



RuLIS COUNTRY BRIEF

Sierra Leone Integrated
Household Survey 2018



Highlights

- About 70 percent of households in Sierra Leone are engaged in agricultural activities, including crops, livestock, fisheries and forestry. This share reaches 94.9 percent in rural areas, more than twice that of urban areas.
- The average share of income from agriculture in total income was about 70 percent for rural households while this remained slightly above 10 percent for urban households. Moreover, approximately two-thirds of the rural households obtain over 30 percent of their annual income from agriculture, while only 10 percent of urban households are in this position.
- The adoption of technology in agricultural production is rather low in agricultural households. Among the agricultural technologies covered in this survey, none of them have an uptake rate above 10 percent.
- Over half of the households have access to piped water in their dwelling, and over 70 percent of the population has access to a mobile phone.
- The proportion of ownership of the dwelling is highest in rural areas, but the quality of housing is better in urban areas.

Country overview

Sierra Leone is a tropical country located in West Africa, with an estimated population of 7.9 million people projected in 2020 (United Nations Department of Economic and Social Affairs, 2019). The country is one of the poorest in the world, ranking 182 out of 189 countries and territories (United Nations Development Programme, 2020). About 65 percent of the population is rural and agriculture provides employment to an estimated 75 percent of the population (FAO, n.d.), which coincides with the estimate from the survey analysed in this brief. In 2019, agriculture accounted for 59 percent of the gross domestic product (FAO, 2021). The agriculture, fisheries and forestry value-added per worker was USD 2 118 (constant 2015 USD) in 2019 (World Bank, 2021).

Results

The tables and figures summarize data on the population's demographic characteristics, living standards indicators, employment, engagement in agricultural production, agricultural income share in total income, landholding and tenure rights, adoption of agricultural production technologies, and livestock holding.¹ Differences in the means between the disaggregated groups in the tables (i.e by sex, small-scale vs non-small scale, urban/rural areas), and the statistical significance, are also highlighted.²

Demographics

Head of households living in urban areas have 2.5 years more of formal education than those who live in rural areas, and they are also 3.6 years younger³ (**Table 1**). The composition of the households is also slightly different between urban and rural areas, with a marginally higher proportion of female-headed households and households with only female adults in urban areas compared to rural areas.

¹ This country brief focuses only on a selected list of key statistics derived from the survey dataset. Further indicators, derived variables and processed datasets are disseminated and can be downloaded from the RuLIS website: <https://www.fao.org/in-action/rural-livelihoods-dataset-rulis/en/>

² The independent t-test is performed to compare means of the same variable between groups, and if the p-value is less than the pre-specified level (usually 0.1, 0.05 and 0.01), the mean difference is considered as statistically significantly greater than or less than zero.

³ The findings are segregated by location – rural and urban, as defined in the survey.

Table 1: Sample's demographic characteristics, by rural and urban classification

Statistics	National	Rural	Urban	Difference
Sample size (households)	6 810	3 432	3 378	-
Number of households (weighted number)	1 410 825	771 029	639 796	-
Household size	5.8	6.0	5.6	0.4***
Head: Average age in years	45.8	47.4	43.8	3.6***
Head: Average years of education	10.4	8.8	11.3	-2.5***
Proportion of female-headed households	24.7	24.0	25.6	-1.6
Households with male and female adults, share of total households (percent)	83.0	87.3	77.8	9.5***
Households with only female adults, share of total households (percent)	10.1	9.6	10.8	-1.2
Households with only male adults, share of total households (percent)	6.8	3.0	11.4	-8.4***

Source: FAO. 2022. RuLIS – Rural Livelihoods Information System. In: FAO. Rome. Cited March 2022. <https://www.fao.org/in-action/rural-livelihoods-dataset-rulis/data-application/data/by-indicator/en>

*: p -value < 0.1 **: p -value < 0.05 ***: p -value < 0.01

In general, access to amenities is more frequent in urban areas compared to rural areas (**Table 2**). Around three-quarters of urban households have access to piped water in the dwelling, compared to 57.6 percent nationally and 43.5 percent in rural areas. Over 90 percent of the urban households live in a dwelling with a non-dirt floor and a solid roof. However, the share of the population with ownership of the dwelling is higher in rural areas (72.6 percent) than in urban areas (41.2 percent). Along with a higher ownership of their dwellings, rural areas also have a smaller number of people living per room as compared to the urban areas. About 90 percent of the urban population has access to a mobile phone, which is much higher than in rural areas (56.9 percent).

Table 2: Living standards and access to amenities, by rural and urban classification

Statistics	National	Rural	Urban	Difference
Population with piped water access in the dwelling, share of total population (percent)	57.6	43.5	75.7	-32.2***
Population living in a dwelling with a non-dirt floor, share of total population (percent)	59.6	34.6	91.9	-57.3***
Population living in a dwelling with a solid roof, share of total population (percent)	91.3	85.0	99.5	-14.5***
Average number of persons per room (real number)	2.2	2.0	2.6	-0.6***
Population living in owned dwelling, share of total population (percent)	58.9	72.6	41.2	31.4***
Population with access to mobile telephone, share of total population (percent)	71.2	56.9	89.7	-32.8***

Source: FAO. 2022. RuLIS – Rural Livelihoods Information System. In: FAO. Rome. Cited March 2022. <https://www.fao.org/in-action/rural-livelihoods-dataset-rulis/data-application/data/by-indicator/en>

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Employment

The employment-to-population ratio (defined as the proportion of the country's population aged 15 years and above that is employed) is around half with a much higher proportion in rural areas (**Table 3**). Employment in agriculture among the population aged 15 years and above accounts for over 80 percent of total employment in rural areas and only 13 percent in urban areas. Over 95 percent of those engaged in the agricultural sector, in both rural and urban populations, are self-employed. In addition, the proportion of persons between 15 and 24 years who are neither employed nor in education or vocational training is low in urban areas (2.7 percent), and just slightly higher in rural areas (3.6 percent).

Table 3: Employment indicators (percent)

Statistics	Rural	Urban	Difference
Employment-to-population ratio, ages 15+	77.6	52.8	24.8***
Employment in agriculture, ages 15+, share of total employment	80.4	13.1	67.3***
Employees in agriculture, share of total employment in agriculture	1.7	4.2	-2.5**
Self-employed in agriculture, share of total employment in agriculture	97.7	95.7	2.0*
NEET, youth neither in employment nor in education or vocational training, share of total youth ages 15–24	3.6	2.7	0.9

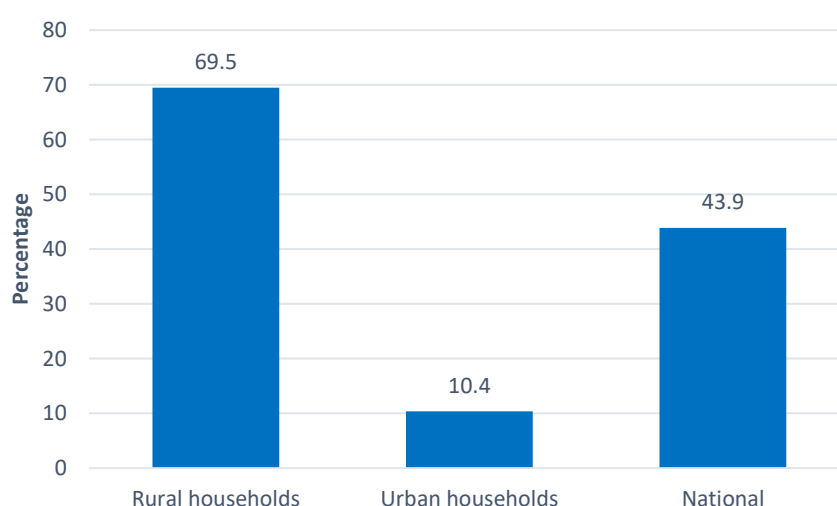
Source: FAO. 2022. RuLIS – Rural Livelihoods Information System. In: FAO. Rome. Cited March 2022. <https://www.fao.org/in-action/rural-livelihoods-dataset-rulis/data-application/data/by-indicator/en>

*: p -value < 0.1 **: p -value < 0.05 ***: p -value < 0.01

Agricultural production and income

Agricultural income accounts for slightly less than half of the total income at the national level. This share is significantly higher for rural households (69.5 percent) than for urban households (10.4 percent) (**Figure 1**).

Figure 1: Agricultural income share in total annual income

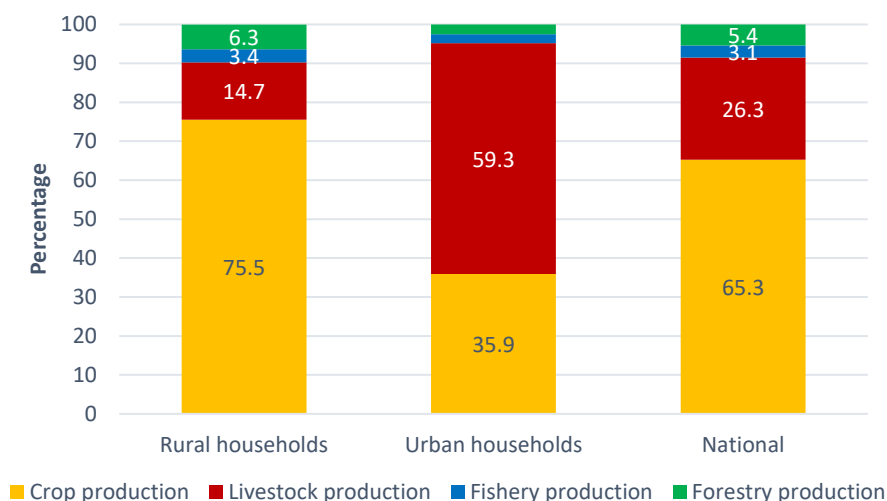


Source: FAO. 2022. RuLIS – Rural Livelihoods Information System. In: FAO. Rome. Cited March 2022. <https://www.fao.org/in-action/rural-livelihoods-dataset-rulis/data-application/data/by-indicator/en>

The largest share of on-farm income comes from crop production, which accounts for about 65 percent nationally (and just above three-quarters for rural households). Livestock production comes second, with about

one-quarter of on-farm income, while forestry and fisheries production each account for less than 6 percent. In urban households, the largest share of on-farm income comes from livestock production (around 60 percent), followed by crop production (36 percent) (**Figure 2**).

Figure 2: On-farm income by component



Source: FAO. 2022. RuLIS – Rural Livelihoods Information System. In: FAO. Rome. Cited March 2022. <https://www.fao.org/in-action/rural-livelihoods-dataset-rulis/data-application/data/by-indicator/en>

About 70 percent of households in Sierra Leone are engaged in agriculture, that is, in either crop, livestock, forestry or fisheries production activities (**Table 4**). In rural areas 94.9 percent of the households are in this position, while in urban areas this applies to around 40 percent. Nationally, 40 percent of households get a significant share (more than 30 percent) of their income from agriculture, with a wide gap between rural (around two-thirds) and urban (one-tenth) areas. Over 60 percent of urban households derive no income from agriculture and thus depend only on non-agricultural sources of income.

Table 4: Participation in agricultural production, by rural and urban classification (percent)

Statistics	National	Rural	Urban	Difference
Agricultural households, share of total households	70.3	94.9	40.6	54.3***
Participation in agriculture, share of total households				
More than 30 percent of income from agriculture	39.8	64.7	9.7	55***
Less than 30 percent of income from agriculture	29.3	28.7	30.0	-1.3
No income from agriculture	30.9	6.6	60.3	-53.7***
Households engaged in crop production, share of total households	54.3	84.9	17.3	67.6***
Households engaged in livestock production, share of total households	54.3	72.1	33	39.1***
Households engaged in fisheries, share of total households	2.8	4.5	0.9	3.6***
Households engaged in forestry, share of total households	36.6	59.5	8.9	50.6***

Source: FAO. 2022. RuLIS – Rural Livelihoods Information System. In: FAO. Rome. Cited March 2022. <https://www.fao.org/in-action/rural-livelihoods-dataset-rulis/data-application/data/by-indicator/en>

*: p -value < 0.1 **: p -value < 0.05 ***: p -value < 0.01

The adoption of agricultural production inputs such as inorganic fertilizers, chemicals and mechanization in agricultural production is rather low among agricultural households in Sierra Leone (**Table 5**). All the agricultural technologies covered in this survey are adopted by about 10 percent of the households or less.

Table 5: Adoption of agricultural production technologies (percent)

Statistics	National
Households using chemicals, share of crop farm households	2.6
Households using inorganic fertilizers, share of crop farm households	10.5
Households using agricultural mechanical equipment (owned or rented), share of total farm households	0.2
Crop farm households with irrigation systems, share of total crop farm households	8.8

Source: FAO. 2022. RuLIS – Rural Livelihoods Information System. In: FAO. Rome. Cited March 2022. <https://www.fao.org/in-action/rural-livelihoods-dataset-rulis/data-application/data/by-indicator/en>

As seen in **Table 6**, over 75 percent of farm households in Sierra Leone keep livestock, and those who do own on average an equivalent of 0.5 Tropical Livestock Units (TLU). The vast majority of livestock farm households keep poultry (90 percent), and one-third of keep small ruminants. Both large ruminants and pigs are owned by less than 3 percent of livestock farm households.

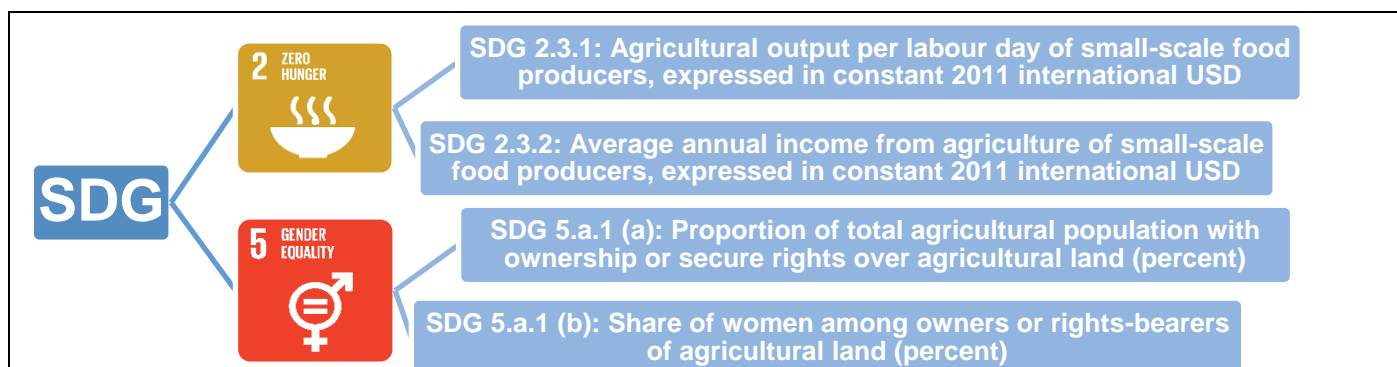
Table 6: Livestock holding

Statistics	National
Average tropical livestock units owned by livestock farm households (TLU) ⁴	0.5
Livestock farm households, share of total farm households (percent)	77.3
Share of livestock farm households owning large ruminants (percent)	2.9
Share of livestock farm households owning small ruminants (%)	33.4
Share of livestock farm households owning poultry (percent)	89.8
Share of livestock farm households owning pigs (percent)	1.5

Source: FAO. 2022. RuLIS – Rural Livelihoods Information System. In: FAO. Rome. Cited March 2022. <https://www.fao.org/in-action/rural-livelihoods-dataset-rulis/data-application/data/by-indicator/en>

⁴ The TLU conversion factors used are as follows: Large ruminants = 0.5, small ruminants = 0.1, pigs = 0.2, poultry = 0.01 and equines = 0.45. See FAO. 2011. *Guidelines for the Preparation of Livestock Sector Reviews. 5. Animal Production and Health Guidelines*. <https://www.fao.org/docrep/014/i2294e/i2294e00.pdf>

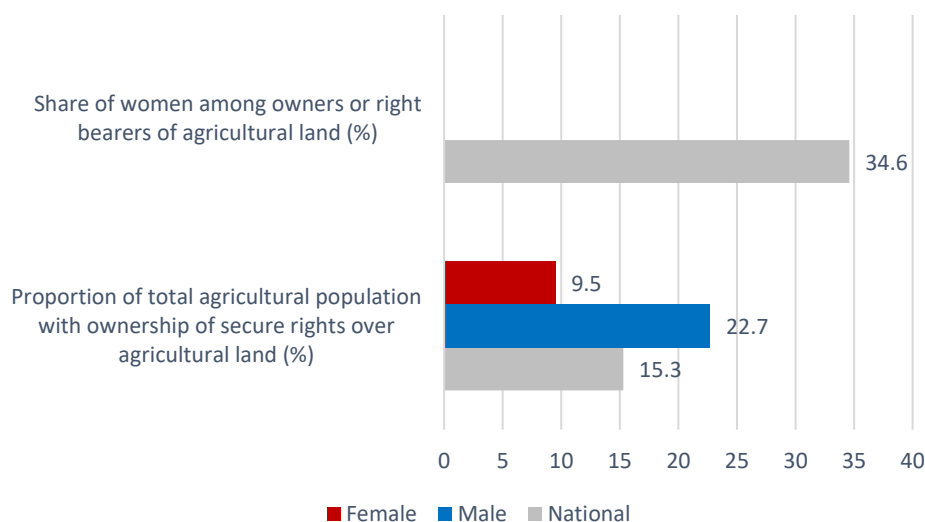
Sustainable Development Goals indicators computed in RuLIS⁵



SDG 2.3.1 focuses on measuring the agricultural productivity of the small-scale food producers,⁶ which is computed as the ratio of the total agricultural output over the total number of labour days utilized. SDG 2.3.2 aims at measuring the average annual income that small-scale food producers derive from agriculture. SDG 5.a.1 (a) measures how prevalent ownership or secure rights over agricultural land are among the total agricultural population. SDG 5.a.1 (b) measures the share of women among owners or rights-bearers of agricultural land, and is used to monitor the under-representation of women among the owners or holders of agricultural land.

The Sierra Leone Integrated Household survey 2018 does not allow to compute the SDG 2.3 indicators as the conversion of the land area variables from bushels to hectares was not possible during data processing. As a result, the households could not be disaggregated into small-scale and non-small-scale food producers. As shown on Figure 3 below, more than twice as many males have ownership and secure land rights compared to females, and the difference is statistically significant ($p < 0.01$ level of significance). Among those with secure land rights, only slightly over one-third are women.

Figure 3: Sustainable Development Goals indicator 5.a.1



Source: FAO. 2022. RuLIS – Rural Livelihoods Information System. In: FAO. Rome. Cited March 2022. <https://www.fao.org/in-action/rural-livelihoods-dataset-rulis/data-application/data/by-indicator/en>

⁵ Please refer to <https://sdgs.un.org/goals> to learn in detail about the 17 SDGs.

⁶ As per the internationally agreed methodology of SDG 2.3 indicators, the small-scale food producers are identified using a combination of two criteria, namely the physical size of the food producer, as expressed by the amount of operated land and the number of livestock heads in production, and the economic size of the food producer, as expressed by its revenues. The definition sets thresholds using a relative approach, in which producers that fall in the bottom 40 percent of the cumulative distribution are considered to be 'small-scale'.

Explanatory Note

This brief uses data from the Food and Agriculture Organization of the United Nations (FAO)-hosted Rural Livelihoods Information System (RuLIS), which aggregates data from the third wave of the Sierra Leone Integrated Household Survey of 2018 (Statistics Sierra Leone, 2018) to highlight the results of some key indicators. As the name suggests, Sierra Leone's Integrated Household Survey 2018 collects data from a sample of households in a population, and hence, the values of the indicators derived are not reflective of the non-household sector of the country. The survey is nationally representative and covers 6 810 households. The findings are segregated by location – rural and urban, as defined in the survey. Often, the definition of rural and urban areas is country-specific, and is based on a variety of different criteria such as remoteness, population density or importance of the agricultural sector to employment, but mostly stems from traditional and administrative classifications. The analysis also identifies agricultural households as those engaging in on-farm production activities, either on own land and dwelling on it, or on land resource that is not owned – either rented-in or borrowed – and not necessarily living on it.

The **Rural Livelihoods Information System (RuLIS)** is a set of harmonized household- and individual-level data and indicators on different aspects of livelihoods, including crops and livestock production, off-farm and non-farm income generating activities, households' composition and demographics, agricultural inputs, technology use, access to social protection, time use, shocks and migration. RuLIS currently includes information from 39 countries, with increasing data coverage in time and space as more micro-data becomes available. RuLIS aims to provide critical information for understanding medium- and long- term trends in the structural transformation of agriculture and rural economies; and for the design of policies that promote and accompany social and economic transformation and enhancement. RuLIS provides data on a wide set of indicators, cross-tabulated by rural vs urban areas, gender and other variables; and standardized variables at the household and individual level.

For further information on RuLIS, and for accessing the data and indicators on the platform, please refer to <http://www.fao.org/in-action/rural-livelihoods-dataset-rulis>.

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