Republic of Sierra Leone

2004 Population and Housing Census

Analytical Report on Poverty

By:
Thomas R.A.Winnebah
Francis N. Brewah
Francis Tommy

UNFPA

SSL

EU

November 2006

TABLE OF CONTENTS

Page

LIST OF TABLES

LIST OF FIGURES

iv

LIST OF ABBREVIATIONS AND ACRONYMS

ANOVA	Analysis of Variance
BKPS	Bo Kenema Power Station
GOSL	Government of Sierra Leone
IDP	Internally Displaced Persons
IPRSP	Interim Poverty Reduction Strategy Paper
MAFFS	Ministry of Agriculture, Forestry and Food Security
NPA	National Power Authority
PRSP	Poverty Reduction Strategy Paper
ROSL	Republic of Sierra Leone
SLIHS	Sierra Leone Integrated Household Survey
SPSS	Statistical Package for Social Scientist
UN	United Nations

EXECUTIVE SUMMARY

Poverty is conceptualised as a dynamic multidimensional situation in which people do not have enough or have limited access to infrastructure (e.g. housing), services (e.g. agricultural production inputs) and resources (e.g. consumable and durable assets) required to ensure sustainable livelihoods (Galbraith, 1958). These attributes are considered with some defined threshold below which people are classified as being poor for that attribute. In December 2004, the Government of Sierra Leone with funding support from the United Nations and European Union conducted a Population and Housing Census, after almost 20 years, to have insights into the poverty situation in the country among other things. The result of the analysis will inform targeting Poverty Reduction Strategy Programs (PRSP) in the coming decade.

The main objective of this study was to describe geographical differences in the level of poverty of households in Sierra Leone and show the implications for policies, programmes and project work geared towards its reduction within a decade. In this study, the indicators used to measure poverty were non-monetary and operationalised at the household rather than the individual level. In addition, the pace of data processing limited presentation of the results to the geographical area (i.e. national, provincial, district and chiefdom levels, excluding rural and urban locations) level. Also, this limited relational and modelling analysis of the data to contribute to theory building and project targeting at the latter level. Similarly, the use of composite index of poverty provided an insight rather than indicate the incidence, severity and depth of poverty.

Sierra Leone's Population and Housing 2004 Census data was the main source of data used in this study. Household heads and members' responses to item questions related to their housing conditions, ownership and access to agricultural production resources and owned working assets were scored, weighted and tested for reliability. The standardised Cronbach alpha reliability coefficients ranged from 0.73 to 0.76 for 13 to 55 items that comprised the composite index of poverty. Mean scores were calculated for households and aggregated at chiefdom level to develop poverty scales that differentiated about 800,000 households in a total of 166 chiefdoms. To create categories of levels of poverty (the dependent variable), data was transformed using the visual bander menu in SPSS to group the mean poverty scores based on equal percentiles of five. The geographical areas in Sierra Leone were then classified as having households that are very rich (i.e. scale 5) through very poor (i.e. scale 1) from the upper to lower bandwidth, respectively. The categories were mainly mapped using Geographical Information Systems (GIS) computer software.

The following results were obtained:

- ♦ It was found out that poverty levels among households varied from about 16% very rich to about 34% very poor.

- ♦ About 582,912 households were poor compared to about 237,209 that were non poor.

- ♦ On the average, it was found out that 71% of Sierra Leoneans were poor compared to 29% non poor.

- ♦ Relatively speaking, at the provincial/regional level, it was found out that the Northern Province/Region had the least overall mean poverty score of 44.21 (i.e. very poor), whereas the Western Area/Region had the highest mean poverty score of 54.72 (i.e. rich).

  - o In terms of agricultural poverty, the Western Area/Province/Region had the lowest mean score value of 1.96 (i.e. very poor) compared to 18.13 (that is moderately poor) for the southern region.

  - o For housing poverty, the Northern Region had the lowest mean score value of 43.54 (i.e. very poor), whereas the Western Area Province/Region had the highest value of 52.84 (i.e. rich).

  - o The Northern Province/Region had a mean asset poverty score value of 4.83 (i.e. very poor) compared to the West's 12.23 (i.e. rich).

- ♦ At the district level, Koinadugu and Moyamba in the Northern and Southern Provinces/Regions were the poorest with a mean poverty score of 42.80. The Western Urban District had the highest mean poverty score of 57.65, meaning very rich.

  - o In terms of agriculture, the Western Urban District was the poorest with a mean score value of 1.5 compared to Bo District that had a score of 24.83, meaning very rich.

  - o For housing, Moyamba District had the least mean score of 41.95 compared to 55.24 (i.e. very rich) for the Western Urban District.

  - o Koinadugu District had the poorest asset status (i.e. mean score value of 3.05) compared to the Districts in the Western Area/Region with a score value of 19.05 (i.e. very rich).

- ♦ Most of the chiefdoms in the districts referred in the previous bullet point are of the same relative poverty status at the geographic and sectoral level.

- ♦ However, no statistically significant difference was found in the level of poverty at all geographic and sectoral levels.

The following conclusions are drawn, based on the above results:

- ♦ There is variation in poverty, particularly among households in Sierra Leone.

- ♦ There are poorer than non poor households and people, particularly in Sierra Leone.

- ♦ There are geographical differences in poverty, particularly in Sierra Leone. However, the observed differences are not too highly distinct across geographic areas. Poverty is a widespread phenomenon geographically, particularly in Sierra Leone.

The following recommendations are made for:

Action:

1. Nationally, in the course of implementing the PRSP and other related poverty reduction programmes and projects in the coming decade, the Northern and Eastern Provinces/Regions should be targeted geographically.

2. At the district level, priority should be given to the poorer chiefdoms in: Koinadugu in the Northern Province/Region; Moyamba in the Southern Province/Region; and Kailahun in the Eastern Province/Region.

3. In response to targeting programmes under the PRSP's pillar two, agriculture and food security programmes and projects should primarily target the Western and Northern Province/Region. At the District and Chiefdom levels, those in the: Western Urban District in the Western area; Port Loko in the North; Kailahun in the East and Pujehun in the South should be primarily targeted. It should be noted that during the war embargoes, it was the farms in peri-urban areas, particularly those in the Western Area/Province/Region, which supported the country's capital with food. Policies, programmes and projects associated with urban and per-urban agriculture should be strongly considered as part of the strategy to address pillar two, particularly as an ex-ante mitigating force for potential shocks/hazards.

4. In the case of pillar three of the PRSP, housing programmes and projects should primarily target the Northern Province/Region (particularly Chiefdoms in the Port Loko and Bombali Districts).

5. Asset poverty is cross cutting all the pillars. However, priority should be given to targeting Northern Province/Region (particularly most Chiefdoms in the Tonkolili, Koinadugu and Kambia Districts) for PRSP and related activities in the coming decade.

Further Research:

There is strong need to further clean up the entries of the census data at the household level so as to enhance relational analysis that will contribute to a theoretical explanation and better understanding of the poverty phenomenon. This will improve contributions to policy, programming and project cycle work in the country in the next decade.

1.0   INTRODUCTION

1.1   Background

Poverty is a concept that is associated with food security, sustainable livelihoods, vulnerability and survival of mankind (Frankenberger and McCaston, 1998; Murray, 2001; Alwang et al, 2001; Dercon, 2001). All of these conceptualisations relate to how man makes and maintain his/her well-being in time and space (Coudouel et al, 2001; Ellis, 2000). They recognise that man engages in mainly productive activities, given their skills, techniques and capabilities to create assets (natural, physical, human, financial and social capitals). The sustained availability, accessibility and use of the assets is affected by social relation, institutions/organisations in the context of trends (in population movement, technological changes, macro-economic policies and programmes) and shocks (floods, pests and diseases, and civil wars). The trends and shocks have a tendency to propel mankind into adopting different productive activities to enhance their sustained availability, accessibility and use of assets (recovered, recreated, given). The major outcome is reflected in their overall well being, often equated to their poverty status.

Poverty is subject to varied difficulties in definition and measurement (Galbraith, 1958). One common feature of poverty measures is that it focuses on the dynamics of assets (that is, its availability, accessibility and use) at different analytical units (national, regional, sub-regional, household and individual). In terms of measurement, it is considered both uni-and multidimensional, quantitative and qualitative, objective and subjective and monetary and non-monetary (Kamanda, 1998; Hamdok, 1999). The ensuing measures are subject to reliability and validity threats. More often, the uni-dimensional, quantitative, objective and monetary measures compete with multidimensional, qualitative and non-monetary but quantitative ones to gain currency in practical development work (Hamdok, 1999; Coudouel et al 2001; Dercon, 2001; Shimeles and Thoenen, 2005). In this monograph the latter measure was explored up to the aggregated household level using Sierra Leone Population and Housing 2004 Census data.

The purpose of this monograph is to analyse poverty in Sierra Leone using the 2004 Population and Housing Census data and to show the implications for policy, planning, programming and project work.

1.2   The Research Problem

Sierra Leone's socio-economic and political situation declined dramatically since the 1980's as a result of its inability to cope with internal management problems and external macroeconomic policy changes. It worsened in the face of a decade long civil war (ROSL, 2001; Winnebah, 2003a; GOSL, 2005). There were lots of emergency and recovery interventions, in addition to the people's coping mechanisms, to redress the widespread poverty that ensued. One of the goals of the interventions was to assist people recover and build new assets to use. This was to ensure their sustained survival, when exposed to future shocks and hazards (Ellis, 2000).

However, the country had been plagued with shortfall in available planning data. For instance, the Population and Housing 1985 Census had data on housing only, a dimension of poverty. It did not capture data on ownership, accessibility and use of consumable and durable household and agricultural assets. This restricted an explanation and understanding of the distribution of poverty in the country to a single dimension. In the case of agricultural census, it had taken about three decades since one was conducted in the country. Mostly integrated documentations of fragmented sample surveys, students' projects and dissertations, and textbooks materials provided an insight into its distribution and performance in the country (MAFFS, 2003).

Since the end of the war, there has been the need to have national benchmarks to measure the changes associated with the emergency, recovery, structural, institutional and contextual trends, shocks and hazards producing changes in the overall welfare and well being of Sierra Leoneans. As the country moved into development phase, the need to collect hard data that enhance policy, planning, programming and project work was indispensable. In that regard, several sample surveys and qualitative data have been conducted and collected respectively; and the results incorporated in the writing of the country's policy and programme related (Interim) Poverty Reduction Strategy Paper (s) [The Republic of Sierra Leone, 2001; the Government of Sierra Leone, 2005].

In order to increase the area of coverage and preciseness of related benchmark data, international organisations, namely the European Union (EU), the United Nations Fund for Population Activities (UNFPA) supported the Government of Sierra Leone (GOSL) to conduct its national census for the first time in almost two decades, in December 2004. The data was processed by the data base management team of the Government's Statistics Sierra Leone (SSL) for the best part of 2005. The output is used to write this monograph.

The following questions guided the analysis in this monograph. Is there variation in poverty in Sierra Leone? If there are variations in poverty, what is the estimated proportion and number of Sierra Leonean households and population that are poor and non poor at the geographical and sectoral unit? Where are the poor and non poor Sierra Leoneans located geographically and sectorally? Are there significant differences in their levels of poverty by geographic locations (administrative regions/provinces, districts and chiefdoms) in Sierra Leone? Are there significant differences in their poverty levels in terms of agriculture, housing and assets portfolios in Sierra Leone geographically? What are the implications of the observed distribution of levels of poverty geographically for policy, planning, programming and project work in Sierra Leone?

1.3. Significance of the Monograph

The concept of poverty gradually emerged in Sierra Leone's development activity since the late 1980 with the stride for rural development. In the country, the conceptualisations and operationalization of poverty and its

associated concepts has been unidimensional (mostly with a monetary bias such as those below the local currency equivalent of a United States dollar a day {US$1/day}, income per capita, etc) for a while. Since the late 1990s onward, the use of the multi-dimensional indicators of well being and poverty has been gradually recognised as evident in the human development index of the United Nations (UN) at the international level and academic work in Sierra Leone (Kamanda, 1998; Ward, 1999).

In this study, poverty is defined and measured principally using multiple indicators to meet certain measurement challenges. These include: offset wrongly classifying household due to differences in interviewer and interviewees understanding, questioning and answering to some of the indicators if used singly; and to capture the range of conceptions associated with the term poverty among Sierra Leoneans (Hamdok, 1999; Bryman, 2004; GOSL, 2005). This approach to measuring poverty, a complex and politically sensitive concept, represents an improvement in the effect of instrumentation as an internal validity threat to its measure for policy, planning and programming (Ahlburg, 1994; Bryman, 2004). The expected high level of comparability of the results to previous related studies and hence its documentation for further academic referencing underscores the methodological significance of this study.

The Government of Sierra Leone has had longstanding policy, programme and project work commitment to solve (rural) underdevelopment, and poverty in particular, since the late 1970s. This has been achieved through contracting short and long term bi-lateral loans and grants from international financier institutions to implement (integrated) agricultural and rural development research and extension programmes and projects to improve welfare and well being at the household and individual levels (MAFFS, 2003). However, as indicated in the previous section there had been a dearth of benchmark data to discern changes in poverty indicators from the dimensions of ownership of consumable and durable household and agricultural assets in addition to housing characteristics.

Through the use of a multidimensional index of poverty, relevant geographical benchmarks will be established. This will enhance measures of changes that will be associated with the implementation of the current national Poverty Reduction Strategy Paper (PRSP) – a policy and programming thrust of the government (Dercon, 2001). The subsequent post census evaluations of development interventions that will be associated with the recent donor pledged funds, geographically and at the household levels, will be useful in poverty related policy, planning and programming reviews in the country.

1.4   Aim and objectives of the monograph

The aim of this monograph is to describe geographical differences in the level of poverty of households in Sierra Leone and show the implications for policies, programmes and project work geared towards its reduction within a decade.

The objectives are to:

- Find out if there are variations in level of poverty in Sierra Leone as at the Census of Population and Housing conducted in 2004;

- Find out the relative proportion and number of Sierra Leonean households and populations, respectively, that are poor and non poor as at the Census of Population and Housing conducted in 2004;

- Describe the geographical and sectoral distribution of level of poverty of Sierra Leonean households and populations as at the time of the 2004 Census of Population and Housing;

- Determine differences in the level of poverty of Sierra Leonean households and populations by geographical units and sectoral portfolio as at the time of the 2004 Census of Population and Housing; and

- Make recommendations, based on the implications of the discussions of the findings, for poverty related policies, programs and project work in the country.

1.5   Concept of Poverty

Poverty is an important concept in the quest for improving the well being of mankind. Linked to the concept of development, it is evident that tackling and reducing poverty is the fundamental objective of economic, social and political development for the last decade and the half (Thomas, n.d.). Poverty is dynamic and associated with both short and long term changes in the life cycle of mankind in different locations (O'Reilly and Gordon, n.d).

Poverty also relates to states in which people do not have enough resources and abilities to meet their basic needs of food clothing and shelter on a daily basis (Galbraith, 1958). It is common to consider income, consumption, and other attributes with some defined threshold below which people are classified as being poor for that attribute. That constitutes the uni-dimensionality of concept (Coudouel et al, 2001; Ahlburg, 1994). However, it is increasingly being recognised that poverty is a multi-dimensional concept that means more than just lower incomes. It includes inadequate health, education, housing, and lack of or limited access to infrastructure, services and resources required to ensure sustainable livelihoods (Ahlburg, 1994; Hamdok, 1999; GOSL, 2005).

In this study, the multi-dimensional definition of poverty is adopted and linked to the operational definition of the non monetary indicators enumerated in the census data collection instrument. The associated methodological challenges form the significance of the study as outlined and explained in sections 1.3 and 1.8 respectively.

1.6   Limitations of the Monograph

Although poverty normally applies to individuals and households, there still exists a preference for its measurement and analysis at the latter level (Thomas, n.d but cir 1998). In this study, the indicators used to measure poverty were operationalised at the household rather than at the individual level. As a result the household rather than the individual formed the main unit of analysis. However, cleaning of the census data is yet to be done at the individual level. As a result the analysis and results presented and discussed here reflects aggregated rather than individual household situations. It therefore limits relational and modelling analysis of the data to contribute to theory building.

The study is limited to non- monetary measures of poverty because monetary measures were not solicited in the census data collection instruments. In addition, the assignment of scores to the consumable and durable household and agricultural assets by no means account for the variability in value and prices. However, the weighted scores assigned to the housing related items that constituted the multidimensional indicator of poverty used in this monograph took into consideration the value differences in them. As such the indicators are restricted to surrogate/proxy monetary measures of some indicators of poverty.

The populations' perceptions on poverty and identification of causes and solutions, was not used ((Hamdok, 1999). These aspects were not captured in the census data. Subjectivity in the measure only arose out of the need to assign weights to some of the items that made up a dimension of poverty, particularly the housing ones. Here, I weighted the structured responses to improve on the reliability of the scoring for the composite multiple indicator index of poverty developed for the study and described in section 1.8.1 below (Bryman, 2004).

Moreover, the use of composite index of poverty only provided an insight into the existence of poverty, but did not indicate the incidence, severity and depth of it due to the fact that those aspects were not operationalised in the census research instrument (Coudouel et al, 2001). Also, attention was not given to the causes and effects of poverty in the analysis due to the non-enumeration of such factor in the census research instrument. As such, the relational analysis only provided insights into the likelihood of the occurrence of causal factors.

Geographical analysis was limited to regional, district and Chiefdom administrative levels for reasons given above. Finally, poverty related concepts like food security, vulnerability, and livelihoods were outside the scope of the monograph. The related data were not collected in the census.

2.0   RESEARCH METHOD

In this section, attention is focussed on the measurement of the dependent (based on the concept of poverty) and independent variables of the study. The details of the census methodology and procedures are contained in another monograph. The section ends with a description of how the data for this study was analysed.

2.1   Measurement of Poverty and Other Variables in the Monograph

2.1.1 Dependent Variable: Level of Poverty

Following the above conceptualisation of poverty in section 1.5 and the limitations of the data, the dependent variable (level of poverty) was measured using a multidimensional indicator composite index (Coudouel et al, 2001). The items that made up the index were as follows: current repair needs of dwelling units; major roofing materials of dwelling unit; major wall material of dwelling unit; major floor material; disposal of rubbish; principal source of fuel supply for cooking; principal source for lighting; principal source of water supply for drinking; kind of toilet facility used; main source of information used by household; crops grown by household; ownership of livestock; access to agricultural facilities and ownership (availability) of working consumable durables.

Household heads and members were asked questions related to the items listed above. The possible answers to some of the indicators that formed the composite index were structured but neither ordered, ranked or weighted. Their mere presence/occurrence was recorded. I assigned weighted score values (on the basis of either a single or combination of differentiating criteria. I did not rely on the judgement of experts and experienced persons to weigh the scoring of the responses, because it was liable to inconsistency in decisions on the ratings – a threat to reliability of the measure (Bryman, 2004, chapter 4). The range of assigned score values represented the highest and least possible (weighted) score a particular household scored for an indicator on the basis of how it was operationalised in the field.

For instance, the indicator current repair needs of dwelling unit had the following structured observations, mostly recorded by the enumerator while in the dwelling unit: no repairs, minor repairs, rehabilitation and reconstruction. Dwelling units that required no repairs, minor repairs, rehabilitation and reconstruction were assigned the highest (that is, four {4}) through the least score values (that is, one {1}) respectively.

In the case of roofing materials, the enumerators recorded the following structured observations: tiles, concrete, asbestos, zinc, thatch, tarpaulin and others. I assigned the highest through the least weighted score values of seven (7) to one (1) for the respective recorded observation. This weighting was on the basis of a combination of the quality, durability and social acceptability of the type of roofing materials.

Similarly, for wall materials, cement block, sandcrete, stone, timber, clay brick, mud brick, mud and wattle, poles and reed, zinc, tarpaulin and others were assigned the highest through the least weighted score values of eleven (11) to one (1) respectively. Also, floor materials comprising, tile, cement, wood, stone, mud and others were scored six (6) through one (1) respectively. Enumerators asked the respondents the commonest method their household used to dispose of rubbish. The following methods were assigned the highest through the least weighted score values of six (6) through one (1) respectively, on the basis of environmental concern, effectiveness and efficiency: collected, deposited in bin, buried, burnt, deposited anywhere and others.

Enumerators recorded the most frequently used source of fuel supply for cooking, the source of energy used most of the time to light their dwelling units and the source from which they get most of their drinking water as part of the housing indicators. The following principal sources of fuel supply for cooking were assigned the highest through the least weighted scores of six (6) through one (1) respectively, on the basis of cost, efficiency, reliability of supply and environmental concern: gas, electricity, kerosene, charcoal, wood and others.

Similarly, gas, generator, rechargeable battery light, NPA/BKPS, kerosene, candle, wood and others were assigned the highest through the least weighted score values of eight (8) through one (1) respectively for principal source of energy for lightning. For source of drinking water, piped indoors, piped in compound, neighbours tap, public tap, mechanical well, water vendor/bowser, protected ordinary well, unprotected ordinary well, river/riverbed/stream and others were assigned the highest through the least weighted score values of ten (10) through one (1) respectively.

For household toilet facility, enumerators probed the number of households that used a particular kind of toilet. These were classified into two groups: communal (that is, more than one household using a particular kind of toilet including bush/riverbed) and private (that is exclusively used by one household). The highest score value of two (2) was assigned to the private ones and one (1) to the communal ones on the basis of less risk of exposure to environmental health problems associated with overcrowding.

Enumerators probed and elicited information on the main source the household relies on for information irrespective of who owns the medium within the household. Television, radio, post mail, print media, church/mosque, hand mail, word of mouth and others were assigned the highest weighted score of eight (8) through the least score value of one (1) respectively. This weighting was on the basis of the formality and credibility of the source of information.

For crops and livestock, enumerators recorded the acreage covered and number owned by the household members respectively. Where household had none, enumerators recorded zero. Irrespective of the acreage and number owned, I assigned a score value of one (1) when a household has a crop and zero (0) when it does not have it. The same scoring principle was applied to livestock. As a result, the total possible highest score a household scored for crops and livestock was equivalent to the total number of

crops/livestock in the battery of items – in this case, eleven (11) for crops and six (6) for livestock. The least possible score was zero (0).

In the case of access to agricultural facilities, enumerators recorded the answer (that is, "yes" or "no") to the question, "do household members have access to ……?" I assigned a score value of one (1) to the answer "yes" and zero (0) to the answer "no". As in the case of crops and livestock, the highest possible score for the indicators was eight (8) and the least zero (0), reflecting the number of agricultural facilities listed in the census instrument. The same principle and procedure of measurement applied to the indicator ownership of consumer durables. In that case the highest possible score for the indicator was eleven (11) and the least zero (0).

To obtain the measure of poverty, the assigned scores of the multiple indicators of poverty were aggregated for all households at the chiefdom level and above to compute an overall score (that is the total poverty score). To verify whether the indicators are related to each other, I performed the reliability test using SPSS and obtained a Cronbach alpha coefficient. The resulting unstandardised coefficients ranged from a minimum of 0.73 to a maximum of 0.76 out of 13 to 55 items on the scale for a total of 166 cases (i.e. chiefdoms), respectively. The result clearly showed that the indictors have a high internal reliability (coefficient greater than the critical value of 0.70). The result indicated an almost perfect internal reliability of the indicators (Bryman, 2004).

The total scores were then divided by the number of households to obtain an average score (mean poverty score). To create categories of levels of poverty, the data was transformed using the visual bander menu in SPSS to group the mean poverty score data based on equal percentiles of five based on the scanned cases. The band width slightly varied on the basis of the level of aggregation of the mean score (that is, chiefdom, district and province). The categories were classified into very rich (that is scale 5) through very poor (scale 1) from the upper to lower band width, respectively. The bands used as cut-off points for the analysis at different levels are presented in annex 1.

2.1.2 Independent Variables

These were variables that were conceived to exist independent of the dependent variable. However, they were more likely to be, at least, associated with poverty in some indeterminate way. They were measured using the census instrument. Following the limitations of the study, they comprised the following geographical location: province/region, district and chiefdom.

2.2   Analysis of Data

2.2.1 Summary Statistics

The indicators were in different files of the Statistical Package for Social Scientist (SPSS) computer data software. The files containing the indicators were merged. However, it was difficult to obtain standard merging of the household files because there were limited common field linking the data sets containing the identification of households (that is, section, enumeration area, locality, household serial number codes).

It was anticipated that the data would have been cleaned to that level by the time of writing the final version of this monograph. The cleaning has been done up to the enumeration area level. This has made it difficult to perform and report findings at the head of household level in this monograph.

2.2.2   Statistics and Diagrams

The dependent variable was cross tabulated with the independent variables to determine difference and relationship between them at the bivariate and one way analysis of variance (ANOVA) level. Statistical tables were developed to present the data. Percentages were calculated to show proportions of households and persons in poor and non poor status. Statistical tests of significance of differences, largely Chi-square statistics and ANOVA "F" statistics and post hoc tests were calculated to evaluate the study's expected results at the 0.95 and 0.99 probability levels of significance.

Some of the statistical tables were further summarised and visualised. For instance, Microsoft Excel 2003 chart wizard was used to visualize some of the data using pie charts. Also, Arc view Geographical Information Systems (GIS) software was used to visualize most of the geographic data using maps. The result of the analysis at the geographical level is presented, using mainly choropleth maps and charts, in the next section.

3.0 LEVELS OF POVERTY IN SIERRA LEONE

The first two objectives of the study are addressed in this section, namely to find out: if there are variations in level of poverty in Sierra Leone as at the Census of Population and Housing conducted in 2004; and the relative proportion and number of Sierra Leonean households and populations, respectively, that are poor and non poor as at the Census of Population and Housing conducted in 2004. Next, the relative proportion and numbers of households and populations in the two major poverty groups is estimated at the geographical level and presented.

3.1 Levels of Poverty

The poverty score was aggregated at the chiefdom level and subjected to categorisation as described in the section 1.7.1. The result is presented in figure 1. From the figure, it is clear that there are variations in the level of poverty in Sierra Leone. There are about five categories of households by defined levels of poverty.

Figure 1: Variations in poverty in Sierra Leone
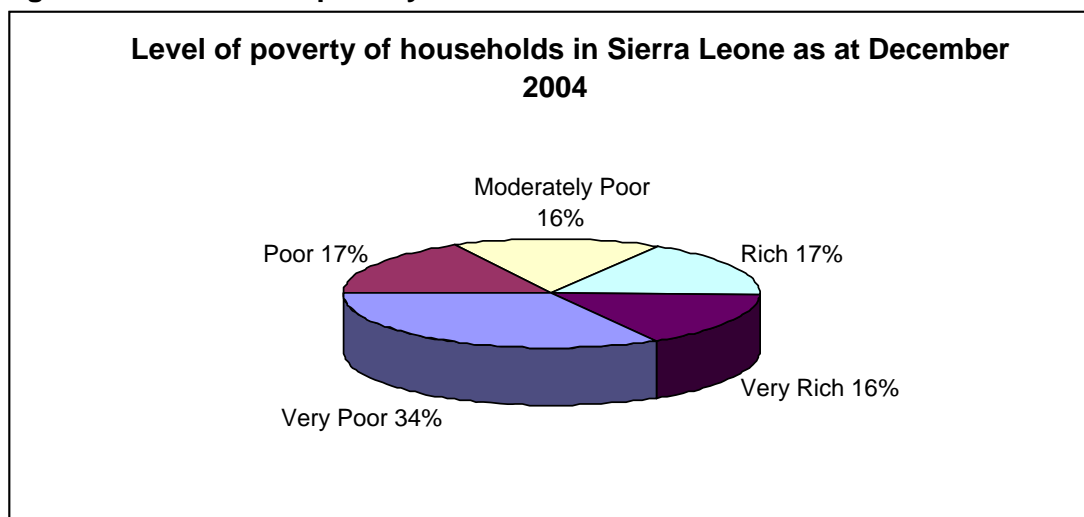
The figure shows that there are marked variations among the poor households. The result is consistent with the results of similar analysis and findings reported in Sierra Leone (PRSP, 2005; Kamanda, 1998). One concludes that there is variation in poverty among Sierra Leonean households. The proportion of the Sierra Leonean households and populations that are poor and non poor is the focus of the next subsection.

3.2 Proportion *and Number Of Poor and Non Poor Sierra Leoneans* Geographically

The relative proportion of households that were poor and non poor was estimated at the geographic level. In addition, the numbers of the population was estimated at the same level. The result is presented in figure 2 and table 1. Figure 2 shows that on the average about 71% and 29% of Sierra Leoneans were poor and non poor respectively.

Figure 2: Distribution of poor and non poor in Sierra Leone
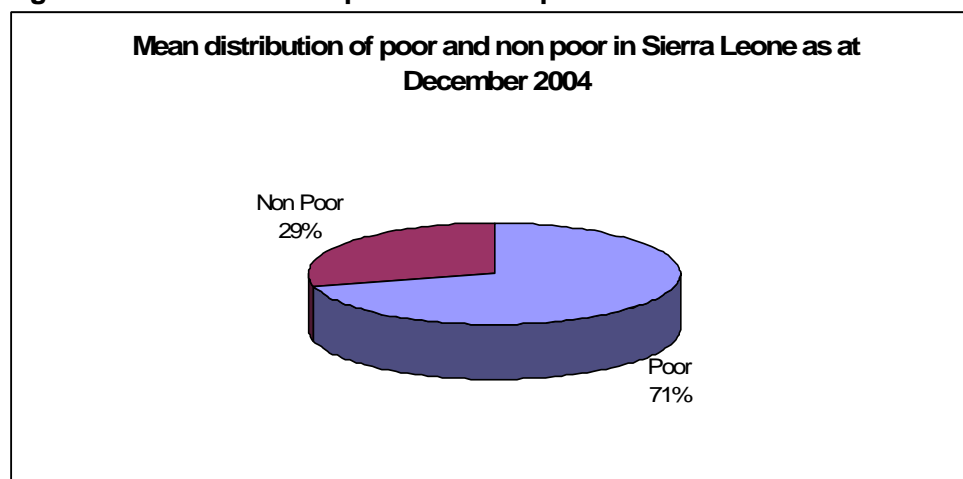
When calculated by number of households and population, it was found out that an average of about 582,912 and 237,209 households were poor and non poor respectively. In terms of number of persons, it was found out that about 3,847,224 and 1,565,584 persons were poor and non-poor respectively. This is particularly so at the higher administrative units as evident in table 3.

Table 1: Percentage and number of poor and non poor Sierra Leonean households and persons as at December 2004

Percent of Population		
Geographical Unit	Poor	Non Poor
Region/Province	75	25
District	71.4	28.6
Chiefdom	66.8	33.2
Mean %	**71.06**	**28.93**
Number of Households		
Geographical Unit	Poor	Non Poor
Region/Province	614,887	204,962
District	585,372.19	234,476.81
Chiefdom	548,479	272,190
Mean	**582,912.73**	**237,290.6**
Number of Persons		
Geographical Unit	Poor	Non Poor
Region/Province	4,058,254	1,352,751
District	3,863,456.5	1,547,546.9
Chiefdom	3,619,961	1,796,454
Mean %	**3,847,224**	**1,565,584**

Source: Calculated using the Sierra Leone's Population and Housing 2004 Census data.

The result was compared to the pre-census findings of SLIHS. The comparison revealed that the proportion of the poor, irrespective of their measure was close to the 70% range in the SLIHS, although, from the census data, it seems to have increased slightly by an average of a percent (1%) within a year. The result is consistent with patterns observed at national and sub-national levels in previous studies (PRSP, 2005; Kamanda, 1998). One concludes that there were poorer than rich households and persons in Sierra Leone as at the time of the Population and Housing 2004 Census.

4.0 GEOGRAPHICAL AND SECTORAL DISTRIBUTION OF POVERTY IN SIERRA LEONE

The third objective of the study was to describe the distribution of poverty geographically and by sectoral portfolio in Sierra Leone as at the time of the Population and Housing 2004 Census. The aggregated composite quantitative index of poverty was transformed into a graduated statement scale and cross tabulated at the geographic and sectoral portfolio levels as shown in annex 2. The result was transformed into choropleth maps using the Geographic Information System (GIS) computer software to provide a visual impression of the distribution of poverty in the country (Shimeles and Thoenen, 2005). The result is presented next.

4.1 Location of the Poor and Non Poor Geographically

4.1.1 Administrative Region/Province

Levels of poverty among households were differentiated by administrative province/region in the country as shown in figure 3 below and table 15 in annex 2. The figure shows that households in the Western Area/Region were rich (with a mean poverty score of 54.72 as shown in table 15 of annex 2) compared to the very poor Northern Province/Region (with a means poverty score of 44.21 as shown in table 15 of annex 2). The poorer regions were those that had relatively longer experience and destruction as a result of the ten year civil war. It is important to note that no region was found to be overwhelmingly very rich by global standards.

Figure 3: Distribution of level of poverty in Sierra Leone as at December 2004
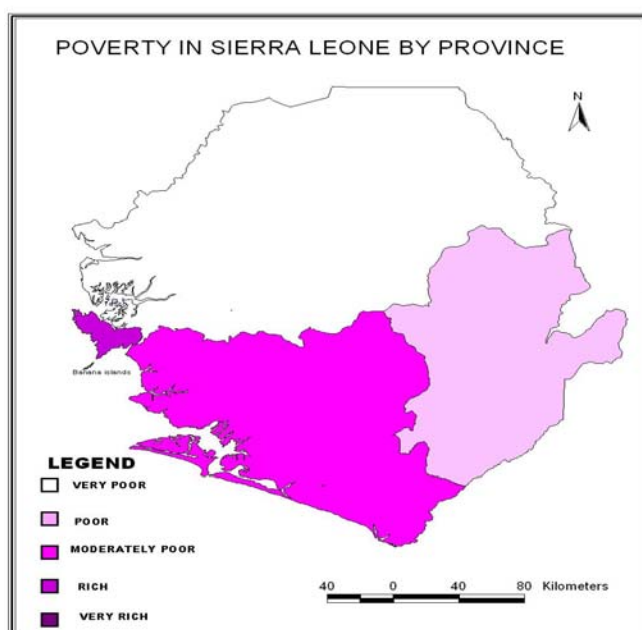
The result was compared to the pre-war poverty distribution pattern reported in the country's Interim Poverty reduction Strategy Paper (IPRSP) of 2001. The comparative result revealed that the Northern region continued to have the poorest people in the country. Similarly, the eastern region continued to have poor people. However, the poverty situation seems to have reduced/improved in the southern and western regions over the two time periods. A plausible reason for the constancy of poverty in the former cases may be the effects of the war. The war started and ended in the eastern region. It lasted relatively longer in the two regions compared to the south and west.

The comparative findings indicate that there has always been a difference in levels of poverty by administrative provinces/regions since pre-war times. However, the differences have been dynamic rather than stable and seem more likely to be due to a combination of structural policy and risky factors in a macroeconomic framework. Here, the findings are supportive of the view that the civil war has altered the regional distribution of poverty (ROSL, 2001). One concludes that the north and eastern provinces/regions are poorer compared to the south and west following the destructive effects of the war.

4.1.2 Districts

Levels of poverty among households were differentiated by districts in the country as shown in figure 4 below and table 15 in annex 2). The figure shows that most of the very poor households were in the northeast to south west districts covering the Northern and Southern provinces/regions with mean poverty scores ranging from 42.80 to 44.16 as evident from table 15 in annex 2). The richest district is in the Western Urban district with a mean poverty score of 57.65 as shown in table 15 in annex 2. With the exception of Bo district that has the second largest urban location in the country but is located in the hinterland, the relative richer districts have a coastal location as evident in the figure. The case of the Western Area/Province/Region is not surprising as it has always been the leading socio-economic region since colonialism.

The north east to south west divide may not be unconnected with the poorer physical conditions of the soils, rocks, roads and accessibility. The southern provincial districts of Bonthe, Pujehun and Moyamba were under combatant siege for a comparatively long time. As a result they suffered from high levels of infrastructural destruction together with loss of life and property. They were then liberated, but kept under a seemingly dreadful civil defence rule. This inhibited the early penetration of mitigating agency to provide emergency relief and recovery interventions.

Moreover, the accessibility to these districts, which had been poor in pre-war times worsened. Major mining activities (mainly bauxite and rutile) in the Moyamba and Bonthe districts were destroyed. In addition, the already threatened major livelihood of the people, farming, deteriorated, leaving the people in poverty and food insecurity (Winnebah, 2003b). A similar explanation may hold true for the said northern districts of Koinadugu and Tonkolili.

Figure 4: Distribution of level of poverty in Sierra Leone by district as at December 2004
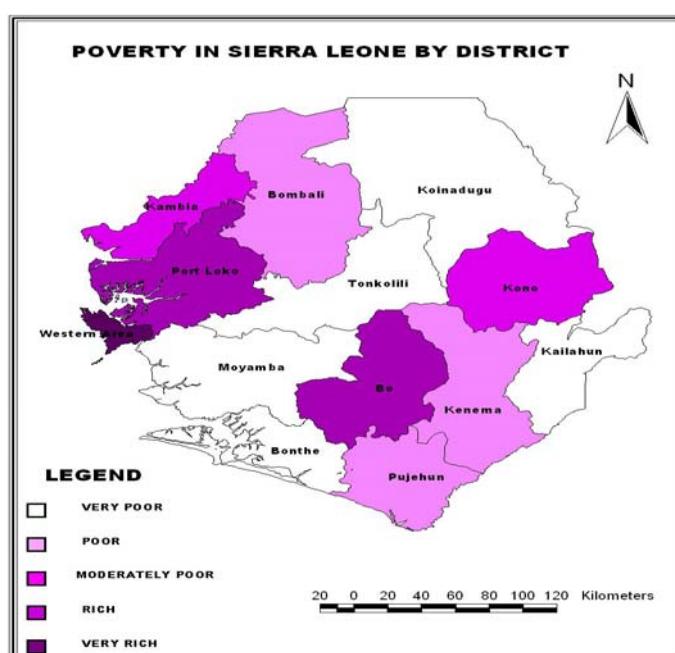
The result was compared to the percent of total poor in the districts prior to the December 2004 census as contained in the PRSP document. The objective was for validation of the findings and to obtain insights into changes taken place in district level household poverty. The result is shown in table 2.

Table 2: Distribution of level of poverty among households by district

No.	District	Level of Poverty (scale) as at December 2004*	Percent (%) Total Poor Before December 2004 (source: PRSP, 2005:25)	Comments on Changes in Poverty
1.	Kailahun	Very Poor (1)	92	No Change (E)
2.	Koinadugu	Very Poor (1)	77	Increase (N)
3.	Bonthe	Very Poor (1)	85	No Change (S)
4.	Moyamba	Very Poor (1)	68	Increase (S)***
5.	Pujehun	Poor (2)	59	Increase (S)***
6.	Western Urban	Very Rich (5)	15	No Change (W)
7.	Kenema	Poor (2)	88	Decrease (E)
8.	Kambia	Poor (3)	69	Decrease (N)
9.	Western Rural	Very Rich (5)	45	Decrease (W)
10.	Kono	Moderately Poor (3)	66	Decrease (E)
11.	Bombali	Poor (2)	89	Decrease (N)**
12.	Bo	Rich (4)	64	Decrease (S)
13.	Port Loko	Rich (4)	82	Decrease (N)**
14.	Tonkolili	Very Poor (1)	84	Same (N)

*N = out of 818,849 Households   ** Reduction of poverty more in the North
*** Increased poverty in the South

Source: Authors' Census Poverty Analysis, 2004; and PRSP 2005 Authors

14

From the table, it is clear that overall poverty has slightly increased in the southern regional districts of Moyamba and Pujehun; and Koinadugu in the North. It has largely remained the same in the very poor districts of Kailahun, Tonkolili and Bonthe; and the relatively very rich Western urban area. Apparently there has been a slight of marked reduction in poverty in the Northern districts of Kambia, Port Loko and Bombali; Eastern districts of Kenema and Kono; and Southern district of Bo.

From the above, it is clear that poverty has been reduced in about half of the district, most of which are in the Eastern and Northern regions over the last two years. This clearly shows that the poverty reduction programmes in the country have a good geographical targeting. However, more need to be done in the other districts in the Northern (namely, Koinadugu and Tonkolili) and Southern (namely, Bonthe, Moyamba and Pujehun) regions.

4.1.3   Chiefdoms

Levels of poverty among households were differentiated by Chiefdoms in the country as shown in figure 5 and table 16 in annex 2. The figure shows patterns similar to that observed at the district level, which is the better off chiefdom are in the better off districts and vice-versa. The plausible explanations are apparently similar.

Figure 5: Distribution of level of poverty in Sierra Leone by Chiefdom as at December 2004
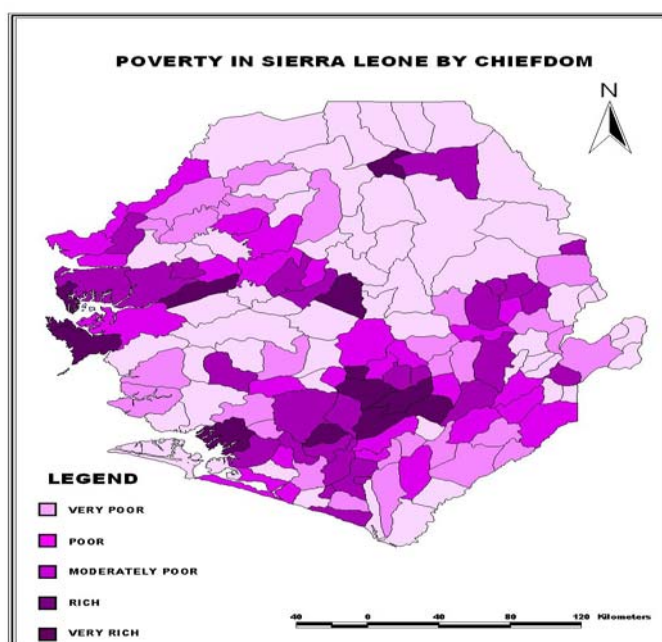
4.2   Location of Poor and Non Poor by Sectoral Portfolio

The components that made up the multidimensional scale of poverty were decomposed to: validate the aggregated result at the administrative units and to improve on programme targeting at the sectoral portfolio levels relative to

the implementation of the concluded national PRSP. The results are described next by sector (i.e. relative to the identified related pillars of the country's PRSP) in the sub-sections below and annex 2.

4.2.1 Agricultural Poverty

Levels of poverty among households, using the agricultural indicators, were differentiated by the basic administrative units in the country. The results are presented in figures 6 to 8 below and in tables 17 and 18 in annex 2. Figure 6 shows the distribution of agricultural poverty by province/region. From the figure, it is clear that the southern region is moderately poor (with a mean score of 18.13) compared to the Western Area/Province/Region, which is very poor (with a mean score of 1.96 as shown in table 17 in annex 2). Much of the Western Region consists of built up areas with little space for extensive farming. In addition, land degradation is more pronounced in this region.

The increase in the area under derived and wood land savannah in the north seems to account for its poor state of agriculture, particularly in the Koinadugu, Tonkolili and the interior chiefdoms (e.g. Tonko Limba) in the Kambia districts[1] and some specific chiefdoms within them as shown in figures 7 and 8 respectively. This seems to have been accentuated with the loss of agricultural assets and resources by most of the populations, whose main livelihood has been farming. The latter explanation accounts for the increase in the agricultural poverty status of the Eastern region, particularly in the Kissi Kama and Kissi Teng Chiefdoms in the Kailahun district, where plantation cash cropping has suffered years of neglect in association with the effects of the war and recent low world market prices for it (Winnebah, 2003a).

Figure 6: Distribution of level of agricultural poverty in Sierra Leone by Province/Region as at December 2004

---
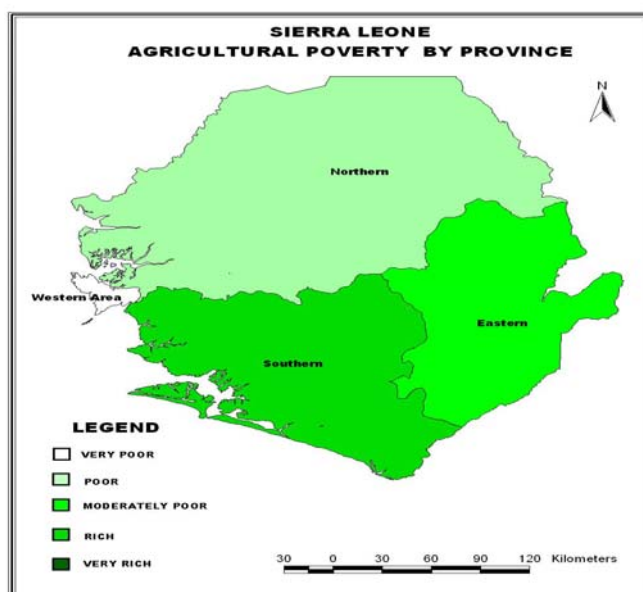
[1] *Historically, Kambia, particularly its mangrove and riverain chiefdoms, has been one of the major rice producing and exporting district in Sierra Leone. Present scale of its cultivation has dropped with less support from government. However, the hinterland Chiefdom seems to have persistent poor agricultural potentials with accompanied land degradation.*

Figure 7: Distribution of level of agricultural poverty in Sierra Leone by District as at December 2004
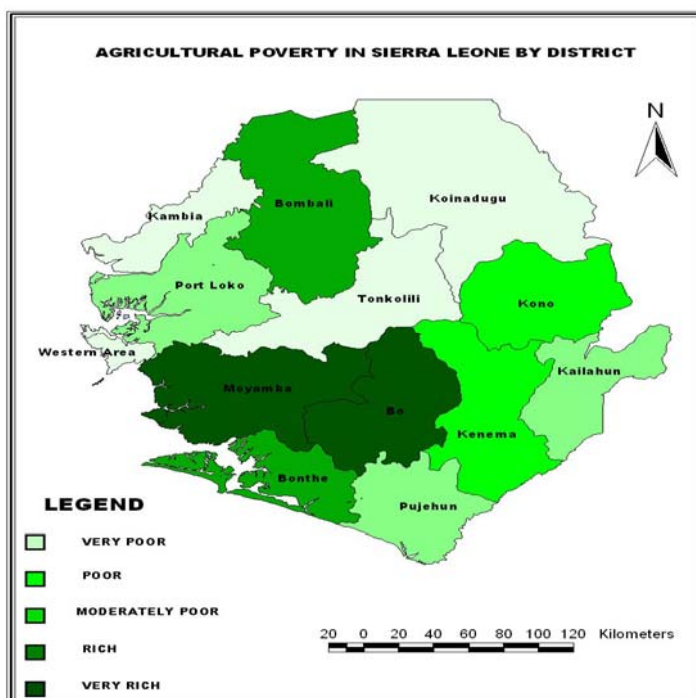
Figure 8: Distribution of level of agricultural poverty in Sierra Leone by chiefdom as at December 2004
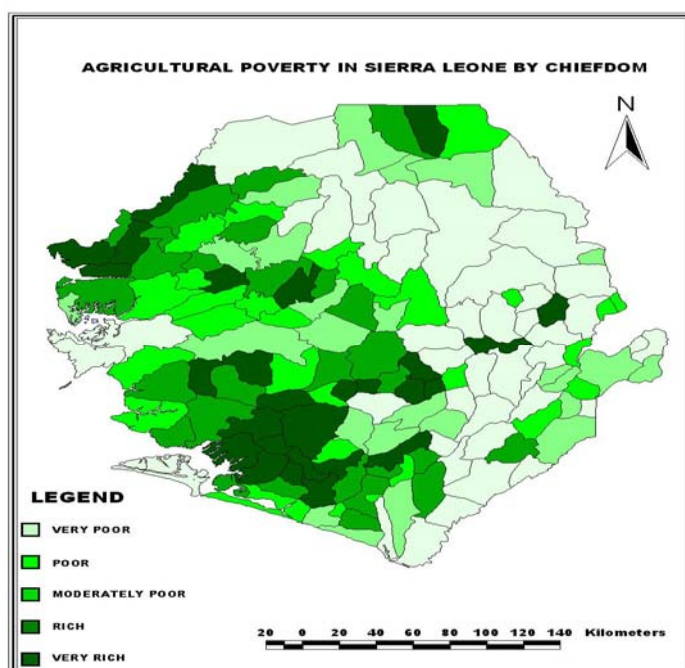
4.2.2 Housing Poverty

Levels of poverty among households, using the housing indicators, were differentiated by the basic administrative units in the country. The results are presented in figures 9 to 11 below and table 19 in annex 2. Figure 9 clearly shows that the Western Province/Region was classed rich (with a mean score of 52.84 as shown in table 19 in annex 2) in terms of housing compared to the very poor Northern Province/Region. As in the case of overall poverty, the Northern region has the worst housing poverty status. A similar pattern is observed for the districts and their associated Chiefdoms by regions, particularly those that show the marked poor housing status following a northeast to south west trend, as evident from figures 10 and 11 and table 20 in annex 2.

Figure 9: Distribution of level of housing poverty in Sierra Leone by Province/Region as at December 2004

Figure 10: Distribution of level of housing poverty in Sierra Leone by District as at December 2004
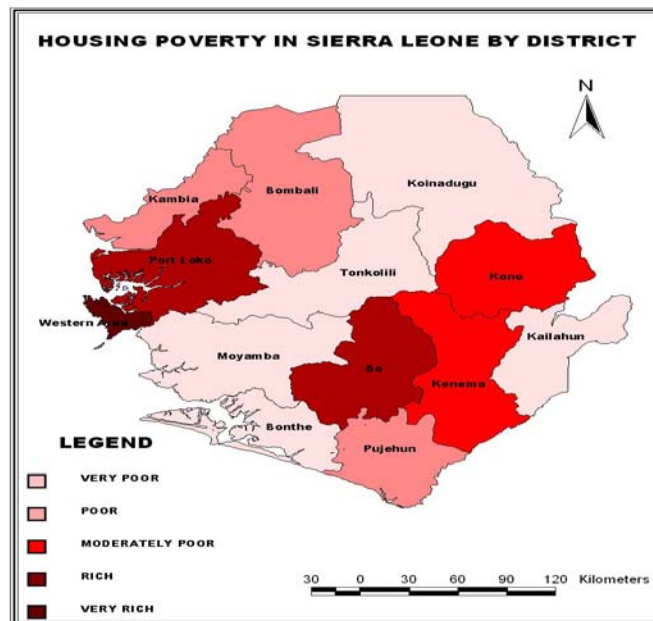
Figure 11: Distribution of level of housing poverty in Sierra Leone by Chiefdom as at December 2004
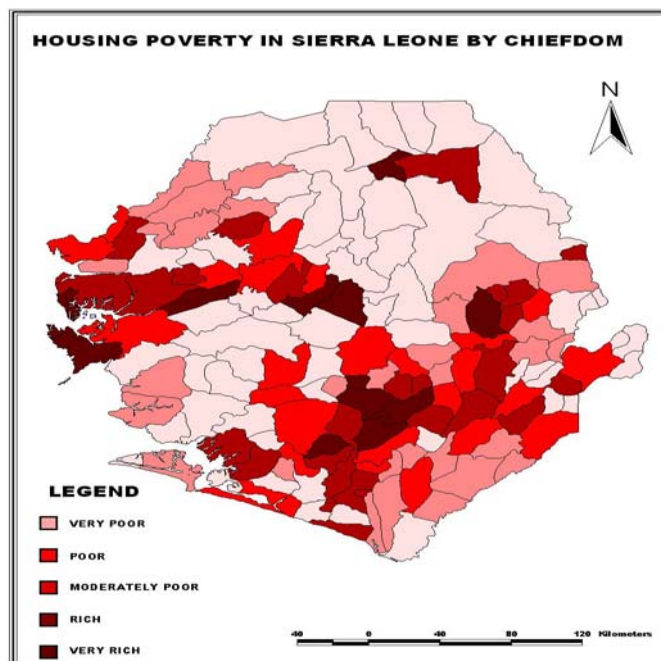
As in the case of agricultural poverty, the decade long civil war seems to have negatively impacted housing poverty status in the Northern province/region (particularly most chiefdoms in Tonkolili and Koinadugu districts) and Eastern region (particularly the three Kissi and some south western Chiefdoms in the Kailahun districts), where it started and lasted for a relative long time and had relatively high levels of infrastructure, housing inclusive, damages. Coupled with that, the declaration of these areas as safe for resettlement was done late compared to that of other locations (Winnebah, 2003a).

4.2.3 Asset Poverty

Levels of poverty among households, using the asset indicators, were differentiated by the basic administrative units in the country. The results are presented in figures 12 to 14 below and table 21 in annex 2. Figure 12 clearly shows that the Western Area/Province/Region has the rich assets poverty status (with a mean score of 12.23 as shown in table 21 annex 2) compared to the Northern Province/Region with a means score value of 4.83 as shown in table 21 annex 2. A similar pattern is observed for the districts and their associated Chiefdoms by regions, particularly those that show the marked poor asset status following a northeast to south west trend, as evident from figures 13 and 14 and table 22 in annex 2.

Figure 12: Distribution of level of asset poverty in Sierra Leone by Province/Region as at December 2004
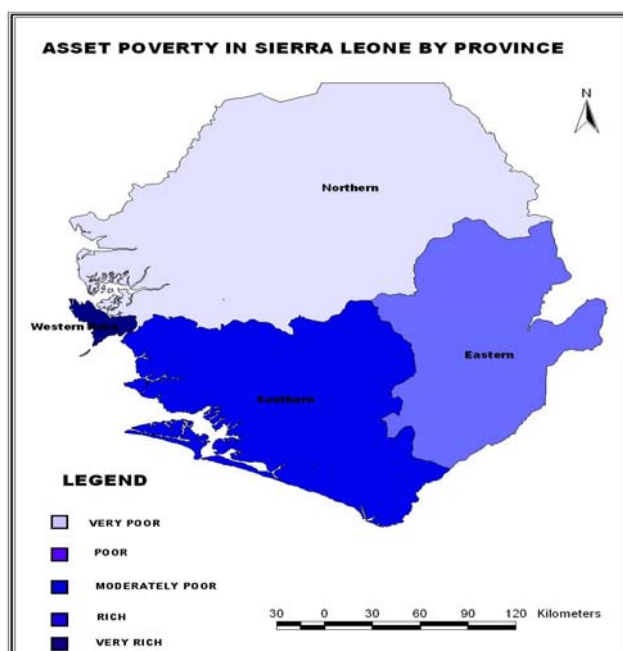
Figure 13: Distribution of level of asset poverty in Sierra Leone by District as at December 2004
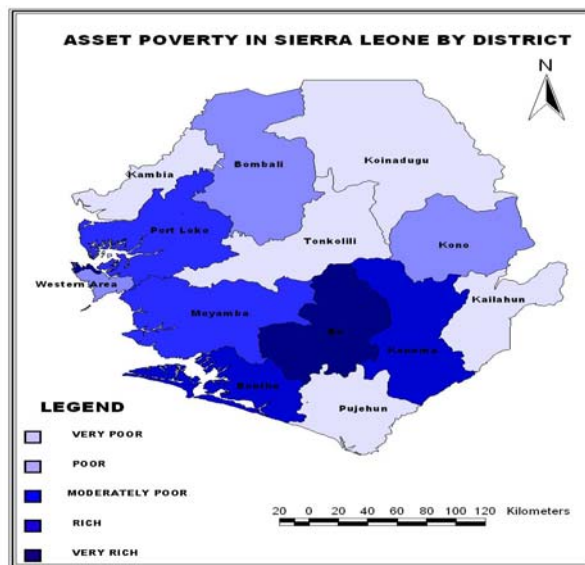
Figure 14: Distribution of level of asset poverty in Sierra Leone by Chiefdom as at December 2004
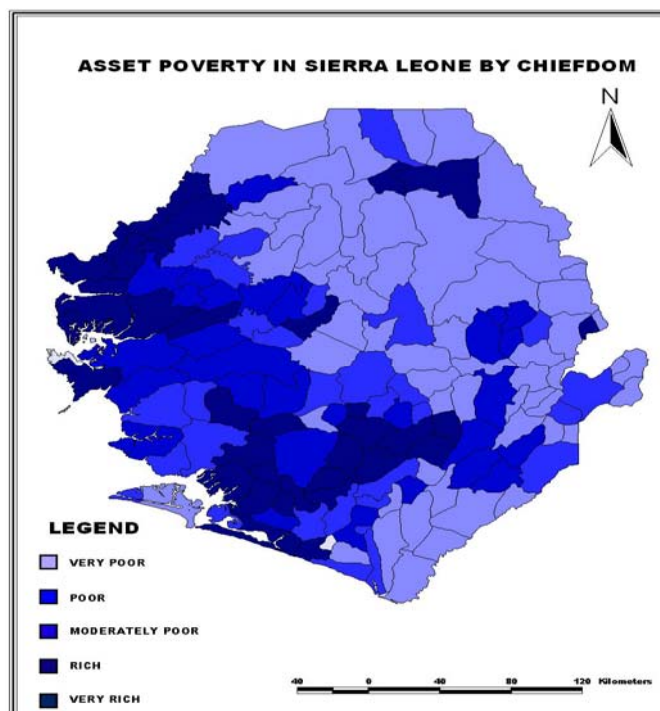
As in the case of agriculture and housing poverty, the decade long civil war seems to have negatively impacted asset poverty status in the northern (particularly most chiefdoms in Tonkolili and Koinadugu districts) and eastern provinces/regions (particularly the three Kissi and some south western Chiefdoms in the Kailahun districts). The war started and lasted for a relative long time in those provinces/regions. The level of damages caused in association with the war in those provinces/regions was relatively high, particularly in the case of housing infrastructure. In addition, those provinces/regions were declared safe for resettlement at a later rather than an earlier time period (Winnebah, 2003a).

5.0   DIFFERENCES IN THE LEVEL OF POVERTY IN SIERRA LEONE

The observed distribution patterns of poverty at geographic and sectoral portfolio levels were subjected to statistical tests of significance of difference to evaluate the study's fourth objective. The Pearson Chi Square test and ANOVA tests were performed on the distributions at all units and levels. In all cases, although there were means, percentage and ranked differences observed, they were of no statistical significance to warrant clear cut distinction between geographic units and across sectors. One concludes that poverty levels are undifferentiated statistically in the country. Differences are relative rather than absolute.

6.0   CONCLUSIONS AND RECOMMENDATIONS

6.1   Conclusions

Based on the summary of findings presented in the previous section, the following conclusions are drawn.

- There are variations in the level of poverty among Sierra Leonean households.

- There are poorer household and populations than non poor ones in the country.

- Although there are differences in poverty among households by geographical and sectoral levels, the differences are not distinct across the various units of analysis.

- Poverty seems to be a widespread phenomenon in the country. It is manifested in terms of agriculture, housing and asset portfolio – all of which are livelihood related.

- The war has been an important livelihood shock to increase the populations' vulnerability to poverty.

6.2   Recommendations

On the basis of the conclusions reached in the previous section, the following constitute recommendations for the following.

6.2.1. Action

The following recommendations are made for:

1. Nationally, in the course of implementing the PRSP and other related poverty reduction programmes and projects in the coming decade, the Northern and Eastern provinces/regions should be targeted geographically.

2. At the district level, priority should be given to the poorer chiefdoms in: Koinadugu in the Northern province/region; Moyamba in the Southern province/region; and Kailahun in the Eastern province/region.

3. In response to targeting programmes under the PRSP's pillar two, agriculture and food security programmes and projects should primarily target the Western and Northern province/region. At the District and Chiefdom levels, those in the: Western Urban District in the Western area; Port Loko in the North; Kailahun in the East and Pujehun in the South should be primarily targeted. It should be noted that during the war embargoes, it was the farms in peri-urban areas, particularly those

in the Western Area/province/region, which supported the country's capital with food. Policies, programmes and projects associated with urban and per-urban agriculture should be strongly considered as part of the strategy to address pillar two, particularly as an ex-ante mitigating force for potential shocks/hazards.

4. In the case of pillar three of the PRSP, housing programmes and projects should primarily target the Northern Province/Region (particularly Chiefdoms in the Port Loko and Bombali Districts).

5. Asset poverty is cross cutting all the pillars. However, priority should be given to targeting Northern (particularly most Chiefdoms in the Tonkolili, Koinadugu and Kambia Districts) for PRSP and related activities in the coming decade.

6.2.2 Further Research:

There is strong need to further clean up the entries of the census data at the household level so as to enhance relational analysis that will contribute to a theoretical explanation and better understanding of the poverty phenomenon. This will improve contributions to policy, programming and project cycle work in the country in the next decade.

BIBLIOGRAPHY

1. Ahlburg, Dennis. A., (1994): Population and Development: Old debates, new conclusions. **United States Third World Policy Perspective N0 19**.

2. Alwang, Jeffrey, Siegel, Paul, B. and Jorgensen, Steen, L., (2001): Vulnerability: A view from different disciplines, **SP Discussion paper No. 0115 23304, ionia, ABOR MARKETS, PENSIONS, SOCIAL ASSISTANC, THE WORLD BANK**, June.

3. Coudouel, A, Hentschel and J, Wodon, Q, (2001): Well-being measurement and analysis, **Draft for comments**, April.

4. Dercon, Stefan, (2001): Vulnerability to Poverty: Is quantitative measurement for Policy analysis possible? Summary of arguments developed in paper for DFID, August 2001, October. http://www.economics.ox.ac.uk/members/stefan.dercon/

5. Ellis, Frank. (2000): **Rural Livelihoods and Diversity in Developing Countries**, Oxford University Press Inc, New York, U.S.A.

6. Frankenberger, Timothy, R. and McCaston, M. Katherine., (1998): **From Food Security to Livelihood Security: The Evolution of Concepts**, CARE, USA, September.

7. Galbraith, John. Kenneth, (1958): The Affluent Society, Mentor Book, The American Library Inc, New York and Toronto

8. Government of Sierra Leone, (2005): **Poverty Reduction Strategy Paper: A National Programme for Food Security, Job Creation and Good Governance (2005-2007)**, March.

9. Hamdok, Abdalla, A., (1999): **A Poverty Assessment Exercise in Zimbabwe**, African Development Bank, Blackwell Publishers, Oxford, UK and Massachusetts, USA.

10. Kamanda, Francis, H., (1998): Differences in Poverty in the Mountain Rural District, Western Area, Sierra Leone, **a dissertation submitted to the Department of Geography and Rural Development in partial fulfilment of the requirement for the degree of Bachelor of Science in Education, Njala University College, University of Sierra Leone**, June.

11. Ministry of Agriculture, Forestry and Food Security, (2003): **Sierra Leone Agricultural Sector Review, Volume 1: Main Report**, Abridged, December.

12. Murray, Collin (2001): Livelihood research: some conceptual and methodological issues, **Background paper 5, Chronic Poverty Research Centre, Department of Sociology, University of Manchester**.

13. Republic of Sierra Leone, (2001): **Interim Poverty Reduction Strategy Paper**, Freetown, June.

14. Shimeles, Abebe and Thoenen, Reto, (2005): Poverty profiles: A methodological note on measuring poverty, **Working Paper, Poverty and Social Policy Team, Economic and Social Policy Division, United Nations Economic Commission for Africa.**

15. Thomas, Alan., (n.d. but cir 1998): Poverty and The "End of Development", **In Anon (n.d): Poverty and Development into the 21st Century**. Chapter 1…

16. Ward Michael, (1999): Perceptions of Poverty *The Historical Legacy,* **Institute of Development Studies Bulletin Volume 30 No 2**, April.

17. Winnebah, Thomas, Raymond.Alfredson., (2003b): Initial Community Development Plan, **In Aqua terra Consulting (2003): Environmental and Social Action Plan, Sierra Minerals Holdings 1**, October.

18. Winnebah, Thomas. Raymond. Alfredson, (2003a): Food Security Situation in Sierra Leone Since 1961, **Food Security Monograph No 2, The United Nations World Food Programme Sierra Leone, Technical Support Unit**, Revised in March.

ANNEXES

Annex 1: Poverty Visual Bands/Cut 0ff Points At Geographic And Sectoral Portfolio Levels.

Table 3: Poverty Scale at Provincial/Regional Level

Range of Scores	Scale Value	Meaning
0 to 44.21	1	Very Poor
44.22 to 44.27	2	Poor
44.28 to 44.78	3	Moderately Poor
44.79 to 54.72	4	Rich
54.73 +	5	Very Rich

Source: *Calculated using the Sierra Leone Population and Housing 2004 Census data*

Table 4: Poverty Scale at District Level

Range of Scores	Scale Value	Meaning
0 to 44.36	1	Very Poor
44.37 to 44.78	2	Poor
44.79 to 44.93	3	Moderately Poor
44.94 to 47.30	4	Rich
47.31 +	5	Very Rich

Source: *Calculated using the Sierra Leone Population and Housing 2004 Census data*

Table 5: Poverty Scale at Chiefdom Level

Range of Scores	Scale Value	Meaning
0 to 43.54	1	Very Poor
43.55 to 43.75	2	Poor
43.76 to 43.89	3	Moderately Poor
43.90 to 52.84	4	Rich
52.85 +	5	Very Rich

Source: *Calculated using the Sierra Leone Population and Housing 2004 Census data*

Table 6: Housing Poverty Scale at the Provincial/Regional Level

Range of Scores	Scale Value	Meaning
0 to 43.54	1	Very Poor
43.55 to 43.75	2	Poor
43.76 to 43.89	3	Moderately Poor
43.90 to 52.84	4	Rich
52.85 +	5	Very Rich

Source: *Calculated using the Sierra Leone Population and Housing 2004 Census data*

Table 7: Housing Poverty Scale at the District Level

Range of Scores	Scale Value	Meaning
0 to 43.44	1	Very Poor
43.45 to 44.03	2	Poor
44.04 to 44.37	3	Moderately Poor
44.38 to 46.15	4	Rich
46.16 +	5	Very Rich

Source: Calculated using the Sierra Leone Population and Housing
2004 Census data

Table 8: Housing Poverty Scale at Chiefdom Level

Range of Scores	Scale Value	Meaning
0 to 42.59	1	Very Poor
42.60 to 43.47	2	Poor
43.48 to 44.93	3	Moderately Poor
44.94 to 46.53	4	Rich
46.54 +	5	Very Rich

Source: Calculated using the Sierra Leone Population and Housing
2004 Census data

Table 9: Asset Poverty Scale at Provincial/Regional Level

Range of Scores	Scale Value	Meaning
0 to 4.83	1	Very Poor
4.84 to 5.76	2	Poor
5.77 to 6.98	3	Moderately Poor
6.99 to 12.23	4	Rich
12.24 +	5	Very Rich

Source: Calculated using the Sierra Leone Population and Housing
2004 Census data

Table 10: Asset Poverty Scale at District Level

Range of Scores	Scale Value	Meaning
0 to 4.70	1	Very Poor
4.71 to 5.92	2	Poor
5.93 to 6.95	3	Moderately Poor
6.96 to 7.60	4	Rich
7.61 +	5	Very Rich

Source: Calculated using the Sierra Leone Population and Housing
2004 Census data

Table 11: Asset Poverty Scale at Chiefdom Level

Range of Scores	Scale Value	Meaning
0 to 0.36	1	Very Poor
0.37 to 0.46	2	Poor
0.47 to 0.53	3	Moderately Poor
0.54 to 0.68	4	Rich
0.69 +	5	Very Rich

Source: Calculated using the Sierra Leone Population and Housing 2004 Census data

Table 12: Agriculture Poverty Scale at Provincial/Regional Level

Range of Scores	Scale Value	Meaning
0 to 1.95	1	Very Poor
1.96 to 11.62	2	Poor
11.63 to 12.81	3	Moderately Poor
12.82 to 18.13	4	Rich
18.14 +	5	Very Rich

Source: Calculated using the Sierra Leone Population and Housing 2004 Census data

Table 13: Agriculture Poverty Scale at the District Level

Range of Scores	Scale Value	Meaning
0 to 11.72	1	Very Poor
11.73 to 12.79	2	Poor
12.80 to 13.35	3	Moderately Poor
13.36 to 14.49	4	Rich
14.50 +	5	Very Rich

Source: Calculated using the Sierra Leone Population and Housing 2004 Census data

Table 14: Agriculture Poverty scale at Chiefdom Level

Range of Scores	Scale Value	Meaning
0 to 0.82	1	Very Poor
0.83 to 0.94	2	Poor
0.95 to 1.17	3	Moderately Poor
1.18 to 1.48	4	Rich
1.49 +	5	Very Rich

Source: Calculated using the Sierra Leone Population and Housing 2004 Census data

Annex 2: Scales Used to Generate GIS Poverty Maps at Geographic and Sectoral Portfolio Levels

Table 15: Aggregate poverty score and scale distribution by province/region and district

Province and District	Mean Score	Poverty Scale	Meaning of Poverty Scale
EAST	**44.27**	**2**	**POOR**
KALIAHUN	43.10	1	Very Poor
KENEMA	44.78	2	Poor
KONO	44.93	3	Moderately Poor
NORTH	**44.21**	**1**	**VERY POOR**
KAMBIA	44.84	3	Moderately Poor
KOINADUGU	42.80	1	Very Poor
PORT LOKO	45.47	4	Rich
TONKOLILI	43.36	1	Very Poor
BOMBALI	47.30	4	Rich
SOUTH	**44.78**	**3**	**MODERATELY POOR**
BO	47.30	4	Rich
BONTHE	44.36	1	Very Poor
MOYAMBA	42.80	1	Very Poor
PUJEHUN	44.64	2	Poor
WEST	**54.72**	**4**	**RICH**
WESTERN RURAL	51.80	5	Very Rich
WESTERN URBAN	57.65	5	Very Rich

Source: Authors' Census Poverty Analysis, 2004

Table 16: Aggregate poverty score and scale distribution by Chiefdom

Province/Region *District* Chiefdom	Mean Score	Poverty Scale	Meaning of Poverty Scale
EAST			
KAILAHUN			
Dea	42.50	1	Very Poor
Jawei	45.67	3	Moderately Poor
Kissi Kama	39.32	1	Very Poor
Kissi Teng	40.69	1	Very Poor
Kissi Tongi	41.53	1	Very Poor
Kpeje Bongre	40.80	1	Very Poor
Kpeje West	42.69	1	Very Poor
Luawa	44.20	2	Poor
Malema	44.76	3	Moderately Poor
Mandu	42.63	1	Very Poor
Njaluahun	44.78	3	Moderately Poor
Pehguia	43.95	2	Poor
Upper Bambara	46.99	4	Rich
Yawei	42.95	1	Very Poor

Table 16 Continues

Province/Region _District_ Chiefdom	Mean Score	Poverty Scale	Meaning of Poverty Scale
EAST cont'…			
KENEMA			
Dama	45.59	3	Moderately Poor
Dodo	44.34	2	Poor
Gaura	44.28	2	Poor
Gorama Mande	42.97	1	Very Poor
Kandu Lekpema	44.73	3	Moderately Poor
Koya	43.27	2	Poor
Langrama	44.10	2	Poor
Lower Bambara	46.40	4	Rich
Malegohun	41.43	1	Very Poor
Niawa	41.19	1	Very Poor
Nomo	43.34	2	Poor
Nongowa	46.56	4	Rich
Simbaru	43.72	2	Poor
Small Bo	47.41	5	Very Rich
Tunkia	43.67	2	Poor
Wandor	43.06	2	Poor
Kenema Town	55.23	5	Very Rich
KONO			
Fiama	46.28	4	Rich
Gbane	43.68	2	Poor
Gbane Kandor	41.22	1	Very Poor
Gbense	46.34	4	Rich
Gorama Kono	44.96	3	Moderately Poor
Kamaa	46.78	4	Rich
Lei	43.61	2	Poor
Mafindor	41.93	1	Very Poor
Nimikoro	47.11	4	Rich
Nimiyama	43.42	2	Poor
Sandor	42.94	1	Very Poor
Soa	41.47	1	Very Poor
Tankoro	45.62	3	Moderately Poor
Toli	46.61	4	Rich
Koidu Town	52.00	5	Very Rich
NORTH			
BOMBALI			
Biriwa	43.14	2	Poor
Bombali Shebora	47.13	4	Rich
Gbanti Kamaranka	43.15	2	Poor
Gbendebu Ngoeahun	44.53	3	Moderately Poor
Libeisaygahun	42.60	1	Very Poor
Magbaima Ndorhahun	42.70	1	Very Poor
Makari Gbanti	45.79	3	Moderately Poor
Paki Masabong	44.62	3	Moderately Poor
Safroko Limba	42.36	1	Very Poor
Sabda Loko	42.60	1	Very Poor
Sanda Tebdareh	45.76	3	Moderately Poor
Sella Limba	44.30	2	Poor
Tambakka	42.94	1	Very Poor
Makeni Town	52.20	5	Very Rich

Table 16 Continues

Province/Region *District* Chiefdom	Mean Score	Poverty Scale	Meaning of Poverty Scale
NORTH cont'…			
KAMBIA			
Bramaia	44.77	3	Moderately Poor
Gbinle - Dixing	45.80	3	Moderately Poor
Magbeme	46.32	4	Rich
Mambolo	44.35	3	Moderately Poor
Masungbala	44.18	2	Poor
Samu	44.77	3	Moderately Poor
Tonko Limba	43.65	2	Poor
KOINADUGU			
Dembelia Sinkunia	42.32	1	Very Poor
Diang	42.69	1	Very Poor
Follodoba Dembelia	42.30	1	Very Poor
Kasunko	42.58	1	Very Poor
Mongo	40.84	1	Very Poor
Beya	40.37	1	Very Poor
Nieni	42.77	1	Very Poor
Sengbe	46.00	4	Rich
Sulima	42.57	1	Very Poor
Wara Wara Bafodia	40.67	1	Very Poor
Wara Wara Yagala	47.71	5	Very Rich
PORT LOKO			
BKM	42.91	1	Very Poor
Buya Romende	44.62	3	Moderately Poor
Dibia	42.76	1	Very Poor
Kaffu Bullom	52.50	5	Very Rich
Koya	45.39	3	Moderately Poor
Lokomasama	46.50	4	Rich
Maforki	46.13	4	Rich
Marampa	47.60	5	Very Rich
Masimera	42.54	1	Very Poor
Sanda Magbolontor	43.39	2	Poor
TMS	45.85	4	Rich
TONKOLILI			
Gbonkolenken	41.62	1	Very Poor
Kafe Simira	42.73	1	Very Poor
Kalansogoia	42.20	1	Very Poor
Kholifa Mabang	41.91	1	Very Poor
Kholifa Rowalla	47.32	4	Rich
Kunike Barina	41.56	1	Very Poor
Kunike Sanda	42.00	1	Very Poor
Malal Mara	42.02	1	Very Poor
Sambaya	40.72	1	Very Poor
Tane	52.24	5	Very Rich
Yoni	42.63	1	Very Poor
SOUTH			
BO			
Badjia	46.43	4	Rich
Bagbo	47.14	4	Rich
Bagbwe	46.94	4	Rich
Baoma	49.41	5	Very Rich
Bumpe Ngawo	45.98	4	Rich
Gbo	44.64	3	Moderately Poor

Table 16 Continues

Province/Region *District* Chiefdom	Mean Score	Poverty Scale	Meaning of Poverty Scale
SOUTH			
BO cont'…			
Jaiama Bongor	48.01	5	Very Rich
Kakua	48.38	5	Very Rich
Komboya	45.48	3	Moderately Poor
Lugbu	49.26	5	Very Rich
Niawa Lenga	44.57	3	Moderately Poor
Selega	49.65	5	Very Rich
Tikonko	47.22	4	Rich
Valunia	44.44	3	Moderately Poor
Wunde	45.37	3	Moderately Poor
Bo Town	53.88	5	Very Rich
BONTHE			
Bendu Cha	42.64	1	Very Poor
Bum	43.22	2	Poor
Dema	42.62	1	Very Poor
Imperi	47.76	5	Very Rich
Jong	47.16	4	Rich
Kpanga Kemo	46.16	4	Rich
Kwamebai Krim	40.67	1	Very Poor
Nongoba Bullom	45.45	3	Moderately Poor
Sittia	42.90	1	Very Poor
Sogbini	44.39	3	Moderately Poor
Yawbeko	42.55	1	Very Poor
Bonthe Town	46.82	4	Rich
MOYAMBA			
Bagruwa	41.66	1	Very Poor
Bumpeh	43.51	2	Poor
Dasse	45.13	3	Moderately Poor
Fakunya	42.00	1	Very Poor
Kagbora	43.31	2	Poor
Kaiyamba	46.42	4	Rich
Kamajei	41.13	1	Very Poor
Kongbora	41.10	1	Very Poor
Kori	44.09	2	Poor
Kowa	42.28	1	Very Poor
Lower Banta	43.45	2	Poor
Ribbi	42.45	1	Very Poor
Timdale	42.93	1	Very Poor
Upper Banta	43.76	2	Poor
PUJEHUN			
Barri	45.47	3	Moderately Poor
Gallinas Peri	43.32	2	Poor
Kpaka	43.05	1	Very Poor
Kpanga Kabonde	46.49	4	Rich
Makpele	42.94	1	Very Poor
Malen	46.73	4	Rich
Mano Sakrim	45.83	4	Rich
Panga Krim	46.75	4	Rich
Pejeh	43.96	2	Poor
Sor Gbema	42.44	1	Very Poor
Sowa	45.68	3	Moderately Poor
YKK	43.06	2	Poor

Table 16 Continues

Province/Region *District* **Chiefdom**	Mean Score	Poverty Scale	Meaning of Poverty Scale
WEST			
RURAL			
Koya	47.96	5	Very Rich
Mountain	55.30	5	Very Rich
Waterloo	50.70	5	Very Rich
York Rural	53.28	5	Very Rich
URBAN			
Central I	57.62	5	Very Rich
Central II	59.18	5	Very Rich
East I	57.39	5	Very Rich
East II	57.18	5	Very Rich
East III	55.76	5	Very Rich
West I	57.55	5	Very Rich
West II	56.37	5	Very Rich
West III	60.02	5	Very Rich

Source: Authors' Census Poverty Analysis, 2004

Table 17: Distribution of agricultural poverty score and scale by Province/Region and District

Province And District	Mean Score	Poverty Scale	Meaning Of Poverty Scale
EAST	**12.81**	**2**	**POOR**
KALIAHUN	11.84	2	Poor
KENEMA	13.23	3	Moderately Poor
KONO	13.35	3	Moderately Poor
NORTH	**11.62**	**1**	**VERY POOR**
KAMBIA	14.03	4	Rich
KOINADUGU	11.72	1	Very Poor
PORT LOKO	9.53	1	Very Poor
TONKOLILI	12.45	2	Poor
BOMBALI	10.37	1	Very Poor
SOUTH	**18.13**	**3**	**MODERATER POOR**
BO	24.83	5	Very Rich
BONTHE	14.49	4	Rich
MOYAMBA	20.39	5	Very Rich
PUJEHUN	12.79	2	Poor
WEST	**1.96**	**1**	**VERY POOR**
WESTERN RURAL	2.42	1	Very Poor
WESTERN URBAN	1.5	1	Very Poor

Source: Authors' Census Poverty Analysis, 2004

Table 18: Distribution of agricultural poverty score and scale by Chiefdom

Province/Region *District* Chiefdom	Mean Score	Poverty Scale	Meaning Of Poverty Scale
EAST			
KAILAHUN			
Dea	0.69	1	Very Poor
Jawei	1.02	3	Moderately Poor
Kissi Kama	0.78	1	Very Poor
Kissi Teng	0.78	1	Very Poor
Kissi Tongi	0.89	2	Poor
Kpeje Bongre	0.87	2	Poor
Kpeje West	0.92	2	Poor
Luawa	0.84	2	Poor
Malema	0.90	2	Poor
Mandu	0.92	2	Poor
Njaluahun	0.78	1	Very Poor
Pehguia	0.97	3	Moderately Poor
Upperbamba.	0.95	3	Moderately Poor
Yawei	0.52	1	Very Poor
KENEMA			
Dama	0.80	1	Very Poor
Dodo	0.57	1	Very Poor
Gaura	1.39	4	Rich
Gorama Men.	0.72	1	Very Poor
Kandu Lekp.	0.71	1	Very Poor
Koya	0.77	1	Very Poor
Langrama	1.28	4	Rich
Lower Bamb.	0.53	1	Very Poor
Malegohun	0.62	1	Very Poor
Niawa	0.74	1	Very Poor
Nomo	0.59	1	Very Poor
Nongowa	0.72	1	Very Poor
Simbaru	1.00	3	Moderately Poor
Small Bo	0.90	2	Poor
Tunkia	0.73	1	Very Poor
Wandor	0.79	1	Very Poor
Kenema Town	0.38	1	Very Poor
KONO			
Fiama	1.83	5	Very Rich
Gbane	0.39	1	Very Poor
Gbane Kandor	1.06	3	Moderately Poor
Gbense	0.67	1	Very Poor
Gorama Kono	1.67	5	Very Rich
Kamaa	0.99	3	Moderately Poor
Lei	0.73	1	Very Poor
Mafindor	1.05	3	Moderately Poor
Nimikoro	0.62	1	Very Poor
Nimiyama	0.92	2	Poor
Sandor	0.78	1	Very Poor
Soa	0.65	1	Very Poor
Tankoro	0.73	1	Very Poor
Toli	0.87	2	Poor
Koidu Town	0.39	1	Very Poor

Table 18 Continues

Province/Region *District* Chiefdom	Mean Score	Poverty Scale	Meaning Of Poverty Scale
NORTH			
BOMBALI			
Biriwa	0.88	2	Poor
Bombali Sheb.	1.66	5	Very Rich
Gbanti –Kamar.	0.99	3	Moderately Poor
Gbendebu Ngoe.	0.87	2	Poor
Libeisaygahun	0.90	2	Poor
Magbaima Ndorha.	0.70	1	Very Poor
Makari Gbanti	1.21	4	Rich
Paki Masabong	1.31	4	Rich
Safroko Limba	1.02	3	Moderately Poor
Sabda Loko	0.91	2	Poor
Sanda Tendaren	1.18	4	Rich
Sella Limba	1.24	4	Rich
Tambakka	0.63	1	Very Poor
Makeni Town	0.53	1	Very Poor
KAMBIA			
Bramaia	1.80	5	Very Rich
Gbinle – Dixing	1.44	4	Rich
Magbeme	1.56	5	Very Rich
Mambolo	2.18	5	Very Rich
Masungbala	1.42	4	Rich
Samu	1.94	5	Very Rich
Tonko Limba	1.39	4	Rich
KOINADUGU			
Dembelia Sinkunia	1.19	5	Very Rich
Diang	0.76	1	Very Poor
Follosoba Demblia.	1.30	4	Rich
Kasunko	0.73	1	Very Poor
Mongo	0.62	1	Very Poor
Neya	0.49	1	Very Poor
Nieni	0.74	1	Very Poor
Sengbe	0.83	2	Poor
Sulima	1.07	3	Moderately Poor
Wara Wara Bafodia	0.88	2	Poor
Wara Wara Yagala	0.92	2	Poor
PORT LOKO			
Bkm	1.28	4	Rich
Buya Romende	1.53	5	Very Rich
Dibia	1.39	4	Rich
Kaffu Bullom	0.92	2	Poor
Koya	0.72	1	Very Poor
Lokomasama	1.44	4	Rich
Maforki	0.98	3	Moderately Poor
Marampa	1.07	3	Moderately Poor
Bkm	1.28	4	Rich
Buya Romende	1.53	5	Very Rich
Dibia	1.39	4	Rich
TONKOLILI			
Gbonkolenken	0.84	2	Poor
Kafe Simira	0.95	3	Moderately Poor
Kalansogoia	0.82	1	Very Poor

Table 18 Continues

Province/Region District Chiefdom	Mean Score	Poverty Scale	Meaning Of Poverty Scale
NORTH			
TONKOLILI cont'…			
Kholifa Mabang	1.11	3	Moderately Poor
Kholifa Rowalla	0.85	2	Poor
Kunike Barina	0.91	2	Poor
Kunike Sanda	1.11	3	Moderately Poor
Malal Mara	0.95	3	Moderately Poor
Sambaya	0.72	1	Very Poor
Tane	1.18	4	Rich
Yoni	0.91	2	Poor
SOUTH			
BO			
Badjia	2.00	5	Very Rich
Bagbo	1.52	5	Very Rich
Bagbwe	2.53	5	Very Rich
Baoma	0.94	2	Poor
Bumpe Ngawo	1.70	5	Very Rich
Gbo	1.75	5	Very Rich
Jaiama Bongor	0.92	2	Poor
Kakua	0.80	1	Very Poor
Komboya	1.92	5	Very Rich
Lugbu	0.99	3	Moderately Poor
Niawa Lenga	1.48	4	Rich
Selega	4.10	5	Very Rich
Tikonko	0.88	2	Poor
Valunia	1.31	4	Rich
Wunde	1.60	5	Very Rich
Bo Town	0.41	1	Very Poor
BONTHE			
Bendu Cha	1.30	4	Rich
Bum	1.53	5	Very Rich
Dema	0.51	1	Very Poor
Imperi	1.52	5	Very Rich
Jong	1.62	5	Very Rich
Kpanga Kemo	1.56	5	Very Rich
Kwamebai Krim	0.90	2	Poor
Nongoba Bullom	1.06	3	Moderately Poor
Sittia	0.62	1	Very Poor
Sogbini	1.66	5	Very Rich
Yawbeko	1.46	4	Rich
Bonthe Town	0.76	1	Very Poor
MOYAMBA			
Bagruwa	1.21	4	Rich
Bumpeh	1.26	4	Rich
Dasse	1.86	5	Very Rich
Fakunya	1.89	5	Very Rich
Kagbora	1.17	3	Moderately Poor
Kaiyamba	1.44	4	Rich
Kamajei	1.21	4	Rich
Kongbora	1.95	5	Very Rich
Kori	1.15	3	Moderately Poor
Kowa	1.06	3	Moderately Poor
Lower Banta	1.71	5	Very Rich
Ribbi	1.12	3	Moderately Poor

Table 18 Continues

Province/Region *District*/Chiefdom	Mean Score	Poverty Scale	Meaning Of Poverty Scale
MOYAMBA Cont'…			
Timdale	1.34	4	Rich
Upper Banta	2.03	5	Very Rich
PUJEHUN			
Barri	1.38	4	Rich
Gallinas Peri	0.93	2	Poor
Kpaka	0.79	1	Very Poor
Kpanga Kabonde	1.27	4	Rich
Makpele	0.55	1	Very Poor
Malen	1.37	4	Rich
Mano Sakrim	0.94	2	Poor
Panga Krim	1.14	3	Moderately Poor
Pejeh	0.99	3	Moderately Poor
Soro Gbema	0.67	1	Very Poor
Sowa	1.28	4	Rich
YKK	1.48	4	Rich
WEST			
RURAL			
Koya	0.83	2	Poor
Mountain	0.53	1	Very poor
Waterloo	0.57	1	Very poor
York rural	0.49	1	Very poor
URBAN			
Central I	0.10	1	Very Poor
Central II	0.17	1	Very Poor
East I	0.14	1	Very Poor
East II	0.23	1	Very Poor
East III	0.30	1	Very Poor
West I	0.16	1	Very Poor
West II	0.17	1	Very Poor
West III	0.23	1	Very Poor

Source: Authors' Census Poverty Analysis, 2004

Table 19: Distribution of housing poverty by Province/Region and District

Province and District	Mean Score	Poverty Scale	Meaning Of Poverty Scale
EAST	**43.75**	**2**	**POOR**
KALIAHUN	42.71	1	Very Poor
KENEMA	44.15	3	Moderately Poor
KONO	44.37	3	Moderately Poor
NORTH	**43.54**	**1**	**VERY POOR**
KAMBIA	43.86	2	Poor
KOINADUGU	43.75	2	Poor
PORT LOKO	42.48	1	Very Poor
TONKOLILI	44.66	4	Rich
BOMBALI	42.95	1	Very Poor
SOUTH	**43.89**	**3**	**MODERATELY POOR**
BO	46.15	4	Rich
BONTHE	43.44	1	Very Poor
MOYAMBA	41.95	1	Very Poor
PUJEHUN	44.03	2	Poor
WEST	**52.84**	**4**	**RICH**
WESTERN RURAL	50.44	5	Very Rich
WESTERN URBAN	55.24	5	Very Rich

Source: Authors' Census Poverty Analysis, 2004

Table 20: Distribution of housing poverty by Chiefdom

Province/Region *District* Chiefdom	Mean Score	Poverty Scale	Meaning Of Poverty Scale
EAST			
KAILAHUN			
Dea	42.12	1	Very Poor
Jawie	45.01	4	Rich
Kissi Kama	39.15	1	Very Poor
Kissi Teng	40.58	1	Very Poor
Kissi Tongi	41.31	1	Very Poor
Kpeje Bongre	40.41	1	Very Poor
Kpeje West	42.22	1	Very Poor
Luawa	43 .72	3	Moderately Poor
Malema	44.22	3	Moderately Poor
Mandu	42.19	1	Very Poor
Njaluahun	44.40	3	Moderately Poor
Penguia	43.47	2	Poor
Upper Bambara	46.44	4	Rich
Yawei	42.75	2	Poor
KENEMA			
Dama	44.93	3	Moderately Poor
Dodo	44.02	3	Moderately Poor
Gaura	43.31	2	Poor
Gorama Mende	42.59	1	Very Poor
Kandu Lekpema	43.93	3	Moderately Poor
Koya	42.85	2	Poor
Langrama	43.21	2	Poor
Lower Bambara	45.86	4	Rich
Malegohun	40.96	1	Very Poor
Niawa	40.64	1	Very Poor
Nomo	42.90	2	Poor
Nongowa	45.95	4	Rich
Simbaru	43.34	2	Poor
Small Bo	46.53	4	Rich
Tunkia	43.13	2	Poor
Wandor	42.64	2	Poor
Kenema Town	53.82	5	Very Rich
KONO			
Fiama	44.73	3	Moderately Poor
Gbane	43.41	2	Poor
Gbane Kandor	40.42	1	Very Poor
Gbense	45.86	4	Rich
Gorama Kono	43.86	3	Moderately Poor
Kamaa	46.29	4	Rich
Lei	43.47	2	Poor
Mafindor	41.78	1	Very Poor
Nimikoro	46.58	5	Very Rich
Nimiyama	43.11	2	Poor
Sandor	42.60	2	Poor
Soa	41.25	1	Very Poor
Tankoro	44.95	4	Rich
Toli	46.23	4	Rich
Koidu Town	51.04	5	Very Rich

Table 21: Continues

Province/Region *District* Chiefdom	Mean Score	Poverty Scale	Meaning Of Poverty Scale
NORTH			
BOMBALI			
Biriwa	42.59	1	Very Poor
Bombali Shebora	45.80	4	Rich
Gbanti-Kamaranka	42.71	2	Poor
Gbendebu Ngowahun	44.00	3	Moderately Poor
Libeisaygahun	42.12	1	Very Poor
Magbaimba Ndorhahun	42.55	1	Very Poor
Makari Gbanti	44.79	3	Moderately Poor
Paki Masabong	43.55	3	Moderately Poor
Safroko Limba	41.69	1	Very Poor
Sanda Loko	42.24	1	Very Poor
Sanda Tendareh	45.11	4	Rich
Sella Limba	43.30	2	Poor
Tambakka	42.54	1	Very Poor
Makeni Town	51.02	5	Very Rich
KAMBIA			
Bramaia	43.36	2	Poor
Gbinle-Dixing	44.84	3	Moderately Poor
Magbema	45.12	4	Rich
Mambolo	43.00	2	Poor
Masungbala	43.38	2	Poor
Samu	43.52	3	Moderately Poor
Tonko Limba	43.02	2	Poor
KOINADUGU			
Dembelia Sinkunia	42.07	1	Very Poor
Diang	42.51	1	Very Poor
Follosoba Dembelia	41.78	1	Very Poor
Kasunko	42.45	1	Very Poor
Mongo	40.68	1	Very Poor
Neya	40.29	1	Very Poor
Nieni	42.59	1	Very Poor
Sengbe	45.28	4	Rich
Sulima	42.26	1	Very Poor
Wara Wara Bafodia	40.56	1	Very Poor
Wara Wara Yagala	46.87	5	Very Rich
PORT LOKO			
BKM	42.15	1	Very Poor
Buya Romende	43.56	3	Moderately Poor
Dibia	42.08	1	Very Poor
Kaffu Bullom	51.15	5	Very Rich
Koya	44.89	3	Moderately Poor
Lokomasama	45.52	4	Rich
Maforki	45.38	4	Rich
Bkm	42.15	1	Very Poor
Buya Romende	43.56	3	Moderately Poor
Dibia	42.08	1	Very Poor
Kaffu Bullom	51.15	5	Very Rich
TONKOLILI			
Gbonkolenken	41.33	1	Very Poor
Kafe Simira	42.49	1	Very Poor
Kalansogoia	41.90	1	Very Poor
Kholifa Mabang	41.39	1	Very Poor

Table 22: Continues

Province/Region *District* **Chiefdom**	Mean Score	Poverty Scale	Meaning Of Poverty Scale
NORTH			
TONKOLILI			
Kholifa Rowalla	46.66	5	Very Rich
Kunike Barina	41.23	1	Very Poor
Kunike Sanda	41.48	1	Very Poor
Malal Mara	41.53	1	Very Poor
Sambaya	40.54	1	Very Poor
Tane	51.82	5	Very Rich
Yoni	42.09	1	Very Poor
SOUTH			
BO			
Badjia	45.09	4	Rich
Bagbo	45.94	4	Rich
Bagbwe	45.98	4	Rich
Baoma	48.54	5	Very Rich
Bumpe Ngawo	44.68	3	Moderately Poor
Gbo	43.47	2	Poor
Jaiama Bongor	47.24	5	Very Rich
Kakua	47.44	5	Very Rich
Komboya	44.32	3	Moderately Poor
Lugbu	48.33	5	Very Rich
Niawa Lenga	43.45	2	Poor
Selenga	47.31	5	Very Rich
Tikonko	46.45	4	Rich
Valunia	43.64	3	Moderately Poor
Wunde	44.38	3	Moderately Poor
Bo Town	52.21	5	Very Rich
BONTHE			
Bendu Cha	42.01	1	Very Poor
Bum	42.16	1	Very Poor
Dema	42.19	1	Very Poor
Imperi	46.48	4	Rich
Jong	46.08	4	Rich
Kpanga Kemo	44.78	3	Moderately Poor
Kwamebai Krim	39.60	1	Very Poor
Nongoba Bullom	44.60	3	Moderately Poor
Sittia	42.60	2	Poor
Sogbini	43.26	2	Poor
Yawbeko	41.58	1	Very Poor
Bonthe Town	46.00	4	Rich
MOYAMBA			
Bagruwa	40.94	1	Very Poor
Bumpeh	43.03	2	Poor
Dasse	43.95	3	Moderately Poor
Fakunya	40.89	1	Very Poor
Kagboro	42.72	2	Poor
Kaiyamba	45.24	4	Rich
Kamajei	40.43	1	Very Poor
Kongbora	39.64	1	Very Poor
Kori	43.50	3	Moderately Poor
Kowa	38.57	1	Very Poor
Lower Banta	42.11	1	Very Poor
Ribbi	41.81	1	Very Poor

Table 23: Continues

Province/Region *District*/Chiefdom	Mean Score	Poverty Scale	Meaning Of Poverty Scale
SOUTH			
MOYAMBA cont'…			
Timdale	42.38	1	Very Poor
Upper Banta	42.08	1	Very Poor
PUJEHUN			
Barri	44.39	3	Moderately Poor
Gallinas Peri	42.80	2	Poor
Kpaka	42.60	2	Poor
Kpanga Kabonde	45.62	4	Rich
Makpele	42.66	2	Poor
Malen	45.93	4	Rich
Mano Sakrim	45.37	4	Rich
Panga Krim	46.13	4	Rich
Pejeh	43.41	2	Poor
Soro Gbema	42.17	1	Very Poor
Sowa	44.76	3	Moderately Poor
YKK	42.45	1	Very Poor
WEST			
RURAL			
Koya	47.15	5	Very Rich
Mountain	52.94	5	Very Rich
Waterloo	49.72	5	Very Rich
York Rural	51.95	5	Very Rich
URBAN			
Central I	55.21	5	Very Rich
Central II	56.34	5	Very Rich
East I	55.41	5	Very Rich
EAST II	55.16	5	Very Rich
East III	54.02	5	Very Rich
West I	54.96	5	Very Rich
West II	53.86	5	Very Rich
West III	57.01	5	Very Rich

Source: Authors' Census Poverty Analysis, 2004

Table 24: Distribution of asset poverty by Province/Region and District

Province and District	Mean Score	Poverty Scale	Meaning Of Poverty Scale
EAST	**5.76**	**2**	**POOR**
KALIAHUN	4.25	1	Very Poor
KENEMA	7.60	4	Rich
KONO	5.43	2	Poor
NORTH	**4.83**	**1**	**VERY POOR**
KAMBIA	4.70	1	Very Poor
KOINADUGU	3.05	1	Very Poor
PORT LOKO	6.57	3	Moderately Poor
TONKOLILI	3.89	1	Very Poor
BOMBALI	5.92	2	Poor
SOUTH	**6.98**	**3**	**MODERATELY POOR**
BO	9.74	5	Very Rich
BONTHE	7.05	4	Rich
MOYAMBA	6.95	3	Moderately Poor
PUJEHUN	4.17	1	Very Poor
WEST	**12.23**	**4**	**RICH**
WESTERN RURAL	5.41	2	Poor
WESTERN URBAN	19.05	5	Very Rich

Source: Authors' Census Poverty Analysis, 2004

Table 25: Distribution of asset poverty by Chiefdom

Province/Region *District* Chiefdom	Mean Score	Poverty Scale	Meaning Of Poverty Scale
EAST			
KAILAHUN			
Dea	0.35	1	Very Poor
Jawie	0.50	3	Moderately Poor
Kissi Kama	0.15	1	Very Poor
Kissi Teng	0.11	1	Very Poor
Kissi Tongi	0.18	1	Very Poor
Kpeje Bongre	0.23	1	Very Poor
Kpeje West	0.35	1	Very Poor
Luawa	0.43	2	Poor
Malema	0.46	2	Poor
Mandu	0.34	1	Very Poor
Njaluahun	0.35	1	Very Poor
Penguia	0.16	1	Very Poor
Upper Bambara	0.46	2	Poor
Yawei	0.18	1	Very Poor
KENEMA			
Dama	0.49	3	Moderately Poor
Dodo	0.28	1	Very Poor
Gaura	0.51	3	Moderately Poor
Gorama Mende	0.28	1	Very Poor
Kandu Lekpema	0.55	4	Rich
Koya	0.25	1	Very Poor
Langrama	0.47	3	Moderately Poor
Lower Bambara	0.53	3	Moderately Poor
Malegohun	0.34	1	Very Poor
Niawa	0.22	1	Very Poor
Nomo	0.34	1	Very Poor
Nongowa	0.53	3	Moderately Poor
Simbaru	0.26	1	Very Poor
Small Bo	0.58	4	Rich
Tunkia	0.29	1	Very Poor
Wandor	0.31	1	Very Poor
Kenema Town	1.38	5	Very Rich
KONO			
Fiama	0.41	2	Poor
Gbane	0.21	1	Very Poor
Gbane Kandor	0.55	4	Rich
Gbense	0.46	3	Moderately Poor
Gorama Kono	0.30	1	Very Poor
Kamaa	0.49	3	Moderately Poor
Lei	0.13	1	Very Poor
Mafindor	0.10	1	Very Poor
Nimikoro	0.46	3	Moderately Poor
Nimiyama	0.28	1	Very Poor
Sandor	0.18	1	Very Poor
Soa	0.18	1	Very Poor
Tankoro	0.51	3	Moderately Poor
Toli	0.23	1	Very Poor
Koidu Town	0.93	5	Very Rich

Table 26: Continues

Province/Region *District* Chiefdom	Mean Score	Poverty Scale	Meaning Of Poverty Scale
NORTH cont'…			
BOMBALI			
Biriwa	0.28	1	Very Poor
Bombali Shebora	0.48	3	Moderately Poor
Gbanti-Kamaranka	0.34	1	Very Poor
Gbendebu Ngowahun	0.29	1	Very Poor
Libeisaygahun	0.41	2	Poor
Magbaimba Ndorhahun	0.16	1	Very Poor
Makari Gbanti	0.53	3	Moderately Poor
Paki Masabong	0.45	2	Poor
Safroko Limba	0.27	1	Very Poor
Sanda Loko	0.33	1	Very Poor
Sanda Tendareh	0.40	2	Poor
Sella Limba	0.52	3	Moderately Poor
Tambakka	0.33	1	Very Poor
Makeni Town	1.14	5	Very Rich
KAMBIA			
Bramaia	0.67	4	Rich
Gbinle-Dixing	0.72	5	Very Rich
Magbema	0.84	5	Very Rich
Mambolo	0.66	4	Rich
Masungbala	0.60	4	Rich
Samu	0.68	4	Rich
Tonko Limba	0.54	4	Rich
KOINADUGU			
Dembelia Sinkunia	0.25	1	Very Poor
Diang	0.15	1	Very Poor
Follosoba Dembelia	0.45	2	Poor
Kasunko	0.12	1	Very Poor
Mongo	0.16	1	Very Poor
Neya	0.08	1	Very Poor
Nieni	0.16	1	Very Poor
Sengbe	0.54	4	Rich
Sulima	0.29	1	Very Poor
Wara Wara Bafodia	0.12	1	Very Poor
Wara Wara Yagala	0.73	5	Very Rich
PORT LOKO			
BKM	0.49	3	Moderately Poor
Buya Romende	0.50	3	Moderately Poor
Dibia	0.48	3	Moderately Poor
Kaffu Bullom	1.30	5	Very Rich
Koya	0.47	3	Moderately Poor
Lokomasama	0.70	5	Very Rich
Maforki	0.63	4	Rich
Marampa	0.61	4	Rich
Masimera	0.49	3	Moderately Poor
Sanda Magbolontor	0.37	2	Poor
TMS	0.52	3	Moderately Poor
TONKOLILI			
Gbonkolenken	0.27	1	Very Poor
Kafe Simira	0.23	1	Very Poor
Kalansogoia	0.27	1	Very Poor
Kholifa Mabang	0.43	2	Poor
Kholifa Rowalla	0.61	4	Rich

Table 22 Continues

Province/Region *District* **Chiefdom**	Mean Score	Poverty Scale	Meaning Of Poverty Scale
NORTH			
TONKOLILI Cont'…			
Kunike Barina	0.26	1	Very Poor
Kunike Sanda	0.37	2	Poor
Malal Mara	0.46	2	Poor
Sambaya	0.18	1	Very Poor
Tane	0.35	1	Very Poor
Yoni	0.47	3	Moderately Poor
SOUTH			
BO			
Badjia	0.46	2	Poor
Bagbo	0.54	4	Rich
Bagbwe	0.47	3	Moderately Poor
Baoma	0.68	4	Rich
Bumpe Ngawo	0.50	3	Moderately Poor
Gbo	0.53	3	Moderately Poor
Jaiama Bongor	0.63	4	Rich
Kakua	0.85	5	Very Rich
Komboya	0.38	2	Poor
Lugbu	0.68	4	Rich
Niawa Lenga	0.39	2	Poor
Selenga	0.55	4	Rich
Tikonko	0.66	4	Rich
Valunia	0.38	2	Poor
Wunde	0.42	2	Poor
Bo Town	1.64	5	Very Rich
BONTHE			
Bendu Cha	0.43	2	Poor
Bum	0.40	2	Poor
Dema	0.42	2	Poor
Imperi	0.70	5	Very Rich
Jong	0.61	4	Rich
Kpanga Kemo	0.61	4	Rich
Kwamebai Krim	1.06	5	Very Rich
Nongoba Bullom	0.59	4	Rich
Sittia	0.30	1	Very Poor
Sogbini	0.61	4	Rich
Yawbeko	0.51	3	Moderately Poor
Bonthe Town	0.81	5	Very Rich
MOYAMBA			
Bagruwa	0.43	2	Poor
Bumpeh	0.41	2	Poor
Dasse	0.60	4	Rich
Fakunya	0.48	3	Moderately Poor
Kagboro	0.51	3	Moderately Poor
Kaiyamba	0.83	5	Very Rich
Kamajei	0.41	2	Poor
Kongbora	0.37	2	Poor
Kori	0.53	3	Moderately Poor
Kowa	0.35	1	Very Poor
Lower Banta	0.55	4	Rich
Ribbi	0.52	3	Moderately Poor
Timdale	0.41	2	Poor
Upper Banta	0.56	4	Rich

Table 22 Continues

Province/Region *District* Chiefdom	Mean Score	Poverty Scale	Meaning Of Poverty Scale
SOUTH cont'…			
PUJEHUN			
Barri	0.36	1	Very Poor
Gallinas Peri	0.26	1	Very Poor
Kpaka	0.39	2	Poor
Kpanga Kabonde	0.49	3	Moderately Poor
Makpele	0.23	1	Very Poor
Malen	0.41	2	Poor
Mano Sakrim	0.45	2	Poor
Panga Krim	0.46	2	Poor
Pejeh	0.22	1	Very Poor
Soro Gbema	0.15	1	Very Poor
Sowa	0.46	2	Poor
Barri	0.36	1	Very Poor
WEST			
RURAL			
Koya	0.76	5	Very Rich
Mountain	2.35	5	Very Rich
Waterloo	0.97	5	Very Rich
York Rural	1.32	5	Very Rich
URBAN			
Central II	2.82	5	Very Rich
East I	1.98	5	Very Rich
East II	2.01	5	Very Rich
East III	1.74	5	Very Rich
West I	2.59	5	Very Rich
West II	2.51	5	Very Rich
West III	3.00	5	Very Rich
Central II	2.82	5	Very Rich

Source: *Authors' Census Poverty Analysis, 2004*