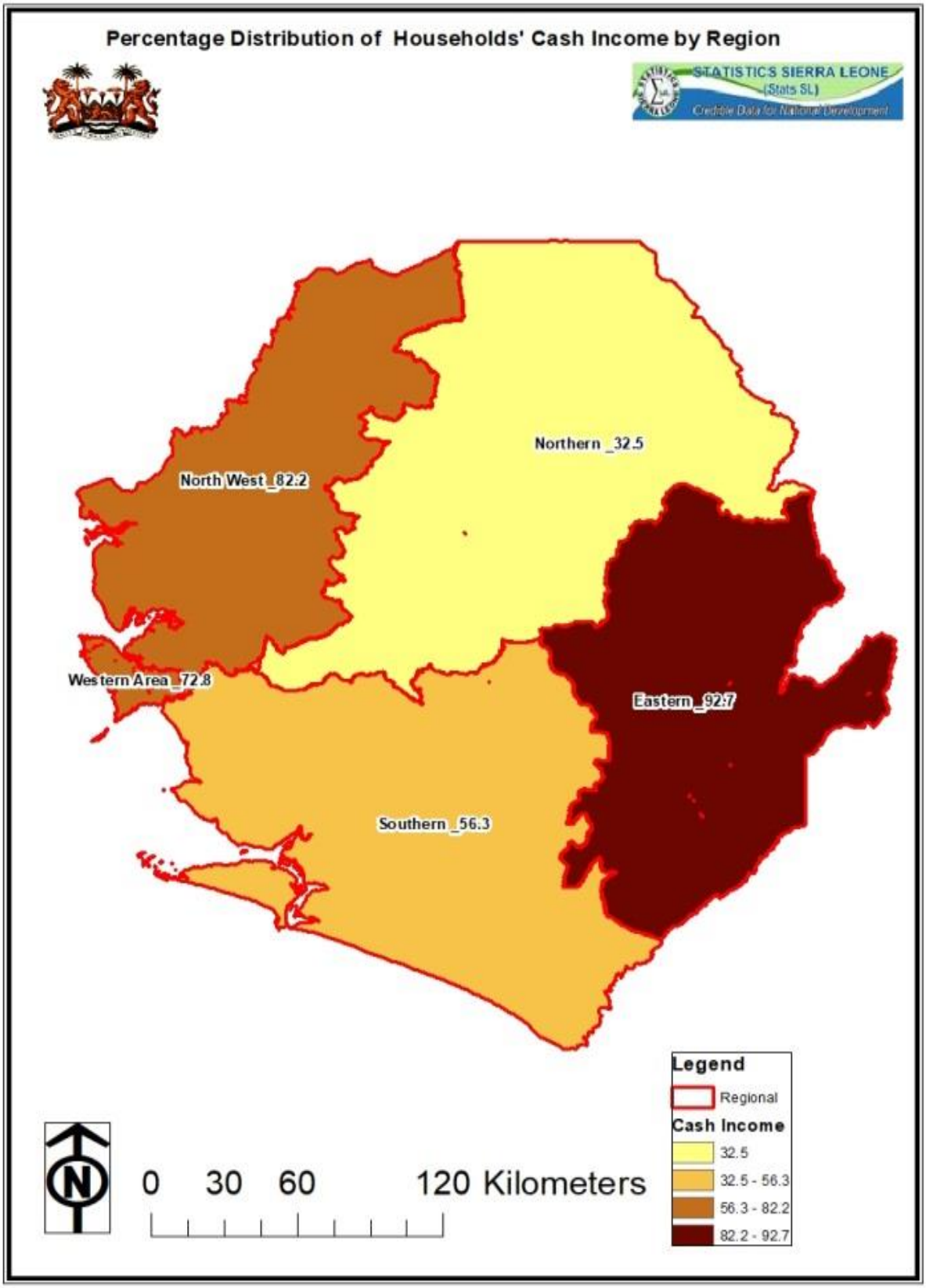
With regards to in-kind employment income, Northern region recorded (50,357 or 67.5 percent), Southern region (33,601 or 43.7 percent), Western (109,336 or 27.2 percent), North-West region (12,775 or 17.8 percent) and Eastern region recorded the least (13,792 or 7.3percent).

It indicates that the Eastern region recorded the highest (174,570 or 92.7 percent) followed by the North-West (34,187 or 82.2 percent). Western region recorded (505,284 or 72.8 percent) and the Southern region recorded (43,240 or 56.3 percent) of income and the Northern region recorded the least (24,240 or 32.5 percent) in the form of cash employment.

Map 7.1 a: Households' Formal Employment (In-Kind) income by region



Map 7.1 b: Households' Formal Employment (Cash) income by region

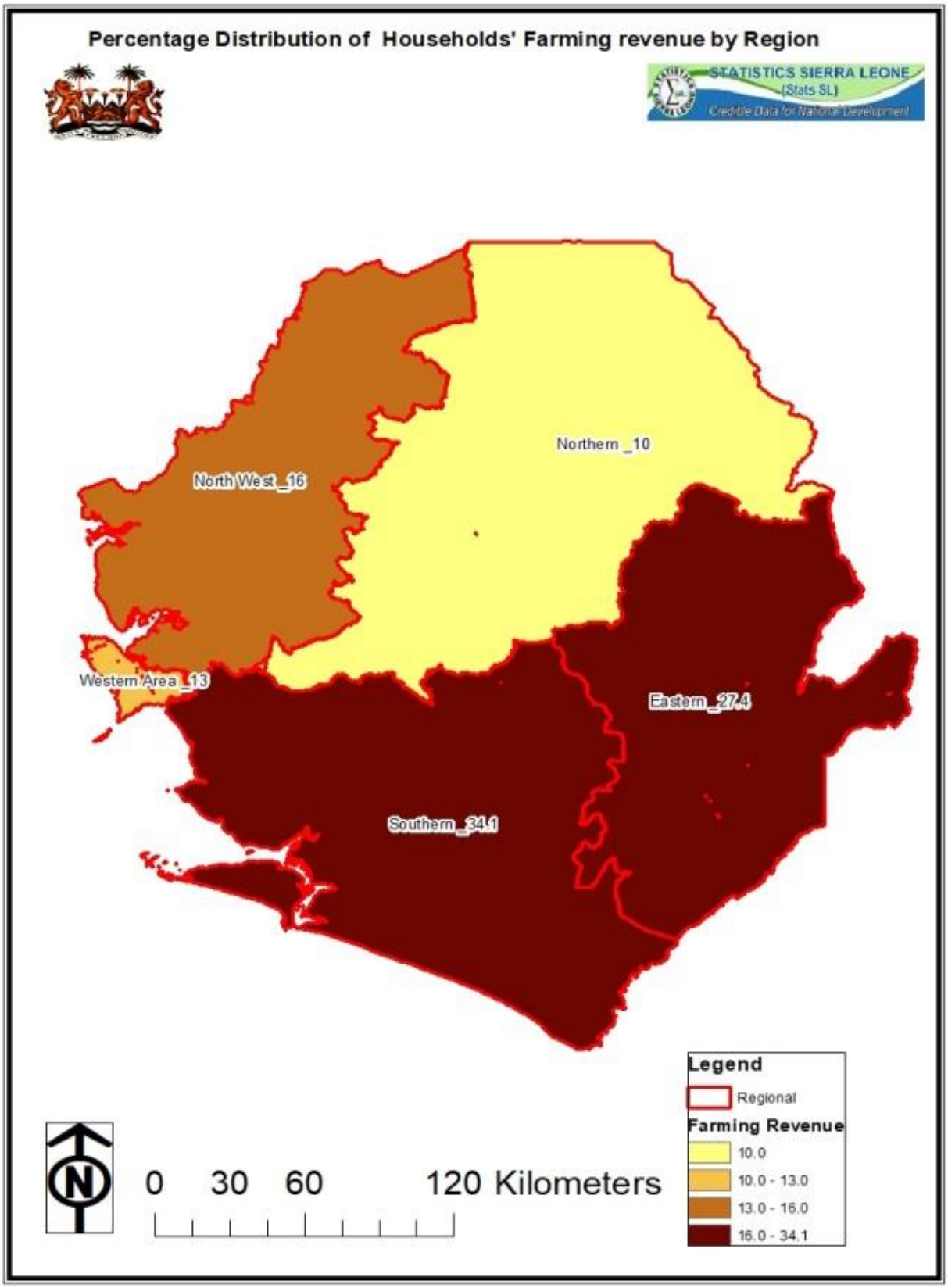


Map 7.2 (a and b) below shows the percentage distribution of households' self-employment income sources across region. The Western region registered the highest (Le 4,652,034.53 or 56 percent) of income received from non-farm revenue and (Le 357,201,797.00 or 13 percent) of farming revenue followed by Eastern (Le 1,518,888.96 or 18 percent) and (Le 751,825,144.50 or 27 percent) while Southern region recorded (Le 870,132.40 or 11 percent) and (Le 936,449,710.34 or 34percent) respectively. North-West also recorded (Le 663,820.62 or 8percent) and (Le 436,501,019.00 or 16 percent) of income revenue received from non-farm and farming revenue while the Northern region shows the least.

Comparably, Map7.2 further shows that the Western region (56 percent) recorded the highest in non-farm revenue while Southern region (34 percent) of revenue was from farming activities.

(See Appendix 7 for Table).

Map 7.2a: Households' Self-employment (Farming Revenue) by region



Map 7.2b: Households' Self-employment (Non-farm Revenue) by region

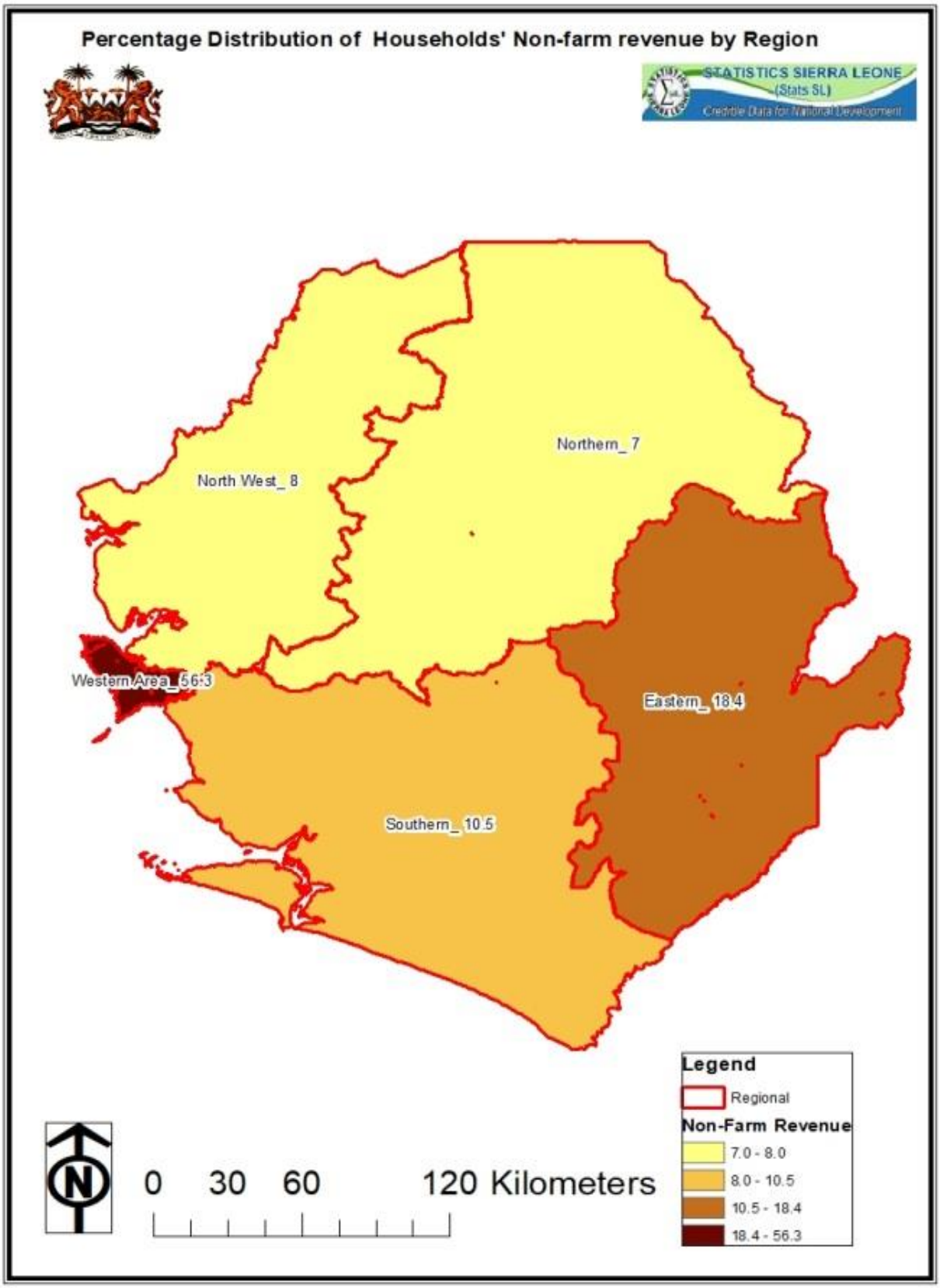


Figure 7.1 below shows the percentage distribution of households' property income sources by region. The Western Area registered the highest (Le 38,661.48 or 99.9 percent) of income from rented out buildings, equipment, lands and other asset compared to the North-West region (Le 6,340.88). The Southern region registered the highest value of renting out agricultural equipments followed by the North and the least was the Eastern and Western regions.

For plot revenue income, the Eastern region registered the highest value followed by Southern regionand North-West and North.

Figure 7.1: Average Annual Distribution of Household Property Income sources by region

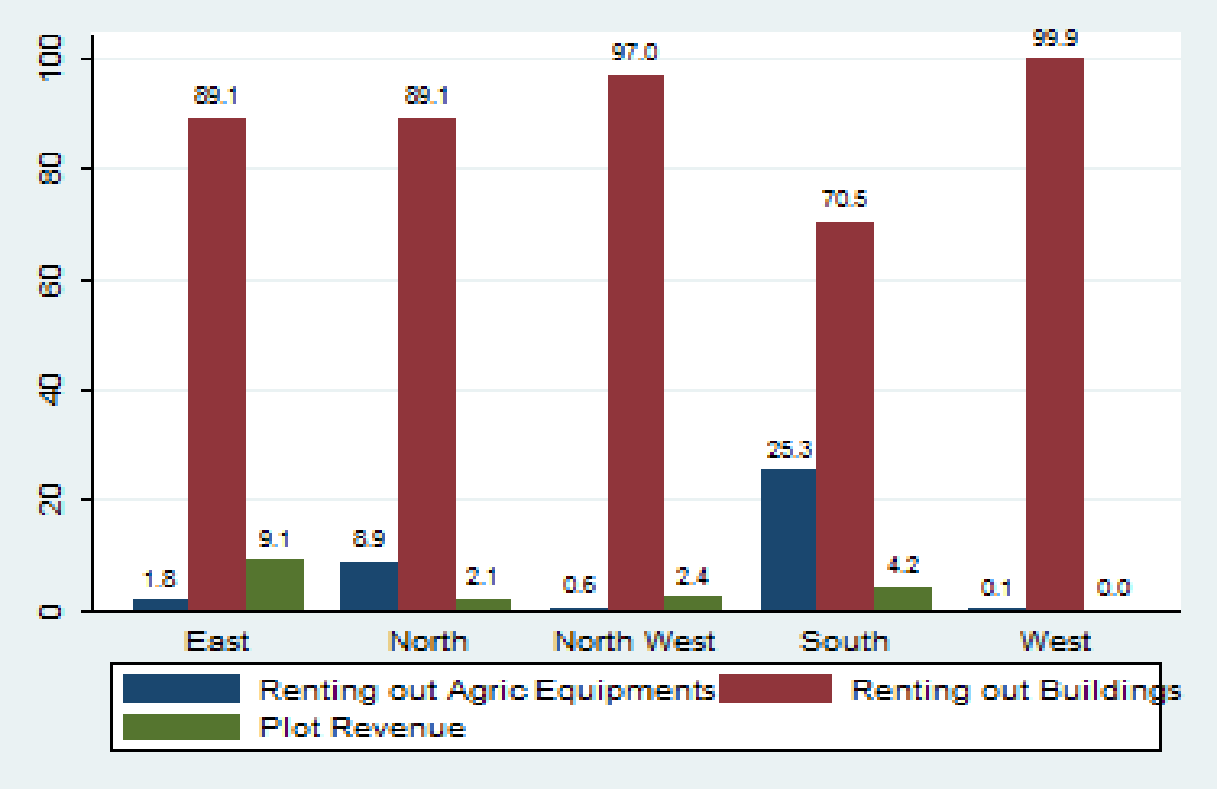
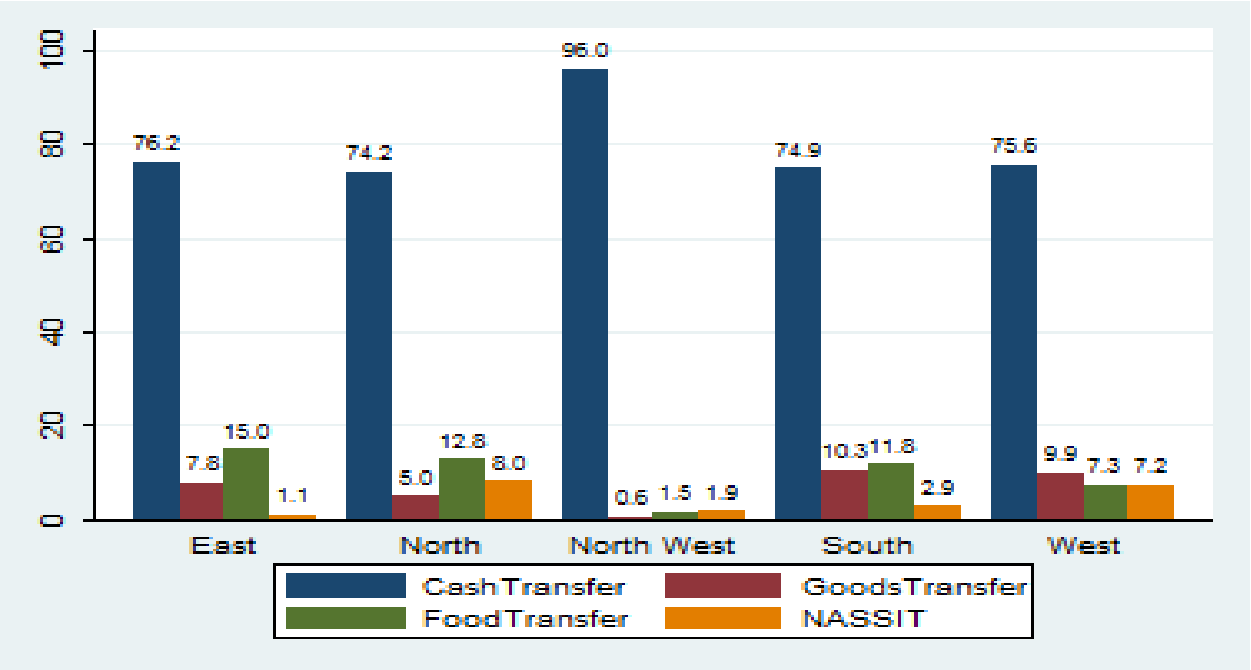


Figure 7.2 below shows the average annual percentage distribution of households' current transfer income received sources by region. For cash transfer received by households, the North-West region registered the highest (Le 212,230.18) followed Western and Eastern regions (Le 215,092.35 and Le 24,718.14) and the Southern and Northern region recorded (Le 55, 202.15 and Le 23,833.71). For goods transfer received by households, the Western and Southern regions registered the highest (Le 28,272.46 and Le 7,624.72) followed by the Eastern region (Le 2,527.30) and with North-West and North been the least. For food transfer received by households, the Eastern region registered the highest (Le 4,854.13) next is the Northern region

(Le 4,104.63 or 13 percent) followed by the Southern region (Le 8,723.15 or 12 percent) and with the West (Le 20,797.02 or 7 percent) and North-West (Le 3,260.90 or 2 percent) been the least. For transfer received from NASSIT, the Northern and Western region registered the highest (Le 2,582.59 or 8 percent and Le 20,363.52 or 7 percent) followed by the Southern region (Le 2,160.03 or 3 percent) and with the Eastern and North-Western region recorded the least respectively. See Appendix for Table.

Figure 7.2: Distribution of Average Annual Households' Current Transfer Income Sources by region



An analysis of data of households' miscellaneous-irregular income sources by region shows that sale of durable goods registered the highest (Le 6,070.12) for the Western region, followed by the North region (Le 5,025.23) and the Eastern region by (Le 1,468.58). For income received from funeral, North-West region registered the highest (Le 14,488.23) followed by the Southern region (Le 8,145.45) and the Eastern region (Le 5,102.55) while the Northern region recorded (Le 3,772.99) and Western region been the least. All regions registered a relative income of fines or disputes with Eastern region registering the highest (Le 631.25) followed by Southern region (Le 467.26), North-West region (Le 607.5) and Northern (Le 258.38), While Western area recorded the least. See Appendix 7 for Table.

Table 7.2a below shows households' total average annual value of income disaggregated according to sources by region. In the Household total average annual values for all four components of income levels, the western region indicated the highest (Le4, 839,756 or 40.9 percent), followed by Eastern region (Le2,433,131 or 20.5 percent), the Southern region

(Le2,118,488 or 17.9 percent), North-West (Le1,428,940 or 12.1 percent) and North been the least. It further illustrates that for total aggregate income employment income follows self-employment income, a little chunk comes from total cash transfers and rental income across all the regions.

Table 7.2a: Average annual value of total income disaggregated sources by region

Region	Rent Income	Total Cash Transfers	Total Self Employment Income	Total Employment Income	Total Aggregated Income
East	4,052	24,718	2,215,998	188,362	2,433,131
North	3,754	23,834	918,074	74,596	1,020,258
North-West	6,341	212,230	1,163,406	46,962	1,428,940
South	1,150	55,202	1,985,295	76,841	2,118,488
West	38,661	215,092	3,971,382	614,621	4,839,756
Total	**53,958**	**531,077**	**10,254,156**	**1,001,382**	**11,840,572**

In general, income from self-employment is the most important component of HH income in both rural and urban localities. However, while employment income is the other important component of income in the urban locality, total cash transfers (though slightly lesser than the cash transfers in the urban areas) is the second important component in the rural areas. The total employment income in the rural areas is less than one-third of that component in the urban areas- Rental income is more preponderant in the urban areas.

Table 7.2b: Average Annual Total Income Disaggregated Sources by locality

Region	Rent Income	Total Cash Transfers	Total Self Employment Income	Total Employment Income	Total Aggregated Income
Rural	3,137	247,067	4,326,394	225,303	4,801,901
Urban	50,821	284,010	5,927,762	776,079	7,038,671
Total	**53,958**	**531,077**	**10,254,156**	**1,001,382**	**11,840,572**

The Table 7.3 below shows that Sierra Leone is a male dominated society because males accrue higher incomes by all sources than the females. For total employment income the females accrued less than one-seventh of the males' total employment income. For rental income, female total rental income is less than half that of the males and it followed the same pattern for total cash transfer.

Table 7.3: Average annual HH income sources by Gender of Household Head

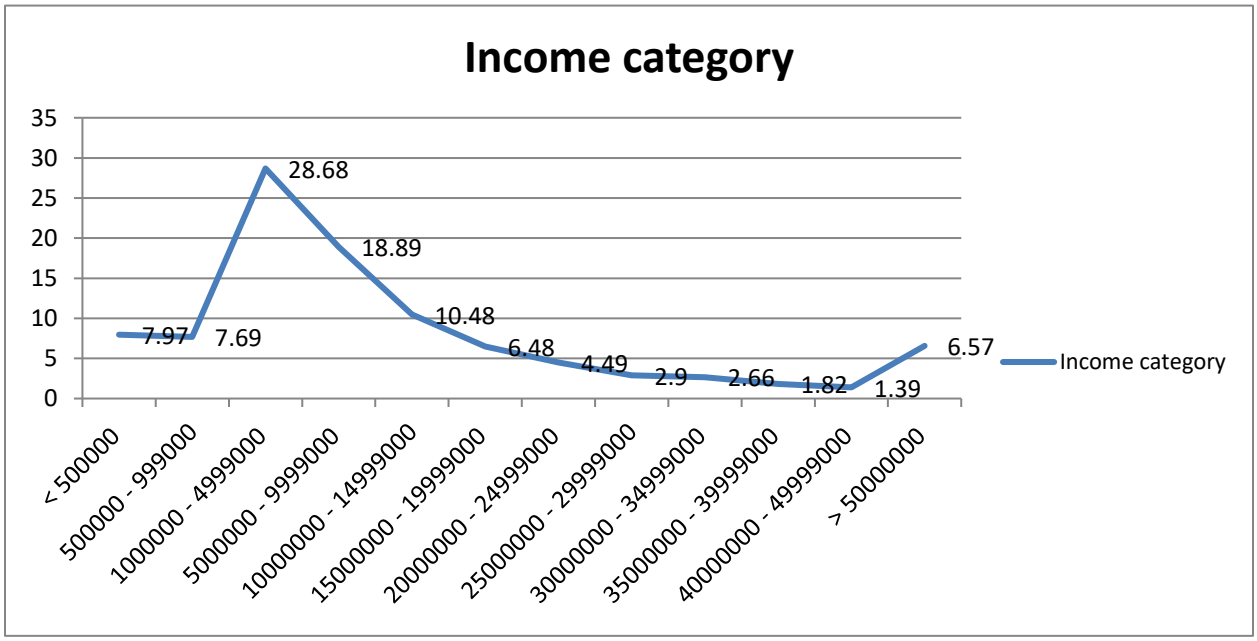
Sex	Rent Income	Total Cash Transfers	Total Self Employment Income	Total Employment Income	Total Aggregated Income
Male	37,096	371,176	8,191,688	861,614	9,461,574
Female	16,862	159,900	2,062,468	139,768	2,378,999
Total	**53,958**	**531,077**	**10,254,156**	**1,001,382**	**11,840,572**

7.1.4 Income frequency Distributions

Using actual frequency distribution of household income in Sierra Leone in 2018, figure 7.4.5 below shows that nationally about 16percent of households income level is lesser than Le1,000,000, and about 48percent of households income level lie between Le1,000,000 and Le10,000,000. This implies that about 64percent of households' income level lies below Le10, 000,000 (About US$1000). The remaining 37percent of households' income is greater than Le10, 000,000. This points to low level income in Sierra Leone, and in cases of high inflation portends low cost of living with implications for the quality of life.

The shape of this graph is very typical for an income distribution. Most of the observations are crowded on the left side of the graph, and the distribution peaks on the left side. The part of the distribution between zero income and the peak is called the lower tail. The basic shape of the distribution is referred to as asymmetrical and skewed to the right.

Figure 7.3: Size distribution of Income for SL Households 2018 by income category



Similarly, at regional level , in the Eastern region level, about 60percent of total households income level is less than Le10,000,000, in the Northern region, about 70percent of total households income level less than Le10,000,000 in the North-West region, about 56percent in the Southern region, about 69percent of total households income level less than Le 10,000,000 and in the Western region, about 60percent of total households income level less than Le10,000,000. The distribution of income across region seems asymmetric, with a relatively small percentage of households having a high household income and larger percentage of households having very little household incomes.

Table 7.4: Total Average Annual Household Income by Income Category by Region and Sex

Income Category	Total	Eastern	Northern	North-Western	Southern	Western	Male	Female
Total income	1,133,757	254,828	202,746	196,506	243,761	235,916	856,764	276,993
Percent	100	100	100	100	100	100	100	100
	Percentage frequency							
< 500000	7.97	9.40	10.42	5.97	7.01	6.96	7.74	8.68
500000 – 999000	7.69	7.02	7.26	5.22	7.38	11.17	7.55	8.13
1000000 - 4999000	28.68	27.16	32.81	26.98	32.61	24.14	27.56	32.15
5000000 - 9999000	18.89	16.63	19.24	17.90	22.43	18.18	19.12	18.15
10000000 – 14999000	10.48	10.32	9.39	12.36	10.12	10.41	10.68	9.86
15000000 - 19999000	6.48	5.39	7.04	7.10	6.13	7.00	6.40	6.71
20000000 - 24999000	4.49	6.53	4.80	4.51	3.48	3.07	4.62	4.09
25000000 - 29999000	2.90	2.97	1.82	4.58	2.71	2.54	3.03	2.48
30000000 - 34999000	2.66	2.39	2.83	4.41	1.42	2.60	2.89	1.94
35000000 - 39999000	1.82	2.48	1.31	2.71	1.08	1.55	1.88	1.63
40000000 - 49999000	1.39	2.05	0.90	1.68	1.12	1.13	1.48	1.09
> 50000000	6.57	7.66	2.17	6.59	4.50	11.28	7.04	5.09

7.1.5 Quintile Measurement

Quintile Measurement When the population is divided into five (5) equally sized groups, is quintiles. If divided in ten (10) groups, they are called deciles, and division into 100 groups gives percentiles. Hence, the first quintiles will comprise the first two deciles and the first 20 percentiles

7.1.5.1 Average Household Income by Quintile

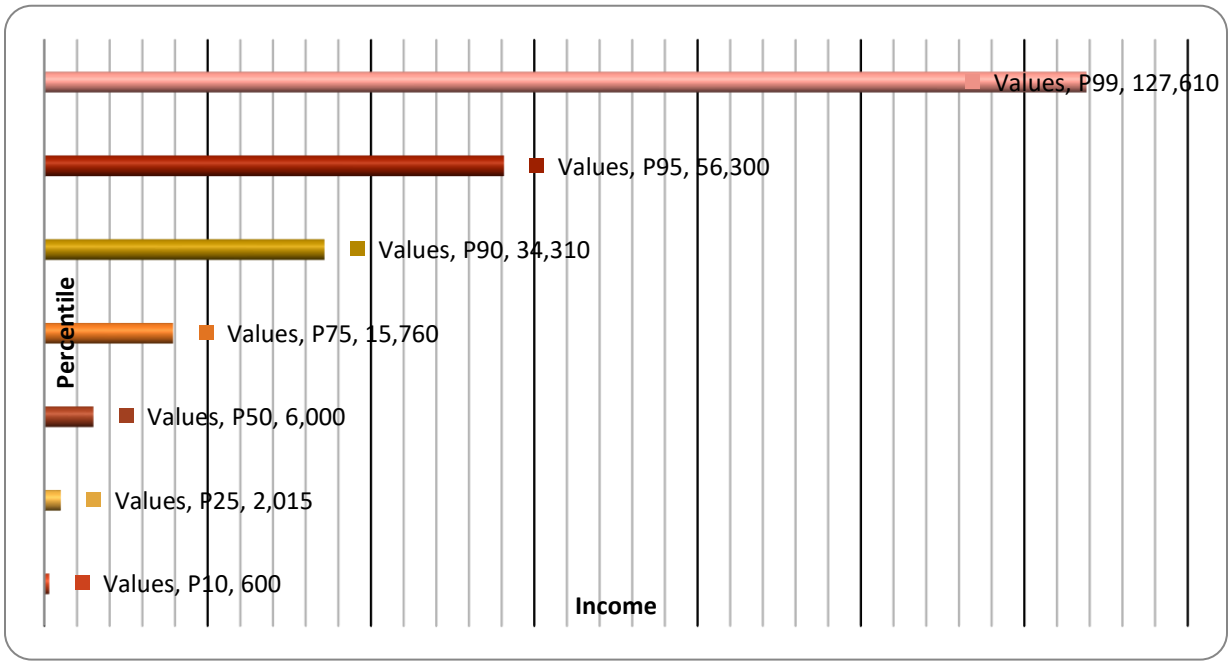
Table 7.5 below shows that the average annual household income increases with quintiles. Overall, households in the 1st quintile had an average household income of about Le 2,938

million, compared to households in the 5th quintile's Le 272,586 million. The low average for quintile 1 was as a result of all households in Eastern, Northern, North-West, Southern and Western regions amounting to lower income thus reducing the average annual household income.

Table 7.5: Average Annual Household Income Quintile: by Region

Quintile group	Total	Eastern	Northern	North-West	Southern	Western
Total	379,778	96,039	57,237	65,534	72,325	88,643
1st Quintile	2,938	540	543	586	646	624
2nd Quintile	12,708	2,481	2,541	2,551	2,552	2,583
3rd Quintile	29,053	5,633	5,776	5,864	5,848	5,933
4th Quintile	62,493	12,458	12,451	12,669	12,323	12,593
5th Quintile	272,586	74,928	35,927	43,863	50,957	66,912

Figure 7.4: Percentile distribution of income



7.1.6 Percentile ranking

An alternative presentation of income categories is in terms of percentile ordering, wherein, percentiles are computed by first ordering the sample in terms of income from lowest to highest, Table 7.6 presents the percentile ranking in Sierra Leone and depicts the income gap between the 10 Percentile and 90 percentile (slightly over 50 folds.

Table 7.6: Income Percentiles

Percentile	Values
P10	600
P25	2,015
P50	6,000
P75	15,760
P90	34,310
P95	56,300
P99	127,610

7.1.7 Income Distribution- Gini Coefficient

On general level of inequality in a country or region either from the distribution of income, (i.e. Sierra Leone) or consumption, land, taxation and other continuous and cardinal variables is an important dimension of welfare in a country (Coudonol et al, 2002).

The Gini coefficient is a summary/total inequality measure of the relative degree of income inequality in a country. It is obtained by calculating the ratio of the area between the diagonal and the Lorenz curve divided by the total area of the half-square in which the curve lies. The coefficient varies from 0 (equality) to 1 (inequality). The more unequal the distribution is, the closer the coefficient is to 1. Unequal income distribution typically lies between 0.50 and 0.70, while for countries with relatively equitable distribution; it is within the range 0.20 to 0.30.

The Gini coefficient calculated on per capita income is about 0.701 compared to 0.297 in 2011 rising income inequality is often shaped by the increasing concentration of income at the top end of the income distribution (Hoeller, 2012).

7.2 Household Consumption Expenditure

7.2.1 Household Consumption Expenditure Analysis

Sierra Leone has a total population of about 7,092,113 and with a household population of 7,076,119 respectively (Population and Housing Census PHC 2015). A high proportion of this population live in rural localities, constituting about 59percent of the total population. The rural population mainly relies on agricultural activities for their food and livelihood whilst the rest of the population (41 **percent)** reside in urban localities where they are predominantly buyers of foodstuffs, rarely producing their own food. At regional levels results of the PHC also reveal that

the northern region is the most populated region in Sierra Leone (35.4 percent) followed by the eastern region (23.2 percent), western region (21.1 percent) and southern (20.3 percent) constituting the least proportion of persons in Sierra Leone.

As a consequence of varying demographics and restricted resources, it is indeed necessary to update information on the consumption pattern of the general population for economic and social protection policies as well as planning for both public and private sector investments.

The objective of this section is to estimate the household's level of consumption expenditure in Sierra Leone. Consumption Expenditure was disaggregated across food and non-food items, nominal and deflated (real) prices. Consumption Expenditure was also categorized into quintiles to depict expenditure levels for five classes of the population. For the purpose of this study food consumption expenditure was also disaggregated into own food, gift value of food, food purchased and non-food consumption.

7.2.2 Nominal Consumption Expenditure

This analysis presents an insight into the levels of consumption expenditure for purchased food, own food consumption and non-food items. The figures are unadjusted or nominal prices of food and non-food items consumed.

Table 7.7 presents average annual household consumption expenditure for purchased food, own food consumption and non-food items.

The result of the findings in Table shows that at national level the average total annual consumption expenditure was reported at Le25, 017,127. The Table also indicates three categories of consumables and at national level, the average annual household consumption expenditure on non-food was the highest (Le13, 198,840) followed by household consumption expenditure for purchased food (Le9, 824,046). Households reported the least average total annual consumption expenditure for own consumed food (Le1, 406,100). This could be explained from perspective of low productivity across the country especially in the western region.

Table 7.7: Mean Annual nominal consumption expenditure of Food, Food Own & Non-food

Region	Average Household Size	Food						
		Average Annual Own Food Consumption (Le)	Average Annual Gift Value of Food (Le)	Average Annual Total Food Purchased (Le)	Average Annual Total Food Consumed (Le)	Total Non-Food Consumption Expenditure (Le)	Average Annual Total Household Consumption Expenditure (Le)	Average Annual Total Household Per Capita Consumption Expenditure (Le)
Eastern	5.7	416,602	108,572	1,929,906	2,455,080	1,822,768	4,277,848	749,465
Northern	6.9	296,364	110,829	1,640,905	2,048,099	1,959,912	4,008,011	584,225
North-West	6.5	282,702	150,953	1,625,113	2,058,767	1,390,055	3,448,822	532,263
Southern	5.8	386,794	179,139	1,516,776	2,082,709	1,820,060	3,902,769	672,874
Western	5.5	23,638	38,648	3,111,345	3,173,631	6,206,045	9,379,676	1,701,339
Rural	6.2	1,294,529	491,882	4,639,064	6,425,475	4,272,195	10,697,670	1,728,634
Urban	5.8	111,571	96,259	5,184,982	5,392,811	8,926,645	14,319,457	2,471,469
All	**6.0**	**1,406,100**	**588,140**	**9,824,046**	**11,818,286**	**13,198,840**	**25,017,127**	**4,144,122**

Figure 7.5: Distribution of Mean annual Household consumption expenditure and per capita household consumption expenditure by household size, region and Locality

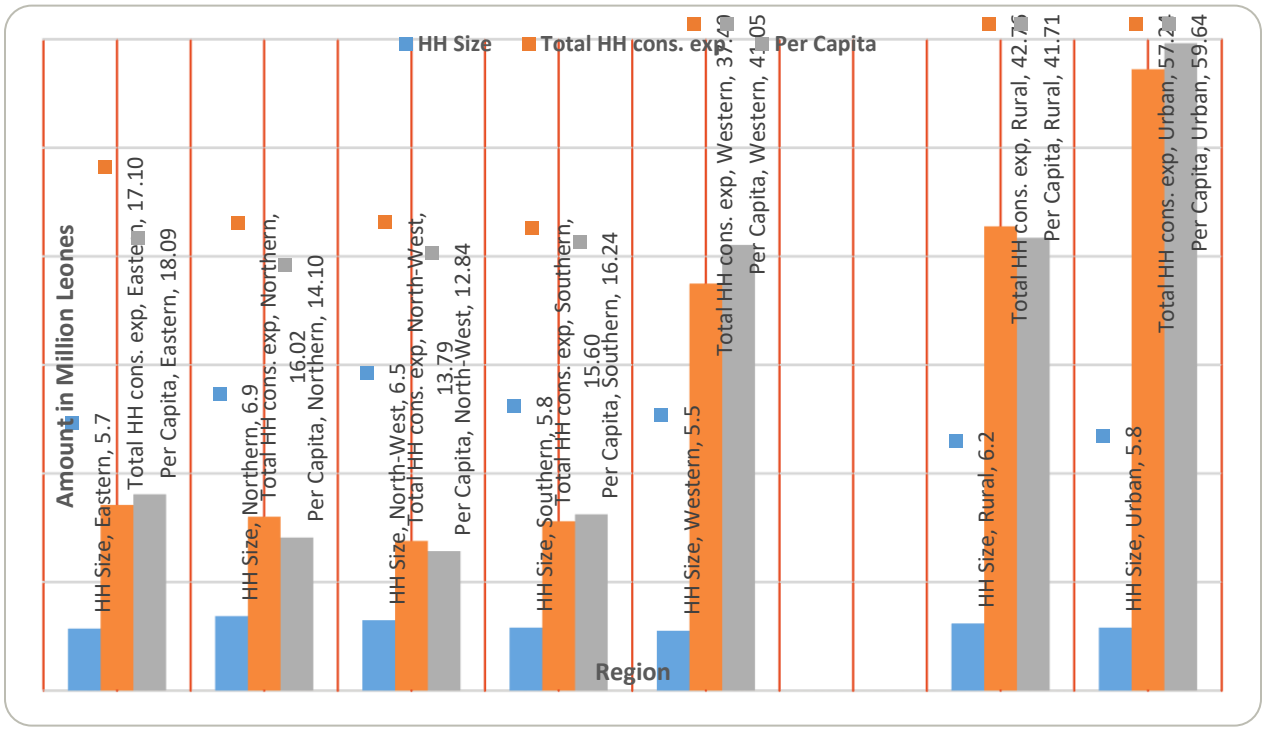
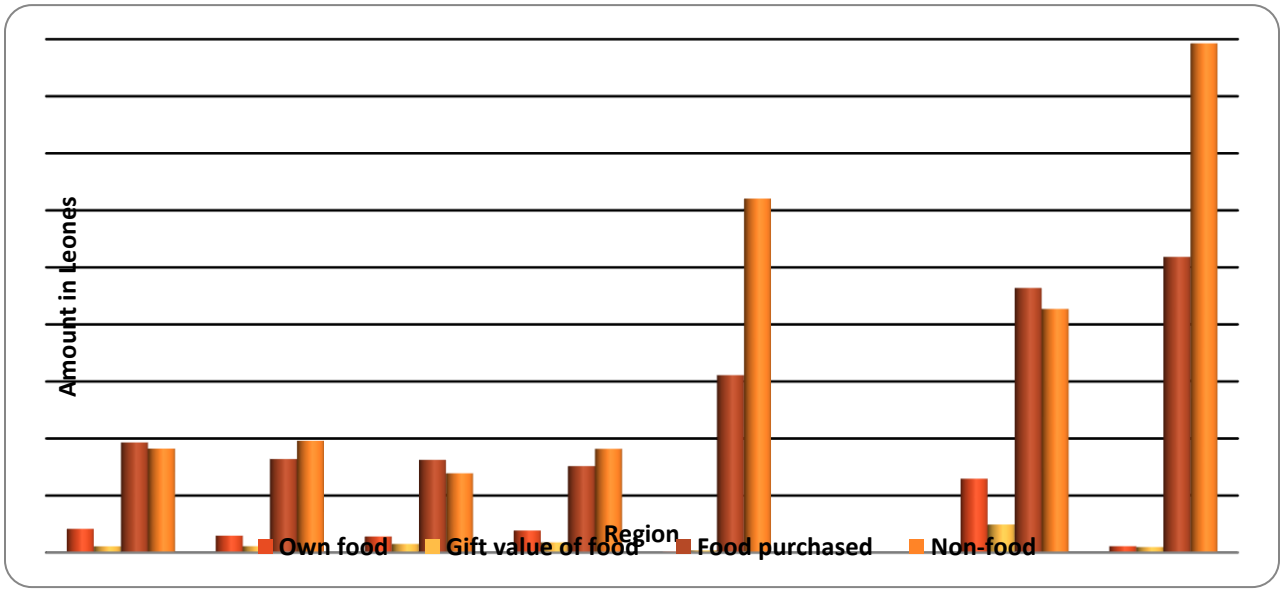


Figure 7.6 is also indicating that the national annual average household per capita consumption expenditure was 163,893 Leones. At regional levels, the western region reported the highest amount of total average annual consumption expenditure (Le9, 379,676), followed by the Eastern region (Le4, 277,848). The North-West region reported the least total average annual consumption expenditure (Le3, 448,822). This trend might not be unconnected to the fact that the western region is largely urban in nature indicating a stronger purchasing power as compared to the other regions. It is very interesting to note that even though the western region reported highest average annual consumption expenditure on purchased food (Le3,111,345) and non-food items (Le6,205,045), the western region reported a significantly low average annual consumption expenditure for own food consumption (Le23,638). The reason could be obvious as subsistence agricultural production in the western region is very minimal because of the urban nature of the region.

At locality level the rural areas have higher own food and gift food consumption expenditure than Urban areas

Figure 7.6: Distribution of un-deflated/nominal Mean Annual Food, Own-Food and Non-Food consumption expenditure by Region



7.2.3 Deflated Consumption Expenditure

Table7.8 presented Mean annual deflated consumption expenditure to address the effect of price fluctuations.

At national level, the average annual total deflated household consumption expenditure was reported at 143,850,000 Leones and the average annual total deflated per capita household consumption expenditure was reported at 1,438,000 Leones. The average annual total food consumption expenditure (Le67, 172,000) reported was lower than that for non-food consumption expenditure (Le 76,678,000).

At regional levels, the findings suggest that, the western region even though it has the lowest average household size (5.5), reported the highest total average annual deflated household consumption expenditure (Le36, 654,000) and per capita expenditure (Le367, 000). Data also reveals that with highest average household size (6.9), the northern regions, reported a lower total average annual deflated household consumption expenditures of 16,537,000 than the North-West with a smaller average household size of 6.5, reporting a total average annual deflated household consumption expenditure of 17,018;000 Leones.

Table 7.8: Mean Annual deflated consumption expenditure of Food, Food Own & Non-food

Region	Average Household size	Food			Average Annual Total Food Consumed (Le)	Total Non-Food Consumption Expenditure (Le)	Average Annual Total Household Consumption Expenditure (Le)	Average Annual Total Household Per Capita Consumption Expenditure (Le)
		Average Annual Own Food Consumption (Le)	Total Average Annual gift Value of Food (Le)	Average Annual Total Food Purchased (Le)				
Eastern	5.7	1,487	388	6,889	8,763	6,506	15,270	153
Northern	6.9	1,223	457	6,770	8,450	8,086	16,537	165
North-West	6.5	1,395	745	8,019	10,159	6,859	17,018	170
Southern	5.8	1,448	671	5,679	7,797	6,814	14,612	146
Western	5.5	92	151	12,158	12,402	24,252	36,654	367

Undefeated average annual household consumption expenditure by quintile groups.

The household consumption expenditure section was also analyzed from the perspective of wealth distribution in the population. The population was divided into five groups (quintile) each of 20percent of the population based on the wealth of households in the population. The first

group (lowest quintile) constitutes households with least wealth and the fifth quintile constitutes households with the highest wealth.

Table 7.9 below presents the shares of average annual consumption expenditure and per capita expenditure by quintile groups at national level.

Table 7.9: Mean annual household consumption expenditure and per capita consumption expenditure for food and non-food items by quintile groups at locality levels

Quintiles	Mean HH Expenditure	Mean Per Capita Expenditure	Percentage share				Mean HH Size	No. of HH	No. of Persons
			HH percent	Person percent	Expenditure percent	Per Capita percent			
Lowest	3,661,914	641,555	8.22	22.12	7.54	7.98	5.71	277	276,057
Second	6,115,389	891,406	10.89	22.21	12.59	11.09	6.86	367	277,217
Third	8,199,960	1,265,515	20.42	20.95	16.89	15.74	6.48	688	261,530
Fourth	10,442,585	1,800,400	29.00	18.50	21.50	22.39	5.80	977	230,888
Highest	20,140,921	3,653,275	31.46	16.22	41.48	45.44	5.51	1,060	202,488
All	**48,560,769**	**8,039,862**	**100**	**100**	**100**	**100**	**6.04**	**3,369**	**1,248,180**

Table 7.9 is indicating inequality amongst the five quintiles. The average annual household consumption expenditure in the fifth (highest) quintile (Le20, 140,921) was about six or more times higher than that in the lowest quintile, whose households reported an average annual expenditure of 3,661,914 million Leones. A similar trend is manifested in the per capita expenditure in which the average annual per capita expenditure in the fifth quintile (Le 3,653,275) is about eight times that of households in the lowest quintile (Le641, 555). Further details of this trend suggest that the poorest 22 percent (lowest quintile) of households spends 8percent of total per capita consumption expenditure, whilst the richest 16 percent of households in the fifth quintile, spend almost 45 percent of total per capita consumption expenditure.

Table 7.10 below presents the share of consumption expenditure across regions for food and non-food items.

The findings show that 61percent of total average household consumption expenditure for all consumables was spent on food purchase compared to 39percent spent on non-food purchase. This is an indication of some level of poverty.

Table 7.10: Percentages of Average Household Annual Consumption Expenditure for Food and Non-Food (all consumables) by region and locality

Region	HH Size	Food				Non-Food			
		Own Food	Gift Value of Food	Food Purchase	Total Food	Health	Educa-tion	Housing	Total Non-Food
Eastern	5.7	29.63	18.46	19.64	20.77	16.72	15.28	7.97	5.13
Northern	6.9	21.08	18.84	16.70	17.33	26.17	14.03	8.20	6.82
North-West	6.5	20.11	25.67	16.54	17.42	11.61	6.81	7.22	3.60
Southern	5.8	27.51	30.46	15.44	17.62	15.43	8.36	9.72	4.76
Western	5.5	1.68	6.57	31.67	26.85	49.97	55.52	66.89	40.67
Rural	6.2	92.07	83.63	47.22	54.37	51.81	22.21	13.03	12.71
Urban	5.8	7.93	16.37	52.78	45.63	48.19	77.79	86.97	26.32
All	**6.0**	**11.9**	**5.0**	**83.1**	**61.0**	**18.31**	**5.67**	**15.04**	**39.02**

Table 7.9 also shows that for food purchase, the Northern region reported the least proportion of total average household consumption expenditure (17.33percent). This is so because the proportion of household consumption expenditure on own food consumption was reported to be very low (1.68percent). The Western region reported the highest proportion of consumption expenditure (26.85percent) followed by the eastern region, 20.77percent.

The table also shows that for non-food items, the western region reported the highest proportion of average total household consumption expenditure (40.67percent) with the northern region reporting the least proportion (3.60percent). Similarly, the North-West region reported the least proportion of consumption expenditure on education (6.81percent).

7.2.4 Main Expenditure groups

The outcome of the SLIHS 2018 indicates the total annual household consumption expenditure during a period of one year, between January 2018 and December 2018. The table below shows that the total annual household consumption expenditure was estimated at 25,277,505 Million Leones. The average Sierra Leone household spent approximately 20,251 Leones during the survey period, with the main components of that expenditure coming from food and non-

alcoholic beverages, Transport, health, housing, clothing and footwear, furniture and miscellaneous goods and services.

Households spent 11,818,286 Leones or 46.75percent on Food and non-alcoholic beverages, followed by transport (Le2,215,699 or 8.79percent), health (Le2,116,214 or 8.37percent), housing (Le1,738;761 or 6.88percent), clothing and footwear (Le7,716,801 or 6.79percent), furniture (Le1,539,092 or 6.09percent) and the lowest been miscellaneous (Le1,063,339 or 4.21) as the main contributor in main expenditure group (COICOP). From the analysis, the majority of a household's consumption expenditure is spent on the food and non-alcoholic beverages category, as compared to all other expenditure groups.

The largest group in 2018 was Food and non-alcoholic beverages indicating (Le11, 818,286 or 46.75percent) of total annual household consumption expenditure. The reason for this high expenditure is rooted in classification system (Classification of Individual Consumption According to Purpose – COICOP/main expenditure group), almost half (43percent) of the Sierra Leonean Consumer Price Index basket of items and most Sierra Leoneans priority falls into the food and non-alcoholic beverages.

Transport (second largest), during the time of the survey was measured at 2,215,699 million Leones or about 8.77percent of total household consumption expenditure. This interprets to an average household expenditure of 1,775 Leones during 2018. Around 8.37percent of consumption expenditure in 2018 goes to health, with an average expenditure of 1,695 Leones per annum on the items by households. Although the Sierra Leoneans have been on free health care for under- fives' children and an extension to the disabled people, the survey recorded a high monetary impact on the household expenditure on health.

The fourth major item in consumption expenditure group in 2018 was housing, water, electricity, gas and other fuels representing 1,738,761 Leones or 6.88percent of total annual household consumption expenditure.

Sierra Leonean households spent on average 1,375 Leones on clothing and footwear during the survey year. In totality, households spent about 1,716,801 billion on clothing and footwear, approximately 6.79percent of total consumption expenditure.

About 6.09percent (Le1, 539,092) of total consumption expenditure per annum was on furniture, household equipment and routine household maintenance in the survey period.

Miscellaneous goods and services category is last expenditure group in the COICOP settings but yet the least in the top highest in 2018 SLIHS, representing appropriately 4.21percent (Le1, 063,339) of total annual household consumption expenditure. This group of expenditure is one of the largest in the Sierra Leonean CPI basket of food and non-food items.

Table 7.11: Total Average Annual Household Consumption Expenditure by main expenditure group (COICOP)

Main Expenditure group	Total in M' (Le)	Average (Le)	Percentage distribution
Food and Non-Alcoholic Beverages	11,818,286	9,468	46.75
Alcoholic Beverages, Tobacco & Narcotics	260,378	209	1.03
Clothing and Footwear	1,716,801	1,375	6.79
Housing, Water, Electricity, Gas & Other fuels	1,738,761	1,393	6.88
Furniture, Household equipment & Routine Household Maintenance	1,539,092	1,233	6.09
Health	2,116,214	1,695	8.37
Transport	2,215,699	1,775	8.77
Communication	984,807	789	3.90
Recreation and Culture	602,885	483	2.39
Education	655,330	525	2.59
Hotels and Restaurant	565,912	453	2.24
Miscellaneous Goods & Services	1,063,339	852	4.21
All Items	**25,277,505**	**20,251**	**100**

The average annual consumption expenditure for Sierra Leone households was 38,905,000 Leones in 2018. However, as seen in Table 7.15 below, the median expenditure for the country was 28,914 Leones per annum; this highlights the continued presence of the inequality that exists across households. Male headed households accounted for about 51 percent of all household expenditure in the country and spent on average about 9.94 million Leones in 2018. Female-headed household spent below (Le9.48) of what their male headed counterparts spent during the same period and accounted for over 48percent of all consumption expenditure in Sierra Leone.

7.2.5 Summary of the Main Expenditure group (COICOP) findings

Household composition

According to findings, the Western region (27.22 percent) indicated the highest with the female headed households, followed by North-west (11.15 percent), Eastern (10.71percent), North

(10.68 percent) and the southern been the least. On the contrast, male headed households from the western region also reported the highest (25.82 percent), North-west (11.90 percent), Northern (11.61 percent), Eastern (10.29 percent).

The majority of households in urban rural settlement were headed by males. Male headed households accounted for the highest proportion in rural settlement (9.35 percent) and that of the urban (21.43 percent) areas, whereas in the urban and rural areas female headed households amounted for roughly 20.60 percent and 9.16 percent respectively).

Food and non-alcoholic beverages

Table 7.17 provides an overview of consumption expenditure on food and non-alcoholic beverages, by sex and population group of the household head, as well as by province and settlement type. According to the SLIHS 2018, households in Sierra Leone spent on average Le9, 468 per annum on food and non-alcoholic beverages and accounted for 9.91percent of total household consumption expenditure in the country.

The difference between the average annual consumption expenditure of male and female-headed households was not extensively different. In monetary and average terms, male headed (Le9, 499 or 9.95percent) households spent more than the female headed (Le9, 363 or 9.80percent) households while the male headed household consumption expenditure is slightly higher than the national average.

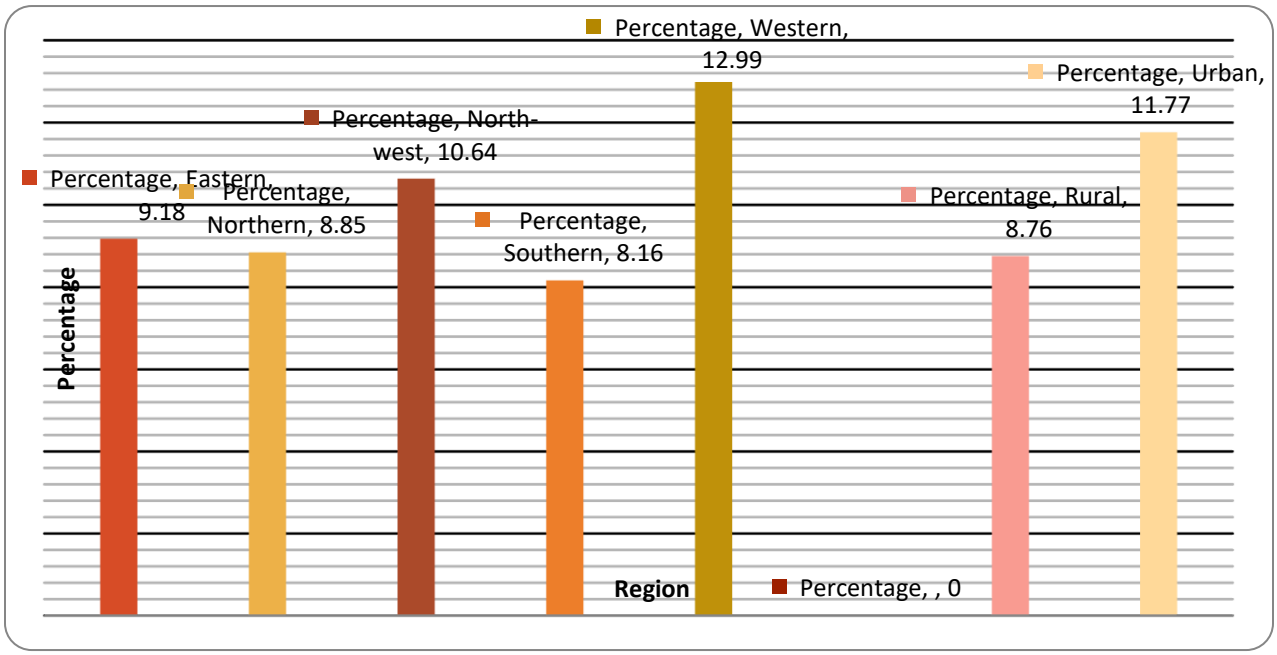
At regional level, households in Western (Le12, 402 or 12.99percent) and North-West (Le10, 159 or 10.64percent) spent the highest percentages which were notably higher that the national average of 9.91percent, while the Eastern (Le8, 763 or 9.18percent), Northern (Le8, 450 or 8.85percent) and Southern (Le7,797 or 8.16percent) on this expenditure group.

From the analysis is clear that the urban areas recorded the highest average household expenditure at 11,236 Leones or 11.77percent, while the lowest average was in the rural (Le8, 364 or 8.76percent). On average, rural households spent less on food and non-alcoholic beverages compared to those in urban areas.

Table 7.12: Overview of consumption expenditure on food and non-alcoholic beverages by sex of household head, region and Locality

Region	Average ('000 Le)	Proportion of total expenditure (percent)
Sierra Leone	9,468	9.91
Sex of Household Head		
Male	9,499	9.95
Female	9,363	9.80
Region		
Eastern	8,763	9.18
Northern	8,450	8.85
North-West	10,159	10.64
Southern	7,797	8.16
Western	12,402	12.99
Place of Residence		
Rural	8,364	8.76
Urban	11,236	11.77
Total	**95,503**	**100.00**

Figure 7.7: Percentage distribution of household consumption expenditure attributed to food and non-alcoholic beverages by region and Locality



Alcoholic Beverages, Tobacco & Narcotics

Table 7.17 indicates an overview of consumption expenditure on alcoholic beverages, tobacco and narcotics by sex of the household head, region and place of residence

The alcoholic beverages, tobacco and narcotics expenditure group consists of local and industrial spirit, artisanal wine, international beer cigarettes etc, tobacco, bitter kola and kola nut. Sierra Leonean households spent on average 209 Leones which accounted for 10.15 percent of their total household consumption expenditure in 2018.

On a gender perspective, the male head households (Le224 or 10.89 percent) was the highest on average and in household consumption expenditure compared with their female (Le162 or 7.91 percent) counterparts.

Regionally, households in North-West (17.97 percent) and Eastern (10.44 percent) spent the highest in household consumption expenditure on alcoholic beverages, tobacco and narcotics and even higher than the national average of 10.15 percent, while the Northern (10.08 percent), followed by the Southern (8.94 percent) and Western Area as the least in this expenditure group.

The table further revealed that the rural recorded the highest average household expenditure 12.91 percent, while the lowest average was with the urban spending 5.73 percent per annum. On average, urban households spent less on alcoholic beverages, tobacco and narcotics compared to those in rural areas.

Table 7.13: Overview of consumption expenditure on alcoholic beverages, tobacco & narcotics by sex, region and Locality

Region	Average ('000 Le)	Proportion of total expenditure (percent)
Sierra Leone	209	10.15
Sex of Household Head		
Male	224	10.89
Female	163	7.91
Region		
Eastern	215	10.44
Northern	207	10.08
North-West	369	17.97
Southern	184	8.94
Western	102	4.97
Place of Residence		
Rural	265	12.91
Urban	118	5.73
Total	**2,055**	**100**

Clothing and Footwear

Table 7.19 provides an overview of consumption expenditure on clothing and footwear by sex of household head, province and settlement type. The clothing and footwear expenditure group consists of clothing and footwear items for men, women and children. The 2018 SLIHS, Sierra Leone households spent on average Le1, 375 on clothing and footwear, which accounted for 9.86 percent of their total household consumption expenditure

The outcomes also revealed that only 1,391 Leones or 9.96 percent of the total household consumption expenditure in male headed households was spent on clothing and footwear, whereas female headed households spent 1,327 Leones or 9.51 percent in 2018. This means that male headed households allocated a higher proportion of their total household consumption expenditure to clothing and footwear compared to their female counterparts. On the other hand, on average, male headed households also spent more than female headed households in financial terms.

Regionally, household consumption expenditure on clothing and footwear as a proportion of total consumption expenditure in the Western (Le2, 742 or 19.64 percent) was higher than average national and all the other regions, followed by Eastern (Le1, 081 or 7.74 percent),

Southern (Le1,070 or 7.67 percent) and Northern (Le1,028 or 7.36 percent). Household consumption expenditure on clothing and footwear as a proportion was lowest in North-west (Le1, 070 or 6.28 percent).

The urban (15.87 percent) doubles the rural (6.10 percent) on average amount spent on this household consumption expenditure. In other words, the urban households spent more than the rural.

Table 7.14: Overview of consumption expenditure on clothing and footwear by sex of household head, region and Locality

Region	Average ('000 Le)	Proportion of total expenditure (percent)
Sierra Leone	1,375	9.86
Sex of Household Head		
Male	1,391	9.96
Female	1,327	9.51
Region		
Eastern	1,081	7.74
Northern	1,028	7.36
North-West	876	6.28
Southern	1,070	7.67
Western	2,742	19.64
Place of Residence		
Rural	851	6.10
Urban	2,215	15.87
Total	**13,956**	**100**

Housing, water, electricity, gas and other fuels

The expenditure group deals with basic needs of household consumption expenditure. In 2018 SLIHS Sierra Leonean households spent on average 1,393 or 9.66percent of their total annual consumption expenditure on these essential needs on housing water, electricity, gas and other fuels.

The male-headed households on average spent more in monetary terms on this group when compared to female headed households (Le1,432 or 9.93) and female headed households (Le1,268 or 8.80) indicates a slightly greater proportion of the consumption expenditure.

Both figures for the male headed household and Western averages far exceed the national proportion of 9.66 percent. Furthermore, households in the Western (Le4, 545 or 31.52percent) scores far more the highest, followed by Southern (Le633 or 4.39 percent), North-west (Le620 or 4.30 percent), Northern (Le588 or 4.08 percent) and with Eastern been the least in the household consumption expenditure.

The Urban (Le3, 151 or 21.85 percent) households far exceeds the rural (Le295 or 2.04 percent), meaning urban households spent more in this consumption expenditure.

Table 7.15: Annual average expenditure of households on housing, water, electricity, gas and other fuels by sex of household head, region and Locality

Region	Average ('000 Le)	Proportion of total expenditure (percent)
Sierra Leone	1,393	9.66
Sex of Household Head		
Male	1,432	9.93
Female	1,268	8.80
Region		
Eastern	495	3.43
Northern	588	4.08
North-West	620	4.30
Southern	633	4.39
Western	4,545	31.52
Place of Residence		
Rural	295	2.04
Urban	3,151	21.85
Total	**14,419**	**100**

Furniture, household equipment and maintenance

This section indicated that households in Sierra Leoneans spent on average (Le1, 233 or 9.86 percent) per annum on furnishings, household equipment maintenance of the total household consumption expenditure in this expenditure group.

Male headed households spent on average 1,252 Leones or 10.01 percent, which was higher than the average spent by female-headed households (Le1, 172 or 9.37 percent) per annum.

At regional level, Western had the highest proportion of spending on furnishings, household equipment and maintenance at 2,305 Leones or 18.42 percent and it proportion exceeds the national average. The other regions were Northern (Le1, 047 or 8.37 percent) followed by the Southern (Le1,019 or 8.14 percent), the Eastern (Le910 or 7.28 percent) and with North-west been the least. Apart from the Western region, all the other regional averages were less than the national.

Households living in urban areas spent the highest proportion (Le1, 964 or 15.70 percent) of their total household consumption expenditure on furnishings, household equipment and maintenance, while rural households had the lowest proportion (Le777 or 6.21 percent). The urban settlement had the highest beyond the national average of 1,233 Leones.

Table 7.16: Overview of consumption expenditure on Furniture, household equipment and maintenance by sex of household head, region and place of residence

Region	Average ('000 Le)	Proportion of total expenditure (percent)
Sierra Leone	1,233	9.86
Sex of Household Head		
Male	1,252	10.01
Female	1,172	9.37
Region		
Eastern	910	7.28
Northern	1,047	8.37
North-West	832	6.65
Southern	1,019	8.14
Western	2,305	18.42
Place of Residence		
Rural	777	6.21
Urban	1,964	15.70
Total	**12,509**	**100**

Health

This section illustrates the spending patterns of Sierra Leone households on health. The health expenditure group consists of pharmaceutical products, other medical products, therapeutic appliances and equipment, medical services, dental services paramedical services and hospital services. It also shows that Sierra Leonean households on average spent 1,695 Leones per annum, accounting for 9.9 percent of the total household consumption expenditure.

According to table 7.24, male headed households (9.97 percent) spent more on average household consumption expenditure on health than their female counterparts (9.76 percent).

At regional level, Western and Northern recorded the highest proportion of the total consumption expenditure on health (14.55 percent versus 13.37 percent), followed by the Eastern (7.39 percent). Southern (7.15 percent) and North-west regions scoring the lowest. Both the Western and Northern regions recorded twice the national average while the other three regions are below the national average.

The analysis also indicated that, the urban recorded the highest average household expenditure 12.43 percent, while the lowest average was in the rural area (8.35 percent) per annum. On average, rural households spent less on health compared to those in urban areas.

Table 7.17: Overview of consumption expenditure on health, by sex of household head, region and Locality

Region	Average ('000 Le)	Proportion of total expenditure (percent)
Sierra Leone	1,695	9.92
Sex of household head		
Male	1,703	9.97
Female	1,668	9.76
Region		
Eastern	1,263	7.39
Northern	2,285	13.37
North-West	1,213	7.10
Southern	1,223	7.15
Western	2,486	14.55
Place of Residence		
Rural	1,427	8.35
Urban	2,125	12.43
Total	**17,089**	**100**

Transport

The national average expenditure on transport accounts as one of the basic needs of the total household consumption expenditure in the country (9.85 percent) and is the second highest in the main expenditure group. Transport expenditure includes the purchase of vehicles, the cost of operation of personal transport equipment (operational cost for privately owned vehicles) and transport services (public and hired transport).

Table 7.29 indicates that male headed households spent more on transport compared to female headed households (10.26 percent versus 8.54 percent). The average expenditure for male headed households is more than the national average, and its proportion to total expenditure is also higher than the national amount. Western had the highest average expenditure of 24.59 percent on transport, followed by Northern (6.75 percent), Southern (6.18 percent), Eastern (5.76 percent) while the North-West ranked the lowest. Western Area doubles the national average and all other regions have lower proportions than the national average. Urban areas acquired the largest proportion (17.69 percent) average than national and the rural.

Table 7.18: Overview of consumption expenditure on transport by sex of household head, region and Locality

Region	Average ('000 Le)	Proportion of total expenditure (percent)
Sierra Leone	1,775	9.85
Sex of household head		
Male	1,850	10.26
Female	1,540	8.54
Region		
Eastern	1,038	5.76
Northern	1,218	6.75
North-West	988	5.48
Southern	1,115	6.18
Western	4,423	24.53
Place of Residence		
Rural	892	4.95
Urban	3,189	17.69
Total	**18,027**	**100**

Communication

Communication consists of postal services, telephone and telefax equipment, and telephone and telefax services. Table 7.31 points out that an average per annum (9.72percent) of household consumption expenditure was spent on communication.

There was some inequality between male and female headed households. Males spent on average 9.95percent more than females (8.96percent) on communication. The communication as a share of consumption expenditure for male and female-headed households has almost a one percent gap.

At regional level, the average and communication share of household expenditure goes as follow: the Western region (25.79percent) followed by the North-west (6.08percent), the Northern (5.66percent) while the Eastern region (5.37percent) and Southern been the least. The Western region is about twice that of the national average while the other regions fall below.

At settlement level, the urban (19.64percent) scores the highest on average and at the household consumption expenditure, while the rural recorded the least.

Table 7.19: Annual household expenditure on communication by sex of household head, region and Locality

Region	Average ('000 Le)	Proportion of total expenditure (percent)
Sierra Leone	789	9.72
Sex of household head		
Male	808	9.95
Female	728	8.96
Region		
Eastern	436	5.37
Northern	460	5.66
North-West	494	6.08
Southern	431	5.30
Western	2,094	25.79
Place of Residence		
Rural	286	3.52
Urban	1,595	19.64
Total	**8,120**	**100**

Recreation and culture

This section gives an analysis of the spending patterns of Sierra Leonean households on recreation and culture. Recreation and culture includes things such as cultural services, recreational and sporting services, equipment for sport camping and open air recreation games, toys and hobbies, recording media, information processing equipment, photographic and cinematographic equipment and optical instruments, equipment for the reception, recording and reproduction of sound and pictures, stationery and drawing materials, miscellaneous printed matter, newspaper and periodicals and books.

According to Table 7, 32, Sierra Leonean spent on average 483 Leones per annum on recreation and culture, which accounts for 9.75percent of total household consumption expenditure. Expenditure by male headed households summed up to 501 Leones or 10.11percent, while female-headed households spent 426 Leones or 8.60percent of their total consumption expenditure on recreation and culture. It is also clear that both averages of the male headed households and Western are above the national figure.

The research clearly shows that the Western region (Le1, 161 or 23.44percent) scored the highest average and proportion of the household consumption expenditure, followed by North-west (Le387 or 7.81percent), Northern (Le298 or 6.01percent), Eastern (Le291 or 5.87percent), while Southern been the least.

Urban Households spent on average 921 Leones on recreation and culture, which is 438 Leones more than the national average. Rural Households had the lowest average at 209 Leones per annum and only spent 4.23percent of household consumption expenditure on recreation and culture, which is 5.52 percentage points less than the national average.

Table 7.20: Overview of consumption expenditure on recreation and culture by sex of household head, by region and Locality

Region	Average ('000 Le)	Proportion of total expenditure (percent)
Sierra Leone	483	9.75
Sex of household head		
Male	501	10.11
Female	426	8.60
Region		
Eastern	291	5.87
Northern	298	6.01
North-West	387	7.81
Southern	276	5.58
Western	1,161	23.44
Place of Residence		
Rural	209	4.23
Urban	921	18.59
Total	**4,953**	**100**

Education

Table 7.34 illustrates an overview of consumption expenditure on education by sex of the household head, region and place of residence. The education expenditure group consists of spending on pre-primary, primary, junior and senior secondary, post- secondary, non-tertiary and tertiary education. On average a Sierra Leonean household spent 9.70percent of the total household consumption expenditure on education.

The analysis further shows that on average, female headed households (9.76percent) spent more on education than male headed households (9.67percent). A regional level Households from Western region (26.23percent) doubles the average and national proportion on education. Next to this is the Northern (7.01percent) and Eastern (6.60percent) regions respectively. It is also clear that the Western region was the only that recorded the highest average and proportion spent on education far more than the other regions. Households in the North-west spent the lowest (4.07percent) and the least was the southern region. In terms of place of residence, households in urban (19.63percent) settlements spent larger amounts than the national proportion on education, while the rural settlement spent less than (3.50percent) of their consumption expenditure on this group.

Table 7.21: Overview of consumption expenditure on education by sex of household head, by region and Locality

Region	Average ('000 Le)	Proportion of total expenditure (percent)
Sierra Leone	525	9.70
Sex of household head		
Male	523	9.67
Female	528	9.76
Region		
Eastern	357	6.60
Northern	379	7.01
North-west	220	4.07
Southern	205	3.79
Western	1,422	26.28
Place of Residence		
Rural	189	3.50
Urban	1,062	19.63
Total	**5,412**	**100**

Restaurants and hotels

This part indicates household expenditure for the restaurants and hotels expenditure group. It consists of catering in modern hotels and restaurants, catering in informal sector stalls or restaurants and accommodation services. According to the 2018 SLIHS, Sierra Leonean households spent on average 9.68percent of the total household consumption expenditure.

Male headed Households spent a higher proportion of their consumption expenditure on restaurants and hotels than their female counterparts, precisely 10.36percent and 7.59percent, respectively. The Western region (27.54percent) three times higher than the national average, followed by the North-west (12.19percent), Northern (4.16percent), Southern (3.29percent) and Eastern been the least.

On the other hand, urban settlement type (18.74percent) doubles the national proportion of household expenditure attributed to restaurants and hotels with a difference of about 9.68 percentage point. In the rural settlement (4.02percent), the household consumption expenditure on restaurants and hotels was two times lower than the overall national household consumption expenditure (9.68percent) on this expenditure group.

Table 7.22: Overview of consumption expenditure on restaurants and hotels by sex of household head, region and Locality

Region	Average ('000 Le)	Proportion of total expenditure (percent)
Sierra Leone	453	9.68
Sex of household head		
Male	485	10.36
Female	355	7.59
Region		
Eastern	114	2.42
Northern	195	4.16
North-west	571	12.19
Southern	154	3.29
Western	1,290	27.54
Place of Residence		
Rural	188	4.02
Urban	878	18.74
Total	**4,683**	**100**

Miscellaneous goods and services

Table 7.39 presents consumption expenditure on miscellaneous goods and services by sex of the household head, region and place of residence. This category includes of hair dressing saloons and personal grooming establishment, other articles and products for personal care, clocks and watches, other personal effects and other services. Form the table below, households in Sierra Leone spent on average for 9.69percent of total household consumption expenditure in the country.

The outcomes also revealed that female headed households spent 914 Leones on average per annum on miscellaneous goods and services, whereas male-headed households spent 830 Leones less than as compared to their female counterparts. The average expenditure of female headed households was above the national average, and the proportion of total expenditure in this group (10.40percent) was also above the national total expenditure proportion (9.69percent). Regionally, the Western region (Le1, 501 or 17.08percent) doubles the national average and all the regions, followed by Southern (Le689 or 7.84percent), North-west (Le659 or 7.50percent), Northern (Le589 or 6.70percent) and Eastern been the least.

In Urban settlement type (Le1, 501 or 17.08percent) far exceeds both average and the national proportion of household expenditure attributed to miscellaneous goods and services. In the rural settlement (Le447 or 5.08percent), the household consumption expenditure on miscellaneous goods and services was two times lower than the overall national household consumption expenditure in the expenditure group.

Table 7.23: Overview of consumption expenditure on miscellaneous goods and services by sex of household head, region and Locality

Region	Average ('000 Le)	Proportion of total expenditure (percent)
Sierra Leone	852	9.69
Sex of household head		
Male	830	9.45
Female	914	10.40
Region		
Eastern	522	5.94
Northern	589	6.70
North-west	659	7.50
Southern	689	7.84
Western	1,785	20.32
Place of Residence		
Rural	447	5.08
Urban	1,501	17.08
Total	**8,787**	**100**

CHAPTER EIGHT - AGRICULTURE

8.0 Introduction

In Sierra Leone, the agriculture sector is the most important sector in the economy as it accounts for almost 50 percent of the Gross Domestic Product (GDP) which makes it the mainstay of the Economy. According to the 2014 Labor force survey Agriculture employs 61.1 percent of the labor force who are mostly engaged in subsistence agriculture. The 2014 Labor Force Survey also showed how 90.7 percent of people who work in the agricultural and fisheries sector are self-employed, with 8.5 percent engaged in unpaid labor, and just 0.8 percent working in wage employment. According to the 2015 Population and Housing Census 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.

The country covers a geographical area of about 72,300 km2 (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 hectares are fertile lowlands with considerable potential for food crop production. Less than 15 per cent of this arable land is currently under cultivation, this shows our present agricultural engagement is too small as compared to our nation's natural land endowments and that there is enormous potential that lays there untapped.

Agricultural production in Sierra Leone encompassed over 25 percent of the export earnings, within the Agricultural sector, crops, mainly food crops, has the highest contribution, followed by Livestock, Fisheries, Forestry and cash crops production. As a result, agricultural development and the attainment of food security are recognized as major priority in the current development programme. The government of Sierra Leone also identified job creation especially for women and youths as an important area to focus development efforts. Agriculture is a central focus for meeting the Sustainable Development Goal 1&2: eradicating poverty and hunger, through the creation of productive and decent work for all, including women and youth; as well as the provision of access to food.

The agriculture module in SLIHS 2018 have six sections starting from R to W. It covers Section R: Agricultural Assets and Land, Section S: Annual Crops, Section T: Permanent Crops, Section U: Forestry, Section V: Fishing and Section W: Livestock.

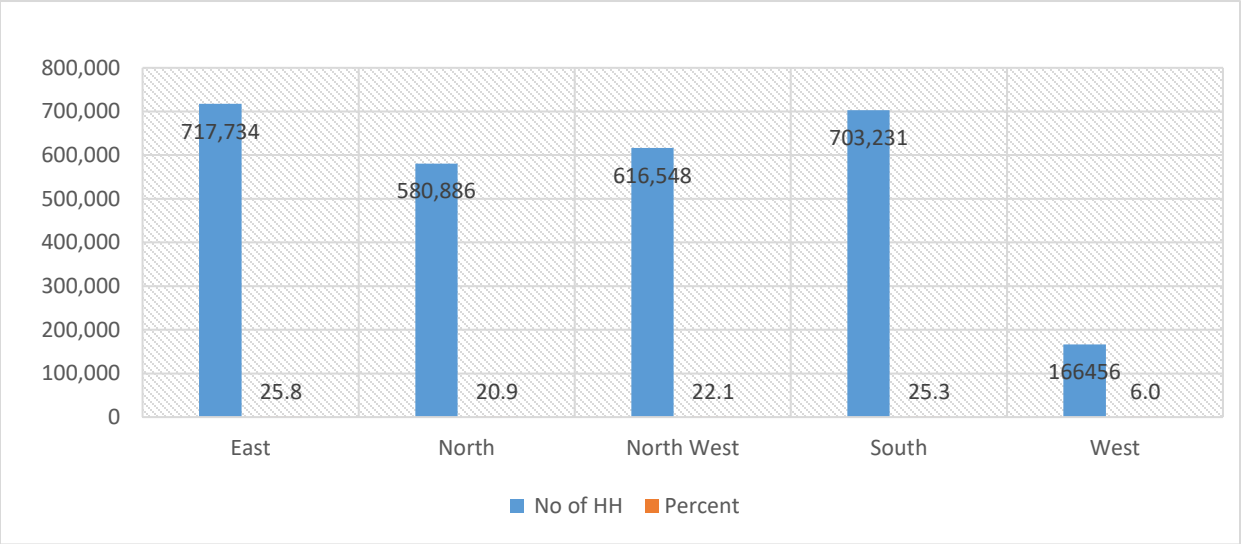
8.1 Agricultural Assests And Land

Agricultural assets are critical in the agricultural production process as it's a key constraint preventing rural households from emerging from rural poverty.

8.1.1 Agricultural Implements

This Section gives a synopsis of Agricultural Assets owned by the households in Sierra Leone. It includes all agricultural assets owned by households in Sierra Leone. In light of this consideration, The Sierra Leone Integrated household Survey 2018 collected data on assets namely; Hand hoe, Cutlass, Axe, Winnower, Power tiller, sprayer, Tractor, plough, other tractor drawn equipment, Kiln for drying fish, fish drying rack, Cassava grater and rice mill.

Figure 8.1: Percentage of Households that own agricultural equipment by region



Out of 2,544,341 households that reported having owned Agricultural assets. The Eastern region reported the highest number of households with 717,734 accounting for 25.8 percent, Followed by the Southern region with 703,231 accounting for 25.3 percent. The North West region and North reported 616,548 and 580,886 accounting for 22.1 and 20.9 percent respectively. The Western region reported the least number of households with 166,456 accounting for 6.0 percent.

Table 8.1: Total number of households that bought, Spent, Owned and Rented different types of equipment

Agricultural Implements	HHs that bought equipment in the Past 12 Months		Total Amount spent on item in the last 12 months by HHs (LE 000)	HHs that own item now		total items own now by HHs	Value of one item if it were sold today (LE)	Total amount earn from renting out item by HHs in the past 12 months (LE)
ITEMs/assets	**HHs**	**percent**	**Amount**	**HHs**	**Percent HHs**	**Item**	**Mean Value**	**Amount (LE)**
Hand hoe	692,420	27.21	37,607,200	775595	27.85	2940806	22.4	111767
Cutlass	736,616	28.95	36,813,450	799332	28.7	2191930	25.48	86109
Axe	472,875	18.59	19,546,096	546781	19.63	863034	21.47	32490
Winnower	572,043	22.48	9,585,272	591226	21.23	849981	13.65	7162
Power tiller	1,612	0.06	21,915	1603	0.06	2629	13.83	0
Sprayer	3,260	0.13	924,980	3210	0.12	3426	258.56	36900
Tractor	140	0.01	0	140	0.01	140	200	0
Plough	140	0.01	0	140	0.01	140	75000	0
Other tractor drawn equipment	0	0	0	288	0.01	288	50	0
Kiln for drying fish	4,254	0.17	300,422	6294	0.23	7721	118.28	0
Fish drying rack	44,531	1.75	1,326,579	42965	1.54	53893	29.56	17760
Cassava grater	15,668	0.62	588,324	16366	0.59	21008	75.15	381560
Rice mill	782	0.03	867,812	915	0.03	915	1384.49	266000
Total	**2,544,341**	**100**	**107,582,050**	**2784855**	**100**	**6935911**	**77212.87**	**939748**

Analysis shows that more households bought cutlass 28.95 percent (799,332), Hand hoe 27.21 percent (692,420), Winnower 22.48 percent (572,043), Axe 18.95 percent (472,043), Fish drying rack 1.75 percent (44,531) and cassava grater 0.62 percent (15,668) respectively.

The total amount spent in the last twelve months is also higher for hand hoe Le 37.6B, cutlass Le 36.9B, Axe Le 19.5B, Fish drying rack Le 1.3B, winnower Le 9.6B, sprayer Le 924,980 million and rice mill Le 867,812 million which are commonly use in land preparation especially for planting of crops and processing of husk rice in Sierra Leone are bought and rented more for agricultural households.

Analysis for households that own assets now at the time of the survey also shows that, cutlass (799,332) is the highest followed by, Hand hoe (775,595), Axe (546,781), Winnower (591,226), Fish drying rack (42,965) and cassava grater (16,366) respectively. The items own now are very important for the production of food and increase food security to households holds. The results show that hand hoe is the highest counting for 2940806, cutlass 2191930, Axe 863034 and

Winnower 849981 respectively. Regarding the value of one item if it were sold today revealed that the value of rice mill is higher with (Le 1384.87M), sprayer (Le 258.56), tractor (Le 200), kiln for drying fish (Le 118.28), Cassava grater (75.15), plough (Le 75.15) hand hoe (Le 25.48), cutlass (Le 22.48), axe (21.47) and winnower (Le13.46) while the total amount spent by renting these items for the past twelve months by households was (Le 939748M).

Table 8.2: Estimated number of households that own item now and items owned now by households between SLIHs 2011 and SLIHs 2018

Item	HHs that own item now			Items owned now		
	2011	**2018**	**Difference**	**2011**	**2018**	**Difference**
Hand hoe	602957	775595	172638	2767100	2940806	173706
Cutlass	612854	799332	186478	2158138	2191930	33792
Axe	526595	546781	20186	970934	863034	-107900
Winnower	361406	591226	229820	564304	849981	285677
Power tiller	200	1603	1403	200	2629	2429
Sprayer	388	3210	2822	490	3426	2936
Tractor	2388	140	-2248	3728	140	-3588
Plough	2342	140	-2202	4249	140	-4109
Other tractor drawn equipment	293	288	-5	321	288	-33
Rice mill	483	915	432	559	915	356

Analysis shows that more households own items now in 2018,cutlass (799,332), Hand hoe (775,595), Axe (546,781), winnower (591,226), Power tiller (1603) respectively compared to 2011 SLIHS, While for items like tractor, Plough, other tractor drawn equipment and rice mill were own by more households in 2011 compared to 2018 SLIHS.

Among items own now, a similar trend was experienced were more items were own now in 2018 compared to 2011, items like Hand hoe, Cutlass, winnower, power tiller, sprayer, tractor and rice mill. However, for items like axe, Tractor, Plough and other implements were own more in 2011 as compared to 2018

8.1.2 Agricultural Land

The Land area is a fundamental input into statistical and economic analyses linked to agriculture, inequality and land registration, titling and redistribution programs focus on land reflects the recognition that land is a key economic resource inextricably linked to access to, use of and control over other economic and productive resources. In rural and peri-urban areas, it is a key input for agricultural production; it can be used as collateral to access financial resources and

extension services or join producer organizations; in both rural and urban areas, it can generate income directly, if rented or sold. Further, the focus on land is an explicit acknowledgement that ownership of and/or control over land is critical for poverty reduction, food security, inclusiveness and overall sustainable development objectives in both rural and urban settings. The Sustainable Development Goal (SDG) Targets 2.3 and 2.4 require doubling of agricultural productivity and incomes of small-scale food producers and ensuring sustainable food production systems and implementing resilient agricultural practices that increase productivity and production, respectively. Both targets are associated with indicators 2 that rely on land area information sourced from household or farm surveys, and research has demonstrated the importance of accurate land area measurement for accurate measurement and analysis of land productivity (Carletto, et al., 2013) (Carletto, et al., 2015).

Along with family Labor, land is arguably the most important productive asset for rural households most important productive asset for rural households across developing regions, and lack of access to land is often the key constraint preventing rural households from emerging from poverty (Deininger, 2003; Binswanger et al., 1995). While data collection on smallholder production systems was traditionally relied on self-reported land areas, that is problematic and is characterized by the high incidence of smallholder farming and the fragmentation of farms into multiple parcels with irregular shapes. The 2018 Sierra Leone integrated household survey makes GPS-based land area measurement a desirable alternative.

Figure 8.2: Estimated percentage of households that own land (agricultural and non-agricultural) in the last 12 months

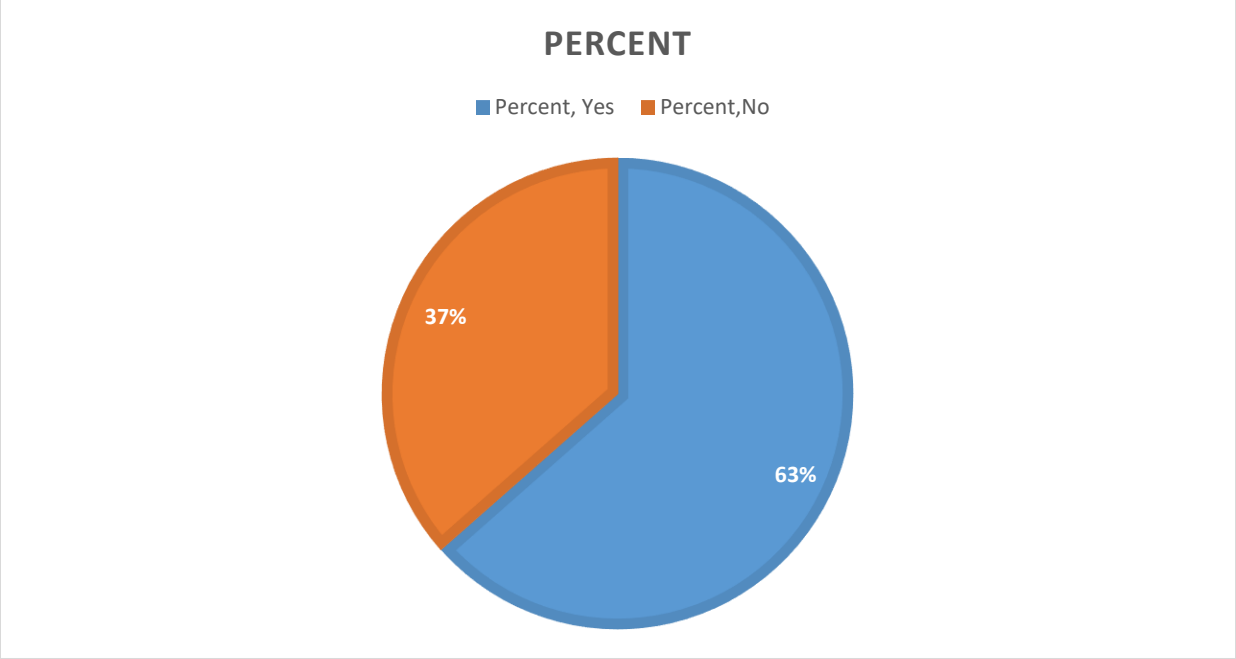
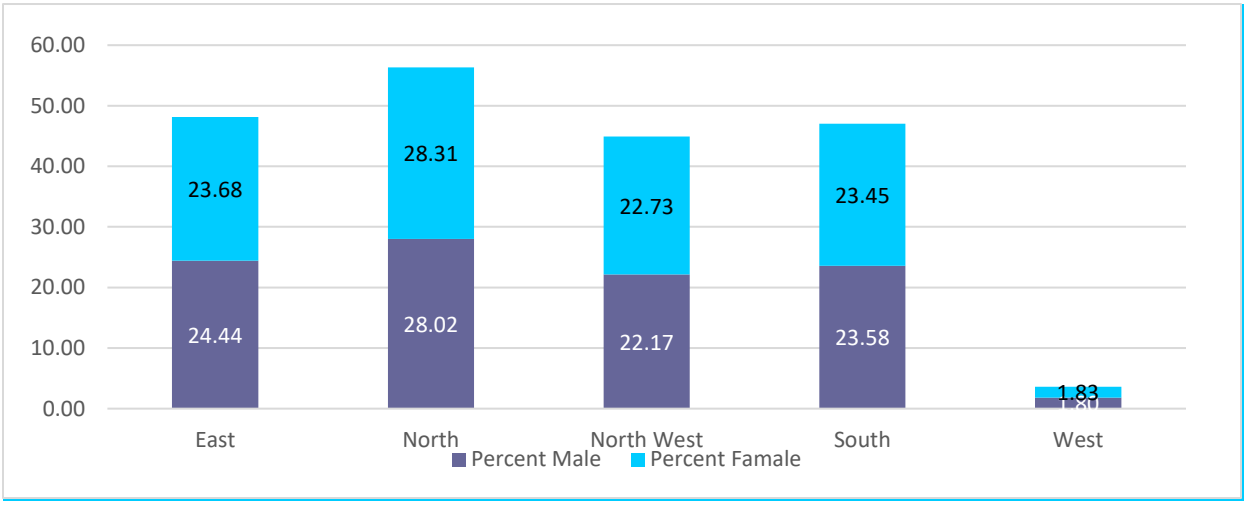


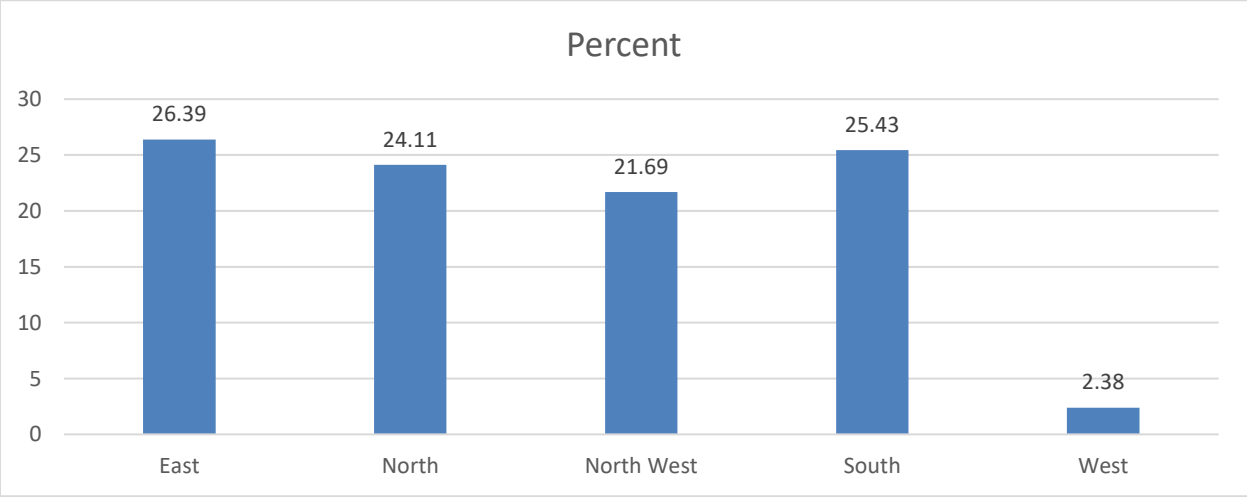
Figure 8.2 indicates that out of 1,247,942 Agricultural households that gave information on owning or cultivating land during the last twelve months, 792,425 households, about 63.5 percent own either agriculture or non-agriculture land in the last twelve months at the national level. Compared to 2011/12 Sierra Leone integrated household survey where 565047 households reported owing land, 54.1 percent. Ownership of Agricultural land has increased by 9.4 percent.

Figure 8.3: Households that cultivated agricultural land in the last 12 months by gender



Analysis shows that more male headed households cultivated agricultural land in the Eastern region with 24.44 percent for male and 23.68 percent female, North west, male 22.73 percent and female 22.17 percent, South, male 23.58 percent and female 23.45 percent, While the Northern region and Western region reported more female headed households cultivating land than male headed households.

Figure 8.4: Showing households that own land (agricultural and non-agricultural) in the last 12 months by region



Analysis within region reveals that, The Eastern region reported the highest number of households estimated at 209,141 households owning agricultural land and non-agricultural land, this is followed by the Southern region and the Northern region which reported 201,517 and 191,017 respectively. The North West and Western Area reported the lowest with 171,915 and 18, 835 households respectively.

District level analysis revealed that, Kenema, Bo, Port Loko, Kono, Tonkolili and Moyamba reported the highest number of households that own or cultivated Agricultural land and Non-agricultural land with 21.23 percent, 12.85 percent, 9.06 percent, 8.06 percent, 6.92 percent and 6.16 percent respectively during the reference period. While, Bonthe, Pujehun, Kambia, Bombali, Koinadugu and Karene reported 5.91 percent, 5.46 percent, 5.39 percent, 3.90 percent, 2.11 percent, 2.44 percent and 2.11 respectively. Western Area rural and Western area Urban reported the least 0.87, 0.47 percent respectively.

Table 8.3: Households that own land (agricultural and non-agricultural) in the last 12 months by gender and District

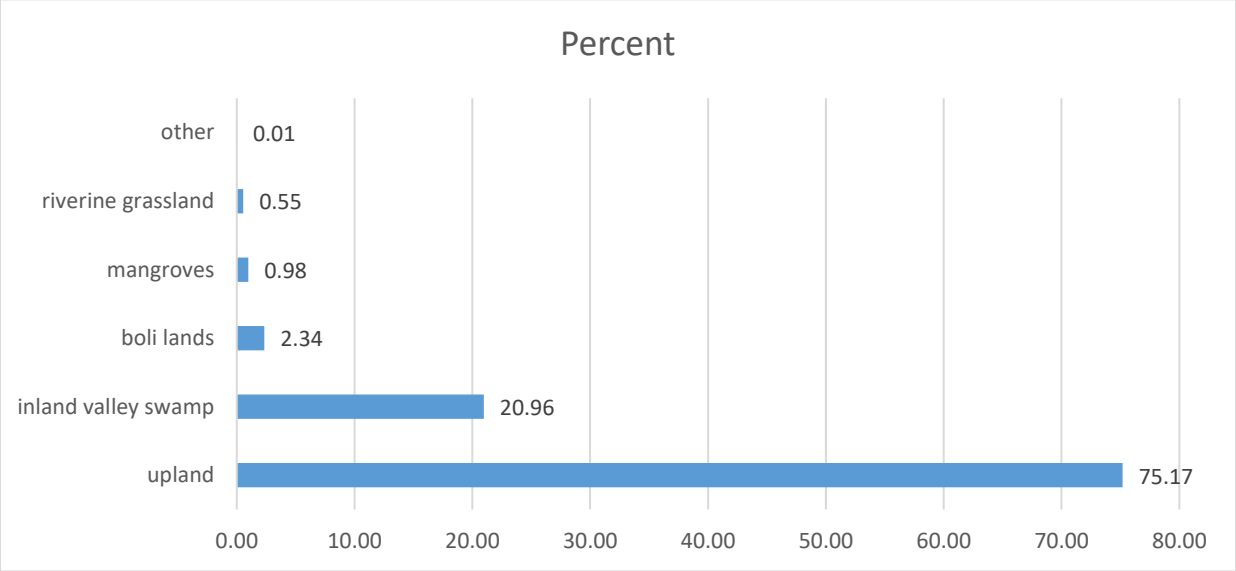
District	Male HHs	Percent Male	Female HHs	Percent Female	Quantity of land (Hectares) owned by Households
Kailahun	233,850	9.87	242,323	9.35	305901
Kenema	223,876	9.45	245,254	9.46	239789
Kono	121,596	5.13	126,209	4.87	145220
Bombali	126,440	5.33	125,644	4.85	101647
Falaba	115,383	4.87	132,148	5.1	127550
Koinadugu	103,557	4.37	115,041	4.44	83880
Tonkolili	318,700	13.45	360,800	13.92	206537
Kambia	166,974	7.04	186,180	7.18	133874
Karene	128,237	5.41	136,713	5.28	125737
Port Loko	230,305	9.72	266,169	10.27	208196
Bo	184,418	7.78	215,174	8.3	159412
Bonthe	81,942	3.46	86,093	3.32	97838
Moyamba	157,385	6.64	164,470	6.35	146563
Pujehun	135,075	5.7	142,053	5.48	117791
Western Area Rural	35,011	1.48	39,025	1.51	8886
Western Area Urban	7,560	0.32	8,400	0.32	6676
Total	**2,370,309**	**100**	**2,591,696**	**100**	**2215495**

Out of 4,962,005 agricultural households that cultivated land in the past twelve months, 2,370,309 are male headed households and 2,591,696 are female headed households. This shows that more women are engaged in small scale/back yard garden than men.

Analysis at districts level shows that Kenema, Port Loko, Bo, Falaba, Kambia, Moyamba, western area rural and western area Urban reported more female headed households cultivated land in the past twelve months, while Kailahun, Bombali, Kono, Koinadugu, Tonkolili, Bonthe and Pujehun reported more male headed households.

Regarding quantity of land owned by households, the estimated land owned was (2215495 ha). Analysis within districts shows that Kailahun, Kenema, Port Loko, Tonkolili reported the highest with (305901), (239789), (208196), (206537), followed by Bo (159412), Moyamba (146563), Kono (145220), Kambia (133874).

Figure 8.5: Percentage of households that farm on various types of ecologies



The figure above shows the different ecologies households farm. Out of the 2,544,341 having reported owing land, an estimated 75.17 percent of households reported owning land on upland ecology, followed by households owing land on inland valley swamps with 20.96 percent.

Households reported owing land on bolilands and mangrove accounted for 2.34 percent and 0.55 percent respectively. While those owing land on riverine and other ecologies was the least accounting for 0.55 and 0.01 percent respectively.

The regional distribution shows that the Eastern and southern region shows the highest percentage of agricultural households owing land on upland ecology with 1,603 and 1,374 households, accounting for 31.62 and 27.10 percent respectively. The Northern region and the

North West reported 1,162 and 851 households accounting for 22.92 percent and 16.79 percent respectively. The western region reported the least with 80 households accounting for 1.58 percent.

In addition, the North West, North and Southern region reported the highest number of households owing land on Inland valley ecology estimated at 426,380 and 362 households accounting for 29.75, 26.54 and 25.28 percent respectively. The East and Western region reported the least with 222 and 42 agricultural households accounting for 15.5 and 2.93 percent respectively.

Regarding having land on bolilands, The North west and Southern region reported the highest with 61 and 47 households representing 39.10 and 30.13 percent respectively. This was followed by the Northern region and Eastern region with 15 and 31 households representing 19.87 and 9.62 percent respectively. The western region reported the least with 2 households representing 1.28 percent.

Results also revealed that the North West region reported the highest number of households cultivating or owing land on mangrove and riverine ecologies with 47 and 18 households representing 90.38 and 45.0 percent respectively. The western region shows mangrove and riverine 5 and 2 households representing 9.62 and 2.50 percent respectively.

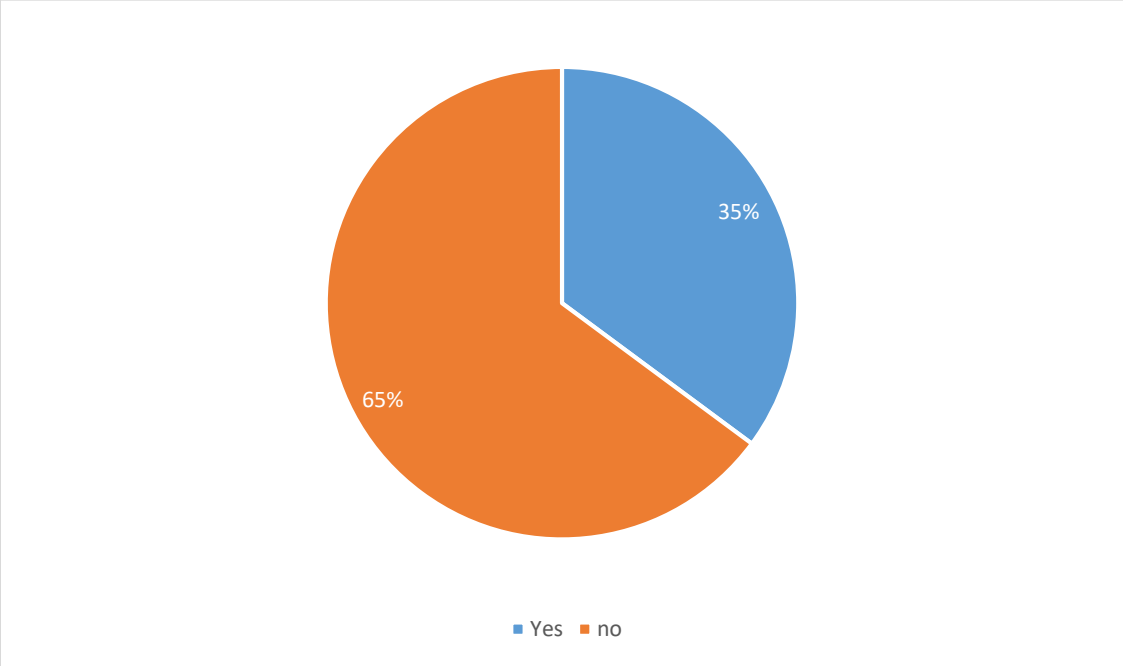
Table 8.4: Estimated percentage of the various types of irrigation by region

Region	Non (rain only)	Percent	hand _water	Percent	Canals	Percent	Pump	Percent
East	426,320	30.82	7810	11.37	516	30.55	0	0
North	339,290	24.53	7029	10.23	598	35.41	0	0
North West	308,527	22.31	25542	37.19	0	0.00	1,440	91
South	293,002	21.18	19610	28.55	212	12.55	0	0
West	16,040	1.16	8686	12.65	363	21.49	140	9
Total	**1,383,179**	**100.00**	**68677**	**100.00**	**1,689**	**100.00**	**1580**	**100**

Rain fed, Hand –watering, Canals and pump mechanized are sources of water for irrigation reported by all regions. Out of 1,455,125 agricultural households that responded, 1,383,179 households reported having Rain-fed source of irrigation, while hand- watering irrigation reported 68677 households. Canal irrigation and pump irrigations reported the least with 1,689 and 1580 households respectively. This implies that Agriculture is predominately rain-fed. This implies that other methods of irrigation and water management other than rain-fed may be developed for improving pasture, crop production and also to provide a more complete picture of water usage in agricultural production.

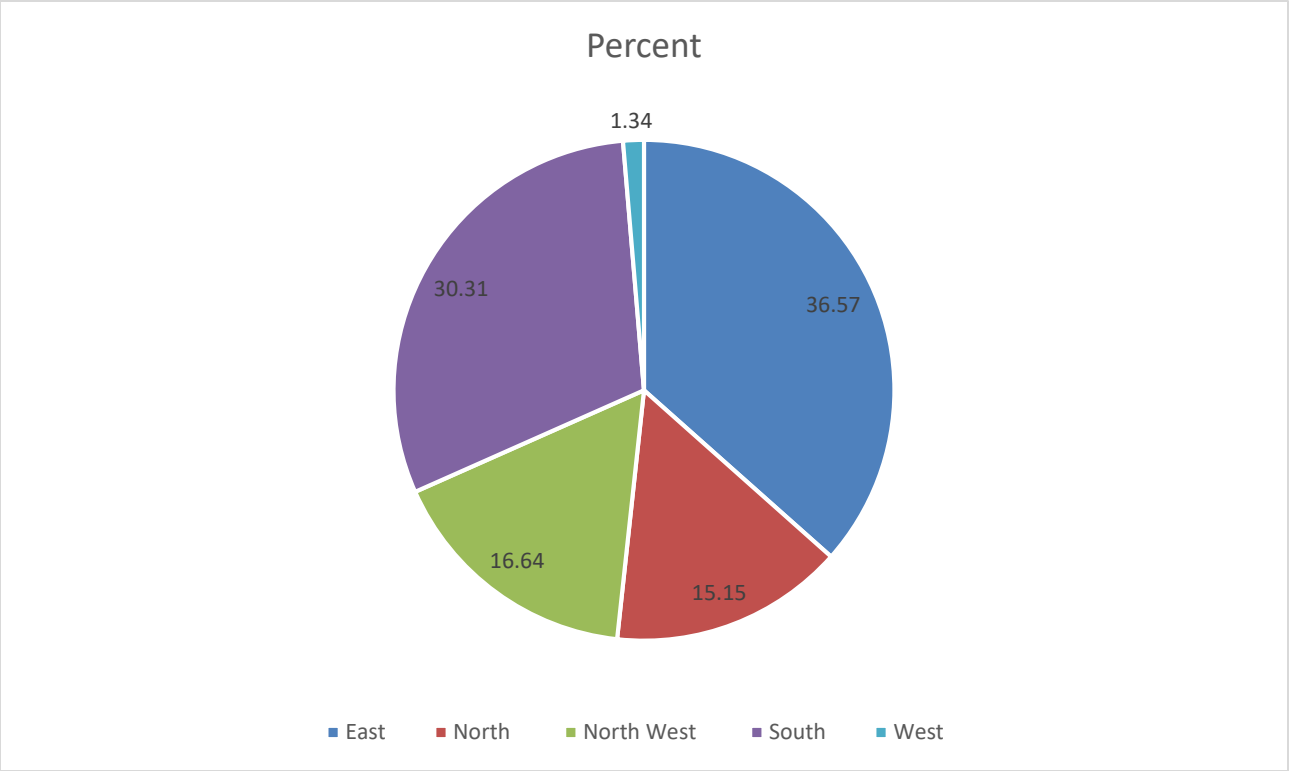
Regional Analysis on rain- fed source of irrigation shows that, the eastern region reported the highest, with 426,320 households accounting for 30.82 percent. This was followed by the Northern region and North West region with 339,290 Agricultural households and 308,527 agricultural households accounting for 24.53 and 22.31 percent respectively. The southern region and western region reported the least with 293,002 and 16,040 estimated at 21.18 1nd 1.16 respectively. The North West and Southern region reported the highest number of households having hand watering irrigation with 25542 and 19610 households accounting for 37.19 and 28.55 percent respectively. This was followed by West and North region with 7810 and estimated at 12.65 and 11.37 percent respectively. The southern region reported the least with 7029 Agricultural households estimated at 10.29 percent. The Northern region and East region reported the highest with 598 and 516 Agricultural households estimated at 35.41 and 30.55 percent respectively. This was followed by west and south region estimated at 363 and 212 Agricultural households accounting for 21.49 and 12.55 percent respectively. The North West and western region reported the highest with 1440 and 140 Agricultural households accounting for 91 and 9 percent respectively.

Figure 8.6: Estimated percentage of households that have right to sell agricultural land



Legal status of holder is important as it's contributes to decision making regarding, where, when, what and how to plant or produce on the holding as well as resources and input required for agricultural production. The results indicated that about 65 percent of Agricultural households do not have permission to sell their holdings while about 35 percent have right to sell their holdings

Figure 8.7: Estimated percentage HHs that have right to sell agricultural land by region



Regional analysis shows that, The Eastern region and Southern region had the highest number of households reported having right to sell with 187,003 and 154,947 households accounting for 36.57 percent 30.31 percent respectively. This was followed by the North and North West with 85,055 and 77,445 accounting for 16.64 and 15.15 percent respectively. The western region reported the least with 6,840 estimated at 1.34 percent.

Table 8.5: Estimated households that have permission to farm on the land by region

Land	HH permission to farm on Land		who did you get permission from to farm on the land				
Region	**Yes**	**Percent**	**Family**	**Chief or other traditional authority**	**Other individual**	**Government**	**Other**
East	179,668	23.66	127,402	31,553	20,117	596	0
North	187,243	24.66	59,548	90,435	35,040	0	592
North West	239,004	31.47	141,284	35,637	61,380	282	421
South	139,927	18.43	65,463	55,427	19,037	0	0
West	13,535	1.78	3,765	783	5,834	1,338	1,592
Total	**759,377**	**100**	**397,462**	**213,835**	**141,408**	**2,216**	**2,605**

Out of 759,377 agricultural households that responded having seek permission to farm on their holdings, Permission from family members reported the highest with 397,462 households, and this was followed by permission from chiefs or other traditional authorities with 31,553 households. While other individuals reported 86,251 households. Seeking permission from Government and other source reported the lowest with 2,605 and 2,216 households respectively.

Regional analysis shows that the North West region reported the highest number with 239,004 agricultural households reported having seek permission to farm, this was followed by Northern region and Eastern region with 187,247 and 179,668 households. The Southern region and Western region reported the lowest with 139,927 and 13,535 households.

District level analysis shows that Kailahun, Port Loko, Bombali, Kenema, Kambia, Tonkolili and Bo district with, (89,538),(79,216),(45,636),(32,730), (28,600) and (26,420) reported the highest number of Agricultural households that seek permission to farm their holdings accounting for 22.53,11.48 ,8.2, 7.96, 7.20 and 6.65 percent respectively. While Moyamba, Koinadugu, Pujehun, Bonthe and Kono districts reported 19,880, 15, 736, 11,400, 7,763 and 5,134 estimated at 5.00, 3.96, 2.87, and 1.95 percent respectively. Western Area rural and Western Area urban reported the lowest number of households asking permission to cultivate their farms.

Table 8.6: Estimated households that paid to work on the farm in the past 12 months by region

Region	HHs payment to work on the Farm		HHs payment arrangement			Total amount paid
	HHs that paid to work on the farm	Percent HHs that paid to work on the farm	HHs that said they paid Fixed amount	HHs that said they paid Share of Harvest	HHs that said they paid other	amount paid to work on the land (Le 000)
East	29,977	9.62	21,584	7,103	1,290	3,412,374.00
North	95,055	30.50	59,073	31,136	4,846	10,497,351.00
North West	114,775	36.83	58,725	46,796	9,254	15,820,622.00
South	64,627	20.74	54,114	9,841	392	6,629,491.00
West	7,224	2.32	5,886	669	669	626,063.00
Total	**311,658**	**100**	**199,382**	**95,545**	**16,451**	**36,985,901**

Out 1,454,977 agricultural households that gave information on payment to farm on their holdings, 311,658 reported having to pay before working on the holding, while 1,143,319 households responded that, they did not pay anything before working on the holding. Analysis on the form of payment also shows that 199,382 agricultural households pay fixed amount, 95,545 households used share of harvest as payment. While 16,451 agricultural households used other source of payments.

Regional Analysis further revealed that North West and Northern region reported the highest with 114,775 and 95,055 agricultural households reported payment to farm on their farms respectively. This was followed by the Southern region with 64,627 agricultural households, while Eastern region and western region reported the lowest with 29,977 and 7,224 respectively.

Table 8.7: Estimated Household that harvested on their farm land by region

	Did you harvest anything from plot		Reason for not harvesting				was the farm measured		Plot size
Region	**Yes, HHs that Harvested**	**Percent**	**Newly planted or cleared**	**Let fallow**	**Rented out**	**how much was received in last 12 months for renting**	**Yes, measured**	**Percent**	**Plot size in Hectares**
East	385,625	29.53	39,643	8,862	516	412,800	359,427	28.70	27584116.1
North	309,772	23.72	34,286	1,790	471	86,800	309,705	24.73	265272.0
North West	304,319	23.31	21,977	8,899	602	159,530	275,498	22.00	292338.7
South	282,182	21.61	22,076	7,109	1,343	68,400	293,350	23.42	5090902.9
West	23,834	1.83	1,395	0	0	0	14,396	1.15	77630.5
Total	**1,305,732**	**100**	**119,377**	**26,660**	**2,932**	**727,530**	**1,252,376**	**100**	**33310260.2**

Out of 1,454,527 Agricultural households that reported harvesting crops on their farm holdings 1,305,732 agricultural households reported having harvested on their farm lands prior to the survey, while 148,795 agricultural households reported not harvesting any crop on their farms.

Analysis on the reasons why they do not harvest any crops on their farm land, 119,337 agricultural households reported that they newly planted their or cleared they farms, while 26,660 households left their lands to fallow and 2,932 rented out their farms.

Regarding whether the plot was measured, a total of 1,252,376 agricultural households reported that, their land was measured, while reporting on the size of plot measured reported a total plot area of 82,309,653 .Within region shows that the East region reported the highest hectares of land / plot measured with 68, 160, 351, This was followed by the South region with 12,579,629 ha, while the North and west and North reported 722,369 and 655,487 hectares respectively. The West region reported the least with 191,825 hectares.

8.2 Annual Crops

Food crops were the largest contributors to GDP within the crop subsector. Between 2011-2018 , Rice which is our staple accounted for the largest contribution to the crop subsector followed by cassava, groundnuts, fruits and vegetables .The survey gives an overview and a broad picture of the diversity of Agricultural production in Sierra Leone, The survey covers the major food crops rice, cassava, sweet potatoes, maize etc including vegetables crops production Inputs like the use

of fertilizers both organic inorganic, chemicals ,seeds, planting materials whether improve or local, use of machinery like tractors, harvesters and the disposal of harvest.

8.2.1 Planting

Table 8.8: Percentage Households source of seed planted by region

Region	where did you get the seed that you planted						How much did you pay for seed
	Saved from last harvest	Percent	Bought	Percent	Provided by Govt., NGO	Percent	Total amount (Le 000)
East	220,844	23.33	99,573	15.00	5,832	54.38	10,704,904
North	300,748	31.78	140,610	21.00	456	4.25	27,526,593
North West	125,591	13.27	222,410	33.00	964	8.99	27,758,755
South	283,049	29.91	168,841	25.00	3,472	32.38	15,780,373
West	16,201	1.71	42,203	6.00	0	0.00	1,366,282
Total	**946,433**	**100**	**673,637**	**100**	**10,724**	**100**	**83,136,907**

Out of 1,630,694 agricultural households that responded to the different sources of obtaining seeds for planting, saved from last harvest as a source is reported as the highest with 946,433 agricultural households, This is followed by those who reported they bought seeds with 673,637 agricultural households, While those who reported that seeds were provided by Government or NGOs are estimated at 10,724 agricultural households.

Regional Analysis shows that the northern region reported the highest number of households securing planting seeds from saved from last harvest with 300,748 accounting for 31.77 percent. This was followed by southern region with 283,049 agricultural households accounting for 29.90 percent. The East region and the south region reported 220,844 and 125, 591 households estimated at 23.33 and 13.26 percent respectively. The west region reported the least with 16,201 households accounting for 1.71 percent. Regarding bought seeds as a Source the North West region reported the highest number of agricultural households with 222,410 estimated at33 percent. This was followed by the south region with 168,841 households accounting for 25 percent. The south and East region reported 140,610 and 99,573 accounting for 25 and 15 percent respectively. The west region reported the least with 42,203 representing 6 percent. While seeds provided by Government and NGOS, The Easter region reported the highest number of households with 5,832 accounting for 54.38 percent, this was followed by the south region with 3,472 agricultural households estimated at 32.37 percent. The North West and north region reported 964 and 456 agricultural households estimated at 8.98 and4.25 respectively.

Table 8.9: Showing percentage use of improved seed NERICA and method of plating by region

	Did you use improved seed (ie NERICA)		How did you plant the rice							
Region	Yes, use improved seed	Percent	broadcasting	Percent	nursing/ transplanting	Percent	Line sowing	Percent	Amount spent on labour to plough or plant crop	Amount spent on renting equipment
East	50,153	59.28	152,596	31.88	36,882	17.31	1,726	15.31	37,463,030	215,874
North	7,948	9.39	130,422	27.25	51,304	24.08	577	5.12	49,068,564	1,864,074
North West	11,335	13.4	83,784	17.5	90,388	42.43	1,568	13.91	33,019,603	1,008,364
South	14,241	16.83	110,908	23.17	33,376	15.67	7,119	63.17	42,054,941	78,146
West	923	1.09	949	0.2	1,089	0.51	280	2.48	1,595,935	131,347
Total	**84,600**	**100**	**478,659**	**100**	**213,039**	**100**	**11,270**	**100**	**163,202,073**	**3,297,805**

The within regional analysis revealed that the East region had the highest number of agricultural households that used improved seeds NERICA with 50,153 households accounting for 59.28 percent. This was followed by the southern region with 14, 241 agricultural households accounting for 16.83 percent. While the North West and Northern region reported 11,335 and 7,948 agricultural households estimated at 13.4 and 9.39 percent respectively.

The western region reported the least with 923 agricultural households accounting for 1.81 percent. District level analysis shows that Kailahun with 47. 76 percent, Bo 10.0 percent, Port Loko percent 8.47 percent, Tonkolili 6.32 percent and Kono 6.24 percent respectively. (see annex for detail)

8.2.2 Fertilizer

Data shows (See Appendix 8) that June, May and July with 98, 47 and 37 percent of agricultural households had the highest percentage of agricultural households that applied organic fertilizers in the year prior to the survey 2017. The within region analysis shows that in June month, the east region with 24 percent agricultural households had the highest percentage. This is followed by North region with estimated 23 percent of agricultural households. While west region and North West region reported 20 and 16 percent of agricultural households. The south region reported the least number of households.

Regarding the month of May, the west region reported 14 percent of agricultural household that uses organic fertilizers, this was closely followed by the North West region with 13 percent agricultural households. While the East region and the North region reported 11 and 5 percent households. The south region reported the least with 4 percent agricultural households in 2017. Further analysis revealed that in the month of July 2017, North West region and North reported the highest number of agricultural households that uses organic fertilizers. This was followed by the north and south region with 8 and 7 percent respectively. The east region reported the least with 3 percent households.

Table 8.10: Estimated percentage of households that applied organic fertilizer on annual crops by region

Region	Did you put any organic fertilizer (manure) on crop		What kind of organic fertilizer did you put								Amount paid (Le 000)
	Yes, HHs that applied organic fertilizer	Percent	Already organic fertilizer	Percent	S16 Manure	Percent	Compost	Percent	Other organic fertilizer	Percent	
East	9,215	6.64	149	0.28	7,042	7.37	1,290	5.59	883	4.39	88,591
North	9,752	7.03	33,448	63.56	5,063	5.3	3,640	15.78	1,049	5.21	241,210
North West	77,321	55.75	576	1.09	62,910	65.88	6,334	27.46	8,077	40.11	1,960,802
South	23,688	17.08	15,328	29.13	10,911	11.43	6,333	27.46	6,444	32	1,440,423
West	18,711	13.49	3,122	5.93	9,563	10.01	5,466	23.7	3,682	18.29	475,421
Total	**138,687**	**100**	**52,623**	**100**	**95,489**	**100**	**23,063**	**100**	**20,135**	**100**	**4,206,447**

Out of 1,578,171 Agricultural households that responded on the use organic fertilizers, 138,687 agricultural households accounting for 8.78 percent reported using organic fertilizers, while 1,439,484 estimated at 91.22 percent reported not using organic fertilizers.

Regional analysis shows that the south region 77,321 representing 55.75 percent of agricultural households, the North West region had the highest followed by the south region with 23,688 representing 17, 08 percent. While the west and north region reported 18,711 and 9,712 representing 13.49 and 7.03 respectively. The East region reported the lowest with 9,215 representing 6.64 percent.

Analysis within districts shows that the highest percentage of farmers using organic fertilizers were found in Port Loko, Kenema and western Area rural with 45.33, 12.05 and 15.2 9.57 percent respectively. While western area urban, Kailahun and Kono reported the lowest (see annex for detail).

Table 8.11: Estimated percentage of households that applied inorganic fertilizer on annual crops by region

	Did you put any inorganic/chemical fertilizer		what kind of in org/chemical fertilizer (first application)					what kind of org/chemical fertilizer (Second application)						
Region	Yes, HHs that applied inorganic/chemical	Percent	Fertilizer (unspecified)	NPK 15:15:15	NPK 20:20:20	NPK (not specified)	urea	Fertilizer (unspecified)	NPK 15:15:15	NPK 20:20:20	NPK (not specified)	urea	other	Total amount paid
East	6,976	5.18	1121	4663	0	0	1192	0	447	149	933	1,456	0	236,393
North	9,410	6.99	512	3868	525	646	3859	0	0	148	175	480	0	775,775
North West	75,060	55.74	4943	50016	1272	1601	16927	0	1,453	576	0	22,057	0	13,304,531
South	19,903	14.78	905	13025	2634	378	2961	280	119	658	280	3,204	0	1,390,748
West	23,316	17.31	10465	10621	0	0	2230	0	2,899	0	1,561	2,453	892	609,911
Total	**134,665**	**100**	**17946**	**82193**	**4431**	**2625**	**27169**	**280**	**4918**	**1531**	**2949**	**29650**	**892**	**16317358**

Out of 1,614,867 Agricultural households that responded on the use Inorganic fertilizers, 134,665 agricultural households accounting for 8.33 percent reported using organic fertilizers, while 1,480,202 estimated at 91.67 percent reported not using inorganic fertilizers (See Appendix 8. The low usage of organic fertilizers can be associated with unavailability and the high cost of inorganic fertilizers.

Regional analysis shows that the North West region reported the highest percentage of fertilizer use with 75,060 estimated at 55.74 percent. (Unsurprisingly given its proximity to Freetown and hence easier and cheaper fertilizer access). This was followed by the west region with 23,316 accounting for 17.31 percent agricultural households. The higher usage can also be explained by access and low cost of fertilizers compared to the provincial regions. While the south and north region reported 19,903 and 9,410 representing 14.78 and 6.99 respectively. The East region reported the lowest with 6,976 representing 5.18 percent respectively.

Regarding the kind of fertilizer used, NPK 15:15:15 was mostly used by all regions, followed by fertilizer which is unspecified, while urea and other types of inorganic fertilizers are used by small percentage of agricultural households.

Analysis within districts shows that the highest percentage of farmers using fertilizers were found in Port Loko, Kambia and western Area rural with 26.86, 26.64 and 15.23 percent respectively. While Koinadugu, Kono and Falaba reported the lowest (see annex for detail).

8.2.3 Herbicide/Insecticide

Table 8.12: Estimated percentage of households that applied insecticide on annual crops by region

	Did you put chemicals to kill weeds or pests		Other Tending		
	Yes, HHs that put chemicals	**Percent**	**Total Amount paid for Chemicals Le 000**	**Total Amount spent on labour Le 000**	**Total Amount spent equipment Le 000**
East	2,700	8.69	569,730	15,509,222	124,813
North	7,627	24.54	1,661,077	16,420,173	386,770
North West	10,606	34.13	689,437	6,064,941	851,692
South	2,953	9.5	403,982	16,017,330	1,979
West	7,193	23.14	186,656	439,331	280,446
Total	**31,079**	**100**	**3,510,882**	**54,450,997**	**1,645,700**

Out of 1,619,758 Agricultural households that responded on the use herbicides, 31079 agricultural households accounting for 1.91 percent reported using organic fertilizers, While 1,588,679 estimated at 98.09 percent reported not using herbicides. The low usage of herbicides can be associated with unavailability and the high cost of herbicides reduce access among farmers, especially among the poorest. Analysis also revealed that the total amount spent on chemicals was (Le 54.5B)

Regional analysis shows that the North West region reported the highest percentage of herbicides use with 10,606 estimated at 34.13 percent. Unsurprising given its proximity to Freetown and hence easier and cheaper herbicides access. This was followed by the North region with 7,627 accounting for 24.54 percent agricultural households. The higher usage can also be explained by proximity and easier access and low cost of herbicides compared to the other provincial regions. While the west and south region reported 7,193 and 2,953 representing 23.14 and 9.50 percent respectively. The East region reported the lowest with 2,700 representing 8.69 percent respectively.

Regarding the amount paid for chemicals, a total of (Le 3.5B) was paid nationally, while within region the north region paid the highest with (Le1.7M), This was followed by the North west with (Le 689.4M) and the East region (Le 569.7M). The North region and the west region reported (Le 403.9M) and (L186.3M) respectively

Within districts shows that Western Area rural, Kambia and Falaba with 22.24, 24.05 and 18.55 respectively reported the highest percentage of household using Chemicals, while Karene, Tonkolili and Bombali reported the least percent

8.2.4 Crop Loss

Table 8.13: Estimated percentage of HHs that lost annual crop before harvest by region

	Crop Loss		Reason for crop lose				
Region	**Yes**	**Percent**	**drought**	**rain**	**fire**	**insects**	**other**
East	165,640	16.35	3,012	4,855	361	66,107	28,292
North	338,145	33.37	17,645	9,375	926	144,280	65,220
North West	218,314	21.54	11,137	9,358	1,180	114,874	22,549
South	279,933	27.63	18,030	20,663	5,178	145,072	35,560
West	11,269	1.11	2,899	700	0	4,014	3,376
Total	**1,013,301**	**100**	**52,723**	**44,951**	**7,645**	**474,347**	**154,997**

Out of 1,630,794 responded to annual crop loss question, 1,013,301 representing 62.13 percent agricultural households reported having lose crops before harvest and 617,493 estimated at 37.87 percent agricultural households reported not losing crops before harvest. Agricultural households lose crops due animals and/or pests, insects, too much rain, too little rain, fire, and other factors.

Regional analysis revealed that, the Northern region with 338145 estimated 33.37 percent experiences more crop loss before harvest. This was followed by the south region with 279,933 estimated at 27.63 percent agricultural households. While the North West and East region experienced crop loss with 218,314 and 165,640 estimated at 21.54 and 16.35 percent respectively. The west region experienced the least with 11,269 accounted for 1.11 percent.

Regarding the reasons for crop loss, most issues were related to insects and animals/pests destroying crops. This is true across all regions, with the north reporting the highest. Other issues and drought also contributed severely in crop loss. A sizeable fraction of crop loss were due to fire.

Within district Tonkolili, Port Loko and Bo reported the highest percentage of crop loss with 21.59, 13.63, and 13.50 respectively, while Western area Urban and western area rural reported the least.

Regional analysis shows that rice which is our staple food was mostly harvested by all regions. Results further revealed that North West region reported the highest quantity of rice harvested with 3,052,881. This was followed by the North region with 2,704,973 and East region with 2,444,925 respectively. The south region was closely followed by the east region with 2,366,125. The west region reported the least with 33,411.

In the case of the remaining food crops, higher quantities of harvest was reported by all regions for Groundnut, yam, potatoes leaves, Crain Crain, Maize/corn, pepper and okra

Within districts, Tonkolili, Moyamba and Kenema reported the highest percentage of crop harvest with 20.16, 13.15 and 11.90 percent, respectively, while Western area Urban and western area rural reported the least.

8.2.5 Rice Preparation

Table 8.14: Estimated percentage of Rice crop processing by region

	Did you parboil your rice						Did you mill your rice						Amount paid to mill rice	Mean amount paid mill rice
Region	yes, all	Percent	some	Percent	no	Percent	yes, all	Percent	some	Percent	no	Percent	Total amount	Mean amount Le 000
East	19,328	34.7	121,420	28.5	46,673	22.48	2,843	29.65	45,833	23.97	138,745	28.4	3,756,155	77
North	6,446	11.57	96,700	22.7	76,467	36.84	3,460	36.09	37,580	19.66	138,573	28.37	972,383	24
North West	7,203	12.93	137,177	32.2	30,481	14.68	2,849	29.72	93,366	48.83	78,646	16.1	4,477,458	46
South	22,495	40.39	69,233	16.25	53,748	25.89	212	2.21	13,542	7.08	131,722	26.96	232,958	17
West	223	0.4	1,452	0.34	223	0.11	223	2.33	866	0.45	809	0.17	62,206	57
Total	**55,695**	**100**	**425,982**	**100**	**207,592**	**100**	**9,587**	**100**	**191,187**	**100**	**488,495**	**100**	**9,501,160**	

The table above shows the percentage distribution of households processing rice (husked or polished Rice) which is our staple food in Sierra Leone. Analysis shows that 55,695 agricultural households parboil rice and 425,982 reported that they did not parboil rice. Within region revealed that the Southern region 40.39 percent reported highest percentage of households that parboil rice, followed by Eastern region with 34.7 percent households. While the North West and Northern region reported 12.93 and 11.57 percent respectively. The west region reported the lowest with 0.40 percent

8.2.6 Disposal of harvest

Table 8.15: Estimated percentage of household crop harvest disposal by region

Region	Keep seed	Percent	Keep for home consumption	Percent	Pay for labour ,Land etc	Percent	Sold	Total Amount from sale	input for Next Farming Event	Percent
East	708,946	18.72	2,671,395	22.57	207,675	17.74	1,953,854	285531510	48,205	30.37
North	1,027,276	27.12	3,299,839	27.88	315,489	26.95	1,693,038	102117884	20,408	12.86
North West	662,936	17.50	1,640,619	13.86	278,616	23.80	2,100,780	166215872	40,081	25.25
South	1,284,459	33.91	3,614,971	30.55	336,959	28.79	2,391,138	100469613	25,541	16.09
West	104,451	2.76	607,499	5.13	31,764	2.71	686,955	13,068,573	24,509	15.44
Total	**3,788,068**	**100**	**11,834,323**	**100**	**1,170,503**	**100**	**8,825,765**	**667,403,452**	**158,744**	**100**

Respondent households of the survey were asked how much of their harvest they allocated to various purposes, including consumption, sales, kept for seeds payments for land use, loan reimbursement, gifts, etc. Out of 25,777,403 total harvest, a large proportion of the harvest was allocated for home consumption with 11,834,323. This was followed by the quantity sold by agricultural households with 8,825,765. While the quantity kept for seeds and payment for Labour, Land etc was 3,788,068 and 1,170,503 respectively. The quantity allocated to input NFE was lower with 158,744.

Analysis within region shows that the South region allocated had the highest percentages to most of the purposes, kept seeds, kept for home consumption, pay for labour/land and sold with 33.91, 30.55, 28.79 and 27.09 percent except input to NFF 16.09 percent. This was followed by the North region that allocated 27.88 percent home consumption, 27.12 to kept for seeds 26.95, payment for labour/land, 19.18 to sold and 12.86 percent input to NFF respectively. While the east region allocated 18.72 percent kept for seeds, 22.57 percent kept for home consumption, 17.74 percent to payment for labour, 22.4 percent sold and 30.37 percent to input for NFF respectively.

The North west region also allocated 17.50 percent to kept for seeds,13.86 for home consumption, 23.80 for payment for labour 23.80 for sold and 25.25 percent to input for Next Farming Event (NFE). While the west region allocated the least to all purposes on the disposal of harvest as there is small scale agricultural activities. From the total harvest sold, households received Le 667.4B of which the East have the highest of Le 28.6B

Table 8.16: Estimated percentage of crop sold by region

	How did you mostly sell crop													
Region	Pre harvest contractor	Percent	farm gate buyer	Percent	market trader	Percent	Direct to consumer	Percent	state trading organization	Percent	Cooperatives	Percent	other	Percent
East	3,221	8.2	21,214	9	118,158	19.8	57,234	49.2	531	41.4	0	0	361	54.5
North	18,308	46.6	71,983	30.7	119,597	20	10,755	9.2	323	25.2	2250	88.9	0	0
North West	1,768	4.5	59,474	25.3	190,455	31.9	7,278	6.3	148	11.5	0	0	301	45.5
South	15,998	40.7	75,424	32.1	150,889	25.2	31,962	27.5	280	21.8	280	11.1	0	0
West	0	0	6,607	2.8	18,846	3.2	9,070	7.8	0	0	0	0	0	0
Total	**39,295**	**100**	**234,702**	**100**	**597,945**	**100**	**116,299**	**100**	**1,282**	**100**	**2,530**	**100**	**662**	**100**

Out of 992,715 agricultural households that gave information on the sale of crops 597,945 sell crops to market trader, 234,702 sell their crops at Farm gate price, Direct to consumer 116,299, Pre harvest was 39,295, cooperatives 2,530, state trading organizations 1,282 and others, 662.

Regional analysis revealed that, The North region reported the highest percentage of sales on pre-harvest, farm gate and cooperatives with 46.6, 30.7, and 88.9 percent respectively. This was followed by the Southern region that reported 40.7, 32.1, 25.2, and 27.5 percent on pre-harvest, farm gate buyer, market trader and direct consumer. Similar trends is also seen with the North West region that reported 25.3, 31.9, and 45.5 percent to others.

Regarding sales to other and sales to direct consumer, the Eastern region reported the highest with 54.5 percent and 49.2 percent respectively.

Within districts result shows that Port Loko, Kambia and Tonkolili reported the highest percentage of household that sell their harvest to market trader with 17, 13 and 12 percent respectively, while selling to Farm gate buyer Tonkolili, Bo and Port Loko reported the highest percentage with 21, 21 and 15 percent respectively. (See annex for details

Table 8.17: Estimated percentage households that consumed own rice by region

Region	Own consumption of Rice		Households not having enough of its own rice to eat in the past 12 months											
	No. of HHs	Percent	Jan	Feb	March	April	May	June	July	August	Sept	Oct	Nov	Dec
East	165,509	27.6	1.31	1.48	2.61	4.15	6.17	14.07	19.55	21.19	17.05	7.93	2.92	1.57
North	159,755	26.6	1.66	1.84	3.26	7.14	9.29	12.96	17.53	20.36	16.38	7.24	1.52	0.83
North West	134,781	22.4	1.53	1.3	1.55	2.76	3.72	5.6	11.96	20.63	21.72	17.48	9.26	2.48
South	138,691	23.1	1.54	2.41	4	6.41	9.69	13.79	16.01	17.97	14.78	8.6	3.48	1.34
West	1,758	0.3	5.8	5.8	8.04	8.04	5.8	12.94	25.87	18.74	2.24	2.24	2.24	2.24
Total	**600,494**	**100**												

Overall 600,494 Agricultural households reported that they had cultivated rice for consumption prior to the SLIHS and 124,155 households reported that they had not cultivated rice for consumption.

Within regions shows that, The Eastern region reported the highest agricultural household that reported cultivating rice for own consumption with 165,509 estimated at 27.6 percent. This was followed by the Northern region that reported 159,755 representing 26.6 percent. While the southern region and North West region reported 138,691 and 134,781 estimated at 23.1 and 22.4 percent respectively. The west region reported the least with 1,758 estimated at 0.3 percent.

At district level the highest percentage of farmers growing rice for own consumption were found in Tonkolili, Kailahun and Kambia with 12.24 percent, 10.72 percent and 7.74 percent respectively. (See annex for details).

8.3 Permanent Crops

These are the key agricultural export commodities in terms of Volume and value, Cocoa, coffee, Kola-nuts and oil palm has been the largest agricultural export earner in Sierra Leone. The survey covers the distribution of tree crops by region, Area under production and the quantity of produce and disposal of harvest.

Inputs like the use of fertilizers both organic and inorganic, chemicals, seeds, planting materials whether improve or local, use of machinery like tractors, harvesters and the disposal of harvest were also covered.

8.3.1 Crop Calendar

Table 8.18: Estimated percentage of month's crop that was harvested

Crop	Jan	Feb	March	April	May	June	July	August	Sept	Oct	Nov	Dec
Cassava	11.88	9.88	8.12	5.52	3.78	4.02	4.87	7.17	8.89	9.99	11.92	13.96
Cassava leaves	7.40	6.34	4.97	3.97	4.03	5.91	9.05	11.54	12.71	12.76	11.29	10.02
Coffee	24.36	16.87	5.48	2.03	0.33	0.33	0.00	0.61	4.27	5.66	14.02	26.04
Cocoa	9.66	3.30	0.79	0.63	0.55	0.88	2.05	11.24	16.93	18.33	19.08	16.54
oil palm	6.02	6.33	11.02	14.34	13.76	10.38	6.98	5.71	5.02	5.69	7.17	7.57
cashew	0.00	0.00	6.11	6.11	6.11	6.11	6.11	6.11	17.37	17.37	17.37	11.26
Cola nut	20.03	8.27	3.97	4.53	7.59	8.43	0.55	0.55	1.95	6.37	15.76	22.01
rubber	0.00	0.00	0.00	0.00	0.00	12.47	12.47	12.47	31.30	31.30	0.00	0.00
mango	1.65	0.68	3.18	25.24	39.80	22.44	3.59	0.00	0.00	0.00	1.37	2.05
Orange	20.33	4.33	1.19	1.21	1.21	4.35	5.54	1.19	0.00	7.47	21.05	32.12
Banana	10.66	8.43	6.94	4.66	4.87	6.14	5.29	6.77	8.01	9.39	13.47	15.35
Plantain	10.06	8.01	8.46	6.90	4.12	2.35	3.40	5.68	7.64	11.56	15.42	16.42
coconut	9.40	5.93	13.83	14.10	14.10	2.20	3.12	6.36	3.94	5.04	8.55	13.41
Guava	8.64	11.65	11.65	3.04	0.00	0.00	3.01	3.01	6.02	10.41	13.00	29.56
Pow-pow	6.68	20.87	6.68	0.00	0.00	0.00	0.00	6.68	6.68	16.17	22.86	13.37
avocado/pear	11.02	11.02	15.99	19.49	14.52	14.52	3.49	4.97	0.00	0.00	0.00	4.97
Lime	0.00	0.00	0.00	0.00	0.00	0.00	13.78	13.78	33.33	19.56	19.56	0.00
Limon	11.57	0.00	0.00	0.00	0.00	0.00	5.45	5.45	8.38	2.93	37.63	28.59
grapefruit	14.66	0.00	0.00	0.00	0.00	14.66	14.66	0.00	0.00	14.66	14.66	26.70
Other	6.88	8.55	14.92	18.09	12.24	10.68	7.43	4.12	0.83	1.61	6.12	8.53

Finding shows the quantity of crops mainly harvested in various months within the year. Cassava is mainly harvested in December 13.96 percent, January 11.88 percent, November 11.92 percent and October 9.99 percent. Cassava Leaves is mainly harvest October 12.76 percent, September 12.71 percent, August 11.54 and July 9.05 percent. Coffee in January 24.36 percent, December, 26.04 percent February 16.87 and November 14.02 percent. Cocoa in October 18.33 percent, December 16.54 percent, September 16.93 percent. Oil palm in April 14.34, May 13.76 percent and June10.38 percent. Cashew October 17.37 percent November 17.37 percent and December 11.26. Cola nut in December, 22.1 percent, January 20.03, November 15.76 percent. Rubber in October 31.30 percent, September 31.30 percent and August 12.47 percent. Mango is mainly harvested in May, April and June with 39.80, 25.24 and 22.24 percent respectively.

Regarding Orange, Banana, and plantain, are harvested in December, November and January, while Coconut, Guava, Paw-paw, lemon and grape fruit are also harvested in December, November, October and January.

8.3.2 Planting

The Appendix 8 shows the percentage distribution of households that planted crop in the last 12 months. Cassava with 77,227 agricultural households estimated at 58.87 percent which is second staple crop is grown more than any other crop. This was followed by Cassava Leaves with 28,338 accounted for 21.60 percent. Note the 2018 SLIHS data collection considered cassava as a permanent and it's planted for two purposes (leaves and Tuber). While oil palm, cocoa, coffee and Banana were planted at rate of 6.19, 3.54, 1.84 and 1.76 percent respectively.

Even though other crops Kola-nuts, rubber, mango, orange, coconut, lime, guava, pawpaw, etc are grown during the past twelve months prior to the survey, the percentage reported was low.

Regarding the source planting materials Agricultural households used. Saved from last harvest as a source is reported the highest with 186,445 agricultural households, this was followed by those who reported they bought seeds with 49,381 agricultural households, while those who reported that seeds were provided by Government or NGOs is estimated at 7,741 agricultural households (Table 8.21 below)

Table 8.19: Estimated percentage of households that planted crops in the last 12 months by region

Region	yes	Percent	Save from last harvest	percent	Bought	percent	Provided by Government, NGO	percent
East	32,303	24.62	36,124	19.3	8,924	18.12	6,341	81.9
North	28,365	21.62	37,861	20.2	15,938	32.3	0	0
North West	7,257	5.53	9,785	5.2	8,923	18.1	288	3.7
South	59,523	45.37	98,804	52.7	12,972	26.3	1,112	14.4
West	3,739	2.85	4,771	2.5	2,624	5.3	0	0
Total	**131,187**	**100**	**187,345**	**100**	**49,381**	**100**	**7,741**	**100**

Out of 437,199 households who reported that they planted crops in the last twelve months, 131,187 agricultural households reported planted crops, while 306,012 agricultural households reported that they did not planted any crop.

Regional Analysis shows that the south reported the highest number of households securing planting seeds from saved harvest with 98,804 accounting for 52.7 percent. This was followed by North region with 37,861 agricultural households accounting for 20.2 percent. The East region and the North West region reported 36,124 and 9,785 households estimated at 19.3 and 5.2

percent respectively. The west region reported the least with 4,771 households accounting for 2.5 percent. Regarding bought seeds as a Source the North region reported the highest number of agricultural households with 15,938 estimated at 32.3 percent. This is followed by the south region with 12,972 households accounting for 26.3 percent. The East and North West region reported 8,924 and 8,923 accounting for 18.12 and 10.0 percent respectively. The west region reported the least with 2,624 representing 5.3 percent. While seeds provided by Government and NGOS, the Eastern region reported the highest number of households with 6,341 accounting for 81.9 percent, this followed by the southern region with 1,112 agricultural households estimated at 14.4 percent. The North West and northern region reported 288 accounted for 3.7 percent.

Table 8.20: Estimated total amount spent to plant, on labour and equipment in the last 12 months by region

Region	Amount paid for things planted	Amount spent on labour to plough	Amount spent on equipment	Total amount spent on things planted, labour to plough and on equipment
East	838,420	1,913,983	104,850	2,857,253
North	1,312,110	2,263,965	237,200	3,813,275
North West	490,993	687,400	30,026	1,208,419
South	1,408,391	6,293,627	400,170	8,102,188
West	479,504	31,320	7,805	518,629
Total	**4,529,418**	**11,190,295**	**780,051**	**16,499,764**

The total amount paid for planting is Le 4.5B, Le 11.2B amount spent on labour to plough and Le 780.1M amount spent on equipment. The highest amount spent is on the amount spent on labour to plough Le 11.2B.

The result shows that Le 16.5B is spent for planting, labour to plough and equipment in Sierra Leone. The southern region is spending the highest Le 8.1B on the three activities followed by Le 3.8B in the North, Eastern region Le 2.9B and West shows the lowest Le 518.6M.

Table 8.21: Estimated total amount spent on Labour and to hire equipment for the application of herbicide/insecticide by region

	Other Tending		
Region	**Total Amount spent on labour to tend (weed etc)**	**Total Amount spent to hire equipment eg sprayer**	**Total amount spent on Labour and hire of equipment Le 000**
East	10,439,797	27,258	10,467,055
North	3,416,430	34,644	3,451,074
North West	590,966	602	591,568
South	5,007,645	93,147	5,100,792
West	35,805	0	35,805
Total	**19490643**	**155651**	**19,646,294**

The table shows that Le 19.5B is spent on labour to tend for example weeding, which is the highest as compared to Le 155.7M to hire equipment. The result shows that Le 19.6B is spent on labour and hire of equipment for example sprayer in fertilizer application in Sierra Leone. The Eastern region is spending the highest Le 10.5B on both activities followed by Le 5.1B in the south and western region which shows the lowest Le 35.8M.

8.3.5 Crop loss

Table 8.22: Estimated percentage of households that lost permanent crop by region

Region	Crop Loss		Reason for the loss									
	Yes	Percent	Drought	Percent	Rain	Percent	Fire	Percent	Insects	Percent	Other	Percent
East	75,238	25.76	1,065	10.24	5,704	38.88	0	0	32,243	22.94	10,522	22.6
North	73,639	25.22	6,744	64.86	2,614	17.82	2,685	36.88	37,320	26.55	13,367	28.71
North West	37,182	12.73	301	2.9	903	6.16	421	5.78	16,402	11.67	7,872	16.91
South	104,404	35.75	2,287	22	5,086	34.67	4,175	57.34	54,237	38.58	13,954	29.97
West	1,566	0.54	0	0	363	2.47	0	0	363	0.26	840	1.8
Total	**292,029**	**100**	**10,397**	**100**	**14,670**	**100**	**7,281**	**100**	**140,565**	**100**	**46,555**	**100**

Reported crop loss of 75,238 and 37,182 estimated at 25.76 and 12.73 respectively. The west region experienced the least with 1,566 accounted for 0.54 percent Out of 554,809 that responded to annual crop loss for permanent crops, 292,029 estimated at 52.63 percent agricultural households reported having lose crops before harvest and 262,780 estimated at 47.37 percent agricultural households reported not losing crops before harvest. Agricultural

households lose crops due to animals/or pests, insects, too much rain, too little rain, fire, and other factors.

Regional analysis revealed that, the South region with 104,404 estimated 35.75 percent experiences more crop loss before harvest. This was followed by the East region with 75,238 estimated at 25.76 percent agricultural households. While the North and North West region

Regarding the reasons for crop loss, most issues were related to insects and animals/pests destroying crops. This is true across all regions, with the south reporting the highest. Other issues and drought also contributed to crop loss. A sizeable fraction of crop loss was due to fire.

Within district analysis shows that highest percentages of crop loss were found in Bonthe, Bo and Tonkolili with 87.30, 77.27 and 74.54 percent respectively. (See annex for details)

8.3.3 Harvest

The second main staple in Sierra Leone is cassava. Cassava is a very different crop with very different production attributes. Cassava can be left in the ground for multiple seasons and does not need to be harvested the season or the year it is planted. This affords households a way of smoothing risk and using cassava as a lean season crop. It also means cassava can better withstand droughts. However, SLIHS 2018 considered cassava and Cassava leaves as permanent crops

Cassava and cassava leaves which is our second staple is mostly harvested in all regions with a total production of 5,664,789 and 3, 493, 33 for cassava and cassava leaves. This was followed by oil palm, cacao and coffee with an annual production of 2,031890, 592,660 265,138, respectively.

While Banana, orange, plantain Kola nut and mange with a total production of 237,825, 151,937, 96,380 and 33,898, are also harvested at higher quantities. Other permanent crops like Coconut, guava, paw-paw, Avocado, lime lemon, grape fruit and other crops reported lower production figures

Table 8.23: Estimated total amounts spent on labour, items and to hire equipment to harvest permanent crop

Region	Total amount spent on labour in the past three months	Total amount spent on items (bags, containers etc)	Total amount spent to hire equipment	Total
East	17,586,406	2,489,471	13,816	20,089,693
North	1,194,120	964,634	15,300	2,174,054
North West	644,413	414,887	602	1,059,902
South	4,631,075	3,083,488	522	7,715,085
West	44,043	10,760	0	54,803
Total	**24,100,057**	**6,963,240**	**30,240**	**31,093,537**

The result shows that Total amount spend on labour in the past three months is higher in the Eastern region Le 17.6B and the south Le 4.6B. The eastern region have the highest amount spent on items like bags, containers etc Le 3.1B in past three months followed by Eastern region Le 2.5B. For total amount spent to hire equipment is higher in North and East Le 15.3M and Le 13.8M respectively.

The total amount spent on labour, amount spent on items like bags, containers etc and total amount spent to hire equipment is over Le 31.1B which 20.1B is in the East, Le 7.7B and Le 54.8M which is the least is in the West.

8.3.6 Cassava Processing

Table 8.24: Estimated percentage of cassava processing by region

Region	Cassava Processing						Total amount paid to grate cassava on a machine
	Yes All	Percent	some	Percent	No	Percent	
East	0	0	1,554	9.12	22,591	19.23	55,470
North	921	12.54	820	4.81	39,121	33.3	25,313
North West	602	8.2	602	3.53	6,785	5.78	16,856
South	5,820	79.26	14,065	82.54	47,457	40.39	1,679,795
West	0	0	0	0	1,535	1.31	0
Total	**7343**	**100**	**17041**	**100**	**117489**	**100**	**1,777,434**

Cassava processing which is an important sector in the production chain is most prominent in the south where 79.26 percent process/grate all the cassava that is harvested and also in the same

south 82.54 percent process/grate some of the cassava that is harvested. Interestingly, the same South spent the highest amount Le 1.7B to pay to grate cassava on machine.

Among the districts the highest number of percentages for cassava processing were reported by Moyamba, Pujehun, Port Loko and Bonthe with 16.67, 12.44, 9.01 and 6.46 percent respectively (see Appendix 8 for details).

8.3.4 Disposal of Harvest

Figure 8.8: Estimated percentage of different methods of disposal of harvest of permanent crop by region

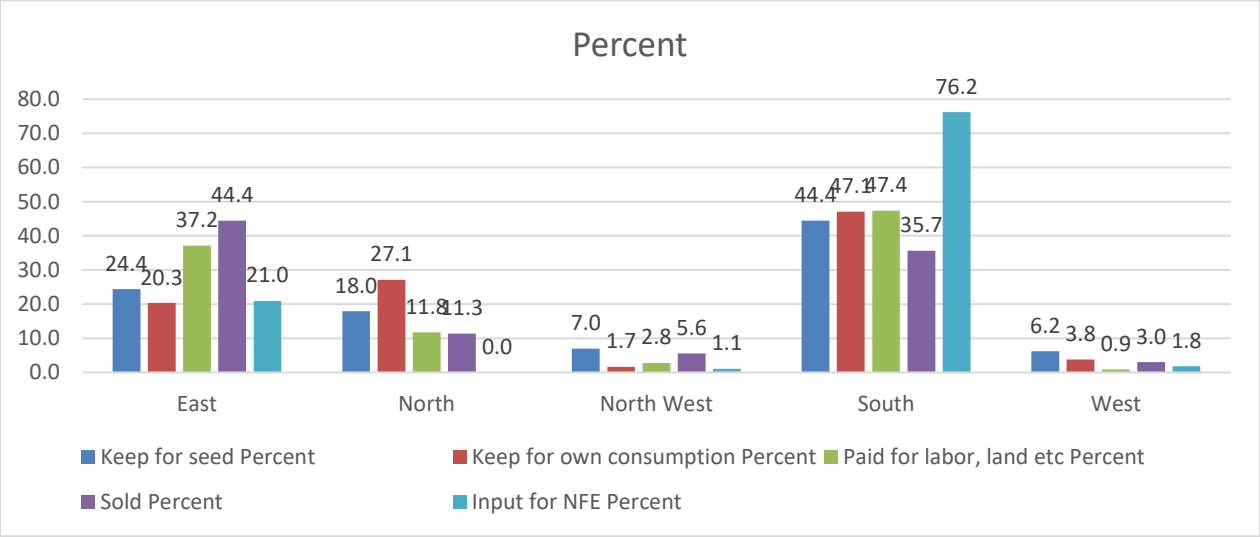


Table 8.25 shows the percentage disposal of harvest of permanent crops in the five regions. In the southern region 44.4 percent of households said they kept part of their harvest for seed, followed by the East 24.4 percent and North 18.0 percent. Households that responded that they kept some of their harvest for own consumption is higher in the South 47.08 percent followed by the North 27.1 percent and very low in the North West 1.7 percent. Households paid more for labour, land etc in the South and Eastern region 47.4 percent and 37.2 percent respectively. The reverse trend shows for Households who sold their harvest, which is now higher in the East and Southern region 44.4 percent and 35.7 percent respectively. Sothern region have the highest percentage of households 76.2 percent who use their harvest for input for Next Farming Event (NFE).

Table 8.25: Estimated percentage of how permanent crop are mostly sold by region

How crops are mostly sold	East	Percent	North	Percent	North West	Percent	South	Percent	West	Percent
Pre-Harvest Contractor	8,186	7.02	6,030	12.82	301	1.4	11,712	12.13	0	0
Farm Gate Buyer	22,393	19.2	10,101	21.48	11,325	52.5	29,565	30.61	1,784	37.39
Market Trader	50,455	43.27	26,027	55.34	9,497	44.02	46,738	48.4	2,344	49.13
Direct to Consumer	19,492	16.72	4,654	9.9	449	2.08	8,349	8.65	643	13.48
State Trading Org.	492	0.42	0	0	0	0	0	0	0	0
Cooperative	15,123	12.97	216	0.46	0	0	212	0.22	0	0
Other	460	0.39	0	0	0	0	0	0	0	0
Total	**116,601**	**100**	**47,028**	**100**	**21,572**	**100**	**96,576**	**100**	**4,771**	**100**

In Sierra Leone most crops harvested are sold to market trader and in the East market trader have the highest 43.27 percent, farm gate buyer 19.20 percent and 16.72 percent sold direct to consumer. In the North you have 55.34 percent for market trader followed by farm gate buyer 21.48. North West 52.50 percent for farm gate buyer and 44.02 market trader, South 48.40 percent for market trader and 30.61 percent for farm gate buyer. In the western region 49.13 for market trader and 37.39 percent for farm gate buyer. It is lower for pre-harvest contractor, state trading organisation, cooperative and other in all the regions.

8.3.5 Own Consumption of Cassava

Table 8.26: Estimated percentage of households who grew cassava for own consumption by region

Region	Own consumption of cassava		Months household did not have enough of its own cassava to eat by											
	HHs	Percent	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec
East	29,939	16.8	3.81	4.01	5.28	7.65	11.5	12.7	12.51	12.1	10.42	9.36	7.21	3.46
North	44,861	25.18	4.25	4.57	6.36	11.18	13.05	13.46	13.39	12.04	10.73	6.54	2.84	1.59
North West	13,706	7.69	4.27	5.04	3.95	5.06	6.68	11.56	11.56	11.02	11.39	10.12	9.94	9.42
South	88,623	49.74	4.76	5.18	5.99	8.17	10.25	10.4	11.55	12.38	10.42	8.68	6.91	5.28
West	1,032	0.58	8.99	8.99	11.81	8.99	4.49	8.99	13.48	8.99	11.81	4.49	4.49	4.49
Total	**178,161**	**100**												

Table 8.26 Shows percentage of households who grew cassava root for its own consumption and the months that they do not have enough cassava to eat. From of a total of 178,161 households who said yes, they grew cassava root for their own consumption, the southern region has the highest of 49.74 percent follow by North 25.18 percent and Western region have the lowest of 0.58 percent. The months of May 13.05 percent, June 13.46 Percent which is the highest, July 13.39 and August 12.04 percent were the months when households do not have enough cassava to eat.

8.4 Forestry

The Forestry sub- sector is the third largest contributed to GDP after Fishery. This section in the also covers all the forestry activities the household were engaged in, in both rural and **urban** areas in the last twelve months. Bee keeping was also considered as a forestry activity whether the household is keeping the bee or collecting wild honey. The section also captures the time spent and the economic benefit the household derived from this activity

Figure 8.9: Estimated percentage households that are engaged in forest activity by region

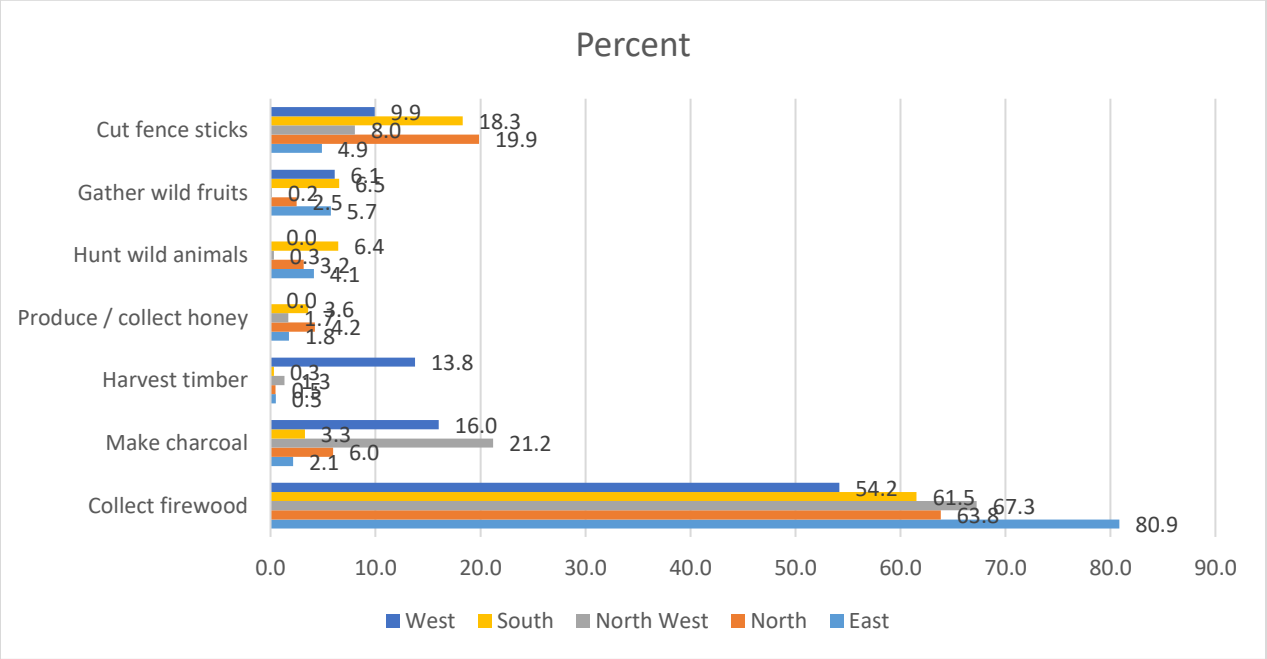


Table 8.27: Estimated percentage of households that are engaged in forest activity in own bush/Farm by region

Forest activity	Own bush/farm									
	East	Percent	North	Percent	North West	Percent	South	Percent	West	Percent
Collect firewood	90,963	80.02	56,239	69.53	26,254	64.50	70,215	63.35	363	39.33
Make charcoal	3,045	2.68	5,035	6.22	11,341	27.86	4,568	4.12	140	15.17
Harvest timber	622	0.55	0	0.00	436	1.07	212	0.19	280	30.34
Produce / collect honey	2,015	1.77	2,658	3.29	1,036	2.55	4,320	3.90	0	0.00
Hunt wild animals	2,981	2.62	3,674	4.54	148	0.36	8,252	7.45	0	0.00
Gather wild fruits	8,128	7.15	2,250	2.78	0	0.00	5,072	4.58	0	0.00
Cut fence sticks	5,922	5.21	11,034	13.64	1,492	3.67	18,192	16.41	140	15.17
Total	**113,676**	**100**	**80,890**	**100**	**40,707**	**100**	**110,831**	**100**	**923**	**100**

In the eastern region 80.02 percent of households are engage in collecting firewood, 7.15 percent engage in gathering wild fruits and 5.21 percent of households engage in cutting fence sticks. Also, the other regions North, North west, South, and west have high percentage of households who are engage in collecting firewood in own bush/farm 69.53 percent, 64.50 percent, 63.35 percent and 39.33 percent respectively.

Table 8.28: Estimated percentage households that are engaged in forest activity in communal Bush by region

Forest activity in communal bush	Communal Bush									
	East	Percent	North	Percent	North West	Percent	South	Percent	West	Percent
Collect firewood	57,406	81.14	69,774	63.55	36,258	69.8	59,447	63.93	1,255	65.23
Make charcoal	953	1.35	6,554	5.97	8,856	17.05	2,593	2.79	446	23.18
Harvest timber	246	0.35	610	0.56	857	1.65	228	0.25	0	0
Produce / collect honey	1,536	2.17	3,948	3.6	301	0.58	2,706	2.91	0	0
Hunt wild animals	3,615	5.11	1,779	1.62	0	0	2,904	3.12	0	0
Gather wild fruits	2,809	3.97	1,645	1.5	148	0.28	9,384	10.09	223	11.59
Cut fence sticks	4,184	5.91	25,485	23.21	5,525	10.64	15,719	16.91	0	0
Total	**70,749**	**100**	**109,795**	**100**	**51,945**	**100**	**92,981**	**100**	**1,924**	**100**

The table shows percentage households that engage in various forest activity in communal bush. In the eastern region 81.14 percent of households are engage in collecting firewood, 5.91 percent of households engage in cutting fence sticks and 5.11 percent engage in hunting wild animals. The other regions North, North West, South, and west have high percentage of households who are engage in collecting firewood in communal Bush as seen above.

Table 8.29: Estimated percentage HHs that are engaged in forest activity in wild forest by region

	Wild forest									
Forest activity in wild forest	**East**	**Percent**	**North**	**Percent**	**North West**	**Percent**	**South**	**Percent**	**West**	**Percent**
Collect firewood	23,426	83.55	1,445	15.77	2,440	64.60	8,977	41.75	223	33.33
Make charcoal	544	1.94	175	1.91	148	3.92	212	0.99	0	0.00
Harvest timber	188	0.67	364	3.97	0	0.00	309	1.44	223	33.33
Produce / collect honey	188	0.67	1,880	20.52	296	7.84	1,026	4.77	0	0.00
Hunt wild animals	2,185	7.79	900	9.82	148	3.92	3,348	15.57	0	0.00
Gather wild fruits	1,248	4.45	1,075	11.73	0	0.00	261	1.21	0	0.00
Cut fence sticks	258	0.92	3,325	36.28	745	19.72	7,371	34.28	223	33.33
Total	**28,037**	**100**	**9,164**	**100**	**3,777**	**100**	**21,504**	**100**	**669**	**100**

The table shows percentage households that engage in various forest activities in wild forest. In the wild forest households are engaged more in collecting firewood in all regions. In the Northern region, 20.52 percent of households are engaged in production/collecting honey and 36.28 are engaged in cutting fence sticks. In western area 33.33 percent are engaged in collecting firewood, harvest timber and cutting fence sticks respectively.

Table 8.30: Estimated amount spent on Labour or materials for forest activity by region

Activity	East	North	North West	South	West
Collect firewood	141,934	215,337	259,133	120,435	10,035
Make charcoal	642,440	633,404	983,984	404,040	0
Harvest timber	315,400	306,080	624,498	509,600	103,300
Produce / collect honey	80,670	91,800	0	59,430	0
Hunt wild animals	109,753	79,020	0	288,263	0
Gather wild fruits	48,840	0	0	12,640	0
Cut fence sticks	88,920	589,935	73,588	42,070	62,440
Total amount (Le 000)	**1,427,957**	**1,915,576**	**1,941,203**	**1,436,478**	**175,775**

The total amount spend on labour or materials for the various activity is higher in the North West Le 1.94B followed by the North Le 1.9B and lowest in the West Le 175,775M. Disaggregated by

region making charcoal is higher in the North West Le 983,984M followed by timber harvest Le 624,498M. Expenditure on charcoal making and harvest of timber is also high in the East, North and south than the other activities.

Table 8.31: Estimated amount received from forest products sold in the last month by region

Activity	Sold				
	East	North	North West	South	West
Collect firewood	147,467	93,606	217,532	135,360	15,895
Make charcoal	55,678	175,800	390,182	150,996	5,357
Harvest timber	3,848	14,836	19,288	21,900	6,280
Produce / collect honey	24,964	45,832	14,060	77,587	0
Hunt wild animals	38,592	30,288	1,480	47,546	0
Gather wild fruits	29,884	9,000	2,960	32,522	4,014
Cut fence sticks	7,938	58,326	42,255	65,480	3,630
Total	**308,371**	**427,688**	**687,757**	**531,391**	**35,176**

Table8.32: Estimated amount of forest products kept for own use in the last month by region

Activity	Own use				
	East	North	North West	South	West
Collect firewood	2,413,433	1,731,664	907,634	2,155,402	5,035
Make charcoal	23,939	38,220	22,509	15,608	783
Harvest timber	9,188	1,728	4,327	2,280	3,360
Produce / collect honey	34,724	111,764	13,182	85,930	0
Hunt wild animals	115,222	59,382	4,440	171,628	0
Gather wild fruits	197,580	54,850	0	200,502	446
Cut fence sticks	186,534	688,424	73,855	696,830	1,146
Total	**2,980,620**	**2,686,032**	**1,025,947**	**3,328,180**	**10,770**

The total amount sold in the last month from forest product is higher in the North West region Le 687,757 followed by thee Southern region Le 531,391. In the east firewood collection, Le 147,467 followed by hunting wild animals Le 38,592. Amount received from own use is higher in the south Le 3,3M followed by East Le 2.9M, North 2.6M, North West Le 1.0M the least the West Le 10,770.

Table 8.33: Estimated income received from forest activities by region

Activity	East	North	North West	South	West
Collect firewood	909,788	1,477,470	1,126,988	1,513,969	76,130
Make charcoal	983,518	3,869,048	5,248,484	1,965,300	81,829
Harvest timber	467,040	1,416,800	2,380,480	2,984,900	1,129,000
Produce / collect honey	222,503	665,480	99,900	1,052,310	0
Hunt wild animals	628,096	478,178	7,400	433,966	0
Gather wild fruits	660,480	67,500	14,800	290,300	144,950
Cut fence sticks	39,174	586,608	533,335	433,140	81,160
Total amount (Le 000)	**3,910,599**	**8,561,084**	**9,411,387**	**8,673,885**	**1,513,069**

The total income received from activity in the last month is higher in the North West region Le 9.4B followed by thee Southern region Le 8.6B, North Le 8.5B, East Le 3.9B and the least in the West Le 1.5B. In the North West charcoal making brings the highest income of Le 5.2B followed by timba harvest le 2.4B. In the North charcoal making Le 3.9B and timber harvest brings the highest income.

Table 8.34: Estimated percentage of households that did forest activities in the first quarter by region

	Yes, do activity									
Activity	**East**	**Per-cent**	**North**	**Per-cent**	**North West**	**Per-cent**	**South**	**Per-cent**	**West**	**Per-cent**
Collect firewood	170,985	88.98	124,226	72.61	60,464	74.37	135,378	67.17	1,758	54.77
Make charcoal	4,296	2.24	9,707	5.67	13,849	17.03	5,995	2.97	363	11.31
Harvest timber	1,056	0.55	746	0.44	724	0.89	521	0.26	503	15.67
Produce/collect honey	3,739	1.95	7,530	4.40	1,485	1.83	6,797	3.37	0	0.00
Hunt wild animals	6,273	3.26	4,378	2.56	148	0.18	10,886	5.40	0	0.00
Gather wild fruits	3,530	1.84	4,070	2.38	148	0.18	12,287	6.10	223	6.95
Cut fence sticks	2,274	1.18	20,419	11.94	4,484	5.52	29,678	14.73	363	11.31
Total	**192,153**	**100**	**171,076**	**100**	**81,302**	**100**	**201,542**	**100**	**3,210**	**100**

In the first quarter most households are engage in firewood collection, making charcoal, harvesting timber and cutting fence sticks. The East shows 88.98 percent are engaged in collection firewood followed by hunting of wild animal 3.26 percent due to large forest in the East and also 2.24 percent engaged in making charcoal. Northern region shows that 72.61 percent of households are engaged in collecting of firewood, 11.94 percent are engaged in cutting fence sticks which is also an expensive material in the construction sector especially in western area. The North West, South and west shows high percentage in collecting of firewood 74.37, 67.17 and 54.77 percent respectively. In the North West and west making of charcoal is also high with a percentage of 17.03 and 11.31 percent respectively.

Table 8.35: estimated percentage of households that did forest activities in the Second quarter by region

	Yes, do activity									
Activity	**East**	**Per cent**	**North**	**Per cent**	**North West**	**Per-cent**	**South**	**Per-cent**	**West**	**Per-cent**
Collect firewood	168,551	83.50	124,163	69.56	54,804	75.70	127,070	65.11	1,701	60.97
Make charcoal	4,050	2.01	9,544	5.35	13,339	18.42	4,304	2.21	586	21.00
Harvest timber	1,056	0.52	894	0.50	556	0.77	326	0.17	140	5.02
Produce / collect honey	2,731	1.35	5,248	2.94	592	0.82	5,182	2.66	0	0.00
Hunt wild animals	8,277	4.10	5,755	3.22	296	0.41	12,732	6.52	0	0.00
Gather wild fruits	11,927	5.91	4,070	2.28	148	0.20	14,290	7.32	223	7.99
Cut fence sticks	5,264	2.61	28,831	16.15	2,663	3.68	31,273	16.02	140	5.02
Total	**201,856**	**100**	**178,505**	**100**	**72,398**	**100**	**195,177**	**100**	**2,790**	**100**

In the second quarter most households are engaged in firewood collection and making charcoal. The East shows 83.50 percent are engaged in collecting firewood followed by 5.91 percent gathering wild fruits. Northern region shows that 69.56 percent of households are engaged in collecting of firewood, 16.15 percent are engaged in cutting fence sticks. The North West, South and west shows high percentage in collecting of firewood 75.70, 65.11 and 60.97 percent respectively. In the West making of charcoal is also high with a percentage of 21.0 percent.

Table 8. 36: Estimated percentage of households that did forest activities in the third quarter by region

Activity	**Yes, do activity**									
	East	**Per-cent**	**North**	**Per-cent**	**North West**	**Per-cent**	**South**	**Per-cent**	**West**	**Per-cent**
Collect firewood	147,018	86.26	115,248	72.60	43,527	77.81	116,867	65.65	363	25.00
Make charcoal	3,014	1.77	3,336	2.10	8,986	16.06	3,372	1.89	586	40.36
Harvest timber	622	0.36	80	0.05	436	0.78	228	0.13	140	9.64
Produce / collect honey	1,195	0.70	2,323	1.46	0	0.00	3,388	1.90	0	0.00
Hunt wild animals	8,523	5.00	5,095	3.21	148	0.26	13,686	7.69	0	0.00
Gather wild fruits	2,498	1.47	3,872	2.44	0	0.00	10,868	6.11	223	15.36
Cut fence sticks	7,574	4.44	28,784	18.13	2,844	5.08	29,593	16.63	140	9.64
Total	**170,444**	**100**	**158,738**	**100**	**55,941**	**100**	**178,002**	**100**	**1,452**	**100**

The same trend goes for the third quarter which shows most households are engage in firewood collection, making charcoal and cutting of fence sticks. These three activities are prominent in all

the regions with the East leading doing the activity of firewood collection of 86.26 percent. Making of charcoal is higher in the west 40.36 percent in the third quarter because this product is what use by most households in the western region. Fence sticks cutting is high in the north 18.13 percent because proximate to the west and high demand for product in the west.

Table 8.37: Estimated percentage of households that did activity in the fourth quarter by region

Activity	Yes, do activity									
	East	**Per-cent**	**North**	**Per-cent**	**North West**	**Per-cent**	**South**	**Per-cent**	**West**	**Per-cent**
Collect firewood	169,144	90.68	120,733	76.95	53,992	76.89	135,924	67.53	1,618	52.7
Make charcoal	3,397	1.82	4,505	2.87	12,831	18.27	5,435	2.7	586	19.09
Harvest timber	810	0.43	376	0.24	737	1.05	635	0.32	503	16.38
Produce / collect honey	1,699	0.91	3,075	1.96	148	0.21	7,172	3.56	0	0
Hunt wild animals	6,273	3.36	5,607	3.57	148	0.21	11,280	5.6	0	0
Gather wild fruits	2,170	1.16	4,387	2.8	0	0	11,621	5.77	223	7.26
Cut fence sticks	3,036	1.63	18,225	11.62	2,362	3.36	29,215	14.51	140	4.56
Total	**186,529**	**100**	**156,908**	**100**	**70,218**	**100**	**201,282**	**100**	**3,070**	**100**

8.5 Fishing

The fishery subsector accounted for the second largest contribution to GDP**.** The SLIHS on fishery sub-sector covered both artisanal and commercial fishing. Whether self-employed or employee or employer. It also seek to captures the types of fishing nets household uses, the type of licenses and the amount paid to acquire this licenses. It also seeks to capture the activities of the house hold member and the economic benefit.

8.5.1 Fishing Practices

Table 8.38: Estimated percentage of households that did fishing and the different fishing practices in the past 12 months

	Households that did fishing, either as self-employed or hiring others.		Location where Households fish											
Region	**Yes**	**Percent**	**Sea / Ocean**	**Percent**	**River (Year Round)**	**Percent**	**Stream**	**Percent**	**Fresh Water Pond/Lake**	**Percent**	**Fresh Water Swamp**	**Percent**	**Salt Water**	**Percent**
East	11,747	17.85	246	1.21	4,128	21.52	3,503	33.53	774	13.45	2,580	29.05	516	44.68
North	5,482	8.33	0	0	2,128	11.1	2,842	27.2	148	2.57	364	4.1	0	0
North West	9,226	14.02	5,030	24.68	3,145	16.4	148	1.42	903	15.69	0	0	0	0
South	34,764	52.84	10,750	52.76	9,554	49.82	3,954	37.85	3,929	68.28	5,938	66.85	639	55.32
West	4,574	6.95	4,351	21.35	223	1.16	0	0	0	0	0	0	0	0
Total	**65,793**	**100**	**20,377**	**100**	**19,178**	**100**	**10,447**	**100**	**5,754**	**100**	**8,882**	**100**	**1,155**	**100**

The table above shows the percentage of households that did fishing in the past 12 months. The southern province shows the highest of 52.84 percent of those households who did fishing or hired others in the last 12 months. This is followed by East 17.85 percent and the North West 14.02 percent. Western region shows the least of 6.95 percent of households who did fishing in the last 12 months. Looking at the location where household's fish, the southern region shows that 52.76 percent of household fish in the sea/ocean followed by 24.68 percent in the North west and 21.35 percent in the western region. The river (all year round) shows that the southern region has higher percentage of 49.82 percent, East 21.52 percent, and North West 16.40 percent. The stream fishing also shows higher percentage in the southern region 37.85 percent, 33.53 percent for East and27.2 for North. For fresh water pond/lake south is 68.85 percent, 15.69 percent in the North West and 13.45 in the Eastern region. The south also shows higher percentage of 66.85 and the East 29.05 percent. Southern region shows higher percentage 55.32 percent for salt water.

Table 8.39: Estimated percentage of fishing households that obtained a license/ permit in the past 12 months by region

Sources	Ministry of Fisheries and Marine Resources		Local Councils		National Revenue Authority		Other	
Region	**Yes**	**Percent**	**Yes**	**Percent**	**Yes**	**Percent**	**Yes**	**Percent**
East	0	0	0	0	0	0	0	0
North	0	0	0	0	0	0	0	0
North West	2,648	51.44	903	7.52	0	0	301	11.11
South	882	17.13	8,015	66.71	882	34.1	930	34.33
West	1,618	31.43	3,096	25.77	1,701	65.9	1,478	54.56
Total	**5148**	**100**	**12014**	**100**	**2583**	**100**	**2709**	**100**
Total Amount Paid (Le 000)	**917,660.00**		**1,583,530.00**		**779445**		**822,670.00**	

The table shows the percentage of households that obtained a license/permit from different sources. The North west shows the highest percentage of 51.44 percent of households who took fishing licence/permit from the ministry of fisheries and marine resources followed by the west 31.43 percent and southern region 17.13 percent. For Local councils' 66.71 percent of the households took license/permit, the West 25.77 percent, North West 7.52 percent and the North and East shows that households do not take license/permit from the local councils. The west and south also show the highest percentage of households that took license/ permit from national

revenue authority 65.9 and 34.1 percent respectively and rest of the other regions shows that households do not take license/ permit from the national revenue authority. The Other source of taking license/ permit which can taking daily tickets/market due etc. shows that in the southern region 53.63 percent of households use this other source followed by East 18.62 percent and 14.15 percent.

For the various sources where households pay their license/ permitted, shows that households paid more to the local council Le 1.6M as compared to the payment to the ministry of fisheries and mineral resources Le 917,660, other sources like market due/ticket, Le822,670 and National revenue authority Le 779,445.

8.5.2 Fishing Boats

Table 8.40: Estimated percentage of households that use different type of boat for fishing by region

Region	Dugout canoe	Percent	traditional wooden	Percent	Modern manufacture	percent	Separate motor	percent	Mean length in feet	Does it have motor yes	Percent
East	258	1.42	0	0	0	0.00	0	0	6	0	0.00
North	0	0.00	296	4.15	0	0.00	0	0	7	0	0.00
North West	1,926	10.60	3,117	43.73	602	31.03	602	29.52	11	2,648	33.82
South	15,629	85.99	1,428	20.03	0	0.00	1,437	70.48	15	1,779	22.72
West	363	2.00	2,287	32.08	1,338	68.97	0	0	13	3,402	43.45
Total	**18176**	**100**	**7128**	**100**	**1940**	**100**	**2039**	**100**		**7829**	**100**

Table shows the percentage of households that use different type of boats for fishing by region. The dugout canoe boat, the southern region has the highest percentage of 85.99 followed by 10.6 percent in the North West and the North recorded 0 percent. For the traditional wooding boat, the North West have the highest percent of 43.73, the west 32.1 percent and south 20.03 percent. For the traditional wooden boat shows 0.0 percent which means that this type of boat is not use in the East region. Data shows that only the West which is the highest and the North West that only use the modern manufacture boat 68.97 and 31.03 percent respectively. The Boat with separate motor shows from the data the only south 70.48 and North West 29.52 percent use this type of boat and rest of the other do not use boat with separate motor. All boats have a length ranging from 6 feet to 13 feet on average length and longest boat is in south 15 feet, West 13 feet and North West. The study shows that the boats that use or have motor is high in the West 43.45, the North West 33.82 percent and 22.72 percent.

8.5.3 Fishing Nets and Lines

Table 8.41: Estimated percentage of households that use different type of fishing nets and lines

Fishing Nets and lines	Frequency.	Percent	Mean age of the net/line /trap in	Mean expected years to last	bought	Percent	Constructed	Percent	Total amount spent on it
Bottom drift gillnet	6,074	7.18	2	1	6,074	8.98	0	0.00	12,604,070
Surface drift gillnet	3,933	4.65	2	1	3,687	5.45	246	1.51	2,308,528
Bottom set gillnet	7,299	8.62	2	1	6,807	10.06	492	3.03	13,813,261
Surface set gillnet	831	0.98	2	1	831	1.23	0	0.00	590,256
Ring net	6,860	8.11	2	2	3,675	5.43	3,185	19.60	1,063,975
Cast net	6,189	7.31	1	2	5,397	7.98	792	4.87	1,533,714
Long line fishing	6,185	7.31	2	2	6,071	8.97	114	0.70	10,925,712
Hook and line	14,445	17.07	1	1	14,150	20.92	295	1.82	5,158,539
Channel net	4,395	5.19	3	2	4,281	6.33	114	0.70	21,581,257
Mina net	1,539	1.82	1	2	1,539	2.27	0	0.00	585,990
Beach seine	223	0.26	2	3	223	0.33	0	0.00	33,450
Traditional fish trap	26,659	31.5	2	1	14,917	22.05	11,014	67.77	539,512
Total	**84,632**	**100**			**67,652**	**100**	**16,252**	**100**	**70,738,264**

The table shows a total of 84, 632 fishing nets and lines report by fishing households in Sierra Leone and among this majority 31.5 percent use traditional fish traps followed 17.07 percent using hook and line and small percentages of fishing households 8.62 and 8.11 percent using bottom set gillnet and ring net respectively. The cast net and the long line fishing net have the percentage of 7.31 followed by bottom drift gillnet and 5.19 percent of channel net.

The mean age of the net/line /traps is between 1 to 3 years and majority is two years old being report by fishing households and they expect the nets to last 1 to 3 years more especially the beach seine. Most of the fishing nets/line/traps are bought 67,652 as compared to 16,252 which are constructed by the fishing households. Higher percentage of fishing households bought traditional fish trap 22.05 percent, hook and line 20.92 percent, bottom set gillnet and the rest can be seen in the table above. Those who reported that they constructed their fishing nets/line /traps, majority constructed the traditional fish traps 67.77 percent followed by ring net 19.6 percent and cast 4.87 percent.

The total amount spent on the various nets/line/traps Le70.7M of which Le 21.6M was spent on channel net, Le 13.8 Mbottomset gillnet, Le 12.6M on bottom drift gillnet, Le 11M on long line fishing and rest can be seen in the table above.

8.5.4 Fishing Equipment

Table 8.42: Estimated percentage of households that own different type of fishing equipment

Equipment	How many own	How long did you buy newest item (mean) years	Total amount spent on newest item	How long do expect item to last in years
Traps for lobsters	3,540.00	1.5	1,252,680.00	2.2
Scuba diving equipment	1,412.00	1	71,370.00	2.9
Diving mask and	1,183.00	0.8	26,580.00	1.3
Lights for night	22,274.00	1.1	995,708.00	1.1
GPS for boat	1,251.00	1.6	251,450.00	2.1
Boat radio	665	2	9,720.00	3
Life jackets for Seasons	7,563.00	1.5	1,259,390.00	1.8
	Total amount spent on fuel for boats/motor per month	Total amount spent in Cash to hire Labour in a month	Total Value in-kind payments to hire labour in a month	Total amount spent on ice in a month
Mid-high season	19,797,368.20	12,097,180.00	8115650	264,200.00
Mid-low season	12,416,986.00	6,599,270.00	3507443	260,600.00

From a total of 37,888 fishing equipment's that are owned by fishing households in Sierra Leone, majority are light for night 22,274 followed by life jackets fishing 7,563, traps for lobsters 3,540, scuba diving equipment 1.412 and least boat radio 665. On average fishing households reported that the newest equipment was bought 1 to 2 years ago as you can see from the table above.

Total amount spent on the newest equipment 1 to 2 years ago is Le 3.9M of which the highest is spent on the purchase of life jackets for fishing Le 1.3M followed by Traps for lobsters Le 1.3M and the least on boat radio Le 9,720. Expected life span for this equipment ranges from 1 to 3 years as the case may be. Total amount spent on fuel for boats /motors per month Le 19.8M in Mid-high season as compared to Le 12.4 in the mid-low season, cash to hire labor Le 12.1M in the mid-high season as compared to Le 6.6 in the mid-low season, total value in-kind payments Le 8.1M in mid-high season as compared to Le 3.5M in the mid-low season and total amount spent on Ice Le 264,200 in Mid-high season as compared to Le 260,600 in the mid-low season for the two season is high in the Mid-high season due to the tide of the sea.

8.5.5 Fish Catches and Revenue

Table 8.43: Estimated percentage of various types of fish catch in volumes by fishing households

Mid High season			Mid Low season			All season		
Type of fish catch	**Frequency**	**Per-cent**	**Type of fish catch**	**Frequency**	**Per-cent**	**Type of fish catch**	**Frequency**	**Per-cent**
Catfish	7,033	12.91	Bonga	9,790	15.06	catfish	24,336	18.65
other fish	6,086	11.17	catfish	9,730	14.96	Bonga	22,752	17.44
Gwan-gwan	5,799	10.64	crab	8,241	12.67	crab	16,651	12.76
crab	5,754	10.56	Gwan-gwan	4,992	7.68	Gwan-gwan	10,049	7.7
Couta / kinni	5,248	9.63	snail	4,819	7.41	other fish	7,872	6.03
shrimps	3,428	6.29	other fish	4,377	6.73	snail	6,030	4.62
herring	2,995	5.5	ladyfish	3,063	4.71	Couta / kinni	5,318	4.08
ladyfish	2,945	5.41	herring	2,919	4.49	butterfish	4,966	3.81
butterfish	1,809	3.32	Couta / kinni	2,598	4	ladyfish	4,496	3.45
Bonga	1,672	3.07	butterfish	2,037	3.13	herring	3,719	2.85
Snail	1,386	2.54	shrimps	1,880	2.89	Shinenose	3,162	2.42
Shine nose	1,337	2.45	Shinenose	1,482	2.28	Shrimps	3,124	2.39
Shovelnose	1,183	2.17	brown shrimps	1,398	2.15	Pollock	2,187	1.68
Brown shrimps	1,140	2.09	crocus	1,238	1.9	Brown shrimps	1,950	1.49
Pink shrimps	774	1.42	Pollock	777	1.19	No more fish	1,938	1.49
Cowreh	735	1.35	snapper	656	1.01	Snapper	1,592	1.22
Pollock	630	1.16	Skit	617	0.95	Silverfish	1,415	1.08
crocus	593	1.09	whiting	581	0.89	Crocus	1,238	0.95

The fish catch varies from season to season because of tide of the sea and in the mid-high season, households catch more of catfish 7033metric tons representing 12.91 percent, other fish 6086 metric tons (11.17 percent) gwan-gwan 5799 metric tons (10.64 percent), crab 5754 metric tons (10.56 percent), couta/kinni 5248 metric tons(9.63 percent)

In the mid-low season, households catch more of bonga 9790 metric tons accounting for 15.06 percent, while catfish accounts for (14.96 percent) crab 12.67 percent), gwan-gwan (7.68 percent), snail (7.41 percent).

In all season households catch more of catfish 24336 metric tons, bonga22, 752 metric tons crab 16651 metric tons gwan-gwan 10049 metric tons and other fish 2872 metric tons

Table 8.44: Estimated percentage of HHs main fish selling place

Main selling place	Frequency	Percent	To whom do mainly sell	Frequency	Percent
Beach Riverbank	18,606	60.42	Traders	25,170	66.75
Market	10,039	32.6	Consumers	9,935	26.35
Other	2,148	6.98	Processors	2,603	6.9
Total	**30,793**	**100**		**37,708**	**100**

From the table above it shows that fishing households fish catch selling place is more on beach riverbank 60.42 percent, 32.6 in the market place and other which can be those walk round communities to sell is 6.98 percent. The fish catch is mainly sold to traders' 66.75 percent followed by consumers 26.35 percent and least is sold to processors 6.9 percent.

From the table above it shows that fishing households fish catch selling place is more on beach riverbank 60.42 percent, 32.6 in the market place and other which can be those walk round communities to sell is 6.98 percent. The fish catch is mainly sold to traders' 66.75 percent followed by consumers 26.35 percent and least is sold to processors 6.9 percent. The total amount sold for the season is Le 160.2M and of which Le 101.1M is sold in the mid-high season and Le 59.1M sold in mid-low season.

Table 8.45: Estimated total amount of fish sold

Season	Total amount sold (Le 000)
Mid-high season	101,103,875
Mid-low season	59,115,389
Total	**160,219,264**

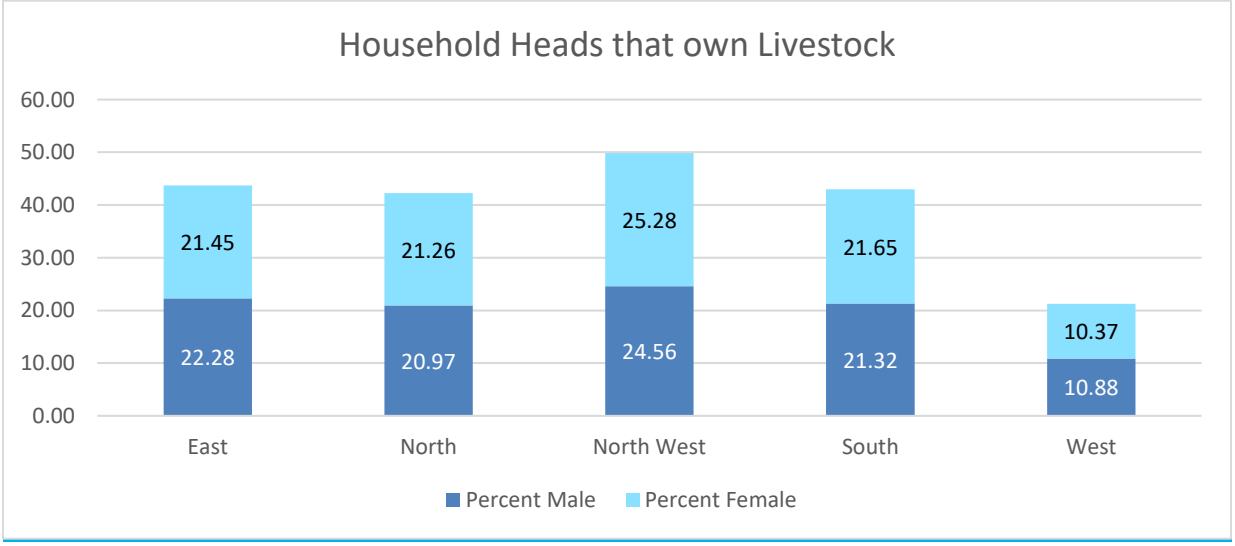
The total amount sold for the two seasons is Le 160.2B of which Le 101.1B is sold in the mid-high season and Le 59.1B sold in mid-low season.

8.6 Livestock

Livestock (domestic animals are very important to mankind and the sub-sector is the fourth Largest contributor to the GDP They furnish precious food products (meat, milk, eggs, honey) and valuable non-food-industrial products (wool, hair, silk, hides, skins, furs, wax, feathers, bones, horns, etc.). In developing countries, as beasts of burden and for draught or are used for commuting to and from agricultural holdings. Some are used also for recreation purposes (horse riding), Captures all livestock owned by households both rural and urban areas. It also seeks to find the total number of livestock slaughtered consumed, products sold and the total number of livestock owned during the past twelve months by households.

8.6.1 Livestock ownership and acquisition

Figure 8.10: Estimated household heads that own Livestock (including poultry or farmed fish) in the past 12 months by region



Regional analysis shows that more female headed households own more livestock, poultry or farmed fish in the North west region with 25.28 percent and 24.56 percent for male headed households, South region, female 21.65, male 21.32, North region female 21.26 and male 20.97, East region female 21.45 and male 22.28 percent respectively. While the west region reported more male households holding livestock, poultry or fish farm

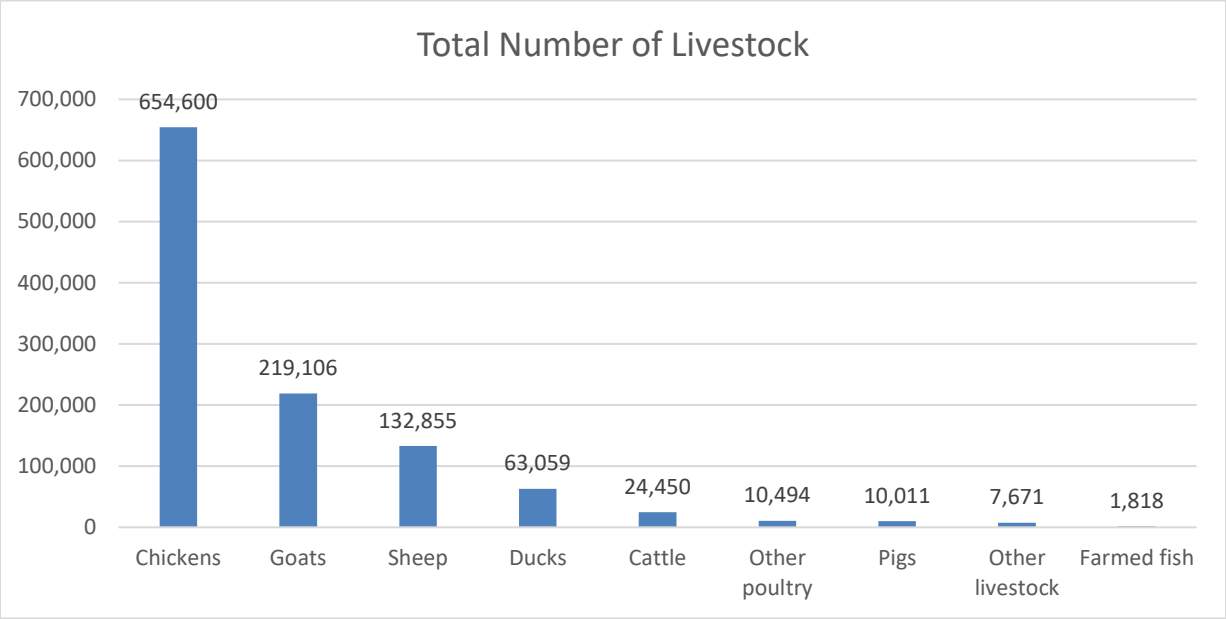
Table 8. 46: Estimated household heads that own Livestock including poultry or farmed fish in the past 12 months by district

District	Male HHS	Percent Male	Female HHs	Percent Female
Kailahun	137,575	9.0	134,523	8.3
Kenema	140,977	9.2	148,986	9.2
Kono	63,237	4.1	65,326	4.0
Bombali	78,252	5.1	81,976	5.0
Falaba	34,793	2.3	38,714	2.4
Koinadugu	53,343	3.5	53,559	3.3
Tonkolili	155,250	10.1	171,575	10.5
Kambia	71,376	4.7	75,132	4.6
Karene	83,846	5.5	92,780	5.7
Port Loko	221,601	14.4	243,212	15.0
Bo	95,094	6.2	109,548	6.7
Bonthe	42,693	2.8	44,968	2.8
Moyamba	119,345	7.8	125,760	7.7
Pujehun	69,876	4.6	71,820	4.4
Area Rural	60,210	3.9	62,886	3.9
Area Urban	106,680	7.0	105,700	6.5
Total	**1,534,148**	**100**	**1,626,465**	**100**

District analysis shows that more female households own livestock in Port Loko, Tonkolili, Moyamba, Bo, Karene, western rural and Falaba with 15.0, 10.5,7.7,6.7 , 5.7 3.9 and 2.4 percent respectively, while districts like Kailahun, western area urban, Bombali, Kono, with, 9.0, 7.0, 5.1, 4.1 reported higher percentages male headed households.

Kenema and Bonthe reported equal percentages of both female and male headed households holding livestock, poultry and farmed fish with 9.2 and 2.8 respectively.

Figure 8.11: Estimated number of livestock owned by households in the last 12 months



In the last 12 months households own 1.1M livestock nationwide and disaggregated by livestock, chickens is the highest 654,600 (58.24 percent) followed by goats 219,106 (19.49 percent), sheep 132,855 (11.82 percent) and the least is farm fish 1818 (0.16 percent). The households own now the same livestock as in the past 12 months of 1.1M. In terms of acquisition, households bought 758,362 adult animals in the past 12 months of which chickens were bought more 396,107, goats 179,181, sheep 104,366, farm fish 15,980, cattle 10,960 and the least bought is the other livestock 3,469. The total amount spent to by adult animals is Le 40.7M and highest spent was on goats and sheep Le 11.9M and Le 10.7M respectively.

It should be noted that cattle, sheep and goats rearing at district level is much more higher and common in Falaba ,Koinadugu, Kambia , Karene and Port Loko, while poultry keeping Port Loko, Tonkolili, Bo, Kenema and Kambia reported the highest (see annex for details)

Analysis shows that in Sierra Leone levels of livestock holding are very low, especially considering that the majority of households are engaged in farming activities.

Appendix 8 shows the distribution of livestock raised by district. The result reveals that for cattle including cows it is raised more in Port Loko, Falaba, Tonkolili and Kambia reported the highest. While Goats Tonkolili, Falaba, Port Loko, Kambia, Bo, Moyamba, Bonthe Bombali, Kenema and Kailahun reported the highest number of goats. With chickens they are raised more in Port Loko 76,945 and Tonkolili 75,925.

Table 8.47: Estimated number of adult animals bought and total amount spent to buy adult animal

Livestock	No. of adult animal bought	Total amount spent to buy adult animal
Cattle	10,960	8,052,919
Sheep	104,366	10,712,070
Goats	179,181	11,905,909
Pigs	11,631	2,147,970
Chickens	396,107	6,758,431
Ducks	31,280	847,660
Other poultry	5,388	99,220
Other livestock	3,469	139,740
Farmed fish	15,980	0

The findings show the distribution of livestock bought and amount spent to buy adult animal by district. The results revealed that goa with (179,181) are mostly bought, this is followed by sheep with (104,366), pigs with (11,631) and cattle (10,960). The lowest animals bought are cattle with (10,960) and other livestock with (3,469). While poultry, chickens are mostly bought, followed by ducks (31,280) and other poultry (5,388).

Regarding amount spent to buy adult animals, The highest amount was spent on goats (Le 11,905,909),followed by sheep (Le 10,712,070),Cattle (8,052,919) and pigs (Le 2,1479700).While with poultry the highest amount was paid for chickens with (Le6,758,431), Ducks (Le847,660) and other poultry (Le99,220).

CHAPTER NINE - POVERTY AND INEQUALITY

Alejandro de la Fuente,[4] Elizabeth Foster[5], Osman Sankoh[6]

On behalf of the SLIHS 2018 Writing Group

9.0 Introduction

This chapter presents findings related to monetary poverty and consumption inequality in Sierra Leone. The chapter opens by describing the extent of poverty in the country in 2018. The analysis then delves into the profile of those living under monetary poverty, emphasizing the spatial distribution of poverty: by regions, rural and urban areas and by districts. The section concludes documenting the evolution of poverty in Sierra Leone from 2011 to 2018. The chapter also explores the distributional aspects of welfare.

9.1 Poverty Analysis

Poverty in Sierra Leone remains high. The most recent household survey in Sierra Leone, the 2018 Sierra Leone Integrated Household Survey (SLIHS), estimates the incidence of poverty at the national poverty line of Le 3,921,000 per adult equivalent annually[7] to be 56.8 percent. Analysis of the 2018 SLIHS also produces a food poverty line of Le 2,125,000 per adult equivalent annually, which results in an extreme poverty rate of 12.9%.[8] The food poverty rate is 54.5%.

Measures of poverty that take into account the depth of poverty, and inequality among the poor show similar results. The total poverty gap for Sierra Leone is 18.0%, total poverty severity is 7.5%. Looking at extreme poverty, we find a gap of 2.5% and a severity of 0.8%.

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[4] World Bank, Washington DC, USA

[5] World Bank, Freetown, Sierra Leone

[6] Statistics Sierra Leone (Stats SL), Freetown, Sierra Leone

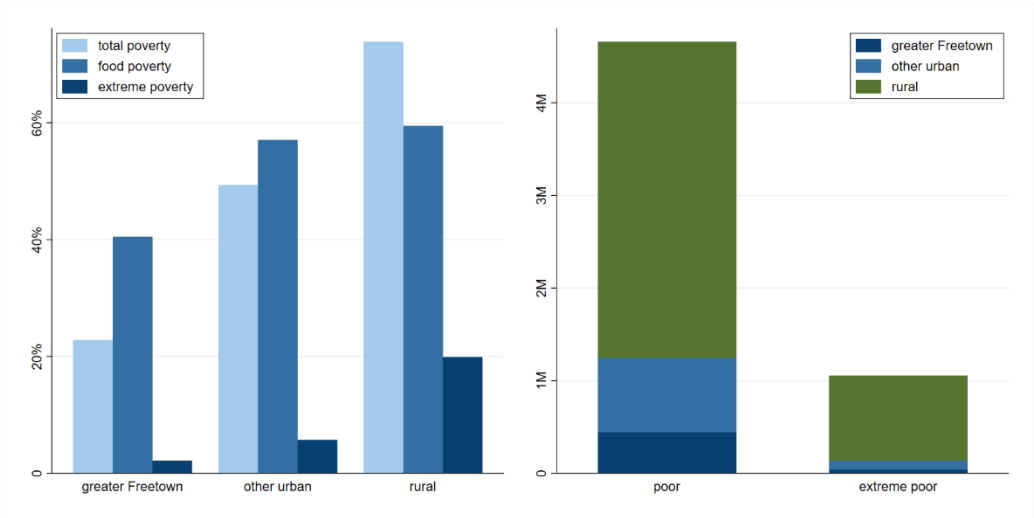
[7] This comes to about USD 1.22 per adult equivalent per day at the average nominal exchange rate for 2018 (Le 8000/USD) or USD 2.87 at 2011 PPP.

[8] For methodological details on the construction of the consumption aggregate and the poverty lines. see Statistics Sierra Leone/World Bank. 2019. "Methodology for Consumption-Poverty Estimation, 2018 and Poverty Trends, 2011-2018, in Sierra Leone."

9.2 Geographic Distribution of Poverty

Poverty in Sierra Leone is highly concentrated in the rural areas, although differences in food poverty are much less pronounced. Poverty rates in rural areas are more than twice as high as those in the rural areas (73.9% versus 34.8%), and the disparity is even wider for extreme poverty rates (19.9% versus 3.8%). Rural dwellers account for 56.4% of the population, but 73.3% of the poor and 87.2% of the extremely poor. There is also a marked difference between greater Freetown[9] and other urban areas: both the poverty rate and the poverty rate are much lower in Freetown than in other urban areas (22.8% versus 49.3% and 2.1% versus 5.7% respectively). The differences in food poverty are much less pronounced. Although food poverty is higher in the rural areas than in urban areas (59.5% vs. 48.0%), the difference is much smaller and there is little difference between rural areas and urban areas outside of Western Area (59.5% versus 57.1%). Although those in rural areas are much poorer overall, they are no worse that urban dwellers (outside of Western Area) in terms of food consumption.

Figure 9.1: Poverty Rates and Numbers by Sector



Source: Authors' calculations from 2018 SLIHS

Poverty rates vary across provinces, with the three poorest districts (Pujehun, Tonkolili and Falaba) spanning the far south, center and far north-east of the country. Overall, the North is the poorest province (both in terms of total poverty and extreme poverty), and the North-West the least poor outside of Western Area. The provincial rates hide significant variation, and the three poorest districts come from both the South and the North. The least poor districts (outside of Western Area) are Kambia (North West), Bonthe (South) and Kono (East). See **Error! Reference s**

[9] Western Area Urban (Freetown municipality) and urban areas in Western Area outside of the Freetown city limits.

ource not found. for complete poverty rates with standard errors by province and district. Measures of poverty gap and poverty severity show much the same patterns.

Figure 9. 1: Total Poverty Rate by District

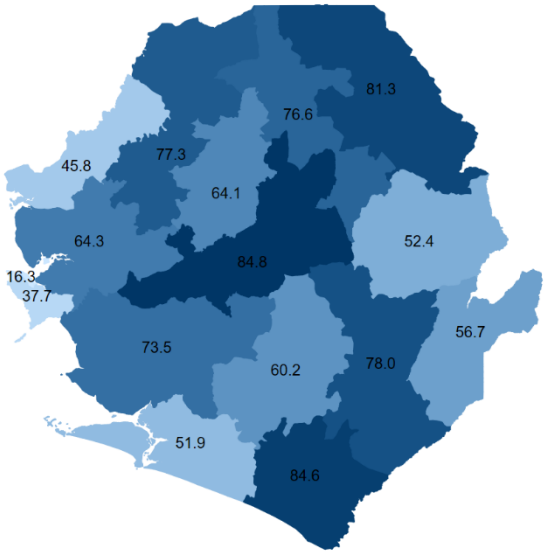
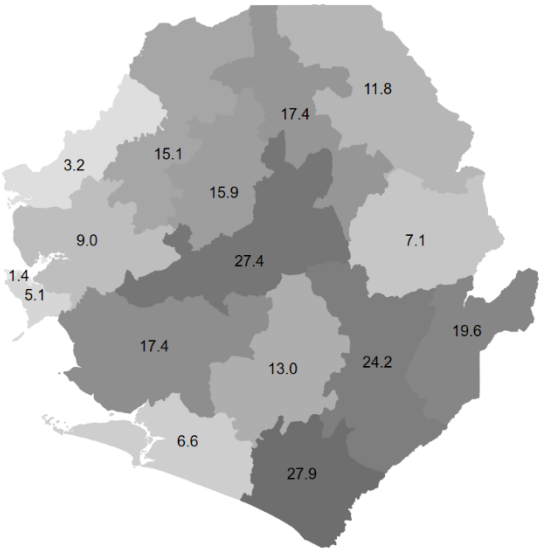


Figure 9.2: Extreme Poverty Rate by District



Source: Authors' calculations from 2018 SLIHS

9.3 Poverty Rates for Different Types of Households

Education and sector of employment are the largest predictors of poverty status, but demographic characteristics are also important. We consider the poverty rates for households based on demographic characteristics, educational achievements and main occupation of the household head, economic diversification.

Poverty rates are significantly higher for larger households; a household with 8 or more members is more than 4 times as likely to be poor as one with 3 or fewer members. These larger households are less than a quarter of the households in Sierra Leone, but they contain over 40% of the population. We see that female headed households are actually somewhat less likely to be poor than male headed households. Looking at the age of the household head, we see that in general, the older the head, the more likely the household is to be poor.

Moving from demographics to education and employment, we find strong decreases in poverty with increased education. In particular, households whose head finished secondary school are about half as likely to be poor as those whose heads only have primary education. By occupation, the poorest households are those whose head is engaged in agriculture. The second most common occupation is trading, these households are significantly less poor (42.3% compared to 74.9%) but still have a higher poverty rate than many other occupational groups.

Considering economic activities, the strongest predictor of being poor is working at all in agriculture. Households who engage in some kind of business activities in addition to farming are only slightly less poor than those who rely on farming alone. And those who rely solely on business activities actually do slightly better than households where at least one member is in wage employment.

Table 9.1: Poverty Rates by Household Characteristics

	Poverty incidence	Extreme poverty incidence	Percent of population
Household size			
1 to 3	16.2	0.6	8.2
4 or 5	40.3	5.2	23.6
6 or 7	61.7	12.6	27.8
8 or more	71.5	20.0	40.4
Sex of household head			
Male	57.3	13.8	75.8
Female	55.4	9.8	24.2
Age of household head			
17 to 25	47.8	11.2	3.5
26 to 35	48.0	9.3	18.5
36 to 45	57.2	12.5	27.6
46 to 55	59.2	11.8	23.8
56 to 65	61.7	18.0	16.0
66 and over	61.8	15.2	10.6
Education of household head			
None	67.5	16.6	55.3
Primary incomplete	63.0	15.1	8.9
Primary complete	58.4	8.1	3.7
Secondary incomplete	42.1	8.7	19.0
Secondary complete	29.9	7.0	2.6
Technical / vocational	36.8	2.0	7.7
University	5.3	0.0	2.8
Occupation of household head			
Agriculture, forestry and fishing	74.9	20.7	45.7
Mining and quarrying	61.5	15.0	2.6
Manufacturing	47.1	6.1	3.6
Construction	33.8	3.8	4.2
Wholesale and retail trade	42.3	4.8	15.9
Education	30.5	4.1	3.8
Other	40.8	0.9	3.1
Not working	42.1	8.1	21.1
Economic diversification			
Primary production only	76.6	22.9	34.3
Primary production and business only	74.2	16.7	17.3
business only	37.0	3.7	21.4
wage employment (at least one hh member)	39.7	6.1	27.0

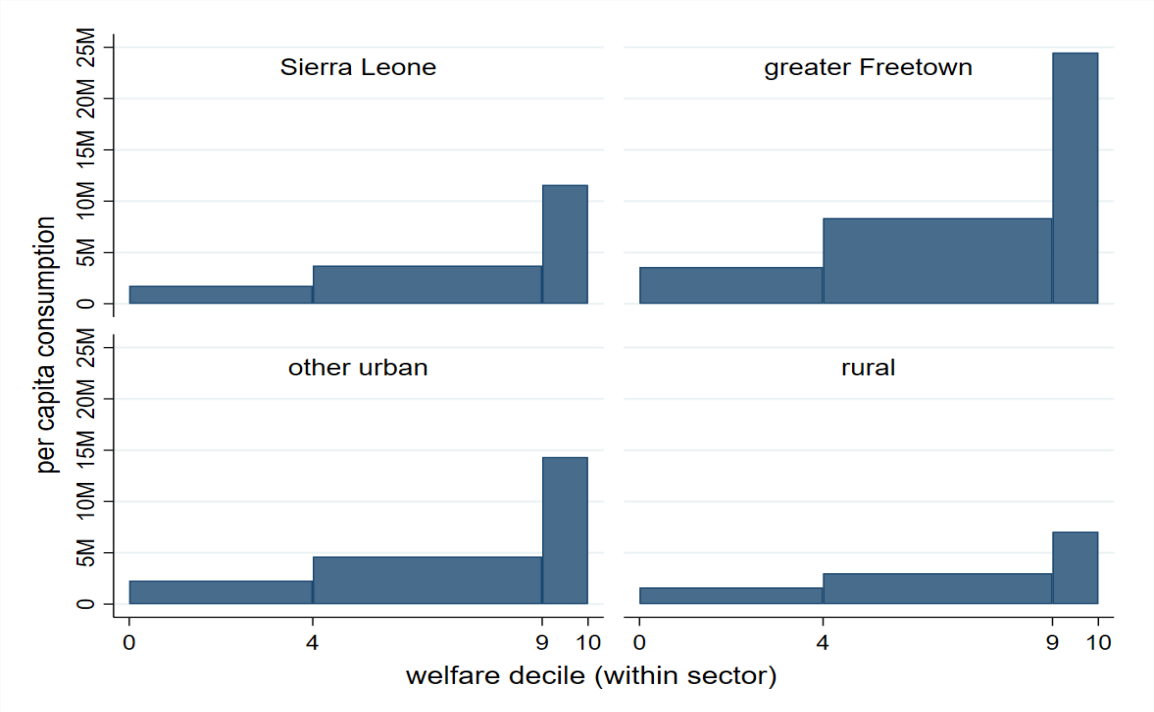
Source: Authors' calculations from 2018 SLIHS

Looking across these numbers, often the highest poverty rates are for the largest group of the population: large households with an uneducated head who engage primarily in agriculture. Households who break this mold one way or another are significantly less likely to be poor.

9.4 Inequality

Inequality is high in Sierra Leone, with the bottom 40% of the population having only 20% of the total household consumption. The top 10% of the population has 29% of the total consumption. Looking at consumption deciles within sector (greater Freetown, other urban and rural areas) the patterns are quite similar with less intra-sector inequality; within each sector the bottom 10% has 30-34% and the top 10% has about 16% of total consumption.

Figure 9.4: Distribution of Consumption by Decile



Source: Authors' calculations from 2018 SLIHS

Inequality, as measured by the Gini coefficient, is 0.357 for Sierra Leone in 2018.[10] This varies from 0.348 in Freetown, to 0.302 in other urban areas to 0.269 in rural areas. By province, the highest Gini coefficient is found in the West (0.352) followed by the East (0.312), and the lowest in the North West (0.241).

[10] Based on per capita total household expenditure with population weights.

9.5 Poverty and inequality trends: 2011-2018

The monetary poverty rate of 56.8% for 2018 presented in this chapter is NOT directly comparable with the official poverty rate of 52.9% from 2011 based on the 2011 SLIHS for due to several methodological improvements that we made between 2011 and 2018. When we construct measures of household welfare for both years and poverty lines that are comparable, we find that poverty has decreased by 5.6 percentage points (see Box 2 for more details). This is a much smaller reduction in poverty than between 2003 and 2011 when the national poverty rate fell by 13.x% percentage points. The reduction is driven mainly by urban areas outside of Freetown[11]: these shows a decrease in poverty of 6.2 percentage points, while rural areas show a small, statistically insignificant increase and Freetown shows a small, statistically insignificant decrease. All the regions saw decreases in poverty, but only that in the West is statistically significant. Extreme poverty has not changed overall since 2011 but increased in rural areas (5.3 percentage points) and the East (5.9 percentage points). Food poverty has increased significantly (8.4 percentage points) with particularly large increases in rural areas, the East and the North.

Box 2: Calculating Comparable Poverty Rates for 2011 and 2018

The monetary poverty rate of 56.8% for 2018 presented in this chapter is NOT directly comparable with the official poverty rate of 52.9% from 2011 based on the 2011 SLIHS for several reasons: Because of improvements to the questionnaire, the consumption aggregate for the main 2018 analysis is an improvement over those constructed in 2011. It adjusts for urban vs. rural food price differences, includes more nonfood items, and uses a more appropriate recall period for some items. In addition, a new poverty line is calculated, using the better data available for 2018, instead of maintaining the old one based on the limited 2003/04 data. (See Statistics Sierra Leone/World Bank 2019). Analyzing trends between 2011 and 2018 requires a comparable welfare aggregate for both years and appropriate poverty lines.

Comparable nominal total household consumption was calculated for 2011 and 2018, using only information that was collected in both years. This means that food received for free, some non-food items and about half the durable goods are excluded from the comparable nominal total household consumption. Weights for 2011 are re-post-stratified using chiefdom level population growth between the 2004 and 2015 censuses.

Adjustments for price variations and household size / composition are made in the same way to produce comparable consumption aggregates for 2011 and 2018. These adjustments follow the methods used for the official poverty estimates of 2018 described in the document Sierra Leone/World Bank (2019), except that spatial differences in food prices are adjusted based on CPI prices (as unit prices from the survey are not available for 2011).

The results in this chapter analyze poverty trends using poverty lines based on the new 2018 poverty line construction. An appropriate poverty line is set for the 2018 comparable consumption aggregate, and then deflated to 2011 price levels. The poverty line is set such that the comparable aggregate yields the same poverty rate (56.8%) as the main aggregate. The food component is deflated using CPI food price inflation, and the nonfood component using CPI nonfood price inflation.

We do not attempt to extend this analysis to 2003/04 due to the very limited data (particularly CPI data) available before 2004.[12]

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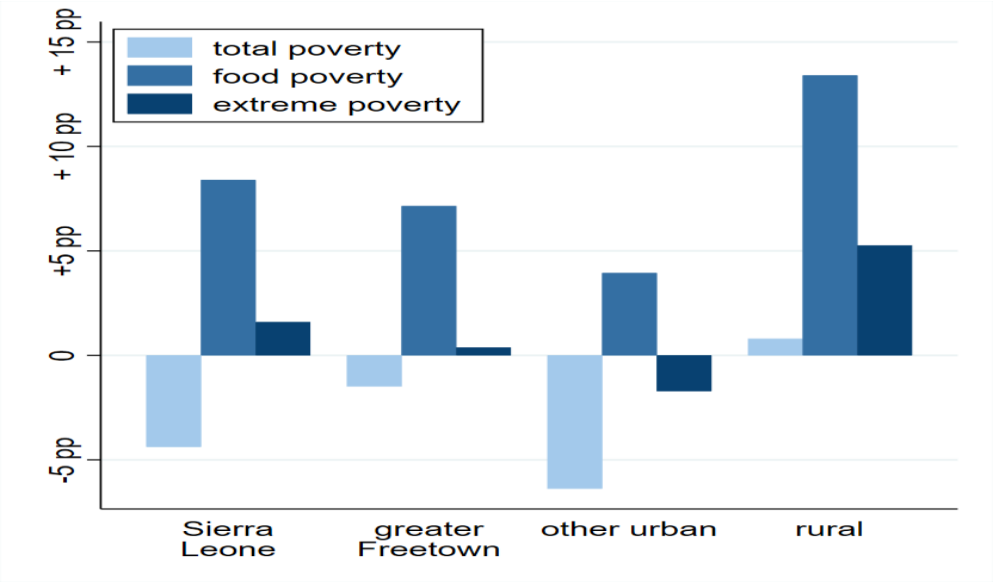
[11] Note that the geographic definition of these areas changes between 2011 and 2018, due to the reclassification of areas as urban or rural in the 2015 census. Areas in Kono district outside of the headquarters are dropped from this analysis as none of them were classified as urban in 2015.

[12] For methodological details on the construction of comparable welfare aggregates and poverty lines in 2011 and in 2018 see Statistics Sierra Leone/World Bank. 2019. "Methodology for Consumption-Poverty Estimation, 2018 and Poverty Trends, 2011-2018, in Sierra Leone."

Figure 9.5: Changes in Poverty, 2011 to 2018



9.6 Inequality

Inequality (as measured by the Gini coefficient) has increased between 2011 and 2018. Using comparable measures of welfare for 2011 and 2018, the Gini coefficient increased from 0.328 to 0.373.[13] This is the predictable result of a situation where the areas that are less poor to begin with (urban areas) have higher growth and greater poverty reduction. Figure 10 shows the Lorenz curves for 2011 and 2018. We also look at the share of household consumption by decile and find the same pattern of increasing inequality. All deciles except the richest have a lower share of total household consumption in 2018 than in 2011.

[13] Note that the Gini coefficient for 2018 presented in the first section is slightly lower, 0.36. This is because it is based on a welfare measure that accounts for the differences in food prices between urban and rural areas, which is not possible to do for 2011 or before.

Figure 9.6: Lorenz Curves

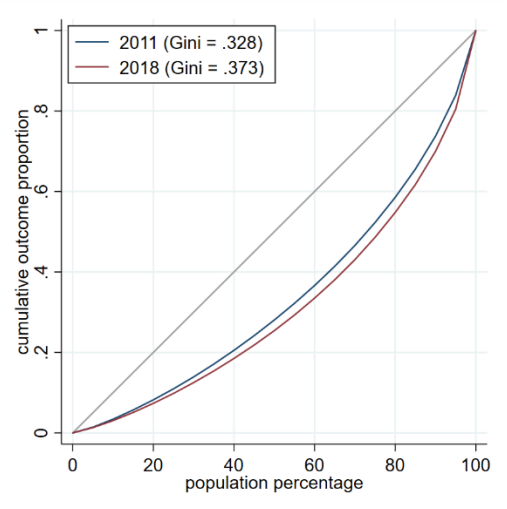
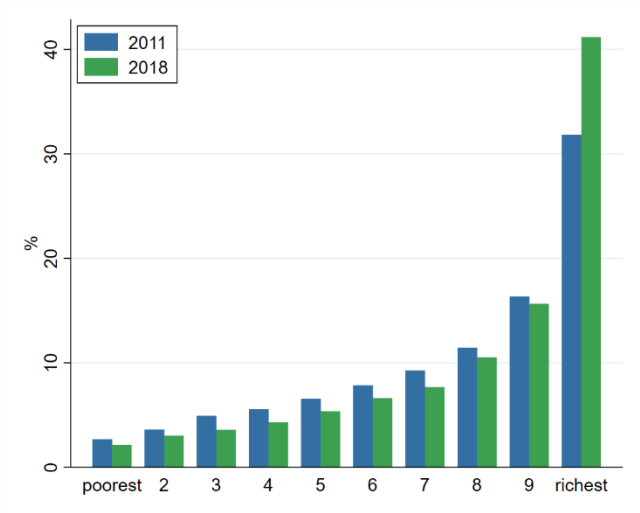


Figure 9.7: Share of HH Consumption by Decile



Source: Authors' calculations from 2018 SLIHS

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APPENDIXES

APPENDIX 1: POVERTY RATES FOR 2018

Total Poverty Measures

	Incidence	(SE)	Gap	(SE)	Severity	(SE)
Sierra Leone	56.8	1.2	18.0	0.6	7.6	0.3
rural	73.6	1.6	25.1	0.9	11.0	0.5
urban	35.3	2.0	8.8	0.6	3.1	0.3
Greater Freetown[14]	23.5	3.2	5.2	0.9	1.7	0.3
other urban	49.5	2.5	13.3	0.9	4.8	0.4
East	64.0	2.9	21.7	1.4	9.6	0.8
North	76.1	2.0	26.5	1.3	11.6	0.8
North West	62.1	2.9	17.4	1.3	6.6	0.7
South	67.8	2.6	22.0	1.4	9.4	0.9
West	23.9	3.2	5.6	1.0	1.9	0.4
Kailahun	56.7	6.9	20.4	3.4	9.1	1.8
Kenema	77.9	2.5	28.1	1.8	13.0	1.2
Kono	52.2	5.9	14.1	2.3	5.3	1.2
Bombali	63.7	4.4	22.3	2.3	9.7	1.3
Falaba	81.0	5.3	24.5	2.7	9.3	1.4
Koinadugu	76.6	3.9	23.7	2.3	9.6	1.3
Tonkolili	84.4	2.5	31.0	2.4	14.3	1.6
Kambia	44.4	6.8	10.6	2.5	3.7	1.1
Karene	77.3	4.1	25.1	2.3	10.5	1.3
Port Loko	64.6	3.9	17.6	1.8	6.5	1.0
Bo	60.2	4.5	19.3	2.1	8.1	1.2
Bonthe	51.9	6.5	14.4	2.2	5.1	1.0
Moyamba	73.7	5.5	22.7	3.7	9.5	2.3
Pujehun	84.6	2.6	31.1	2.4	14.4	1.6
WAR	38.8	7.8	9.8	2.4	3.4	0.9
Freetown	16.7	2.0	3.5	0.6	1.2	0.4

[14] This is Western Area Urban (Freetown Municipality) and other urban areas in Western Area.

Extreme Poverty Measures

	Incidence	(SE)	Gap	(SE)	Severity	(SE)
Sierra Leone	13.7	0.9	2.8	0.2	0.8	0.1
Rural	21.1	1.5	4.3	0.4	1.3	0.2
Urban	4.1	0.6	0.7	0.2	0.2	0.1
Greater Freetown	2.2	0.7	0.4	0.2	0.1	0.1
other urban	6.4	1.1	1.1	0.2	0.3	0.1
East	18.5	2.1	4.0	0.5	1.2	0.2
North	22.0	2.5	4.4	0.7	1.3	0.3
North West	9.8	1.8	1.7	0.4	0.5	0.2
South	17.6	2.4	3.7	0.7	1.1	0.3
West	2.7	0.9	0.5	0.2	0.1	0.1
Kailahun	20.0	4.7	3.7	1.0	0.9	0.3
Kenema	25.2	3.2	6.0	1.0	2.0	0.4
Kono	7.6	2.5	1.4	0.7	0.4	0.3
Bombali	17.1	3.1	3.6	0.9	1.1	0.4
Falaba	15.1	4.0	2.0	0.7	0.4	0.2
Koinadugu	17.4	4.1	2.7	0.7	0.7	0.3
Tonkolili	29.0	5.3	6.2	1.4	2.0	0.5
Kambia	4.8	2.2	0.7	0.4	0.1	0.1
Karene	16.8	4.0	3.3	1.0	1.0	0.4
Port Loko	9.4	2.9	1.5	0.6	0.5	0.3
Bo	13.8	2.9	3.0	1.0	1.0	0.5
Bonthe	7.6	2.6	0.8	0.3	0.1	0.1
Moyamba	17.8	6.8	3.8	1.8	1.2	0.7
Pujehun	30.8	4.7	6.5	1.3	1.9	0.4
Western Area Rural	5.1	2.1	0.7	0.3	0.1	0.1
Freetown	1.5	0.7	0.4	0.3	0.1	0.1

APPENDIX 2: POVERTY TRENDS, 2011-2018

Poverty Rates: 2011 and 2018

	2011	**2018**	**change**	
Poverty rate				
National	62.4%	56.8%	-5.6	***
Freetown	20.4%	17.3%	-3.1	
Other Urban	55.0%	47.8%	-6.2	**
Rural	77.4%	78.5%	+1.1	
Extreme Poverty Rate				
National	14.4%	15.1%	+0.7	
Freetown	1.8%	1.4%	-0.4	
Other Urban	7.6%	5.0%	-2.6	
Rural	20.5%	25.8%	+5.3	***

Poverty lines in thousands of Leones annually per adult equivalent.

*** indicates significance at the 1% level, ** at the 5% level and * at the 10% level.

APPENDIX 3: DEMOGRAPHIC INFORMATION

Demographic information

Locality	**Average Age of Head and Spouse**				**Proportion of Household Headship**			
	Head		**Spouse**		**Head**		**Spouse**	
Region	**Male**	**Female**	**Male**	**Female**	**Male**	**Female**	**Male**	**Female**
East	45.6	48.3	53.5	35.9	78.3	21.7	3.7	96.3
North	46.0	47.4	50.0	36.0	73.0	27.0	9.7	90.3
North West	45.3	49.2	53.2	35.1	69.4	30.6	12.6	87.4
South	47.0	50.7	49.1	37.2	76.1	23.9	4.9	95.1
West	43.2	47.1	44.2	35.4	78.6	21.4	2.2	97.8
West Rural	46.7	49.8	53.3	36.6	75.9	24.1	7.3	92.7
West Urban	43.4	46.7	44.5	34.8	74.6	25.4	5.3	94.7
Sierra Leone	**45.4**	**48.5**	**51.1**	**36.0**	**75.4**	**24.6**	**6.7**	**93.3**

APPENDIX 4: EDUCATION AND LITERACY

Districts' Percentage Distributions of Highest Level/Courses Completed

District	Vocational	Teaching	Polytechnic	Nursing	Certifi-cates	1st Degree	Higher Degree
Kailahun	2.2	7.3	3.8	4.2	1.9	1.5	2.2
Kenema	5.7	7.5	13.7	12.8	7.8	6.3	1.2
Kono	2.5	2.9	2.2	1.7	1.7	1.4	1.8
Bombali	5.1	7.7	3.0	3.2	3.4	3.4	0.6
Falaba	0.9	2.1	0.0	0.0	0.0	0.0	0.0
Koinadugu	0.4	4.0	0.5	1.3	0.8	1.2	0.0
Tonkolili	2.8	3.6	6.0	2.6	2.0	0.5	1.4
Kambia	1.5	4.7	0.0	0.0	3.5	0.4	0.0
Karene	0.8	2.3	0.6	1.0	0.5	0.2	0.0
Port Loko	10.0	13.9	8.1	3.0	6.1	1.9	2.9
Bo	13.7	10.1	5.5	13.6	9.2	10.4	3.9
Bonthe	1.1	2.5	2.0	4.0	4.4	1.6	0.0
Moyamba	3.5	7.1	0.7	1.9	4.3	0.5	0.0
Pujehun	1.2	3.7	0.8	0.6	1.9	0.2	0.0
West Area Rural	8.3	5.5	3.4	11.1	10.9	8.0	12.4
West Area Urban	40.4	14.9	49.6	39.1	41.7	62.7	73.6

APPENDIX 5: HEALTH ISSUES

Percentage of persons by type of medical practitioner consulted by age group and sex

(a) Male

Age group	Doctor	CHO	Nurse/SRN	CHW	Pharmacist	Medicine Vendor/others	Total	Total males
0-4	11.1	8.3	74.7	1.2	3.2	1.5	100	156593
5-9	15.0	12.6	61.1	1.8	8.2	1.4	100	82447
10-14	24.4	13.4	47.3	0.7	11	3.3	100	37881
15-19	20.6	19.5	39.4	0	17.6	2.9	100	25690
20-24	41.4	5.3	31.8	2.8	9.4	9.2	100	22642
25-29	25.5	15.5	36.7	0.6	19.1	2.8	100	25016
30-34	27.3	19.2	33.5	0	14.6	5.5	100	27736
35-39	28.6	19.4	42.4	1.4	6.7	1.4	100	26445
40-44	35.6	18	31.3	0	9.2	5.9	100	25920
45-49	42.7	12.4	30.8	2.8	7.7	3.5	100	22708
50-54	32.6	16.9	44.3	0	4	2.1	100	20598
55-59	36.3	18.3	31.7	0	8.8	4.8	100	20513
60-64	41.4	15.5	36.4	0	3.5	3.2	100	12869
65-69	41.8	21.2	28	1.6	5.2	2.2	100	13462
70-74	46.4	21.3	26.8	0	5.5	0.0	100	7985
75+	41.5	20.9	25.1	1.5	4.1	6.9	100	14796

(b) Female

Age group	Doctor	CHO	Nurse/ SRN	CHW	Pharma-cist	Medicine Vendor/ others	Total	Total females
0-4	9.5	8.1	77.3	1.0	3.0	1.1	100	159039
5-9	14.4	9.7	66.6	1.9	4.2	3.2	100	73791
10-14	16.1	8.2	58.1	1.6	13.0	3	100	35424
15-19	18.0	10.1	52.5	1.5	14.4	3.5	100	35426
20-24	24.0	8.0	58.1	0.0	7.6	2.3	100	43696
25-29	20.4	11.7	56.0	1.0	8.3	2.6	100	49930
30-34	29.6	11.6	50.9	0.0	5.5	2.4	100	41591
35-39	18.5	12.8	52.6	1.7	9.6	4.8	100	42132

(b) Female - Cont'd

Age group	Doctor	CHO	Nurse/ SRN	CHW	Pharma-cist	Medicine Vendor/ others	Total	Total females
40-44	34.5	13.4	48.2	0.0	3.8	0.1	100	29396
45-49	29.9	11.9	46.2	2.3	7.2	2.5	100	24647
50-54	29.4	14.5	49	0.0	3.5	3.6	100	26324
55-59	22.3	15.5	52.7	0.6	5.1	3.8	100	20902
60-64	25.1	8.3	49.6	0.0	10.3	6.7	100	13974
65-69	26.8	13.2	44.0	0.0	10.7	5.3	100	11373
70-74	26.0	14.0	35.0	0.0	10.7	14.3	100	8359
75+	25.3	14.8	46.8	1.50	5.2	6.4	100	13982

Percentage of persons who reported an illness or injury and visited a health facility or medical practitioner by sex, locality and administrative division

Place of residence	**Male percent**	**Female percent**	**Total males**	**Total females**
Rural	57.9	57.5	556876	630050
Urban	59.5	58.0	299654	357784
District				
Kailahun	70.0	71.1	44730	49461
Kenema	70.8	73.4	60774	75190
Kono	67.0	64.5	37736	38052
Bombali	58.3	54.7	44296	46524
Falaba	53.3	52.9	19458	20571
Koinadugu	60.1	60.3	17018	20026
Tonkolili	45.4	47.1	131450	168375
Kambia	62.7	60.5	43914	46506
Karene	48.8	52.6	34364	38239
Port Loko	62.4	60.8	87395	103322
Bo	54.9	52.5	90640	97332
Bonthe	70.0	63.8	25669	33068
Moyamba	57.6	52.2	41480	42050
Pujehun	61.5	66.8	34596	36633
Western Area Rural	54.3	49.8	46830	61325
Western Area Urban	60.4	60.2	96180	111160

Percentage of persons by type of medical practitioner consulted by sex and administrative division and place of residence

(a) Males

Administrative Division	Doctor	CHO	Nurse/SRN	CHW	Pharmacist	Medicine Vendor/others	Total	Total males
Sierra Leone	23.7	13.5	51.1	1.1	7.7	2.9	100	543301
Regions								
East	20.4	11.7	55.1	1	9.5	2.3	100	111712
North	22.8	12.5	58.3	1.2	3.2	1.9	100	108216
North West	15.2	16.9	53.1	1	8.3	5.5	100	110449
South	12.9	18.4	59.9	1.4	4.3	3.1	100	123890
West	54.9	5.8	22.3	0.7	15.1	1.3	100	89034
Place of residence								
Rural	13.6	15.6	62.8	1.2	3.2	3.6	100	351898
Urban	42.4	9.5	29.5	0.9	16.1	1.6	100	191403
Districts								
Kailahun	20.2	6.3	67.7	0	2.9	2.9	100	32131
Kenema	12.0	7.5	61.5	2.1	14.2	2.7	100	53953
Kono	38.1	27.1	26	0	7.8	1	100	25628
Bombali	33.4	8.4	50.7	0.6	5.3	1.6	100	26660
Falaba	6.2	10.1	79.5	2.1	0	2.1	100	10369
Koinadugu	34.2	5.1	52.3	0	6.3	2.1	100	10487
Tonkolili	18.9	16.0	59.1	1.5	2.3	2.2	100	60700
Kambia	11.4	29.0	51.8	1.8	4.3	1.7	100	32712
Karene	23.0	15.9	49.8	0.0	7.2	4.1	100	18429
Port Loko	14.9	10.5	54.8	0.9	10.8	8.1	100	59308
Bo	15.9	16.3	52.8	0.8	8.9	5.3	100	52190
Bonthe	15.0	36.1	48.8	0.1	0	0	100	21028
Moyamba	10.9	14.7	68.5	1.7	2.1	2.1	100	27455
Pujehun	6.4	11.7	75.6	3.4	0.5	2.4	100	23217
Western Rural	47.5	8.5	33.9	0.8	8.5	0.8	100	26314
Western Urban	58.0	4.7	17.4	0.7	17.9	1.3	100	62720

(a) Females

Administrative division	Doctor	CHO	Nurse/SRN	CHW	Pharmacist	Med Vendor/Others	Total	Total Females
Sierra Leone	19.2	10.5	60.1	1.0	6.4	2.8	100	629986
Regions								
East	17.5	8.3	62.8	0.8	8.6	2	100	132271
North	18.7	11	65.8	0.4	2.5	1.6	100	132109
North West	9.9	8.7	67.4	1.2	5.6	7.2	100	124604
South	10.8	16.9	64.8	1.9	3.9	1.7	100	136930
West	43.9	6.2	34.8	0.6	13	1.5	100	104072
Place of residence								
Rural	9.7	11	72.6	1.3	1.8	3.6	100	405097
Urban	36.2	9.5	37.6	0.4	14.7	1.6	100	224889
Districts								
Kailahun	18	5.6	70	0	4.5	1.9	100	37663
Kenema	11.4	5.4	67.5	1.5	11.6	2.6	100	69699
Kono	34	20.5	38.5	0	6.5	0.5	100	24909
Bombali	27.7	7.3	58.6	1.1	3.3	2	100	26788
Falaba	0	15.3	79.2	1.8	0	3.7	100	11748
Koinadugu	17.8	6.3	69.5	0	6.3	0.1	100	12598
Tonkolili	18.6	12.4	65.6	0	2.1	1.3	100	80975
Kambia	7.4	6.6	81	0	4.1	0.9	100	34734
Karene	14.4	10.1	66.6	0	5.5	3.4	100	21603
Port Loko	9.7	9.2	60.7	2.1	6.3	12	100	68267
Bo	15.2	12.1	57.8	2.1	9.1	3.7	100	56186
Bonthe	15.2	30.3	54.5	0	0	0	100	24990
Moyamba	4.9	21.2	73	0.9	0	0	100	28670
Pujehun	3.8	10	80.3	4.2	0.8	0.9	100	27084
Western Rural	31.9	9.7	52.1	0.7	2.8	2.8	100	32112
Western Urban	49.2	4.7	27	0.6	17.5	1	100	71960

Percentage distribution of persons that reported sick or injured in the past 4 weeks by type of illness diagnosed and by age group and sex in Sierra Leone

Males

	Age group															
Type of illness	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75+
No diagnosis given	6.0	3.0	2.2	6.4	8.2	2.5	4.8	6.3	8	10.3	7.4	3.3	3.2	2.8	8.6	0.7
Anemia	1.5	1.3	3	3.1	0.6	0	2.1	0	1	0	0.7	0.7	0.0	0.0	15.1	1.7
ARI/pneumonia	1.3	0.3	0.4	1.6	0.7	0	0	3.6	3.3	0	2.9	5.6	0.0	0.0	3.1	3.0
Burns	0.1	0.6	0.0	0.0	0.0	0.0	1.8	0.0	0.0	1.0	0.0	0.5	0.0	0.0	3.5	0.0
Cough / cold	19.4	11.9	7.8	7	8	12.2	11.6	15.4	13.8	7.5	15.4	20.3	15.8	15.9	7.6	23.1
Diarrhea	2.3	1.5	0.9	0.0	1.7	1.1	0	0.6	0.0	0.0	3.0	0.0	1.9	0.0	1.4	0.0
Dysentery	0.4	0.4	0.3	1.0	0.0	2.1	0.9	0.0	1.2	1.1	2	0.6	2.4	2.1	0	0.0
Ear infection	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0	2.6	0.7	0	2.1	2.7	4.1
Eye infection	0.0	0.3	1.1	1.5	3.2	0.5	2.7	1.5	0.6	0	2.2	1.8	2.6	1.8	4	8.6
Hypertension	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	4.1	3	2.4	4.7	7	15.7	13.4	6.5
Malaria	49.3	65.6	63.5	52.5	50.9	56.1	49.6	42.4	38	47.7	32.7	41.3	40.7	31	23.4	30.9
Typhoid	0.6	2.8	2.9	4.7	2.6	2.7	5.7	3.2	6.7	3.9	5	6.3	3.4	4.8	0	2.9
Worms	0.5	1.6	4.2	0.0	0.0	1.1	1.0	1.0	2.5	1.9	1.4	1.5	2.2	0	1.9	0.0
Injury/wound	0.4	1	6.3	11	8.6	8.5	9.4	7.8	4.0	5.3	4	1.2	6.3	3.3	0.0	1.7
Ulcer	0.0	0.2	0.2	0.0	0.6	1.4	3.1	1.7	4.0	4.5	0.0	0.0	0.0	0.0	3.5	4.6
Other	3.7	3.4	3.9	8.0	5.0	8.1	6.4	12.1	7.5	8.0	17.2	10.8	8.5	16.8	9.9	8.4
Preventative care	13.9	5.6	0.4	1.1	2.5	2.2	0.0	2.8	1.1	3.5	0.0	0.0	4.5	2.1	0.0	0.0
Spiritual / witchcraft	0.0	0.0	1.8	1.4	6.1	0.3	0.9	0.5	0.8	0.0	0.0	0.0	0.0	1.6	0	3.8
Don't know	0.6	0.5	1.1	0.7	1.3	1.2	0.0	0.0	2.6	2.3	1.1	0.7	1.5	0.0	1.9	0.0
Total	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Percentage distribution of persons that reported sick or injured in the past 4 weeks according to type of illness diagnosed by sex and regions

	East		North		North West		South		West		Rural		Urban		Sierra Leone		
Type of illness	**Male**	**Female**	**Male**	**Female**	**Male**	**Female**	**Male**	**Female**	**Male**	**Female**	**Male**	**Female**	**Male**	**Female**	**Male**	**Female**	**Both sexes**
No diagnosis given	4.0	5.2	2.8	3.2	10.8	12	4.2	6.9	3.7	3.7	5.6	6.7	4.3	5.4	5.1	6.3	5.7
Anemia	2.1	2.0	1.8	0.9	0.9	0.9	1.0	1.3	1.8	1.6	1.5	1.4	1.4	1.2	1.5	1.3	1.4
ARI/pneumonia	1.9	2.2	2.9	2.5	0.3	0.1	0.6	1.0	0.9	0.5	1.7	1.8	0.7	0.6	1.3	1.3	1.3
Burns	0.4	0.3	0.3	0.5	0.4	0.7	0.3	0.1	0.3	0.1	0.3	0.4	0.4	0.3	0.3	0.3	0.3
Cough / cold	12.9	11.1	11.9	10.9	14.4	15.6	14.5	15.3	18.9	18.8	13	13.3	16.9	15.7	14.4	14.1	14.3
Diarrhea	1.3	1.5	1.7	1.2	1	2.5	1.7	2.2	0.7	1.1	1.4	2.0	1.0	1.3	1.3	1.7	1.5
Dysentery	0.9	0.4	0.5	1	1.8	0.9	0.0	0.4	0.2	0.4	0.8	0.7	0.5	0.4	0.7	0.6	0.7
Ear infection	0.5	0.2	0	1.1	0.8	0.5	0.3	0.4	0.2	0.5	0.5	0.5	0.1	0.6	0.4	0.5	0.5
Eye infection	1.3	0.2	1.5	0.5	1.0	0.5	1.0	1.1	0.8	0.5	1.3	0.6	0.8	0.5	1.1	0.6	0.8
Hypertension	0.9	2.1	1.9	4.4	1.2	1.2	0.9	1.9	3.3	3.3	0.9	2.1	2.9	3.3	1.6	2.6	2.1
Malaria	45.9	50.4	49.6	47.5	49.5	51.0	50.7	47.9	54.6	52.2	49.3	49	51.1	50.9	49.9	49.7	49.8
Typhoid	4.4	2	3.3	2.8	1.0	1.1	2.8	1.8	2.8	3.6	2.7	1.2	3.1	4.1	2.9	2.2	2.5
Worms	3.1	2.3	0.7	1.8	0.5	0.5	1.3	0.4	0.2	0.6	1.2	1.2	1.3	1.1	1.2	1.2	1.2
Injury/wound	2.0	1.4	7.3	3	3.1	2.1	4.4	1.2	1.4	1.5	4.2	2	2.9	1.7	3.7	1.9	2.7
Ulcer	0.9	0.4	1.4	1.4	0.8	0.7	1.0	1.0	0.5	0.3	1.0	0.8	0.8	0.6	0.9	0.8	0.8
Other	6.2	5.8	8.6	7.7	6.9	4.0	5.5	5.9	5.5	6.4	6.6	5.7	6.1	6.1	6.5	5.9	6.2
Preventative care	10.0	10.9	1.7	6.2	4.5	4.9	8.2	9.5	2.9	3.3	6.5	8.7	4.2	4.4	5.7	7.2	6.5
Spiritual / witchcraft	0.2	0.6	1.5	1.3	0.3	0	1.1	0.5	0.3	0.6	0.7	0.5	0.7	0.8	0.7	0.6	0.7
Don't know	1.1	1	0.6	2.1	0.8	0.8	0.5	1.2	1.0	1.0	0.8	1.4	0.8	1.0	0.8	1.2	1.0
Total	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

No diagnosis given	**3.4**	**2.9**	**4.3**	**9.3**	**10.9**	**9**	**8.2**	**11.1**	**7.5**	**7.1**	**7.6**	**7.6**	**5.2**	**5.1**	**5.4**	**4.0**
Anemia	1.2	1.4	1.5	3.9	0.4	0.6	0.6	0.5	4.2	0.6	2.1	0	0.0	4.5	0.0	0.0
ARI/pneumonia	2.1	1.4	2.2	0	1.7	1.1	0.3	1.1	1.0	1.2	1.7	0.6	0.0	0.0	1.8	0.0
Burns	0.4	0.2	0	0	1.4	0	0	0.7	0.5	0.4	0.7	0	0.0	0.0	0.0	0.0
Cough / cold	17.8	13.2	10.9	9.2	9.6	14.8	15.8	10.3	12	18.3	13.3	14.5	12.2	20.3	7	16.7
Diarrhea	3.6	1.3	0.9	1.4	0.9	1	0.6	1.2	0.0	0.9	0.5	2.2	3.1	0.0	1.0	2.1
Dysentery	0.2	0	1.6	0	0.3	0.6	0.7	1.0	0.0	2.9	1.7	1.5	4.2	1.9	0.0	0.0
Ear infection	0.0	0.2	0.9	0.6	0.8	1.2	1.1	1.0	0.0	0.0	0.0	3.0	0.0	0.0	0.0	2.3
Eye infection	0.0	0.2	0.8	0.3	0.0	0.0	1.2	0.8	0.0	0.0	1.2	0.0	2.2	3.7	5	5.8
Hypertension	0.0	0.0	0.0	0.0	0.0	1.0	3.5	1.4	4.6	7.5	11.2	3.9	12.0	8.0	15.6	20.3
Malaria	52.1	68.6	67.5	52	46.5	47.6	38.2	44.1	40.6	43	37.2	35.6	43.3	35.5	40.8	36.9
Typhoid	0.4	2.6	1.6	0.8	2.6	1.7	5.2	4.5	3	1.5	3.9	5.6	5.3	1.3	1.8	0.0
Worms	0.3	1.2	1.4	2.3	3.7	1.0	1.1	0.7	0.9	0.0	0.0	0.0	1.8	1.3	5.4	0.0
Injury/wound	0.1	0.7	2.3	1.3	2.4	1.6	1	3.6	4.1	1.9	4.9	8.0	5.0	1.2	3.6	3.0
Ulcer	0.0	0.0	0.0	1.3	1	0.2	0.4	1.4	3.4	0.9	1.6	0.0	1.5	4.0	4.9	2.3
Other	3.5	1.6	2.8	7.4	7.2	9.7	8.3	8.3	9.5	6.7	9.2	10.3	2.1	9.8	7.7	6.6
Preventative care	14.3	4.3	0.9	6.9	9.2	7.1	6.8	6.3	5.9	3	0.6	2.2	1.3	0.0	0.0	0.0
Spiritual / witchcraft	0.1	0.2	0	0.7	1.1	0.0	2.2	0.4	1.5	2.1	0	2.2	0.0	3.4	0.0	0.0
Don't know	0.5	0	0.4	2.6	0.3	1.8	4.8	1.6	1.3	2	2.6	2.8	0.8	0.0	0.0	0.0
Total	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Type of illness	Kailahun	Kenema	Kono	Bombali	Falaba	Koinadugu	Tonkolili	Kambia	Karene	Port Loko	Bo	Bonthe	Moyamba	Pujehun	Western Area Rural	Western Area Urban
No diagnosis given	0.9	2.7	10.4	3.5	0	4.1	2.8	14	10.6	9.1	6.1	2.0	4.1	2.0	**3.4**	**3.8**
Anaemia	1.5	3.4	0	3.6	2.1	1.3	1.0	0.9	3.7	0.0	1.0	1.4	1.0	0.5	**1.7**	**1.8**
ARI/pneumonia	3.2	1.5	1	1.7	0	0	4.5	0.0	1.7	0.0	0.4	0.0	0.0	2.5	**0**	**1.3**
Burns	0.9	0.3	0	0.3	2.1	0.0	0.0	0.0	0.0	0.7	0.2	0.0	1.0	0.0	**0.8**	**0**
Cough / cold	4.4	16	16.7	8.8	16.8	9.7	12.8	8.8	11.5	18.5	17.2	16.3	9.3	13.3	**23.7**	**16.9**
Diarrhoea	2.1	0.8	1.4	1.7	0	0	2.3	1.8	0.8	0.7	1.6	1.4	1.0	3.0	**1.7**	**0.2**
Dysentery	0.9	0.5	1.9	0.0	0.0	5.4	0.0	1.8	0.8	2.1	0.0	0.0	0.0	0.0	**0**	**0.2**
Ear infection	0.9	0.0	1.0	0.0	0.0	0.0	0.0	0.9	0.0	1.0	0.8	0.0	0.0	0.0	**0**	**0.2**
Eye infection	0.9	0.8	2.9	3.1	0.0	0.0	1.3	0.0	4.1	0.5	0.4	1.4	2.0	1.0	**1.7**	**0.4**
Hypertension	1.2	0.6	1.4	3.1	4.2	3.3	0.8	1.7	1.1	0.9	0.0	2.1	0.7	2.0	**1.7**	**4**
Malaria	59.5	37.8	46.2	42.8	61.1	54.5	49.7	49.1	46.6	50.7	49.7	44.2	52.2	57.1	**52.5**	**55.5**
Typhoid	3.0	6.0	2.9	6.9	0.0	1.3	2.6	0.0	2.4	1.1	4.0	2.7	2.0	1.5	**2.5**	**2.9**
Worms	4.4	3.4	1.0	0.0	0.0	2.1	0.9	0.0	0.8	0.7	1.6	0.0	2.0	1.0	**0.0**	**0.2**
Injury/wound	2.1	2.9	0	7.7	4.2	7.9	7.5	4.4	1.3	3.0	4.5	1.3	7.1	3.9	**0.8**	**1.6**
Ulcer	0.9	0.5	1.9	2.6	0.0	0	1.3	0.9	1.3	0.7	1.2	1.3	1.0	0.0	**0.0**	**0.7**
Other	9.6	3.8	6.4	10.2	8.2	9.1	7.6	6.9	5.1	7.4	7.3	6.7	2.2	3.3	**7.0**	**5.4**
Preventative care	1.8	19	1	2	0.0	0.0	2.3	7.0	6.6	2.4	1.2	19.2	13.7	7.4	**1.7**	**3.4**
Spiritual / witchcraft	0.9	0	0	0.6	0	1.3	2.3	0.9	0.0	0.0	2.0	0.0	0.0	1.5	**0.0**	**0.4**
Don't know	0.9	0	3.9	1.4	1.3	0.0	0.3	0.9	1.6	0.5	0.8	0.0	0.7	0.0	**0.8**	**1.1**
Total	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Percentage distribution of persons that reported sick or injured in the past 4 weeks according to type of illness diagnosed by sex and by district

Type of illness	Kailahun	Kenema	Kono	Bombali	Falaba	Koinadugu	Tonkolili	Kambia	Karene	Port Loko	Bo	Bonthe	Moyamba	Pujehun	Western Area Rural	Western Area Urban
No diagnosis given	1.2	7.3	5.3	6.0	1.9	3.5	2.4	16.5	12.3	9.7	10.4	2.7	5.9	4.6	4.9	3.1
Anaemia	2.7	2.1	0.5	1.4	0.0	0.0	1.0	0.8	1.4	0.8	2.5	0.0	0.0	1.3	1.4	1.8
ARI/pneumonia	3.7	1.5	2.0	0.9	0.0	0.0	3.9	0.0	0.7	0.0	0.8	0.6	1.0	2.1	0.0	0.8
Burns	0.5	0.4	0.0	0.6	0.0	0.0	0.6	1.6	1.4	0.0	0.2	0.0	0.0	0.0	0.0	0.2
Cough / cold	4.0	13.8	14.4	9.8	10.5	4.3	12.3	9.1	8.1	21.2	17.1	17.8	7.9	17.2	18.8	18.7
Diarrhea	1.2	1.8	1.0	0.3	1.9	1.1	1.4	2.5	3.9	2.1	2.6	0.6	3.9	1.3	2.1	0.6
Dysentery	0.0	0.6	0.5	1.1	0.0	1.1	1.1	0.8	0.7	1.1	0.4	0.0	1.0	0.0	0	0.6
Ear infection	0.5	0.0	0.5	0.0	1.9	0.0	1.6	0.0	1.4	0.4	0.9	0.0	0.0	0.0	0.7	0.4
Eye infection	0.5	0.0	0.5	0.0	0.0	0.0	0.8	0.0	0.0	0.9	0.9	0.6	2.0	0.8	0	0.8
Hypertension	2.2	1.2	4.3	6.2	1.2	5.6	4.1	0.0	2.1	1.6	2.4	2.1	1.0	1.7	4.2	2.9
Malaria	65.8	42.1	50.8	47.5	64.7	67.8	41.8	52.9	47.7	51.1	43.8	44	47.7	60.1	47.9	53.9
Typhoid	2.5	1.8	1.9	6.3	3.7	1.1	1.7	1.7	2.8	0.4	2.7	2.1	0.0	1.7	4.2	3.3
Worms	3.5	1.8	2.0	3.4	0.0	2.8	1.4	0.0	2.8	0.0	0.6	0.0	1.0	0.0	0.7	0.6
Injury/wound	1.0	1.5	2.0	2.9	1.2	2.1	3.5	0.8	3.5	2.3	1.8	2.3	0.0	0.4	2.1	1.2
Ulcer	0.0	0.7	0.0	1.1	0.0	1.7	1.6	0.0	1.4	0.8	1.7	1.7	0.0	0.0	0.0	0.4
Other	5.0	4.9	8.4	4.7	11.1	3.9	8.7	2.6	3.1	4.8	7.9	7.0	3.0	2.9	7.4	6.2
Preventative care	4.5	17.5	2.0	5.6	0.0	1.1	8.1	9.9	3.9	2.6	2.0	16.7	21.7	5.5	2.8	3.5
Spiritual / witchcraft	0.7	0.6	0.5	1.1	0.0	1.1	1.6	0.0	0.0	0.0	1.3	0.0	0.0	0.0	1.4	0.2
Don't know	0.5	0.4	3.4	1.1	1.9	2.8	2.4	0.8	2.8	0.2	0.0	1.8	3.9	0.4	1.4	0.8
Total	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

APPENDIX 6: PERCEPTION OF WELL-BEING

Percentage of persons according to various ways by which Ebola can be transmitted by sex and administrative division

(a) Males

Administrative division	Contact with sick people	Contact with bodily fluids from sick people	Contact with dead bodies	Eating or touching bush meat	Eating fruit chewed on by bats	Ebola does not exist	Don't know	Total	Total males
Sierra Leone	57.2	14.5	7.2	7.4	4.8	0.3	8.7	100	2307136
Regions									
Eastern	63.6	13.1	6.0	8.9	2.0	0.1	6.2	100	504932
Northern	55.1	11.6	6.5	9.5	7.2	0.5	9.6	100	463245
North Western	58.0	13.0	7.0	5.4	6.7	0.3	9.6	100	400377
Southern	46.9	16.0	7.4	8.5	5.9	0.4	15.0	100	457164
Western	61.5	18.5	8.9	4.2	2.9	0.2	3.7	100	481418
Place of Residence									
Rural	55.4	12.5	6.6	8.3	5.3	0.4	11.5	100	1384047
Urban	59.9	17.5	7.9	5.9	4.0	0.2	4.6	100	923089
Districts									
Kailahun	71.2	14.4	8.2	4.9	0.0	0.3	1.0	100	171632
Kenema	57.8	18.7	4.2	5.9	2.8	0.0	10.7	100	204243
Kono	62.8	2.7	5.9	19.0	3.4	0.0	6.2	100	129057
Bombali	45.8	18.9	10.1	8.6	7.8	1.0	7.7	100	118736
Falaba	75.0	8.1	6.6	4.4	4.9	0.7	0.3	100	64056
Koinadugu	67.9	12.9	9.7	3.3	2.7	0.9	2.7	100	79503
Tonkolili	49.1	7.9	3.1	14.1	9.5	0.0	16.4	100	200950
Kambia	48.4	16.2	7.5	5.4	6.1	0.5	15.9	100	111402
Karene	41.3	16.5	7.2	7.0	13.0	0.5	14.4	100	85732
Port Loko	70.3	9.8	6.7	4.8	4.2	0.0	4.1	100	203243
Bo	50.5	16.2	7.8	9.5	8.1	0.1	7.8	100	187912
Bonthe	35.1	13.6	8.7	11.8	5.7	0.6	24.6	100	69846
Moyamba	48.6	17.0	4.9	6.5	3.9	0.8	18.3	100	100955
Pujehun	46.7	16.1	8.2	6.5	3.8	0.2	18.5	100	98451
Western Area Rural	61.9	19.2	5.1	2.7	2.7	0.0	8.2	100	121758
Western Area Urban	61.4	18.3	10.1	4.7	3.0	0.3	2.2	100	359660

(b) Females

Administrative division	Contact with sick people	Contact with bodily fluids from sick people	Contact with dead bodies	Eating or touching bush meat	Eating fruit chewed on by bats	Ebola does not exist	Don't know	Total	Total Females
Sierra Leone	51.9	15.9	7.7	7.9	4.6	0.3	11.7	100	2617139
Regions									
Eastern	56.8	16.2	5.3	9.7	2.5	0.0	9.5	100	559326
Northern	49.1	13.1	8.3	9.1	7.3	0.6	12.6	100	564610
North Western	54.5	12.2	7.8	6.6	5.0	0.3	13.7	100	451934
Southern	45.0	16.1	7.3	8.9	5.2	0.2	17.2	100	534313
Western	54.5	22.0	10.0	4.6	3.2	0.3	5.4	100	506956
Place of residence							0		
Rural	50.5	13.5	7.2	8.7	5.1	0.3	14.7	100	1600028
Urban	54.0	19.8	8.5	6.6	3.9	0.3	7.0	100	1017111
Districts							0		
Kailahun	61.4	23.5	8.3	4.6	0.7	0.0	1.4	100.0	185995
Kenema	52.3	18.4	3.9	7.1	2.1	0.0	16.1	100.0	236323
Kono	58.3	2.2	3.6	21.2	5.5	0.0	9.2	100.0	137008
Bombali	40.9	18.0	9.7	8.6	8.7	0.8	13.2	100.0	137556
Falaba	72.0	8.2	8.2	3.3	6.9	1.1	0.3	100.0	78312
Koinadugu	56.2	14.0	16.7	3.1	3.7	1.5	4.9	100.0	91417
Tonkolili	43.9	11.7	4.5	13.3	7.9	0.0	18.7	100.0	257325
Kambia	42.6	16.9	8.7	6.2	5.7	0.0	19.8	100.0	129210
Karene	33.5	14.2	8.8	10.8	9.1	1.0	22.6	100.0	94396
Port Loko	69.9	8.7	6.9	5.1	2.8	0.2	6.5	100.0	228328
Bo	45.8	17.5	8.9	11.1	7.2	0.0	9.4	100.0	230314
Bonthe	34.7	15.8	5.8	11.0	4.4	0.4	27.9	100.0	78785
Moyamba	48.3	14.9	5.7	5.3	2.8	0.2	22.7	100.0	114760
Pujehun	47.2	14.7	6.7	6.6	3.9	0.5	20.3	100.0	110454
Western Area Rural	60.7	19.2	5.2	1.2	2.4	0.5	10.7	100.0	127556
Western Area Urban	52.4	22.9	11.7	5.8	3.4	0.3	3.7	100.0	379400

APPENDIX 7: HOUSING CONDITIONS

Percentage of number of rooms occupied by Households by Region, Residence and District

Region	Number of Rooms								
	1	2	3	4	5	6	7	8	9
East	14.3	22.7	25.9	20.9	8.6	5.6	1.5	0.5	0.1
North	12.4	11.8	16.1	19.7	17.3	12.5	4.6	5.4	0.2
North West	6.3	16.2	16.9	25.8	16.7	13.7	2.1	1.7	0.7
South	13.1	19.4	32.7	19.0	9.6	3.0	0.2	1.5	1.5
West	36.4	30.9	15.8	7.2	4.6	2.6	0.6	0.5	1.5
Residence									
Rural	10.1	17.0	25.5	21.6	14.0	7.8	1.5	1.9	0.6
Urban	27.8	26.2	16.2	12.8	6.2	5.9	2.0	1.8	1.1
District									
Kailahun	4.4	19.5	30.0	21.3	13.8	8.6	1.8	0.1	0.3
Kenema	13.2	26.8	26.0	21.6	4.6	4.7	2.0	1.1	0.0
Kono	27.8	20.4	20.6	19.4	8.4	3.1	0.2	0.0	0.0
Bombali	17.1	18.8	16.6	18.9	17.0	7.1	3.8	0.3	0.3
Falaba	21.3	12.9	26.9	19.3	13.5	0.9	0.5	4.5	0.2
Koinadugu	9.1	8.8	9.9	31.8	19.1	14.7	0.4	5.9	0.0
Tonkolili	7.4	8.1	14.0	16.1	18.2	19.1	8.0	8.7	0.3
Kambia	0.7	12.8	10.1	20.2	20.8	29.0	1.3	4.6	0.2
Karene	4.6	9.6	14.6	30.2	23.0	14.1	3.2	0.6	0.1
Port Loko	10.5	21.2	22.1	27.1	11.3	4.1	2.0	0.4	1.2
Bo	21.3	25.4	21.7	14.7	12.1	3.6	0.1	0.9	0.2
Bonthe	6.3	13.6	36.7	20.7	12.4	2.4	0.2	4.9	2.8
Moyamba	12.0	16.5	39.9	22.2	5.4	0.8	0.5	0.2	2.5
Pujehun	4.6	15.8	41.9	22.1	7.5	4.8	0.1	1.5	1.7
Western Rural	31.0	28.1	15.4	10.8	8.7	0.7	0.2	0.0	5.2
Western Urban	38.2	31.8	15.9	5.9	3.2	3.2	0.7	0.7	0.2
Sierra Leone	**16.9**	**20.5**	**21.9**	**18.2**	**11.0**	**7.1**	**1.7**	**1.9**	**0.8**

Source: 2018 SLIHS

Type of toilet used by household

Percentage of type of toilet used by households by Region, Residence and District

Region	flush to piped sewer system	flush to septic tank	flush to pit (latrine)	flush to somewhere else	ventilated improved pit latrine (VIP)	pit latrine with slab	pit latrine without slab / open pit	composting toilet	hanging toilet / hanging latrine	no facility (bush, field, waterside)	other
East	0.6	1.2	2.0	0.0	1.5	52.6	19.8	0.4	1.9	20.0	0.0
North	0.8	0.7	0.9	0.1	2.1	43.1	24.7	2.3	8.8	16.0	0.4
North West	0.0	1.4	1.7	0.1	0.6	29.6	36.0	2.6	12.0	16.0	0.1
South	0.3	2.1	6.8	0.1	2.2	20.1	15.6	2.9	7.5	42.1	0.3
West	5.5	17.4	12.3	1.8	8.1	42.7	6.2	0.1	2.1	3.7	0.1
Residence											
Rural	0.2	0.3	2.2	0.1	1.0	29.8	26.1	2.0	8.2	30.1	0.2
Urban	3.5	11.7	9.2	1.1	6.2	51.2	9.4	1.1	2.8	3.7	0.1
District											
Kailahun	0.6	0.3	0.7	0.0	0.2	62.5	4.9	0.0	0.3	30.5	0.0
Kenema	0.5	2.1	3.3	0.0	1.7	57.0	14.1	0.0	4.0	17.3	0.0
Kono	0.6	1.1	1.5	0.0	2.6	34.1	46.0	1.6	0.8	11.6	0.0
Bombali	1.5	1.2	2.1	0.5	1.0	40.4	41.6	0.7	3.3	6.0	1.6
Falaba	0.0	0.0	1.2	0.0	1.5	68.3	4.1	0.0	20.3	4.6	0.0
Koinadugu	0.4	0.7	1.1	0.0	4.6	52.1	13.1	0.0	26.3	1.8	0.0
Tonkolili	0.8	0.6	0.0	0.0	2.2	32.6	25.9	4.9	2.0	31.2	0.0
Kambia	0.0	0.0	2.4	0.5	1.0	32.2	39.7	4.3	0.0	20.0	0.0
Karene	0.0	0.3	0.2	0.0	0.0	31.7	37.7	5.4	13.9	10.8	0.0
Port Loko	0.0	2.8	2.0	0.0	0.7	27.1	32.8	0.3	18.4	15.8	0.1
Bo	0.7	3.9	8.0	0.2	3.5	27.1	11.4	0.0	11.2	33.9	0.0
Bonthe	0.0	1.1	14.0	0.0	2.0	1.5	9.9	11.9	0.0	59.5	0.0
Moyamba	0.0	1.6	6.4	0.0	1.3	8.5	20.6	4.7	11.5	44.4	0.9
Pujehun	0.2	0.2	0.0	0.0	1.0	32.5	22.1	0.0	2.1	41.8	0.2
Western Rural	2.7	20.7	11.0	0.3	2.7	34.0	12.7	0.0	6.0	10.0	0.0
Western Urban	6.5	16.3	12.7	2.4	10.0	45.8	3.9	0.1	0.7	1.4	0.2
Sierra Leone	**1.5**	**4.7**	**4.9**	**0.4**	**3.0**	**38.0**	**19.7**	**1.6**	**6.1**	**20.0**	**0.2**

Source: 2018 SLIHS

Percentage of Household Annual payment for sewage collection by region and Residence

Toilet	East	North	North West	South	West	Sierra Leone
Flush to piped sewer system	0.0	0.0	0.0	0.0	14.9	11.4
Flush to septic tank	11.0	9.5	0.0	3.4	15.2	12.9
Flush to pit (latrine)	0.0	0.0	0.0	1.1	24.9	13.2
Flush to somewhere else	0.0	0.0	0.0	0.0	11.9	10.2
Ventilated improved pit latrine (vip)	0.0	0.0	0.0	1.7	20.3	11.6
Pit latrine with slab	0.5	1.0	0.5	3.5	33.9	8.6
Pit latrine without slab / open pit	1.1	1.1	0.4	1.5	19.0	2.1
Composting toilet	0.0	8.1	0.0	1.9	0.0	3.0
Hanging toilet / hanging latrine	0.0	0.0	0.0	1.1	2.6	0.5
No facility (bush, field, waterside)	0.0	0.0	0.0	0.0	0.0	0.0
Other	0.0	0.0	0.0	0.0	50.0	6.6

Source: 2018 SLIHS

Percentage of Main Roofing material by region, Residence and District MOVE TO

Region	Thatch (grass or straw)	Corrugated Iron Sheet	Cement / Concrete	Roofing Tiles	Tarpaulin
East	7.6	92.0	0.3	0.0	0.0
North	17.3	79.5	3.0	0.3	0.0
North West	6.7	91.8	1.4	0.1	0.1
South	26.3	68.8	4.9	0.0	0.0
West	0.1	92.1	5.5	1.8	0.5
Residence					
Rural	18.5	79.1	2.4	0.0	0.0
Urban	1.1	93.4	4.2	1.1	0.3
District					
Kailahun	5.0	94.8	0.2	0.0	0.0
Kenema	12.3	87.4	0.3	0.0	0.1
Kono	4.0	95.7	0.4	0.0	0.0
Bombali	6.8	91.1	1.1	1.0	0.0
Falaba	43.4	56.0	0.6	0.0	0.0
Koinadugu	7.0	91.7	1.0	0.0	0.3
Tonkolili	18.0	76.4	5.6	0.0	0.0
Kambia	5.2	94.9	0.0	0.0	0.0
Karene	8.0	91.9	0.0	0.1	0.0
Port Loko	7.0	89.9	3.0	0.1	0.1
Bo	13.5	79.4	7.1	0.1	0.0
Bonthe	30.5	57.8	11.8	0.0	0.0
Moyamba	37.3	61.8	0.9	0.0	0.0
Pujehun	34.9	65.1	0.0	0.0	0.0
Western Area Rural	0.3	93.3	6.3	0.2	0.1
Western Area Urban	0.0	91.7	5.3	2.4	0.6
Sierra Leone	**11.8**	**84.6**	**3.1**	**0.4**	**0.1**

Source: 2018 SLIHS

Percentage of households' source of lighting fuel by Region, Residence and District PUT IN

Region	Kerosene	Gas	EDSA	Generator	Solar panel	Battery	Candles	Firewood	Other
East	1.2	0.0	8.2	0.5	13.1	77.0	0.0	0.0	0.0
North	0.7	0.0	7.5	0.1	4.9	85.8	0.1	0.8	0.2
North West	3.4	0.1	5.6	0.0	4.8	85.9	0.1	0.0	0.1
South	0.7	0.6	7.4	0.7	7.4	82.5	0.0	0.7	0.1
West	2.2	0.2	66.9	1.2	1.5	27.0	0.1	0.0	1.0
Residence									
Rural	1.1	0.0	0.9	0.2	8.2	89.0	0.0	0.5	0.1
Urban	2.3	0.5	49.3	1.1	3.9	42.4	0.0	0.0	0.5
District									
Kailahun	2.1	0.0	0.0	0.2	19.8	77.9	0.0	0.0	0.0
Kenema	0.3	0.0	15.0	1.2	14.4	69.1	0.0	0.1	0.0
Kono	1.3	0.0	7.8	0.0	3.1	87.7	0.0	0.0	0.0
Bombali	1.3	0.1	25.6	0.0	2.2	70.7	0.0	0.1	0.0
Falaba	0.0	0.0	0.0	0.0	4.9	90.4	0.0	4.6	0.0
Koinadugu	0.0	0.1	0.0	0.5	12.0	87.4	0.0	0.0	0.0
Tonkolili	0.7	0.0	1.7	0.0	4.1	92.7	0.1	0.2	0.4
Kambia	4.7	0.1	0.0	0.0	13.1	81.9	0.1	0.1	0.0
Karene	0.2	0.0	0.0	0.0	3.1	96.3	0.2	0.0	0.3
Port Loko	4.1	0.0	11.6	0.0	0.5	83.6	0.0	0.0	0.1
Bo	1.1	0.0	17.5	1.6	6.5	71.6	0.0	1.7	0.0
Bonthe	0.5	0.1	2.7	0.1	2.5	94.1	0.0	0.0	0.1
Moyamba	0.6	2.6	0.1	0.1	3.9	92.4	0.0	0.1	0.2
Pujehun	0.3	0.0	0.0	0.1	15.9	83.5	0.0	0.1	0.1
Western Rural	0.2	0.3	24.9	2.8	5.7	66.0	0.1	0.0	0.0
Western Urban	2.9	0.1	81.8	0.7	0.1	13.2	0.0	0.0	1.3
Sierra Leone	**1.6**	**0.2**	**19.5**	**0.5**	**6.6**	**71.1**	**0.0**	**0.3**	**0.3**

Source: 2018 SLIHS

Percentage of Main Source of Water for Household use in the dry season by Region, Residence and District

Region	Piped	Tube well/ Borehole	Protected dug well	Unprotected dug well	Protected Spring	Unprotected Spring	Rain water	Surface Water	Bottle/sachet water	River/ stream	Other
East	0.0	0.3	13.9	7.4	0.2	9.3	0.0	0.0	0.2	68.7	0.0
North	0.4	1.0	10.8	7.5	0.3	4.5	0.2	1.2	0.0	74.0	0.0
North West	0.0	2.4	10.2	14.4	0.0	4.0	2.4	1.6	0.0	65.0	0.0
South	0.6	1.6	18.0	13.2	1.1	1.7	0.0	0.3	0.7	62.1	1.0
West	28.6	6.5	39.8	7.3	6.2	2.9	0.0	1.0	0.3	7.4	0.1
Locality											
Rural	0.5	0.4	3.7	5.9	0.1	6.4	0.2	0.5	0.3	81.7	0.3
Urban	16.7	4.8	39.9	11.9	4.1	3.9	0.3	0.7	0.2	17.5	0.1
District											
Kailahun	0.0	0.6	1.6	2.5	0.0	4.3	0.0	0.0	0.0	91.1	0.0
Kenema	0.0	0.0	23.3	11.9	0.5	0.3	0.0	0.0	0.0	64.1	0.0
Kono	0.0	0.5	17.3	7.1	0.0	43.9	0.0	0.0	1.2	30.0	0.0
Bombali	0.0	1.8	24.2	6.8	0.0	2.4	0.0	3.3	0.0	61.5	0.0
Falaba	2.3	0.0	0.0	11.5	0.0	11.5	1.4	1.4	0.0	71.9	0.0
Koinadugu	0.0	1.6	9.6	1.6	0.0	14.3	0.0	0.0	0.0	73.0	0.0
Tonkolili	0.0	0.7	5.4	8.6	0.7	0.0	0.0	0.0	0.0	84.6	0.0
Kambia	0.0	0.0	22.3	33.4	0.0	0.0	5.6	0.0	0.0	38.8	0.0
Karene	0.0	0.0	0.0	10.0	0.0	5.7	0.0	4.3	0.0	80.0	0.0
Port Loko	0.0	5.7	14.0	9.9	0.0	4.1	3.1	0.0	0.0	63.2	0.0
Bo	1.2	0.0	27.3	19.1	2.2	0.0	0.0	0.0	0.4	49.9	0.0
Bonthe	0.0	6.9	4.8	13.6	0.0	3.4	0.0	1.7	0.0	69.7	0.0
Moyamba	0.0	4.0	24.0	8.0	0.0	4.0	0.0	0.0	4.0	48.0	8.0
Pujehun	0.0	0.0	4.4	3.5	0.0	2.6	0.0	0.0	0.0	89.5	0.0
Western Area Rural	12.9	3.0	43.6	12.9	5.9	5.9	0.0	2.0	0.0	13.9	0.0
Western Area Urban	32.9	7.5	38.8	5.8	6.3	2.0	0.0	0.7	0.3	5.6	0.2
Sierra Leone	**8.2**	**2.5**	**21.0**	**8.8**	**2.0**	**5.2**	**0.2**	**0.6**	**0.2**	**51.0**	**0.2**

Source: 2018 SLIHS

APPENDIX 8: INCOME AND HOUSEHOLD CONSUMPTION EXPENDITURE

Distribution of Average Annual Households' Employment Income Sources by Region

Region	Cash Income	In-kind Income	Total Households' Employment Income	percent of Cash Income	percent of In-kind Income
East	174,570	13,792	188,362	92.68	7.32
North	24,240	50,357	74,596	32.49	67.51
North-West	34,187	12,775	46,962	72.80	27.20
South	43,240	33,601	76,841	56.27	43.73
West	505,284	109,336	614,621	82.21	17.79
Total	**781,521**	**219,861**	**1,001,382**	**78.04**	**21.96**

Average Annual Distribution of Households' Self-Employment Income Sources by Region

Region	Total Farming Revenue	Total Non-Farm Revenue	Percentage of Farming Revenue	Percentage of Non-Farm Revenue
East	751,825,144.50	1,518,888.96	27.4	18.4
North	266,886,436.66	555,512.67	9.7	6.7
North-West	436,501,019.00	663,820.62	15.9	8.0
South	936,449,710.34	870,132.40	34.1	10.5
West	357,201,797.00	4,652,034.53	13.0	56.3
Total	**2,748,864,107.50**	**8,260,389.18**	**100**	**100**

Average Annual Distribution of Household Property Income Sources by Region

Region	Renting out Agric. Equipment	Renting out buildings	Plot Revenue	Total Households' Property Income	Percent of Agric. Equipment	Percent of Building	Percent of Plot Revenue
East	82	4,052	413	4,547	1.81	89.11	9.08
North	373	3,754	87	4,214	8.86	89.08	2.06
North-West	37	6,341	160	6,537	0.56	97.00	2.44
South	412	1,150	68	1,630	25.27	70.53	4.20
West	36	38,661	0	38,697	0.09	99.91	0.00
Total	**940**	**53,958**	**728**	**55,625**	**1.69**	**97.00**	**1.31**

Distribution Average Annual Households' Current Transfer Income Sources by Region

Region	Cash Transfer	Goods Transfer	Food Transfer	NASSIT	Total Households' Current Transfer Income	Percent of Cash Transfer	Percent of Goods Transfer	Percent of Food Transfer	Percent of NASSIT
East	24,718	2,527	4,854	352	32,451	76.17	7.79	14.96	1.08
North	23,834	1,616	4,105	2,583	32,137	74.16	5.03	12.77	8.04
North-West	212,230	1,357	3,261	4,179	221,027	96.02	0.61	1.48	1.89
South	55,202	7,624	8,723	2,160	73,710	74.89	10.34	11.83	2.93
West	215,092	28,272	20,797	20,364	284,525	75.60	9.94	7.31	7.16

Average Household Distribution of House-holds' Miscellaneous-Irregular Income Received Sources by Region

Region	Fines or Disputes	Sale of Durables Goods	Funds for Funeral	Total Miscellaneous Income	Percent of Fines	Percent of Durable Goods	Percent of Funeral
East	631	1,469	5,103	7,202	8.76	20.39	70.85
North	258	5,025	3,773	9,057	2.85	55.49	41.66
North-West	608	1,328	14,488	16,424	3.70	8.09	88.21
South	467	990	8,145	9,603	4.87	10.31	84.82
West	105	6,070	2,042	8,218	1.28	73.87	24.85

Percentile	Values
P10	600
P25	2,015
P50	6,000
P75	15,760
P90	34,310
P95	56,300
P99	127,610

Nominal Mean Annual Food, Own-Food and Non-Food consumption expenditure by Region

Region	Food			Non-food
	Own food	Gift value of food	Food purchased	
Eastern	416,602	108,572	1,929,906	1,822,768
Northern	296,364	110,829	1,640,905	1,959,912
North-West	282,702	150,953	1,625,113	1,390,055
Southern	386,794	179,139	1,516,776	1,820,060
Western	23,638	38,648	3,111,345	6,206,045
Rural	1,294,529	491,882	4,639,064	4,272,195
Urban	111,571	96,259	5,184,982	8,926,645
All	**1,406,100**	**588,140**	**9,824,046**	**13,198,840**

Distribution of Average Annual Households' Employment Income Sources by Region

Region	Cash Income	In-kind Income	Total Households' Employment Income	percent of Cash Income	percent of In-kind Income
East	174,570	13,792	188,362	92.68	7.32
North	24,240	50,357	74,596	32.49	67.51
North-West	34,187	12,775	46,962	72.80	27.20
South	43,240	33,601	76,841	56.27	43.73
West	505,284	109,336	614,621	82.21	17.79
Total	**781,521**	**219,861**	**1,001,382**	**78.04**	**21.96**

Average Annual Distribution of Households' Self-Employment Income Sources by Region

Region	Total Farming Revenue	Total Non-Farm Revenue	Percentage of Farming Revenue	Percentage of Non-Farm Revenue
East	751,825,144.50	1,518,888.96	27.4	18.4
North	266,886,436.66	555,512.67	9.7	6.7
North-West	436,501,019.00	663,820.62	15.9	8.0
South	936,449,710.34	870,132.40	34.1	10.5
West	357,201,797.00	4,652,034.53	13.0	56.3
Total	**2,748,864,107.50**	**8,260,389.18**	**100**	**100**

Average Annual Distribution of Household Property Income Sources by Region

Region	Renting out Agric. Equipment	Renting out buildings	Plot Revenue	Total Households' Property Income	percent of Agric. Equipment	percent of Building	percent of Plot Revenue
East	82	4,052	413	4,547	1.81	89.11	9.08
North	373	3,754	87	4,214	8.86	89.08	2.06
North-West	37	6,341	160	6,537	0.56	97.00	2.44
South	412	1,150	68	1,630	25.27	70.53	4.20
West	36	38,661	0	38,697	0.09	99.91	0.00
Total	**940**	**53,958**	**728**	**55,625**	**1.69**	**97.00**	**1.31**

Distribution Average Annual Households' Current Transfer Income Sources by Region

Region	Cash Transfer	Goods Transfer	Food Transfer	NASSIT	Total Households' Current Transfer Income	Percent of Cash Transfer	Percent of Goods Transfer	Percent of Food Transfer	Percent of NASSIT
East	24,718	2,527	4,854	352	32,451	76.17	7.79	14.96	1.08
North	23,834	1,616	4,105	2,583	32,137	74.16	5.03	12.77	8.04
North-West	212,230	1,357	3,261	4,179	221,027	96.02	0.61	1.48	1.89
South	55,202	7,624	8,723	2,160	73,710	74.89	10.34	11.83	2.93
West	215,092	28,272	20,797	20,364	284,525	75.60	9.94	7.31	7.16

Average Household Distribution of Households' Miscellaneous-Irregular Income Received Sources by Region

Region	Fines or Disputes	Sale of Durables Goods	Funds for Funeral	Total Miscellaneous Income	percent of Fines	Percent of Durable Goods	Percent of Funeral
East	631	1,469	5,103	7,202	8.76	20.39	70.85
North	258	5,025	3,773	9,057	2.85	55.49	41.66
North-West	608	1,328	14,488	16,424	3.70	8.09	88.21
South	467	990	8,145	9,603	4.87	10.31	84.82
West	105	6,070	2,042	8,218	1.28	73.87	24.85

APPENDIX 9: AGRICULTURE

Table showing Percentage of households that farm on various types of ecologies by region

Region	Upland	Percent	Inland valley	Percent	Boli land	Percent	Mangroves	Percent	Riverine	Percent
East	1,603	31.62	222	15.50	15	9.62	0	0.00	0	0.00
North	1,162	22.92	380	26.54	31	19.87	0	0.00	0	0.00
North West	851	16.79	426	29.75	61	39.10	47	90.38	18	45.00
South	1,374	27.10	362	25.28	47	30.13	0	0.00	21	52.50
West	80	1.58	42	2.93	2	1.28	5	9.62	1	2.50
Total	**5,070**	**100.00**	**1432**	**100.00**	**156**	**100.00**	**52**	**100.00**	**40**	**100.00**

Table estimated percentage of month's fertilizer was applied by region

Region	Apr-16	Nov-16	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	May-18	Jun-18	Jul-18	Aug-18	Sep-18	Nov-18
East	0	0	3	2	0	8	11	24	3	2	2	4	9	2	8	3	0	10	0	8	0	0	0	0
North	0	2	0	0	0	0	5	23	8	3	0	2	3	0	7	10	5	0	18	8	0	3	2	1
North West	0	0	2	3	6	3	13	16	13	14	13	4	4	8	1	1	0	0	0	1	0	0	0	0
South	0	0	5	11	3	1	4	15	7	1	6	2	8	16	9	4	1	4	2	0	0	1	0	0
West	0	0	0	0	1	0	14	20	6	7	5	6	8	4	8	4	1	1	9	0	5	0	0	0

Estimated percentage of households that planted crops in the last 12 months

Crop	Yes, HHs that plant	Percent	Save from last harvest	Percent	Bought	Percent	Provided by Govt, NGO	Percent	Amount paid for things planted	Amount spent on labour to plough	Amount spent on equipment
Cassava	77,227	58.87	103,324	55.42	30,204	61.17	3,854	49.79	2,414,210	8,517,987	429,724
Cassava leaves	28,338	21.60	46,858	25.13	7,757	15.71	3,091	39.93	817,371	814,283	65,177
Coffee	2,412	1.84	3,888	2.09	432	0.87	0	0.00	71,280	400,180	92,400
Cocoa	4,639	3.54	5,667	3.04	1,800	3.65	538	6.95	362,220	398,480	49,200
oil palm	8,114	6.19	10,733	5.76	3,898	7.89	0	0.00	606,133	450,212	87,810
Cashew	0	0.00	0	0.00	148	0.30	0	0.00	4,440	14,800	5,920
Cola nut	1,316	1.00	2,321	1.24	492	1.00	0	0.00	98,400	197,576	0
Rubber	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0
Mango	937	0.71	1,060	0.57	602	1.22	0	0.00	19,866	12,092	2,120
Orange	424	0.32	1,207	0.65	0	0.00	0	0.00	0	10,600	0
Banana	2,306	1.76	4,536	2.43	1,107	2.24	0	0.00	39,833	120,885	0
Plantain	636	0.48	1,060	0.57	450	0.91	258	3.33	900	26,500	0
coconut	772	0.59	984	0.53	1,282	2.60	0	0.00	75,245	71,720	25,200
Guava	539	0.41	424	0.23	115	0.23	0	0.00	3,450	0	0
Paw-paw	424	0.32	848	0.45	0	0.00	0	0.00	0	0	0
avocado /pear	212	0.16	212	0.11	301	0.61	0	0.00	6,020	23,320	0
Lime	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0
Limon	212	0.16	212	0.11	0	0.00	0	0.00	0	1,060	0
grapefruit	212	0.16	212	0.11	0	0.00	0	0.00	0	0	0
Other	2,467	1.88	2,899	1.55	793	1.61	0	0.00	10,050	108,100	0
Total	**131,187**	**100**	**186,445**	**100.00**	**49,381**	**100.00**	**7,741**	**100.00**	**4,529,418**	**11,167,795**	**757,551**

Estimated percentage of various types of fish catch in volumes by fishing households

Mid High season			Mid Low season			All season		
type of fish catch	Frequency	Percent	type of fish catch	Frequency	Percent	type of fish catch	Frequency	Percent
Spanish	503	0.92	shovelnose	449	0.69	whiting	1,141	0.87
Whiting	503	0.92	silverfish	449	0.69	Skite	829	0.64
Joefish	481	0.88	shark	337	0.52	shark	814	0.62
Lobster	370	0.68	bonito	294	0.45	shovelnose	813	0.62
Silverfish	301	0.55	cuttlefish	280	0.43	cuttlefish	574	0.44
Mackerel	288	0.53	sea fowl	280	0.43	Spanish	560	0.43
Cuttlefish	280	0.51	Spanish	280	0.43	other tuna	560	0.43
Skite	280	0.51	other tuna	280	0.43	Tenny	457	0.35
Bonito	223	0.41	No more fish	258	0.4	bonito	441	0.34
Sole	223	0.41	pink shrimps	258	0.4	Cowreh	370	0.28
Tenny	212	0.39	Cowreh	223	0.34	deep water rose shrimp	294	0.23
Tiger shrimps	147	0.27	mackerel	147	0.23	sea fowl	280	0.21
Snapper	120	0.22	Tenny	147	0.23	pink shrimps	258	0.2
	54,478	100	deep water rose shrimp	147	0.23	mackerel	147	0.11
				65,024	100	red grouper	147	0.11
							130,480	100

Estimated number of livestock owned by households in the last 12 months by district

	Cattle	Sheep	Goats	Pigs	Chickens	Ducks	other poultry	other livestock	Farmed fish
Kailahun	273	4,404	10,938	1,110	39,788	4,525	273	188	188
Kenema	149	4,884	11,563	298	54,454	3,554	0	149	0
Kono	1,214	7,677	9,776	607	41,193	2,559	115	0	0
Bombali	444	7,428	12,788	296	36,044	2,188	2,464	0	0
Falaba	13,010	16,915	21,169	349	23,628	648	216	0	0
Koinadugu	2,094	5,368	11,798	0	24,095	1,828	0	0	0
Tonkolili	0	14,800	30,075	175	75,925	6,425	450	0	1,350
Kambia	2,586	17,748	22,368	282	50,430	9,144	0	0	0
Karene	1,944	5,312	10,311	421	22,156	1,171	6,364	296	0
Port Loko	1,625	21,719	27,137	1,023	76,945	11,253	120	0	0
Bo	98	6,688	14,304	1,060	63,016	7,830	212	0	0
Bonthe	147	7,210	13,475	588	27,286	1,974	0	266	0
Moyamba	0	5,515	14,135	2,910	40,115	3,470	280	5,600	280
Pujehun	0	3,531	7,065	0	33,378	3,078	0	0	0
Area Rural	446	2,676	1,784	892	24,307	892	0	892	0
Area Urban	420	980	420	0	21,840	2,520	0	280	0

	Cattle	Sheep	Goats	Pigs	Chickens	Ducks	Other poultry	Other livestock	Farmed fish
Kailahun	273	4,404	10,938	1,110	39,788	4,525	273	188	188
Kenema	149	4,884	11,563	298	54,454	3,554	0	149	0
Kono	1,214	7,677	9,776	607	41,193	2,559	115	0	0
Bombali	444	7,428	12,788	296	36,044	2,188	2,464	0	0
Falaba	13,010	16,915	21,169	349	23,628	648	216	0	0
Koinadugu	2,094	5,368	11,798	0	24,095	1,828	0	0	0
Tonkolili	0	14,800	30,075	175	75,925	6,425	450	0	1,350
Kambia	2,586	17,748	22,368	282	50,430	9,144	0	0	0
Karene	1,944	5,312	10,311	421	22,156	1,171	6,364	296	0
Port Loko	1,625	21,719	27,137	1,023	76,945	11,253	120	0	0
Bo	98	6,688	14,304	1,060	63,016	7,830	212	0	0
Bonthe	147	7,210	13,475	588	27,286	1,974	0	266	0
Moyamba	0	5,515	14,135	2,910	40,115	3,470	280	5,600	280
Pujehun	0	3,531	7,065	0	33,378	3,078	0	0	0
Area Rural	446	2,676	1,784	892	24,307	892	0	892	0
Area Urban	420	980	420	0	21,840	2,520	0	280	0

PPENDIX 10: SIERRA LEONE INTEGRATED HOUSEHOLD SURVEY 2018 (SLIHS2018) FIELD STAFF

SLIHS 2018 FIELD STAFF SUPERVISORS			
No	**Name**	**Designation**	**SLIHS No.**
1	Nasiru Jalloh	Supervisor	010
2	Ishmael Kamara	Supervisor	020
3	Martha K. Koroma	Supervisor	030
4	James Koroma	Supervisor	040
5	Ishmeal Bockarie Kamara	Supervisor	050
6	Santigie Bangura	Supervisor	060
7	Josie Jusufu Tucker	Supervisor	070
8	Augustine P. Johnny	Supervisor	080
9	Mamud T.Kargbo	Supervisor	090
10	Tamba Pessima	Supervisor	100
11	Iscandri Sankoh	Supervisor	110
12	Philip Roberts	Supervisor	120
13	Amadu F Kamara	Supervisor	130
14	Ayo Ruth James	Supervisor	140
15	Ibrahim Sorie Samura	Supervisor	150
16	Alie Amara Conteh	Supervisor	160
17	Mariama Jalloh	Supervisor	170
18	Karifala Hull	Supervisor	180
19	Bundor Samu	Supervisor	193

Appendix 10: Cont'd

SLIHS 2018 FIELD STAFF ENUMERATORS			
No	**Name**	**Designation**	**SLIHS No.**
1	Francis Borbor	Enumerator	015
2	Bai L Bangura	Enumerator	013
3	Mahmoud Samin Sillah	Enumerator	012
4	Joseph D. Kamara	Enumerator	024
5	Abubakarr Tejan Mansaray	Enumerator	023
6	Zachariah Bai Kamara	Enumerator	022
7	Joseph Mbawah	Enumerator	034
8	Mohamed Bangura	Enumerator	033
9	Samuel Kpakama	Enumerator	032
10	Abdul Karim Turay	Enumerator	044
11	Foday H. Kamara	Enumerator	043
12	Musa A Bangura	Enumerator	042
13	Adama Jalloh	Enumerator	054
14	Fatmata A Kanu	Enumerator	053
15	Mohamed Mustapha Daramy	Enumerator	052
16	Alhaji Sesay	Enumerator	064
17	Esther Kargbo	Enumerator	063
18	Lamin Kamara	Enumerator	062
19	Alfred Martin Allieu	Enumerator	074
20	Mohamed S Conteh	Enumerator	073
21	Nfaji Kabba Turay	Enumerator	072
22	Andrew Bob Johnny	Enumerator	084
23	Abas Nabieu Jah	Enumerator	083
24	Theresa Sheriff	Enumerator	082
25	Christy Conteh	Enumerator	094
26	Mohamed Stanley Bangura	Enumerator	093
27	Musa D.J Traore	Enumerator	092
28	Isata Mbayoh	Enumerator	104
29	Anthony Mark Sundifu	Enumerator	103
30	Raymond Ndonje	Enumerator	102
31	Alie Badara Bundu	Enumerator	114/5

32	James S Kamara	Enumerator	113
33	Mohamed Amadu Conteh	Enumerator	112
34	Abubakarr Kalokoh	Enumerator	124
35	Estella Kamara	Enumerator	123
36	Gibrilla Bangura	Enumerator	122
37	Abdul Razak Kamara	Enumerator	134
38	Alusine Sesay	Enumerator	133
39	Benjamin S Tommy	Enumerator	132
40	Alfred John Mattia	Enumerator	144
41	Francis Moiwo	Enumerator	143
42	Ibrahim Whyte Koroma	Enumerator	142
43	Balla M Kamara	Enumerator	154
44	Lahai S Turay	Enumerator	153
45	Umaru Mansaray	Enumerator	152
46	Dennis Bockarie Moiwo	Enumerator	164
47	Lamin Bobson Koroma	Enumerator	163
48	Mohamed Alusine Kargbo	Enumerator	162
49	Ishmael Sesay	Enumerator	174
50	Mohamed L Jalloh	Enumerator	173
51	Osman Hassan Dumbuya	Enumerator	172
52	Fatmata K. Kallon	Enumerator	184
53	George Chimmah	Enumerator	183
54	Momodu Lama Bah	Enumerator	182
55	Bindi Edwin James	Enumerator	194
56	Bockarie Sannoh	Enumerator	195
57	Samuel Goba	Enumerator	192

Appendix 10: Cont'd

SLIHS 2018 FIELD STAFF DATA ENTRY CLERKS			
No	**Name**	**Designation**	**SLIHS No.**
1	Fatmata H Conteh	Data Entry Clerk	011
2	Abu Bakarr Kamara	Data Entry Clerk	021
3	Hassan Kamara	Data Entry Clerk	031
4	Jonathan Mukeh Foday	Data Entry Clerk	041
5	Abibatu Kamara	Data Entry Clerk	051
6	Mohamed Amadu Sesay	Data Entry Clerk	061
7	Ibrahim Sullay Kamara	Data Entry Clerk	071
8	Victor Sawyerr	Data Entry Clerk	081
9	Alfred S. Turay	Data Entry Clerk	091
10	Prince Foray	Data Entry Clerk	101
11	Zainab H Sankoh	Data Entry Clerk	111
12	Mabinty Nabie	Data Entry Clerk	121
13	Osman Wilson	Data Entry Clerk	131
14	Esther Hawa Cobba	Data Entry Clerk	141
15	Zainab Rugiatu Kamara	Data Entry Clerk	151
16	Mustapha Jalloh	Data Entry Clerk	161
17	Musa Borboh Conteh	Data Entry Clerk	171
18	Morris Fomgbeh	Data Entry Clerk	181
19	Bartholomew Sei	Data Entry Clerk	191