2022 Liberia Population and Housing Census

Thematic Report on

Non-monetary Poverty

June 2024

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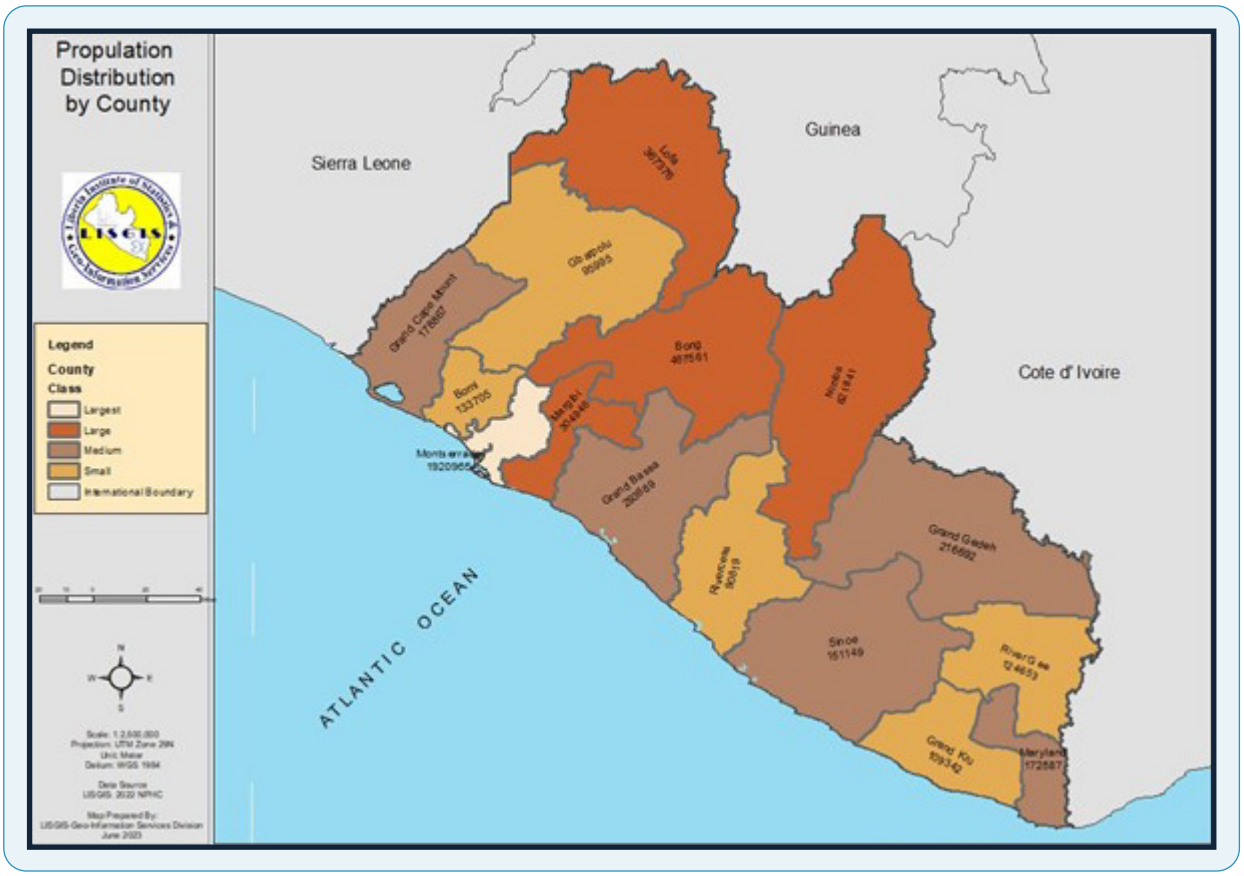


Foreword

The 2022 National Population and Housing Census is the fifth and first digital census with the full deployment of ICT techniques and followed the UN Recommended Principles for the 2020 round of censuses. The basis for the conduct of the census is Article 39 of the 1986 Constitution of the Republic of Liberia. On October 10, 2022, the Government of Liberia initiated "an Act Authorizing the Executive Branch of Government to conduct the 2022 Liberia Population and Housing Census".

Hence, following the successful implementation of the 2022 Liberia Population and Housing Census, the Liberia Institute of Statistics & Geo-Information Services (LISGIS) produced 14 thematic reports. These reports summarized the country's demographic, social, and economic sectors. The publication of the thematic reports is consistent with the United Nations (UN) International Standards of releasing National Census results and thematic reports.

The 14 thematic reports form a primary source of socio-economic and demographic data at various levels and provide relevant information to foster national development, good governance, and resource distribution. The results presented in this thematic report will form a solid basis for the successes and challenges in the implementation of the Sustainable Development Goals (SDGs) as well as support the implementation of the development of the Africa Union Agenda 2063: The Africa We Want; Transforming Our World and other national and international programs.

I am pleased that the thematic reports helped to guide our national development plan. I would like to appreciate the support received from development partners and individuals during the entire process of writing the thematic report.

On behalf of the Census Commission and Board of Directors of LISGIS, I thank the Government of Liberia and our development partners for providing the required resources for conducting the census. Thanks also go to the national and international experts who worked very hard to complete these thematic reports.

Special appreciation for the success of the census goes to Hon. Samuel D. Tweah, Jr., former Chairman of the Census Commission, the Census Commission, the Steering Committee, the Census Secretariat, other national and international experts, census staff, and all respondents who provided the required information as well as all stakeholders for their commitment, motivation, and support to the National Population and Housing Census process.

I look forward to the continued support and guidance of development partners to engender sustainable development in our country.

Hon. Dehpue Y. Zuo
Deputy Minister for Economic Management
& Chairman of the Board
Ministry of Finance and Development Planning

Preface

The Liberia Institute of Statistics & Geo-Information Services (LISGIS) conducted the fifth and first fully digital census in November 2022. The 2022 National Population and Housing Census data was collected using Computer Assisted Personal Interviewing (CAPI) technology. Data were collected using tablets and later transmitted to LISGIS's server electronically.

The 14 thematic areas identified provide a comprehensive understanding of the population. These thematic areas are a) Population Distribution and Size b) Children, Adolescents, and Youth c) People with disabilities and older people d) Migration and Urbanization e) Labor force and Employment, f) Education, and Literacy g) Agricultural Population, h) Non-monetary poverty i) Housing conditions and facilities j) Mortality, k) Fertility, l) Marriages/Nuptiality, m) Gender Dimensions, and n) Population Projections. I would also like to thank the national and international experts for preparing the thematic reports.

Though the Government contributed immense resources to the 2022 National Census exercise, the requirements were enormous and beyond the capacity of the Government and LISGIS. It is with pleasure that we recognize and appreciate the support of the United Nations Population Fund (UNFPA), the Swedish Government, the World Bank, the United States Aid for International Development (USAID), the Irish Government, the Government of Ghana, Economic Community of West African States (ECOWAS) and the United Nations Children's Fund (UNICEF) and other partners whose timely and continuous interventions gave stimulus to the execution of the 2022 Liberia Population and Housing Census including the preparation of the reports.

Special gratitude goes to the general public for their cooperation and support. We are indebted to personnel and the management of LISGIS, national and international experts, supervisors, and enumerators for successfully conducting the 2022 National Population and Housing Census.

Richard F. Ngafuan
Director General
LISGIS

Contents

List of figures

List of tables

List of abbreviations

AFT	Agenda for transformation
ECOWAS	Economic Community of West African States
ESP	Education Sector Plan
GSS	Ghana Statistical Service
HDI	Human Development Index
HIES	Household Income and Expenditure Survey
LDHS	Liberia Demographic and Health Survey
LISGIS	Liberia Institute for Statistics and Geo-Information Systems
LPG	Liquified Petroleum Gas
LPHC	Liberia Population and Housing Census
MDG	Millenium Development Goal
MPI	Multidimensional Poverty Index
MPM	Monetary Poverty Measure
PAPD	Pro-poor Agenda for Prosperity and Development
PRS	Poverty Reduction Strategy
PRSP	Poverty Reduction Strategy Paper
SDG	Sustainable Development Goals
UNDP	United Nations Development Program
UNESCO	United Nations Education, Scientific and Cultural Organization
UNICEF	United Nations Children Fund
USAID	United States Agency for International Development
WHO	World Health Organization

Executive summary

Using a multidimensional approach in measuring poverty is a means to capture the complexity of poverty that considers dimensions of well-being beyond just monetary poverty. As one of the 15 thematic reports being produced out of the 2022 Liberia Population and Housing Census, the main objective of this report is to estimate and analyse multidimensional poverty by characteristics of the population to identify the poorest groups and specific areas of deprivation to ensure effective prioritization and inclusion of all disadvantaged people. The report will also help in monitoring progress towards the achievement of Sustainable Development Goal 1 with reference to the estimated poverty indicators.

The targets considered for measurement and estimation of relative deprivation have been classified into three: education, health and living conditions. The education dimension has three (3) indicators (household school attainment, access to a primary school, and children school attendance), the health dimension has one (1) indicator (access to health facility) and the living conditions dimension has six (6) indicators (access to electricity, safe drinking water, improved cooking fuel, improved sanitation, improved room flooring, and household basic assets). The 2022 Liberia Multidimensional Poverty Index (MPI) adapted indicators and weights that are more relevant to national context to create tailored national poverty measures.

Household deprivation in poverty dimensions and selected indicators

The analysis suggests a national average household deprivation in the three indicators under the education dimension as 11.7 per cent for access to primary school, 23.8 per cent for household school attainment, and 30.8 per cent for children's school attendance. Male-headed households recorded higher proportions of deprivation than female-headed households in access to primary school and children's school attendance, while the reverse is true for school attainment although the variation is quite marginal. Deprivation in rural households with respect to access to all the three indicators is significantly higher than that of urban households. By county of residence, the analysis shows that Montserrado County has the lowest household deprivation rates by all the indicators, while Grand Bassa has the highest deprivation rates for all the indicators.

The proportion of households deprived by access to health facility nationwide is 29.7 per cent. There is a higher proportion of male-headed households (31.3 per cent) in this deprived condition than female-headed households (26.6 per cent). A little more than half (51.4 per cent) of rural households are deprived in access to health facility, which is in sharp contrast with their urban counterparts who have a little above a tenth (11.7 per cent) of households by this deprived status.

Large variations are also observed across the counties in relation to deprivations in access to health. Only two counties, Montserrado (12.4 per cent) and Margibi (29.0 per cent), have households deprived in access to health facility below the national average of 29.7 per cent. Montserrado's low deprived status is attributed to the largely urban nature of the county. Three counties, namely, Grand Baasa (50.5 per cent), Gbarpolu (50.6 per cent) and River Cess (59.7 per cent) have more than half of their households deprived in access to health facility. Counties that have about two-fifths of households being deprived are Grand Kru (40.3 per cent), Nimba (40.7 per cent), Bomi (42.7 per cent), and Bong (42.8 per cent). The rest of the counties have between 30 per cent and 40 per cent of households being classified as deprived.

National average proportions of households deprived in the selected indicators under living conditions dimension revealed that majority of the households are more deprived in two of the indicators, namely, electricity (61.7 per cent) and cooking fuel (97.6 per cent). The indicator that recorded the least deprivation is safe drinking water (30.7 per cent).

Apart from cooking fuel and basic household assets, male-headed households have higher proportions of deprivation than households headed by females. For some of the indicators like electricity and cooking fuel, the disparity is marginal by gender of the head of household. However, rural households exhibited markedly higher rates of deprivation in all the indicators than urban households.

Montserrado County has the least proportion of households deprived in all the indicators under living conditions except in safe drinking water where Maryland is the least deprived. Counties that have the highest proportion of deprived households in the

selected indicators are: Bong (90.2 per cent deprived in electricity); River Cess (62.7 per cent deprived in safe drinking water); River Cess (99.8 per cent deprived in improved cooking fuel); Sinoe (76.1 per cent deprived in improved sanitation); and Grand Kru (63.7 per cent deprived in improved floor).

For the household basic assets indicators, it is only radio among the other two selected household assets that a little more than half (52.8 per cent) of households nationwide do not have access. Mattress is the household asset that has the lowest access deprivation among the three selected assets. However, disparities are observed, some very pronounced, when analysed on the basis of gender of household head, locality of residence and county. The proportions of deprived female-headed households are higher than those of male-headed households in all the three selected assets. Marked disparities are also observed between urban and rural households in deprivation rates with the proportions of rural households deprived in all the three selected assets significantly higher than those of the urban households.

Montserrado has the lowest household deprivation in all the selected household assets. Margibi County has household deprivation proportions in all the selected assets below the national average while Lofa, Maryland and Gbarpolu have the highest household deprivation proportions in mattress, radio and cellphone, respectively.

Disaggregation of the Multidimensional Poverty Index

The national MPI, which is the product of the incidence (H) and intensity (A) of poverty, has a value of 0.261. This means that multidimensionally poor people in Liberia experience 26.1 per cent of the weighted deprivations out of the total possible deprivations that could be experienced. The incidence of multidimensional poverty indicates that out of the population of 5,250,187 in 2022, 45.0 per cent (equivalent to 2,362,584 persons) is multidimensionally poor. The intensity of poverty, which reflects the share of deprivations each poor person experiences on average, is 57.9 per cent (equivalent to 3,045,108 persons). That is, a multidimensionally poor person is, on average, deprived in about six of the 10 weighted indicators.

Disaggregation of headcount ratios by locality of residence shows that 72.0 per cent of the rural population is multidimensionally poor compared to 22.5 per cent of the urban population.

The dimension that contributes the highest to multidimensional poverty is living conditions (42.8 per cent). This is followed closely by health (40.2 per cent) with education (17.1 per cent) contributing the least. Education is also the lowest contributor to poverty in both urban (18.6 per cent) and rural (16.6 per cent) localities. Health is the largest contributor to multidimensional poverty in urban localities (42.7 per cent) while in rural localities it is living conditions (44.0 per cent).

For the indicators, the health indicator (one hour or more walking distance to a health facility) contributed the highest (40.2 per cent) to national multidimensional poverty, followed by school attainment (10.5 per cent), that is, no household member has completed primary level of schooling, and access to improved cooking fuel (9.3 per cent). The same trend is exhibited in both urban and rural localities.

Disaggregation of multidimensional poverty by gender of household head revealed that male-headed households have higher incidence of poverty than female-headed households. Disaggregation of multidimensional poverty by educational attainment of household head showed an inverse relationship between poverty and education. The higher the educational attainment of household head, the lower the likelihood of falling into poverty. Analysis of poverty by marital status of household head also indicated that the incidence of poverty is higher for households headed by the divorced (53.1 per cent) and separated (54.1 per cent) compared to the other marital status categories.

Wide disparities are observed in the MPI across the counties. Montserrado (0.105) has the lowest MPI, making it the least poor county. Two other counties, Margibi (0.244) and Maryland (0.260) have MPI less than the national average (0.261). Three counties, namely, Gbarpolu (0.444), Grand Bassa (0.448) and River Cess (0.494) stand out as having comparatively very high MPI.

Per the poverty headcount ratios, only three counties have less than half of its population being multidimensionally poor. These are Montserrado (20.5 per cent), Margibi (42.9 per cent) and Maryland (47.2 per cent). The highest pockets of poverty occur in River Cess (76.9 per cent), followed by Gbarpolu (72.0 per cent). Five counties that recorded poverty rates between 60 and 70 per cent are Sinoe (62.2 per cent), Lofa (62.9 per cent), Bong (63.0 per cent), Grand Kru (63.9 per cent), and Grand Bassa (67.9 per cent). The remaining counties, namely, River Gee (55.2 per cent),

Bomi (56.9 per cent), Grand Gedeh (57.2 per cent), and Grand Cape Mount (58.2 per cent), have between 55 and 60 per cent of their population being MPI poor.

The intensity of poverty is highest in Grand Bassa (66.0 per cent), implying that the population identified to be multidimensionally poor in Grand Bassa is deprived, on average, in 66.0 per cent of the weighted indicators. The second highest is recorded in River Cess (64.2 per cent) with Montserrado (51.2 per cent) having the least.

Among the three dimensions, living conditions contributes the highest to the MPI in all counties except in Montserrado. The deprivation in living conditions is highest in Sinoe where about half of the population are deprived in that dimension. Health contributes the highest to the MPI of Montserrado, while it is the second highest contributor in the remaining counties. Overall, education is the least contributor to the MPI in all the counties.

Comparison of the 2022 MPI with that computed in 2018 using indicators from the 2013 Liberia Demographic and Health Survey reveals a decline in multidimensional poverty over the 10-year period. The national MPI fell by 0.086 from 0.347 in 2013 to 0.261 in 2022. The urban MPI also fell from 0.290 in 2013 to 0.111 in 2022 while that of rural areas fell from 0.481 to 0.440 over the same period.

The poverty headcount (H per cent) also fell from 71.2 per cent in 2013 to 45.0 per cent in 2022, a reduction of 26.2 percentage points. The urban poverty incidence reduced by 38.0 percentage points from 60.5 per cent in 2013 to 22.5 per cent in 2022 while the reduction in rural poverty is 12.9 percentage points during the same period.

Chapter 1: Introduction

1.1 Background and context

Poverty can be considered as one of the core features of unsustainable socioeconomic development and as a persistent phenomenon that can have upsetting effects on people's lives (Bossert et al., 2022). Ending poverty in all its forms everywhere is the greatest global challenge facing the world today and an indispensable requirement for sustainable development. In recognition of this, ending poverty in all its forms is the first target of both the Millennium Development Goals and the 17 Sustainable Development Goals (SDGs) of the 2030 Agenda for Sustainable Development. As noted by Gweshengwe and Hassan (2020, p.1), "success in achieving this goal depends on, among other factors, the effective analysis of poverty, which is only possible if one has a clear understanding of the influence of the characteristics of poverty on poverty analysis".

Liberia is among the poorest countries in the world today, and this situation can be attributed to decades of mismanagement and conflict (Government of Liberia, 2008). According to the 2021 United Nations Development Programme (UNDP) Human Development Report on the Human Development Index (HDI)[1] , Liberia remains in the low human development category, being ranked 178 out of 191 countries and territories.

Liberia's economy grew at an annual rate of 4-7 per cent through the 1960s. The economy began to decline in the 1970s due to a combination of sharp increases in world petroleum prices and decline in the prices of key export commodities, with all indicators pointing to a looming crisis at the end of the decade. The 1980s and after saw economic mismanagement and 14 years of brutal civil war (1989 to 2003), which killed an estimated 270,000 people and created hundreds of thousands of refugees and internally displaced persons, and shattered the lives of thousands of others (Government of Liberia, 2008), pushing greater proportions of Liberians into poverty. The war destroyed basic institutions of governance as well as significant physical infrastructure and social capital, leading to collapse of the economy and impoverishing much of the Liberian population.

The impact of the war on Liberia's economy as described in Liberia's first post-war Poverty Reduction Strategy Paper, suggests that "Agricultural production dropped as people fled their farms and the supporting infrastructure collapsed, mining and timber activities shut down, rubber plantations closed, manufacturing essentially stopped and services ground to a halt. Production of iron ore and timber, as well as mining and panning, ceased completely. Rice production fell 76 per cent between 1987 and 2005, financial services fell 93 per cent, and electricity and water fell 85 per cent. Transportation and communication, trade and hotels, and construction all fell around 69 per cent. Only the production of charcoal and wood increased as Liberians turned to these products to meet their basic energy needs" (Government of Liberia, 2008: p. 15). Gross domestic product fell a catastrophic 90 per cent between 1987 and 1995, one of the largest economic collapses ever recorded in the world (Government of Liberia, 2008).

Stabilization and recovery of the Liberian economy began following the 2003 Peace Agreement and a democratically elected government thereafter. From a growth of -31 per cent in 2003, the economy recovered and steadily grew each year, reaching 9.5 per cent in 2007 (Government of Liberia, 2008). The programmes and policies implemented by the new Government and its international partners helped stimulate the recovery. The country continues to benefit from development partners in programmes aimed at inclusive growth and poverty reduction. Some of the programmes are discussed in subsequent subsections.

Liberia's economy is still recovering from years of poor economic and social performance. Poverty remains widespread but on a declining trend. Poverty headcount (income/consumption poverty) fell by 7.5 percentage points in 2010, from 63.8 per cent in 2007 (LISGIS, 2007), indicating that 56.3 per cent of the population lived below the World Bank poverty benchmark of $1.19 a day. The Liberia Household Income and Expenditure Survey (HIES) conducted in 2014 estimated the proportion of the population below the poverty line to be 54.1 per cent, while the HIES conducted in 2016 recorded a further reduction of the population below the poverty line to

1 The HDI is a summary measure for assessing long-term progress in three basic dimensions of human development: a long and healthy life, access to knowledge/education and a decent standard of living

be 50.9 per cent. Based on estimates by the UNDP (2023) using 2019/2020 survey data, 52.3 per cent of the population in Liberia is multidimensionally poor while an additional 23.3 per cent is classified as vulnerable to multidimensional poverty. The intensity of deprivations in Liberia, which is the average deprivation score among people living in multidimensional poverty, is 49.6 per cent, according to the report.

Ravallion (1997) made a strong justification for measuring poverty, that is, a credible measure of poverty can be a powerful instrument for focusing the attention of policymakers on the living conditions of the poor. Poverty data can inform policies intended to reduce poverty by a) allowing the assessment of the impact of projects, or crises, or government policies, on poverty; b) permit the comparison of poverty over time; and c) target the poor with the view of improving their conditions. Understanding the characteristics of poverty can help policymakers think about the impact of growth strategies and assess if poverty has increased or decreased, or whether general economic growth helped the poor.

As stated by Luis-Felipe Lopez-Calva, World Bank Global Director for Poverty and Equity, "Ending poverty is a challenge that requires a multifaceted approach… Countries cannot adequately address poverty and inequality without also improving people's well-being, including through more equitable access to health, education and basic infrastructure"[2] . This means poverty is a multidimensional and complex phenomenon and is related not only to income or consumption, considered as monetary dimension of poverty, but also to non-monetary dimensions such as education, health, gender equality, water supply and sanitation.

The 2022 Liberia Population and Housing Census (LPHC) collected enough information which can be used to measure non-monetary poverty among the population. Although the main feature of the population and housing census data is the enumeration of individuals and households as well as their housing and living conditions in the country at a particular point in time, it has advantages over other household surveys for at least two reasons. First, due to the larger scale, census data are more comprehensive when compared to other household surveys, which may not represent all population groups accurately. Second, the larger number of observations in census data can provide more precise estimates for statistical purposes. The main advantage of using 2022 LPHC data in the estimation of non-monetary poverty is that the deprivation measure can be calculated for every household and can be disaggregated by population subgroups. Moreover, the 2022 LPHC data source is more recent than the one used by the UNDP in its latest estimation of the multidimensional poverty indicators for Liberia.

Using multidimensional approach in measuring poverty is a means to capture the complexity of poverty that considers dimensions of well-being beyond just monetary poverty. To monitor progress and understand better ways to reduce poverty, it is important to measure poverty regularly.

1.2 Justification for using non-monetary poverty measure

The non-monetary approach to the measurement of poverty was pioneered by Townsend (1979) based on his relative deprivation approach. The approach develops on the idea that if people are so deprived as to lack the resources to participate in the customary activities in society and thus in some sense are excluded from society, then they may be regarded as being in poverty.

According to the World Bank, non-monetary poverty means poverty not measured by income or consumption, but by other dimensions of well-being, such as education, health, access to basic services, and quality of life. Non-monetary poverty reflects the deprivation of essential assets and opportunities that every human being is entitled to. Applying a narrow definition of poverty and focusing on one dimension alone, such as income, fails to capture the true reality of people's circumstances.

A review of the literature on poverty in both developed and developing countries reveals a growing interest in the application of non-monetary poverty approaches (GSS, 2013). This interest has been generated because of the belief that non-monetary poverty approaches can bring out what it means to be poor, help to do a better job than income on its own in identifying the poor, and directly capture the multifaceted nature of poverty and exclusion. As noted by Nolan and Whelan (2010), it has long been argued that poverty is not just about money, and the widespread adoption of the terminology of social exclusion and inclusion reflects the concern that

2 In an Feature Story titled "Ending Poverty and Ensuring Dignity for All" posted on The World Bank's website on October 2023, and downloaded from Ending poverty and ensuring dignity for all (worldbank.org)

focusing simply on income misses an important part of the picture.

Ayadi et al. (2007) opined that the use of income as a poverty measure covers a limited aspect of living standard. Studies by The World Bank[3] indicates that, while monetary poverty is strongly correlated with deprivations in other domains, this correlation is far from perfect. To buttress this fact, poverty estimates on Liberia posted on the World Bank's Poverty and Inequality Platform indicate that monetary poverty rate at national poverty lines was 50.9 per cent in 2016, compared to multidimensional poverty headcount ratio of 56.6 per cent. Another example can be found in the "Poverty and Shared Prosperity 2022 report" (World Bank, 2022), which revealed that almost four out of 10 multidimensionally poor individuals (39 per cent) are not captured by monetary poverty, as they are deprived in non-monetary dimensions only. It can, therefore, be concluded that, "a country's monetary poverty measure (MPM) is at least as high as or higher than monetary poverty, reflecting the additional role of non-monetary dimensions to poverty and their importance to general well-being" (World Bank, 2022). Deprivations in non-monetary dimensions like access to schooling, health and basic infrastructure, compound poverty and perpetuate cycles of inequality.

Thus, the use of income or expenditure as determinant of the poverty line within the context of the widely accepted view of poverty as multidimensional, is problematic. According to Owusu and Yankson (2007), defining and measuring poverty in terms of, who the poor are and the methods used are very important and critical as they have a huge impact on the strategies that a country adopts to reduce poverty.

1.3 Policies and programmes towards poverty reduction in Liberia

The SDGs' main reference to combating poverty is made in target 1.A: "Ensure significant mobilization of resources from a variety of sources, including through enhanced development cooperation, in order to provide adequate and predictable means for developing countries, in particular least developed countries, to implement programmes and policies to end poverty in all its dimensions". Through the Poverty Reduction Strategies Papers (PRSPs), the World Bank and the other donor agencies tasked developing countries to develop strategies, which provide the overall framework for addressing poverty within countries. In broad terms, the PRSPs aimed at reducing the number of people living under the situation described as "poor". They also aimed at pursuing development goals that lead to poverty reduction, protection of the vulnerable and excluded sections of the population, and enhanced access to social services.

Liberia's first Poverty Reduction Strategy (PRS) dubbed "Lift Liberia", had the implementation period from 2008 to 2011. This period was of critical importance as Liberia was shifting from post-conflict stabilization to laying the foundation for inclusive and sustainable growth, poverty reduction and progressing toward the Millennium Development Goals. Among the critical problems confronting the country at that time was the destruction of basic infrastructure during the war, rendering many roads impassable, which seriously constrained economic recovery, as well as the provision of basic services such as health and education (Government of Liberia, 2008). The PRS had three main pillars: consolidating peace and security; revitalizing the economy; and strengthening governance and the rule of law.

At the end of the implementation period in 2011, most of the targets in the PRS document were not achieved, but there were undeniably positive developments: peace was sustained; economic growth continued, especially in the urban areas; poverty fell; some physical infrastructure improved; coverage of health and education services expanded by most measures; and some aspects of governance improved (Government of Liberia, February 2012).

The Agenda for Transformation (AfT), Liberia's Medium-Term Economic Growth and Development Strategy (2012 - 2017), followed the Lift Liberia PRS, which raised Liberia from post-conflict emergency reconstruction and positioned it for future growth. The key goals of the AfT were to propel the country forward through economic diversification, agriculture transformation, infrastructure development, human capital development, private sector growth, natural resource management, good governance and rule of law, and peace and security. The AfT represented a collective effort to uplift the nation and improve the well-being of its citizens, that is, to lift Liberians out of poverty to prosperity.

3 In a brief posted on the World Banks website titled, "Multidimensional Poverty Measure". Downloaded on March 10, 2024, from https://www.worldbank.org/en/topic/poverty/brief/multidimensional-poverty-measure

The framers of the AfT identified from the onset that the programme in itself would not - in the next five-year time frame - be able to achieve all that Liberia was poised to do. Instead, it was the first step toward achieving the goals set out in Liberia RISING 2030, Liberia's long-term vision of socioeconomic and political transformation and development (Republic of Liberia, 2012).

The second PRS titled Pro-poor Agenda for Prosperity and Development (PAPD), a five-year National Development Plan (2018–2023), was launched by the Government in 2018. The PAPD, was guided by the fundamental premise of addressing extreme poverty, inequalities (income, and gender), regional disparities and infrastructure deficits. The overarching aspiration is inclusion, more equitable distribution of the country's national wealth, and a rights-based approach to national development, which is aligned to the country's Vision 2030 Framework and the Africa Agenda 2063.

Pillar one of the PAPD – Power to the People – involves wider and sustainable expansion in access to education (including reducing out of school rates and increasing retention and completion rates), health (including reducing the maternal child mortality rate), youth development (expanding social inclusion through work and life skills opportunities), and social protection. Social protection investments under the PAPD include i) basic income and food security for the whole family-especially children in the family environment (including vulnerable groups and people with disability), ii) providing some form of basic income for the working age population through pre-employment support and household enterprises for adolescents and young adults, expansion in the national social pension scheme, enforcement of the Decent Work Act and iii) social grants for the elderly, pregnant women and people living with disability.

There are sector-specific programmes that also sought to reduce deprivation and increase access to basic social services in the society which have been identified as contributing to poverty. There were many policies and programmes to rebuild the education sector which collapsed because of the war. The 2011 Education Reform Act, an overarching law guiding the education sector in Liberia, replaced the Education Law of 2001, and established free and compulsory basic education. Several development partners supported the government efforts to address challenges in the education sector, with the World Bank (2010, 2016) and USAID (2013; 2014; 2016) supporting teacher training and the provision of basic education. The United Nations Children's Fund and the European Union have also been active development partners in this sector. The latest of the education sector policies is the Education Sector Plan spanning 2022/23 to 2026/27.

Rebuilding Liberia's health system is crucial for improving the country's overall health outcomes, and this is a major policy in the post-war recovery agenda. The first post-war national health plan was the National Health Plan of Liberia (2007 - 2011). In order to substantially improve the health status and social welfare of the population, the Government led a participatory process of establishing one holistic, evidence-based policy framework explicitly aimed at guiding decision makers through 2011 to 2021. The process included analysing the health and social welfare situation and the experience of implementing the 2007 National Health Plan, revising the National Health and Social Welfare Policy and ultimately developing the 2011–2021 National Health and Social Welfare Plan. The objective of the plan was: (1) Increasing access to and utilization of a comprehensive package of high-quality health and social welfare services of proven effectiveness, delivered close to the community, endowed with the necessary resources and supported by effective systems; (2) making health and social welfare services more responsive to people's needs, demands and expectations by transferring management and decision-making to lower administration levels; and (3) making healthcare and social protection available to all people in Liberia, regardless of their position in society, and at a cost that is affordable to the country.

The latest health sector policy is The National Community Health Programme Policy (2023–2032), which according to the Minister of Health "aims to provide coverage to communities that are accessible within 5.0 km to facilities that still lack basic health-seeking behaviour and to communities beyond 5.0 km from the nearest health facilities with basic life-saving skills and health-seeking behaviour change opportunities" (The National Community Health Programme Policy 2023–2032, p. i).

1.4 Objectives

People living in poverty often refer to lack of education, poor health and nutrition, poor housing and unsafe water as examples of their disadvantages to a meaningful standard of living. These deprivations reflect the lived experiences of many poor people and the obstacles they face in pursuing and achieving valuable capabilities.

In many transitional and young democracies in the developing world, poverty reduction has implications for security, peace and economic prosperity for both the rich and the poor (Ghana Statistical Service, 2013). The former President of Liberia, Ellen Johnson Sirleaf, stressed that "for Liberia to be successful, it cannot simply recreate the economic and political structures of the past, that produced widespread income disparities, economic and political marginalization, and deep social cleavages, which ultimately fueled the country's civil war. Liberia must create much greater economic and political opportunities for all its citizens and ensure that growth and development are widely shared, with the benefits spread much more equitably throughout the population" (Republic of Liberia, 2008).

Against this backdrop, the objectives of this report are to:

i. Estimate and analyse the levels of deprivation in the Liberian society by sex of head of household, type of place of residence, and county of residence.

ii. Estimate and analyse Multidimensional Poverty Indices (MPIs) by characteristics of the population to identify the poorest groups and specific areas of deprivation to ensure effective prioritization and inclusion of all disadvantaged people.

iii. Assess the key simultaneous disadvantages that affect multidimensionally poor people in the Liberian society.

iv. Assess the impact of projects or government policies on poverty.

v. Monitor progress towards the achievement of SDG 1 with reference to poverty reduction indicators.

vi. Make recommendations to inform relevant policy actions towards reducing non-monetary poverty in Liberia.

1.5 Methodology

Essentially, all poverty measures are concerned with the task of distinguishing those who are poor from the rest of the population (Yoo, 2023). This classification process can be seen as comprising three distinct yet interconnected steps: the conceptualization, operationalization and measurement of poverty. It begins with defining what poverty is, selecting the indicator(s) on which to capture the concept so defined, and ultimately specifying a threshold value to assign the status of poverty. The concept used for the estimation of the poverty indicators, as discussed earlier, is that of relative deprivation and measured by the non-monetary poverty index.

The targets considered for measurement and estimation of relative deprivation have been classified into three: education, health and living conditions. The education dimension has three (3) indicators to measure the level of deprivation; the health dimension has one (1) indicator and the living conditions dimension has six (6) indicators. More detailed definitions and reasons for choosing the dimensions and indicators are presented in Chapter 2 of this report. It also includes the methodology for the computation of the MPI.

The first part of the analysis is a description of the levels of deprivation in the selected indicators. The second stage of the analysis is focused on non-monetary poverty indices computed. The analysis has been done under three categorizations, namely, county, locality of residence (urban/rural), and gender of head of household. The analysis also includes the ranking of counties by MPI.

All data used for the measurement of non-monetary poverty are derived from the 2022 LPHC. MPI estimates for Liberia in 2018 using indicators from the 2013 Liberia Demographic and Health Survey, have been used at the latter stages of the report to analyse the trend in MPI.

1.6 Limitations of the report

The non-monetary poverty indices produced in this report suffer the same criticisms raised against deprivation measures for poverty estimates, in that their thresholds are equally arbitrary as the income approach without concrete justifications like the determination of the poverty line using income and consumption estimates. The classification process which involves determining the critical number of missing items above which a person qualifies as undoubtedly deprived introduces arbitrariness into the measurement and analysis. Though the three broad poverty dimensions of education, health and living conditions are globally acceptable, the indicators selected to represent them may not fully identify the deprived persons in that category. While one may hold that only those who suffer from a concentration of problems or scarcities should be classified as deprived, it remains unclear as to how many

deficiencies must be present in order to constitute such deprivation (Babones et al., 2016). It could, therefore, be argued that missing even one socially defined necessity is an indication of an individual household's relative deprivation.

The consensual approach pioneered by Mack and Lansley (1985) was not used in the selection of the indicators. According to this approach, instead of relying solely on expert judgement and pragmatic selection of indicators, the indicators should rely on public reasoning, by surveying the general population to identify the necessities that are customary in the society to which they belong.

1.7 Organization of the report

The report is divided into five (5) chapters. Chapter 1 is the introduction to the thematic area, and provides the background and context, justification for the use of non-monetary approach, government programmes and policies towards poverty reduction, objectives, methodology and limitations of the study. Chapter 2 is on the procedure for measurement of non-monetary poverty. This includes the selection of the dimensions of non-monetary poverty and their indicators. The formula for estimation of the MPI is also explained. Estimation and analysis of the level of deprivation in the selected indicators by gender of household head, locality of residence and county of residence of household is presented in Chapter 3. The Chapter 4 presents the disaggregation of the non-monetary poverty indices by locality and county. The contribution of the different dimensions and their indicators to multidimensional poverty are analysed. The chapter also presents an analysis of the trend in MPI over a 10-year period. The last chapter is devoted to presenting the conclusion, policy implications and recommendations. Here, the usefulness of the findings of the report to inform policy is discussed, highlights of areas for policy are presented and recommendations on how the findings can be used to influence policy are also made.

Chapter 2: Measurement of non-monetary poverty

2.1 Introduction

This chapter discusses the rationale behind the selection of the poverty dimensions and indicators used in assessing the level of deprivation of the citizenry for the estimation of the MPI in Liberia. Globally, the MPI uses 10 indicators belonging to three dimensions: education, health and living standards. These dimensions have been used in Liberia's case but there is variation in the number of indicators for each dimension to suit the country's environment. Three indicators have been selected for education, one for health and six for living conditions. These indicators have legitimacy as part of a target-setting exercise in Liberia's social policy. During this process, the ideal set of indicators was reconciled with the data that are available and are appropriate for cross-country comparison.

2.2 Dimensions, indicators and deprivation cut-offs

The 2030 Agenda for Sustainable Development recognizes that ending poverty and other deprivations must go hand-in-hand with strategies that improve health and education, reduce inequality, and spur economic growth. The selected indicators discussed under this section measure the extent of deprivation and thus inform policymakers to plan and close the gaps. Each indicator is assigned a deprivation cut-off, which determines whether a household or individual is considered deprived or not. By applying these cut-offs, individuals or households are classified into two categories: deprived and non-deprived.

2.2.1 Eductation

Under the education dimension, three indicators that complement each other are used: household's school attainment status, access to primary school and an assessment of whether children of school going age are attending school. The indicators are aligned to SDG 4.

Household school attainment status: Completion of a level of education of members of the household acts as a proxy for the level of knowledge and understanding of household members. Even though this is an imperfect proxy, as it does not capture the quality of schooling and the level of knowledge or skills attained, it is an indicator that reveals school attendance status of the household. That is, in terms of deprivation cut-offs for this dimension, the MPI requires that at least one person in the household has completed primary level of schooling or higher (primary, secondary etc.).

Access to primary education: The distribution of education infrastructure has an impact on school attendance. Long distances to access a primary school affects school attendance and violates the country's AfT, which seeks to give "equal access to high-quality and free compulsory basic education". The deprivation cut-off requires walking distance of not equal to one hour or more to the nearest primary school.

Children school attendance: Children from ages 6 to 11 years should be in the primary school. Children in that age group not attending school in the household for whatever reason, constitutes deprivation of education of the child. The deprivation cut-off requires that all children of ages 6 to 11 years are attending primary school or have completed primary school education.

2.2.2 Health

Almost all indicators on health outcomes start from the availability of service. The closeness of health facility to households is, therefore, a sine-qua-non to the provision of health services. Distance to the nearest health facility has a great impact on service utilization. A household is considered to be deprived if the walking distance to the nearest health facility is one hour or more.

Though many studies have used maternal mortality and under-five mortality as indicators under the health dimension, figures on these indicators collected in the 2022 LPHC are insignificant to have an impact on poverty analysis of the country.

2.2.3 Living standards

The living standards indicators are largely similar to the global MPI, with an addition of an indicator on basic household assets. The key indicators for standard of living are thus as follows:

Electricity: A household is considered to be deprived if it does not have access or connected to the national electricity grid or own generator.

Safe drinking water: This indicator is based on SDG 6 and the global MPI indicator for drinking water. A household has access to clean and safe drinking water if the water source is any of the following types: piped water, public tap, borehole or pump, protected well and protected spring. If a household does not satisfy these conditions, then it is considered deprived in access to safe drinking water.

Improved sanitation: A household is considered to have access to improved sanitation if it has some type of flush toilet (WC) or covered pit latrine, or ventilated improved pit latrine. In the absence of any of these toilet facilities, the household is considered as deprived in sanitation.

Cooking fuel: The cooking fuel indicator is intended to highlight the type of fuel used, which is linked to the quality of ventilation and respiratory health. If the main source of cooking fuel for the household is wood or charcoal or crop residue, or saw dust or animal waste, the household is considered deprived in cooking fuel.

Flooring: A household is considered deprived in flooring material if it is made of earth, mud or dung.

Basic household asset: The assets indicator measures asset ownership, which is indicative of improvement in living standards. A household without any one of the following is considered deprived in that asset: mattress, radio and cellphone.

2.3 Weights and deprivation scores

The nested weights approach has been adopted in the weighting for Liberia's MPI, implying that each of the three dimensions is equally weighted – one-third (1/3) of the total weight is assigned to education, health, and living standards – and each component indicator is equally weighted within its dimension. The weights of the indicators in each dimension depends on the number of indicators in that dimension. Therefore, each of the three indicators in education has a weight of 1/9, indicators in the health dimension receive a weight of 1/3, and the living standards indicators are given a weight of 1/18. Overall, the weights add up to 100 per cent. The deprivation score is the sum of the weights of the indicators in which the person is deprived and shows the percentage of total possible deprivations that the person experiences.

2.4 Poverty cut-off

Like other countries such as Ghana, Liberia's MPI cut-off is specified at one-third of the indicators; that is, a person whose deprivation constitutes at least 33 per cent of the weighted indicators is identified as multidimensionally poor. The chosen cut-off reflects the global MPI, which suggests that a person must be deprived in at least one full dimension's worth of indicators to be considered multidimensionally poor. A person deprived in 20–33.3 per cent of the weighted indicators is considered 'vulnerable to poverty' and a person deprived in at least 50 per cent of the weighted indicators is identified as being in severe poverty.

A summary of the selected indicators of the dimensions, the cut-offs and the relative weights is presented in Table 2.

Table 1: Dimensions, indicators, cut-offs and relative weights

Dimensions	Indicators	Cut-off (household deprive if…)	Relative weight
Education	Access to primary school education	Walking distance to the nearest primary school is one hour or more	1/9
	Household school attainment	No member of the household has completed any level of education	1/9
	Child school attendance	Any of the children from 6 to 11 years not attending school	1/9
Health	Distance to the nearest health facility	Walking distance to the nearest health facility is one hour or more	1/3
Living conditions	Electricity	The household has no electricity (i.e. the household is not connected to the national grid nor use own generator)	1/18
	Improved toilet facility	The household's toilet facility is not improved according to WHO guidelines	1/18
	Safe drinking water	The household does not have access to safe drinking water (according to WHO guidelines)	1/18
	Flooring	The household has an earth, mud or dung floor	1/18
	Cooking fuel	The household cooks with kerosene, wood, charcoal, and other solid fuel	1/18
	Ownership ofbasic household assets	Ownership of none ofthe following: mattress, radio, or mobile phone	Mattress = 1/54: Radio = 1/54: Cellphone = 1/54

2.5 Computing the MPI

The index is computed using the Alkire-Foster methodology (AF method). By aggregating various dimensions of poverty into one index, the AF method estimates incidence (H), the percentage of multidimensionally poor people, and intensity (A), the average percentage of dimensions in which poor people are deprived. The MPI provides policy-relevant information: (i) easily disaggregated for different population subgroups (e.g., rural/urban, regions, age group, ethnicity, etc.), (ii) gives information on the composition of poverty by indicator, (iii) can track progress in reducing poverty over time.

Chapter 3: Analysis of non-monetary deprivation in Liberia

3.1 Introduction

This chapter presents the descriptive analysis of the levels of deprivation of the selected indicators in the three poverty dimensions, namely, education, health and living standards. The indicators derived from the 2022 LPHC related to the dimensions that have been analysed. This has been done by the gender of head of household, locality of residence (urban/rural) and county. Descriptive analysis gives more in-depth and easy interpretation and understanding of the dimensions of deprivation. The findings are key for identifying and tailoring effective interventions that reflect the development needs of all Liberians.

3.2 Education

Education is an important indicator and one of the dimensions that help to define the non-monetary poverty index. Studies have shown that education has a large impact on a country's poverty level (Bakhtiari and Meisami, 2010) and that investing in education is a way to reduce income inequality and poverty. Low levels of education hamper economic growth, which in turn slows down poverty reduction (UNESCO, 2017; Global Education Monitoring Report, 2019). UNESCO estimates that each year of schooling raises earnings by around 10 per cent.

The 2030 Agenda has among its key objectives poverty eradication through increasing the level of education. A good level of education of a country is in fact necessary to guarantee a sustainable economy, in which coexists satisfactory levels of quality of life and an equitable distribution of income. The right to education is a principle enshrined in the Liberia's Constitution, which intends to increase children's access to all levels of education and the facilitation of procedures for inclusion in education. Limited access to high-quality education hinders skill development and perpetuates cycles of disadvantage.

As noted earlier, three indicators have been selected for the education dimension, namely, household school attainment, access to primary school education, and child school attendance.

3.2.1 Household school attainment

School attainment deprivation captures households in which no member has received an educational qualification, equivalent to completing at least primary school education. It also means, if only one member of the household has completed at least primary education, then the household is not deprived. Table 2 presents status of household school attainment by gender of household head, locality of residence and county. In total, 23.8 per cent of households (representing 282,970 households) nationwide have no member having attained any educational level.

The variation in deprivation in household school attainment by gender of household head is not wide, with the male-headed households (22.7 per cent) having lower deprivation proportion than their female counterparts (25.9 per cent). For the locality of residence, rural households have proportion of deprived households (36.9 per cent) almost three times that of urban households (13.1 per cent).

Table 2: Household deprivation status in school attainment by gender, locality of residence and county

Categorization	Total no. of households	Deprivation status (%)		Total
		Not deprived	Deprived	
Gender of HH head				
Male	764,923	77.3	22.7	100.0
Female	422,349	74.1	25.9	100.0
National	***1,187,272***	***76.2***	***23.8***	***100.0***
Locality				
Urban	650,679	86.9	13.1	100.0
Rural	536,593	63.1	36.9	100.0
Total	***1,187,272***	***76.2***	***23.8***	***100.0***
County				
Bomi	38,582	64.8	35.2	100.0
Bong	110,092	57.6	42.4	100.0
Gbarpolu	22,407	65.9	34.1	100.0
Grand Bassa	69,285	55.7	44.3	100.0
Grand Cape Mount	45,170	63.6	36.4	100.0
Grand Gedeh	43,670	79.4	20.6	100.0
Grand Kru	20,610	76.7	23.3	100.0
Lofa	75,247	70.8	29.2	100.0
Margibi	72,288	75.0	25.0	100.0
Maryland	37,223	79.8	20.2	100.0
Montserrado	449,904	87.9	12.1	100.0
Nimba	127,960	75.4	24.6	100.0
River Cess	21,086	64.4	35.6	100.0
River Gee	23,900	75.0	25.0	100.0
Sinoe	29,848	76.3	23.7	100.0
Total	***1,187,272***	***76.2***	***23.8***	***100.0***

Marked variations in deprivation are also observed across the counties. Two (2) counties namely, Grand Bassa (44.3 per cent) and Bong (42.4 per cent), have more than two out of five households deprived in household school attainment. Four (4) other counties have a little above a third of their households deprived in this indicator. These counties are Gbarpolu (34.1 per cent), Bomi (35.2 per cent), River Cess (35.6 per cent) and Grand Cape Mount (36.9 per cent). Montserrado (12.1 per cent) recorded the lowest proportion of deprived households, with the remaining counties recording between 20 and 30 per cent.

3.2.2 Primary school education

Distance to school is a significant factor affecting school attendance and drop-out rates. Long distances increase the opportunity costs of children attending school, can tire out children making it more difficult for them to learn, and can also potentially place them in vulnerable situations (Theunyck, 2002).

The Education Sector Plan 2022/23–2026/27 identified long distances to school facilities as one of the challenges of the education sector in Liberia. The plan, therefore, made its first priority programme for the plan period as "Access and equity in early childhood education (ECE) and general education". The specific objective for access to basic education was to "Ensure that all girls and boys complete disability-inclusive, gender-responsive, free, equitable and high-quality primary education in a safe, healthy, protective environment, leading to relevant and effective learning outcomes".

Households who cannot access the nearest primary school in a walking distance of less than one hour are classified as not having access to primary school and as such deprived. The primary school access deprivation status is shown in Table 3. The proportion of households deprived of access to primary school nationwide is 11.7 per cent. There is a higher proportion of male-headed households (12.8 per cent) in this deprived status than female-headed households (9.7 per cent).

A clear difference is observed by locality of residence, as the proportion of rural households (20.5 per cent) that is deprived in the access to a primary school is more than four times that of urban households (4.5 per cent). This is an indication that the deprivation is largely a rural phenomenon.

Variations exist between the counties. Three counties, Montserrado (5.2 per cent), Nimba (7.5 per cent) and Maryland (8.4 per cent), have households that are deprived in access to primary school below the national average of 11.7 per cent. Grand Bassa (33.4 per cent) has a third of households deprived, the highest among the counties, with the second highest being River Cess with a quarter of households (24.4 per cent) considered as deprived. The remaining counties have between 11 per cent and 19 per cent of households classified as deprived.

Table 3: Household deprivation status in access to primary education by gender, locality of residence and county

Categorization	Total no. of households	Deprivation status (%)		Total
		Not deprived	Deprived	
Gender of HH head				
Male	764,923	87.2	12.8	100.0
Female	422,349	90.3	9.7	100.0
National	***1,187,272***	***88.3***	***11.7***	***100.0***
Locality				
Urban	650,679	95.5	4.5	100.0
Rural	536,593	79.5	20.5	100.0
National	***1,187,272***	***88.3***	***11.7***	***100.0***
County				
Bomi	38,582	83.6	16.4	100.0
Bong	110,092	81.2	18.8	100.0

Gbarpolu	22,407	82.4	17.6	100.0
Grand Bassa	69,285	66.6	33.4	100.0
Grand Cape Mount	45,170	85.9	14.1	100.0
Grand Gedeh	43,670	84.3	15.7	100.0
Grand Kru	20,610	88.1	11.9	100.0
Lofa	75,247	87.2	12.8	100.0
Margibi	72,288	85.4	14.6	100.0
Maryland	37,223	91.6	8.4	100.0
Montserrado	449,904	94.8	5.2	100.0
Nimba	127,960	92.5	7.5	100.0
River Cess	21,086	75.2	24.8	100.0
River Gee	23,900	87.2	12.8	100.0
Sinoe	29,848	83.9	16.1	100.0
National	***1,187,272***	***88.3***	***11.7***	***100.0***

3.2.3 Children's school attendance

School attendance, as defined by UNESCO[4] , is attendance at any regular accredited educational institution or programme, public or private, for organized learning at any level of education at the time of the census or, if the census is taken during the vacation period at the end of the school year, during the last school year. The 2011 Education Reform Act is the overarching law guiding the education sector in Liberia, replacing the Education Law of 2001, and establishing free and compulsory basic education. This deprivation indicator is, therefore, to measure the deprivation in children's school attendance at the basic level despite it being free and compulsory. The primary school age is from 6 to 11 years. Any child in the household within this age bracket should be attending a primary school, otherwise the household is deprived in children's school attendance at the basic education level. Table 4 shows the deprivation status of children's school attendance by gender, locality of residence and county.

Table 4: Household deprivation status in children's school attendance by gender, locality of residence and county

Categorization	Total no. of households with children 6 to 11 years	Deprivation status (%)		Total
		Not deprived	Deprived	
Gender of HH head				
Male	290,974	68.2	31.8	100.0
Female	178,547	70.8	29.2	100.0

4 UNESCO IIEP Learning website https://learningportal.iiep.unesco.org/en/glossary/school-attendance

National	***469,521***	***69.2***	***30.8***	***100.0***
Locality				
Urban	256,793	81.3	18.7	100.0
Rural	212,728	54.6	45.4	100.0
National	***469,521***	***69.2***	***30.8***	***100.0***
County				
Bomi	12,419	71.0	29.0	100.0
Bong	42,053	49.4	50.6	100.0
Gbarpolu	8,099	56.0	44.0	100.0
Grand Bassa	25,991	44.9	55.1	100.0
Grand Cape Mount	14,124	58.2	41.8	100.0
Grand Gedeh	16,302	67.4	32.6	100.0
Grand Kru	9,566	59.8	40.2	100.0
Lofa	33,604	63.0	37.0	100.0
Margibi	27,709	69.1	30.9	100.0
Maryland	16,624	68.9	31.1	100.0
Montserrado	171,349	84.1	15.9	100.0
Nimba	60,639	66.8	33.2	100.0
River Cess	8,588	52.7	47.3	100.0
River Gee	10,146	62.0	38.0	100.0
Sinoe	12,308	57.7	42.3	100.0
National	***469,521***	***69.2***	***30.8***	***100.0***

A little less than a third (30.8 per cent) of households with children between ages 6 and 11 years nationwide, are deprived in school attendance. The deprivation among male-headed households (31.8 per cent) is a little higher than their female counterparts (29.2 per cent). The deprivation in urban households (18.7 per cent) is significantly lower than in rural households (45.4 per cent).

Like the other two indicators of deprivation in education discussed, the deprivation in children's school attendance among the counties shows large variations. Only two counties, Montserrado (15.9 per cent) and Bomi (29.0 per cent), have deprivations below the national average of 30.8 per cent, while Margibi (30.9 per cent) has almost the same as the national average. Bong (50.6 per cent) and Grand Bassa (55.1 per cent) have more than half of their households classified as deprived in children's school attendance. Five other counties that have high deprivation proportions between 40 per cent and 48 per cent are Grand Kru (40.2 per cent), Grand Cape Mount (41.8 per cent), Sinoe (42.3 per cent), Gbarpolu (44.0 per cent), and River Cess (47.3 per cent). The remaining counties recorded deprivations of 30–38 per cent.

In sum, the analysis suggests a national average household deprivation in the three indicators under the education dimension as 11.7 per cent for access to primary school, 23.8 per cent for household school attainment, and 30.8 per cent for children's school attendance. Male-headed households recorded higher proportions of deprivation than female-headed households in access to primary school and children's school attendance, while the reverse is true for school attainment although the variation is quite marginal. Deprivation in rural households in access to all the three indicators are significantly higher than that of urban households. By county of residence, the analysis shows that Montserrado County has the lowest household deprivation rates in all the indicators, while Grand Bassa has the highest deprivation rates for all the indicators.

3.3 Health

Access to healthcare is crucial for maintaining good health, preventing and managing diseases, and achieving health equity. Access to healthcare is a fundamental human right and a pillar of Liberia's sustainable development. Health poverty measures are useful to monitor deprivation in the domain of health. The first objective of Liberia's National Health and Social Welfare Plan (2011–2021) is to increase access to and utilization of a comprehensive package of high-quality health and social welfare services of proven effectiveness, delivered close to the community, endowed with the necessary resources and supported by effective systems. Inadequate healthcare services result in preventable diseases and high mortality rates, exacerbating the hardships faced by impoverished communities. Equity of access may be measured in terms of availability, utilization or outcomes of services.

Access to healthcare when needed improves overall health and well-being. Patients should be able to seek care promptly when they perceive a need. For the purpose of estimating deprivation in Liberia's MPI, access is measured by availability of health facility.

3.3.1 Access to health facility

By Liberian standard, accessing a health facility by walking for one hour or more means no access. Therefore, if a household can access a health facility by walking for one hour or more, it means the household is deprived in access to health facility. Based on this definition, Table 5 presents the deprivation status of the population in terms of health accessibility by gender, locality of residence and county.

Table 5: Household deprivation status in access to health facility by gender, locality of residence and county

Categorization	Total no. of households	Deprivation status (%)		Total
		Not deprived	Deprived	
Gender of HH head				
Male	764,923	68.7	31.3	100.0
Female	422,349	73.4	26.6	100.0
Total	***1,187,272***	***70.3***	***29.7***	***100.0***
Locality				
Urban	650,679	88.3	11.7	100.0
Rural	536,593	48.6	51.4	100.0
Total	***1,187,272***	***70.3***	***29.7***	***100.0***
County				
Bomi	38,582	57.3	42.7	100.0
Bong	110,092	57.2	42.8	100.0

Gbarpolu	22,407	49.4	50.6	100.0
Grand Bassa	69,285	49.5	50.5	100.0
Grand Cape Mount	45,170	62.9	37.1	100.0
Grand Gedeh	43,670	63.7	36.3	100.0
Grand Kru	20,610	59.7	40.3	100.0
Lofa	75,247	60.5	39.5	100.0
Margibi	72,288	71.0	29.0	100.0
Maryland	37,223	69.1	30.9	100.0
Montserrado	449,904	87.6	12.4	100.0
Nimba	127,960	59.3	40.7	100.0
River Cess	21,086	40.3	59.7	100.0
River Gee	23,900	62.8	37.2	100.0
Sinoe	29,848	67.8	32.2	100.0
Total	***1,187,272***	***70.3***	***29.7***	***100.0***

As presented in Table 5, the proportion of households deprived in access to health facility nationwide is 29.7 per cent. There is a higher proportion of male-headed households (31.3 per cent) in this deprived condition than female-headed households (26.6 per cent). A little more than half (51.4 per cent) of rural households are deprived in access to health facility, which is in sharp contrast with their urban counterparts who have a little above a tenth (11.7 per cent) of households in this deprived status. This suggests that this deprivation is largely a rural phenomenon.

Large variations are also observed across the counties. Only two counties, Montserrado (12.4 per cent) and Margibi (29.0 per cent), have households deprived in access to health facility below the national average of 29.7 per cent. Montserrado's low deprived status is attributed to the largely urban nature of the county. Three counties, namely, Grand Baasa (50.5 per cent), Gbarpolu (50.6 per cent) and River Cess (59.7 per cent) have majority of their households deprived in access to health facility. Counties that have about two-fifths of households being deprived are Grand Kru (40.3 per cent), Nimba (40.7 per cent), Bomi (42.7 per cent), and Bong (42.8 per cent). The rest of the counties have between 30 per cent and 40 per cent of households being classified as deprived.

3.4 Living conditions

Material dimension of poverty is directly linked to the living conditions of households or individuals (Terraneo, 2017). As explained by Gweshengwe and Hassan (2020), this dimension denotes material deprivation such as lack of or having low-quality consumer goods (household assets) and services such as furniture, radios, televisions, means of transport, clothing, housing, utilities, and amenities or facilities. Deprivation in these materials constitutes root causes of other dimensions of poverty. For instance, Gupta et al. (2007) found that children in families with greater material resources enjoy more secure living conditions and greater access to a range of opportunities that are often unavailable to children from low-income families.

3.4.1 Electricity

Many recent research findings, including those of Fujii et al. (2018) and Asghar et. al. (2022), point out that access to electricity significantly reduces poverty and enhances economic welfare in developing countries. Access to electricity is an important factor that might be expedient in declining poverty worldwide, and as such countries should ensure that everyone has easy and affordable access to power. Households with no access to electricity are considered deprived. Table 6 provides the deprivation status of households with respect to access to electricity. Majority of households (61.7 per cent) across the country are deprived in electricity access, with deprivation in rural households (85.0 per cent) being twice that of urban households (42.4 per cent). There is, however, virtually no difference in the deprivation levels by gender of household head.

All the counties, except Montserrado (32.3 per cent), have majority of their households being deprived in terms of electricity access, with Maryland (61.5 per cent) having deprivation ratio almost equivalent to the national average of 61.7 per cent. Bong (90.2 per cent) has the highest proportion of deprived households, with Grand Bassa (89.0 per cent), River Cess (86.9 per cent), Gbarpolu (86.4 per cent), Lofa (83.0 per cent) and Nimba (81.0 per cent) following in descending order of deprivation of between 80 and 90 per cent. The other counties have deprivation levels ranging from 69.1 per cent in Grand Cape Mount to 76.0 per cent in Margibi.

Table 6: Household deprivation status in access to electricity by gender, locality of residence and county

Categorization	Total no. of households	Deprivation status (%)		Total
		Not deprived	Deprived	
Gender of HH head				
Male	764,923	38.3	61.7	100.0
Female	422,349	38.5	61.5	100.0
National	***1,187,272***	***38.3***	***61.7***	***100.0***
Locality				
Urban	650,679	57.6	42.4	100.0
Rural	536,593	15.0	85.0	100.0
National	***1,187,272***	***38.3***	***61.7***	***100.0***
County				
Bomi	38,582	28.4	71.6	100.0
Bong	110,092	9.8	90.2	100.0
Gbarpolu	22,407	13.6	86.4	100.0
Grand Bassa	69,285	11.0	89.0	100.0
Grand Cape Mount	45,170	30.9	69.1	100.0
Grand Gedeh	43,670	27.6	72.4	100.0
Grand Kru	20,610	27.1	72.9	100.0
Lofa	75,247	17.0	83.0	100.0

Margibi	72,288	24.0	76.0	100.0
Maryland	37,223	38.5	61.5	100.0
Montserrado	449,904	67.7	32.3	100.0
Nimba	127,960	19.0	81.0	100.0
River Cess	21,086	13.1	86.9	100.0
River Gee	23,900	29.8	70.2	100.0
Sinoe	29,848	26.6	73.4	100.0
National	***1,187,272***	***38.3***	***61.7***	***100.0***

3.4.2 Safe drinking water

In many countries, preventable water-borne diseases keep a large portion of the population in a cycle of illness, illiteracy and poverty. Safe water is, therefore, a fundamental requirement for human well-being and is closely tied to poverty alleviation efforts. Safe drinking water as a non-monetary household indicator reflects whether households have a reliable and clean water source. Households that lack safe drinking water are considered to be experiencing a form of non-monetary poverty. When individuals lack access to safe drinking water, it exacerbates their vulnerability and perpetuates a cycle of poverty.

Improved drinking (safe) water sources, according to the World Health Organization (WHO), include piped water into dwelling, plot or yard, public tap/standpipe, tube well/borehole, protected dug well and protected spring. On the other hand, unimproved drinking water sources are unprotected dug well, unprotected spring, tanker truck, surface water (river, dam, lake, pond, stream, canal, irrigation channel and any other surface water). In the case of Liberia, bottled and sachet water are included in the safe drinking water category, while rainwater is categorized among the unsafe water source due to how it is harvested.

About seven in 10 households nationwide have access to safe drinking water, indicating a deprived proportion of about three in 10 households (Table 7). Deprivation among male-headed households (32.1 per cent) is roughly four percentage points above that of female-headed households (28.2 per cent). Nearly two in five (39.6 per cent) rural households are deprived compared to about a quarter of urban households (23.4 per cent).

Analysis of deprivation by county revealed that River Cess (62.7 per cent) and Grand Bassa (55.8 per cent) have the highest proportion of households being deprived in access to safe drinking water. Other counties with comparatively high proportions of household deprivation are Grand Kru (47.3 per cent), Sinoe (44.7 per cent) and Gbarpolu (40.8 per cent). In contrast, Maryland (18.6 per cent) has the least proportion of households in the deprived status, followed by Bomi (22.3 per cent), and Grand Cape Mount (23.7 per cent). Montserrado, the most urbanized county and host of the capital city of Monrovia, has a deprived household in access to drinking water of 27.7 per cent.

Table 7: Household deprivation status in access to safe drinking water by gender, locality of residence and county

Categorization	Total no. of households	Deprivation status (%)		Total
		Not deprived	Deprived	
Gender of HH head				
Male	764,923	67.9	32.1	100.0

Female	422,349	71.8	28.2	100.0
Total	***1,187,272***	***69.3***	***30.7***	***100.0***
Locality				
Urban	650,679	76.6	23.4	100.0
Rural	536,593	60.4	39.6	100.0
Total	***1,187,272***	***69.3***	***30.7***	***100.0***
County				
Bomi	38,582	77.7	22.3	100.0
Bong	110,092	67.3	32.7	100.0
Gbarpolu	22,407	59.2	40.8	100.0
Grand Bassa	69,285	44.2	55.8	100.0
Grand Cape Mount	45,170	76.3	23.7	100.0
Grand Gedeh	43,670	73.8	26.2	100.0
Grand Kru	20,610	52.7	47.3	100.0
Lofa	75,247	69.0	31.0	100.0
Margibi	72,288	73.4	26.6	100.0
Maryland	37,223	81.4	18.6	100.0
Montserrado	449,904	72.3	27.7	100.0
Nimba	127,960	74.7	25.3	100.0
River Cess	21,086	37.3	62.7	100.0
River Gee	23,900	71.5	28.5	100.0
Sinoe	29,848	55.3	44.7	100.0
Total	***1,187,272***	***69.3***	***30.7***	***100.0***

3.4.3 Cooking fuel

Information published by WHO on its Global Health Observatory portal indicates that, the use of solid fuels in households is associated with increased mortality from pneumonia and other acute lower respiratory diseases among children, as well as increased mortality from chronic obstructive pulmonary disease and lung cancer (where coal is used) among adults. Kerosene use for cooking is also associated with higher rates of baseline respiratory morbidity and increased risk of mortality and cardio-respiratory diseases. Clean fuels such as liquefied petroleum gas and biogas, however, produce fewer pollutants than solid fuels and are less harmful to human health.

For the analysis, households using electricity and liquefied petroleum gas are considered not deprived. The deprived categories are households that use

kerosene, wood, charcoal and other solid fuels. The deprivation status of households in access to clean source of cooking fuel is presented in Table 8 by gender, locality of residence and county.

Table 8: Household deprivation in access to clean cooking fuel

Categorization	Total no. of households	Deprivation status (%)		Total
		Not deprived	Deprived	
Gender of HH head				
Male	764,923	2.5	97.5	100.0
Female	422,349	2.2	97.8	100.0
National	***1,187,272***	***2.4***	***97.6***	***100.0***
Locality				
Urban	650,679	3.8	96.2	100.0
Rural	536,593	0.7	99.3	100.0
National	***1,187,272***	***2.4***	***97.6***	***100.0***
County				
Bomi	38,582	1.0	99.0	100.0
Bong	110,092	0.5	99.5	100.0
Gbarpolu	22,407	0.4	99.6	100.0
Grand Bassa	69,285	1.0	99.0	100.0
Grand Cape Mount	45,170	2.7	97.3	100.0
Grand Gedeh	43,670	1.1	98.9	100.0
Grand Kru	20,610	1.4	98.6	100.0
Lofa	75,247	0.7	99.3	100.0
Margibi	72,288	1.4	98.6	100.0
Maryland	37,223	2.0	98.0	100.0
Montserrado	449,904	4.6	95.4	100.0
Nimba	127,960	0.9	99.1	100.0
River Cess	21,086	0.2	99.8	100.0
River Gee	23,900	0.4	99.6	100.0
Sinoe	29,848	2.1	97.9	100.0
National	***1,187,272***	***2.4***	***97.6***	***100.0***

There is limited use of clean fuel for cooking nationwide, as an average of only 2.4 per cent use clean source of fuel in the country and, therefore, are considered not deprived. Conversely, 97.6 per cent of households nationwide are deprived in access to clean cooking fuel. No major differences exist between male- and female-headed households in access to improved cooking fuel. However, urban areas are three percentage points lower with respect to being deprived (96.2 per cent) compared to the rural areas (99.3 per cent) relative to access to improved cooking fuel. This means that almost all households in the rural areas are deprived in terms of access to improved cooking fuel.

There are also no wide disparities across counties, except Montserrado (95.4 per cent) that recorded 2.2 percentage points below the national average of 97.6 per cent, and Grand Cape Mount (97.3 per cent) with almost the same proportion as the national average. Majority of the counties are almost universally deprived (above 99 per cent) in terms of household deprivation in access to improved cooking fuel, with River Cess ranking the highest with 99.8 per cent.

3.4.4 Sanitation

According to WHO's Guidelines on Sanitation and Health (2018), improved sanitation facilities are defined as those that hygienically separate human waste from human contact[5] . Improved sanitation facilities include: flush or pour-flush to piped sewer system, septic tank or pit latrine, ventilated improved pit latrine, pit latrine with slab and composting toilet. Unimproved sanitation includes flush or pour-flush to elsewhere, pit latrine without slab or open pit, bucket, hanging toilet or hanging latrine and no facilities or bush or field (open defecation). Improper disposal can lead to adverse health outcomes, for example through water, soil and air contamination.

Households not having access to improved sanitation facilities are categorized as deprived. The estimated deprivation statuses of the three categories are presented in Table 9. The proportion of households that are deprived in accessing improved sanitation nationwide is 43.4 per cent, with a wide disparity between urban (20.0 per cent) and rural (71.8 per cent) households. Deprivation in male-headed households (44.9 per cent) is higher than that of female-headed households (40.7 per cent).

About one-fifth of households in Montserrado County are deprived in access to improved sanitation, and it is the lowest among the counties. Margibi County (40.6 per cent) also has deprived household proportion lower than the national average (43.4 per cent). All the other counties have proportions of deprived households greater than the national average. Ten (10) counties have majority of households deprived in access to improved sanitation, ranging from 55.4 per cent in Grand Cape Mount to 85.4 per cent in River Cess. Counties with proportions of deprived households closer to the national average are Nimba (47.7 per cent), River Gee (47.8 per cent), and Maryland (48.2 per cent).

Table 9: Household deprivation status in access to improved sanitation by gender, locality of residence and county

Categorization	Total no. of households	Deprivation status (%)		Total
		Not deprived	Deprived	
Gender of HH head				
Male	764,923	55.1	44.9	100.0
Female	422,349	59.3	40.7	100.0
National	***1,187,272***	***56.6***	***43.4***	***100.0***
Locality				
Urban	650,679	80.0	20.0	100.0
Rural	536,593	28.2	71.8	100.0

5 Cited from Improved sanitation facilities and drinking water sources (who.int).

National	***1,187,272***	***56.6***	***43.4***	***100.0***
County				
Bomi	38,582	31.8	68.2	100.0
Bong	110,092	40.5	59.5	100.0
Gbarpolu	22,407	26.0	74.0	100.0
Grand Bassa	69,285	32.3	67.7	100.0
Grand Cape Mount	45,170	44.6	55.4	100.0
Grand Gedeh	43,670	44.2	55.8	100.0
Grand Kru	20,610	26.2	73.8	100.0
Lofa	75,247	37.8	62.2	100.0
Margibi	72,288	59.4	40.6	100.0
Maryland	37,223	51.8	48.2	100.0
Montserrado	449,904	80.4	19.6	100.0
Nimba	127,960	52.3	47.7	100.0
River Cess	21,086	14.6	85.4	100.0
River Gee	23,900	52.2	47.8	100.0
Sinoe	29,848	23.9	76.1	100.0
National	***1,187,272***	***56.6***	***43.4***	***100.0***

3.4.5 Material for floor

Rights to decent living provides a backstop against the burden of environmental harm, and a decent housing is the first step to a better life. The materials used to construct the floor of a dwelling gives an indication of the socioeconomic status of the occupants (GSS, 2013). The construction material for the floor of household dwellings has been selected to represent the different parts of construction of a residential accommodation such as materials for outer walls and roofing. A household is considered deprived in flooring material if it is made of earth, mud or dung.

Over one-third of households (36.2 per cent) across the country are deprived in access to improved floor material (Table 10). A comparison of gender of household heads indicates that the proportion of deprived households is higher in male-headed households (37.3 per cent) than that of females (34.2 per cent). The deprivation in rural households (65.2 per cent) is also more than five times that of urban households (12.3 per cent). This means, majority of dwellings of rural households are made of earth, mud or dung.

Table 10: Household deprivation status in access to improved floor by gender, locality of residence and county

Categorization	Total no. of households	Deprivation status (%)		Total
		Not deprived	Deprived	
Gender of HH head				
Male	764,923	62.7	37.3	100.0
Female	422,349	65.8	34.2	100.0
Total	***1,187,272***	***63.8***	***36.2***	***100.0***
Locality				
Urban	650,679	87.7	12.3	100.0
Rural	536,593	34.8	65.2	100.0
Total	***1,187,272***	***63.8***	***36.2***	***100.0***
County				
Bomi	38,582	51.5	48.5	100.0
Bong	110,092	43.2	56.8	100.0
Gbarpolu	22,407	24.6	75.4	100.0
Grand Bassa	69,285	42.4	57.6	100.0
Grand Cape Mount	45,170	54.6	45.4	100.0
Grand Gedeh	43,670	41.7	58.3	100.0
Grand Kru	20,610	36.3	63.7	100.0
Lofa	75,247	36.7	63.3	100.0
Margibi	72,288	70.7	29.3	100.0
Maryland	37,223	62.8	37.2	100.0
Montserrado	449,904	90.4	9.6	100.0
Nimba	127,960	54.6	45.4	100.0
River Cess	21,086	24.3	75.7	100.0
River Gee	23,900	42.2	57.8	100.0
Sinoe	29,848	37.5	62.5	100.0
Total	***1,187,272***	***63.8***	***36.2***	***100.0***

3.4.6 Basic household asset ownership

Asset scores are widely used as the preferred method of measuring socioeconomic well-being of households in developing countries (Khan et al., 2023). Many studies on multidimensional poverty considered assets as one of the most important poverty indicators, alongside education and standard of living. A study by Oluwatayo and Babalola (2020) revealed that ownership of non-monetary assets, income and household size had a positive influence on the household poverty status. Basic household assets selected for the MPI estimation for Liberia are mattress, radio and cellphone. Explanation for selecting these three indicators among many is given below.

In an article by Amelia Caroline[6] , the author opined that "while a mattress itself may not be a direct source of income, the quality of sleep it provides can have a profound impact on an individual's overall well-being and productivity. Sufficient and restful sleep has been scientifically linked to improved cognitive function, enhanced mood and reduced stress levels. These benefits, in turn, can lead to increased job performance, better decision-making and overall success in various aspects of life".

Technological advancements have given people more ways to access increasing amounts of information. However, radio still plays a vital role in today's world. Radio broadcasts provide real-time information and can provide the most recent updates to listeners. Radio has the ability to reach across borders and can become a valuable source of information where reliable news is scarce.

Cell phones have become a necessity for many people throughout the world. Cellphone ownership facilitates greater and more affordable access to information and generate welfare gains (Miyajima, 2020). For example, in the event of emergency, having a cellphone can allow help to reach you quickly and could possibly save lives.

A household is deprived if no member owns the asset in question. The household deprivation status of the three selected assets is shown in Table 11. The national average figures indicate that 16.2 per cent, 52.8 per cent and 36.6 per cent are deprived respectively in ownership of mattress, radio and cellphone.

Table 11: Household deprivation status in access to mattress, radio and cellphone by gender, locality of residence and county

Categorization	Total no. of households	Mattress - deprivation status (%)			Radio - deprivation status (%)			Cellphone - deprivation status (%)		
		Not deprived	Deprived	Total	Not deprived	Deprived	Total	Not deprived	Deprived	Total
Gender of HH head										
Male	764,923	84.3	15.7	100.0	51.0	49.0	100.0	64.0	36.0	100.0
Female	422,349	83.1	16.9	100.0	40.3	59.7	100.0	62.4	37.6	100.0
Total	***1,187,272***	***83.8***	***16.2***	***100.0***	***47.2***	***52.8***	***100.0***	***63.4***	***36.6***	***100.0***
Locality										
Urban	650,679	92.9	7.1	100.0	55.0	45.0	100.0	80.9	19.1	100.0
Rural	536,593	72.9	27.1	100.0	37.7	62.3	100.0	42.2	57.8	100.0
Total	***1,187,272***	***83.8***	***16.2***	***100.0***	***47.2***	***52.8***	***100.0***	***63.4***	***36.6***	***100.0***
County										

6 In an article titled "Sleep Soundly, Invest Wisely: Your Mattress As A Secret Asset" and posted on Sleep Soundly, Invest Wisely: Your Mattress As A Secret Asset - MyHomeNiche on February 6, 2024.

Bomi	38,582	78.3	21.7	100.0	38.7	61.3	100.0	50.9	49.1	100.0
Bong	110,092	79.3	20.7	100.0	40.0	60.0	100.0	45.0	55.0	100.0
Gbarpolu	22,407	74.7	25.3	100.0	35.7	64.3	100.0	41.2	58.8	100.0
Grand Bassa	69,285	79.8	20.2	100.0	49.1	50.9	100.0	45.5	54.5	100.0
Grand Cape Mount	45,170	74.3	25.7	100.0	43.0	57.0	100.0	47.5	52.5	100.0
Grand Gedeh	43,670	84.9	15.1	100.0	42.2	57.8	100.0	50.0	50.0	100.0
Grand Kru	20,610	72.4	27.6	100.0	24.1	75.9	100.0	46.4	53.6	100.0
Lofa	75,247	53.0	47.0	100.0	47.0	53.0	100.0	46.5	53.5	100.0
Margibi	72,288	86.3	13.7	100.0	52.8	47.2	100.0	63.6	36.4	100.0
Maryland	37,223	75.9	24.1	100.0	22.7	77.3	100.0	64.5	35.5	100.0
Montserrado	449,904	94.1	5.9	100.0	57.7	42.3	100.0	84.2	15.8	100.0
Nimba	127,960	82.6	17.4	100.0	39.6	60.4	100.0	52.4	47.6	100.0
River Cess	21,086	79.3	20.7	100.0	33.1	66.9	100.0	50.3	49.7	100.0
River Gee	23,900	81.3	18.7	100.0	31.8	68.2	100.0	59.2	40.8	100.0
Sinoe	29,848	81.9	18.1	100.0	32.6	67.4	100.0	49.7	50.3	100.0
Total	***1,187,272***	***83.8***	***16.2***	***100.0***	***47.2***	***52.8***	***100.0***	***63.4***	***36.6***	***100.0***

On the average, the proportion of households deprived in the use of mattress is low (16.2 per cent), with the proportion of female-headed households (16.9 per cent) slightly higher than their male (15.7 per cent) counterparts. The same cannot be said about the urban-rural divide, as the proportion of deprived rural households (27.1 per cent) is almost four times that of the urban households (7.1 per cent).

Montserrado (5.9 per cent), Margibi (13.7 per cent), and Grand Gedeh (15.1 per cent) are the only three counties that have proportions of households deprived in access to a mattress below the national average of 16.2 per cent (Table 11). Lofa County (47.0 per cent) has the highest proportion of households that are deprived among the counties.

Majority (52.8 per cent) of households across the country are deprived in access to radio (Table 11). Deprivation in female-headed households (59.7 per cent) is 10 percentage points higher than that of male-headed households (49.0 per cent). Deprivation among rural households (62.3 per cent) is also much higher than their urban (45.0 per cent) counterparts.

Three counties, namely, Montserrado (42.3 per cent), Margibi (47.2 per cent) and Grand Bassa (50.9 per cent) have proportions of households that are deprived in access to radio below the national average of 52.8 per cent. Two (2) counties that stand out as having the highest household deprivation among the counties are Grand Kru (75.9 per cent) and Maryland (77.3 per cent).

More than one-third of households in Liberia are deprived in access to cellphone (Table 11). The disparity by gender of household head is not pronounced with deprivation in female-headed households (37.6 per cent) slightly higher than that of male-headed households (36.0 per cent). The majority of rural households (57.8 per cent) lack access to a cellphone compared to about one-fifth (19.1 per cent) of urban households.

Montserrado (15.8 per cent) stands out as the county with the lowest household deprivation rate in access to cellphone, with Maryland (35.5 per cent) and Margibi (36.4 per cent) also having household deprivation proportions slightly below the national average. Half of households in Grand Gedeh are deprived in access to cellphone, while seven counties have more than half of their households being deprived, namely, Sinoe (50.3 per cent), Grand Cape Mount (52.5 per cent), Lofa (53.5 per cent), Grand Kru (53.6 per cent), Grand Bassa (54.5 per cent), Bong (55.0 per cent), and Gbarpolu (58.8 per cent).

In sum, national averages in respect of households deprived in the selected indicators under living conditions dimension revealed that more than half of the households are deprived in two of the indicators, namely, electricity (61.7 per cent) and cooking fuel (97.6 per cent). The indicator that recorded the least deprivation is safe drinking water (30.7 per cent).

In all the indicators, except cooking fuel and basic household assets, male-headed households have higher proportions of deprivation than households headed by females. In some of the indicators like electricity and cooking fuel, the disparity is marginal. Rural households exhibited markedly higher deprivation in all the indicators than urban households.

Montserrado County has the least proportion of households deprived in all the indicators except in safe drinking water where Maryland is the least deprived. Counties that have the highest proportion of deprived households in the selected indicators are Bong (90.2 per cent deprived in electricity); River Cess (62.7 per cent deprived in safe drinking water); River Cess (99.8 per cent deprived in improved cooking fuel); Sinoe (76.1 per cent deprived in improved sanitation); and Grand Kru (63.7 per cent deprived in improved floor).

For the household basic assets indicator, it is only radio among the other two selected household assets that a little more than half (52.8 per cent) of households nationwide do not have access. Mattress is the household asset that has the lowest access deprivation among the three selected assets. However, disparities are observed, some very pronounced, when analysed on the basis of gender of household head, locality of residence and county. The proportions of deprived female-headed households are higher than those of male-headed households in all the three selected assets. Marked disparities are observed between urban and rural households in deprivation rates with the proportions of rural households deprived in all the three selected assets significantly higher than those of the urban households.

Montserrado has the lowest household deprivation in all the selected household assets. Margibi county has household deprivation proportions in all the selected assets below the national average while Lofa, Maryland and Gbarpolu have the highest household deprivation proportions in mattress, radio and cellphone respectively.

Chapter 4: Disagregation of the multidimensional poverty index

4.1 Introduction

As stated earlier, multidimensional poverty considers the many overlapping deprivations that poor people experience and provides a more detailed exposition on the various dimensions of people's living standards to complement monetary poverty statistics. The MPI constitutes a family or set of poverty measures. These measures have been unpacked in this chapter to show the composition of poverty by key household characteristics (gender, educational status and marital status of household head), locality of residence (urban/rural) and across the counties. At the household level, specific types of households are examined to find out if they are more likely to be poor than others. Understanding how poverty affects subgroups in different ways is critical to realizing welfare goals (Boudet et al., 2018). Dimensional breakdown enriches the informational content of poverty measures for policy, enabling them to be used to tailor policies to the composition of poverty, to monitor changes by dimension, and to make comparisons across time and space.

4.2 Definition of concepts

Multidimensional Poverty Index (MPI): People are counted as multidimensionally poor if they are deprived in one-third or more of 10 indicators used for computing the Liberia index. This means one deprivation alone may not represent poverty. The MPI value summarizes information on multiple deprivations into a single number. It is also called adjusted headcount ratio. It is calculated by multiplying the incidence of poverty by the average intensity of poverty. MPI ranges from zero to one, and a higher number signifies greater multidimensional poverty.

Incidence of poverty (Who is Poor?): The proportion of people who are poor according to the MPI (those who are deprived in at least 33 per cent of the weighted indicators). This is called the headcount ratio or poverty rate.

Intensity (How Poor are They?): This refers to the severity or depth of poverty experienced by individuals or households. It is the average number of deprivations people experience at the same time. It quantifies how much worse off someone is compared to the poverty cut-off. It is also a measure of how poor the poor people are.

Poverty cut-off (k): It identifies those who are multidimensionally poor in at least k-weighted indicators. The value of "k" reflects the minimum level of deprivations or deprivation score an individual or household must be suffering from simultaneously to be considered poor.

Censored Headcount Ratio (CHR): The censored headcount ratio of an indicator is the percentage of the total population – or one of its subsets – who are deprived in that indicator. The weighted sum of the CHRs constitutes the MPI. This means that a decrease in any deprivation of any poor person will decrease poverty as measured by the MPI. The censored headcount ratios only count a deprivation when the person who experiences it is also multidimensionally poor.

Uncensored Headcount Ratio: The 'uncensored headcount ratio' of each indicator represents the proportion of the total population who are deprived in that indicator, irrespective of their poverty status. i.e., the percentage of all people – poor and non-poor – who are deprived in that particular indicator.

Composition of Poverty: The percentage contribution of an indicator shows how much it contributes to the overall MPI of a given population. It depends on both the censored headcount ratio and the weight of that indicator. This measure – often visualized as a striped bar – provides immediate comparison of the contribution of each indicator to the MPI for different population groups within a country.

Percentage contribution: The percentage of the MPI that each indicator contributes (sums to 100 per cent)

National MPI: This headline figure represents the overall level of poverty across various deprivations nationwide.

County MPI: It focuses on poverty patterns within specific counties.

4.3 National multidimensional poverty in Liberia

4.3.1 Multidimensional Poverty Index and partial indices

The national MPI for 2022 is presented in Table 12. The table includes partial indices of the MPI, namely, the incidence of poverty (the proportion of people identified as multidimensionally poor – H) and the intensity of poverty (the average proportion of weighted indicators in which the poor are deprived – A).

Table 12: Multidimensional poverty index, incidence and intensity

Poverty cut-off (k)	Index	Value	95% Confidence interval	
k-value=33%	MPI	0.261	0.260	0.261
	Headcount ratio (H, %)	45.0	45.0	45.1
	Intensity (A, %)	57.9	57.8	57.9

The national MPI, which is the product of the incidence (H) and intensity (A) of poverty, has a value of 0.261. This means that multidimensionally poor people in Liberia experience 26.1 per cent of the weighted deprivations out of the total possible deprivations that could be experienced.

The incidence of multidimensional poverty indicates that out of the population of 5,250,187 (Appendix Table A1) in 2022, 45.0 per cent (equivalent to 2,362,584 persons) is multidimensionally poor. This means that at least two out of every five Liberians are identified as multidimensionally poor. Based on the 95 per cent confidence interval, the true multidimensional poverty headcount ratio is between 45.0 per cent and 45.1 per cent of the population.

The intensity of poverty, which is a reflection of the share of deprivations each poor person experiences on average, is 57.9 per cent. That is, a multidimensionally poor person is, on average, deprived in about six of the 10 weighted indicators. It can also be explained that each poor person is, on average, deprived in about 57.9 per cent of the weighted indicators.

4.3.2 Censored and uncensored headcount ratios

Censored and uncensored headcount ratios are presented in Table 13. As defined earlier, the CHR represents the percentage of people who are multidimensionally poor in a given population. It considers individuals who experience deprivations across multiple dimensions as listed in Table 13. In other words, the CHR accounts for all deprivations, regardless of whether a person is considered multidimensionally poor or not. The uncensored headcount ratio, on the other hand, focuses solely on the percentage of people who are deprived in any specific indicator, as listed in Table 13. Unlike the CHR, it does not take into account whether these deprivations collectively classify an individual as multidimensionally poor. In sum, while the CHR considers multidimensional poverty, the uncensored headcount ratio looks at deprivations in individual indicators without necessarily assessing overall poverty. Both measures provide valuable insights for policy analysis and decision-making.

Table 13: National censored and uncensored headcount ratios

Indicator	Censored	Uncensored
Primary School	11.4	11.9
School attainment	24.7	33.2
School attendance	3.9	4.2
Health facility	31.4	31.4

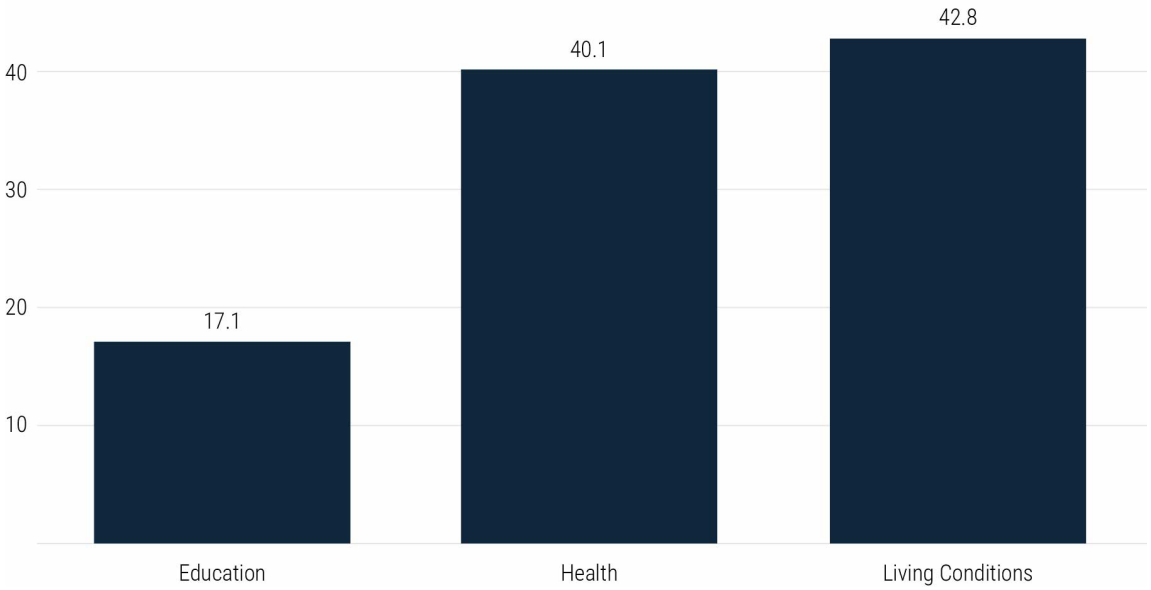
Electricity	37.3	61.6
Toilet	34.4	58.5
Drinking water	20.5	28.3
Flooring	28.0	36.0
Cooking fuel	43.4	96.5
Assets	36.9	63.4

The CHRs show that deprivations related to living conditions contribute most to poverty as revealed in cooking fuel (43.4 per cent), electricity (37.3 per cent), assets (36.9 per cent) and toilet (34.4 per cent). Deprivation in safe drinking water has the lowest censored ratio among the indicators under living conditions. These are also reflected in the uncensored headcount ratios. The single indicator under health recorded a censored headcount ratio of 31.4 per cent. On the other hand, a smaller proportion of people are multidimensionally poor and deprived in indicators related to education.

4.3.3 Contributors to national multidimensional poverty

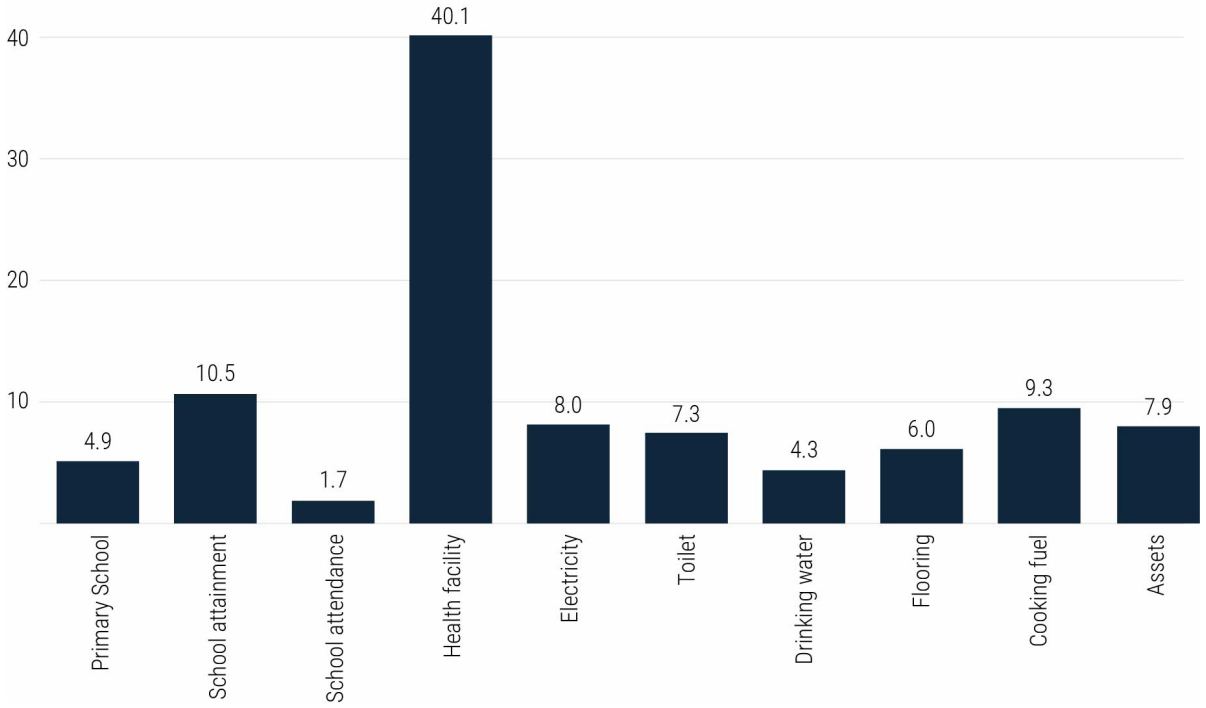
How the three different dimensions of poverty contribute to national multidimensional poverty is presented in Figure 1. The largest contributor to multidimensional poverty is living conditions (42.8 per cent). This is followed closely by health (40.1 per cent) with education (17.1 per cent) contributing the least.

Figure 1: Contribution of dimensions to multidimensional poverty



The contribution of the indicators to multidimensional poverty is displayed in Figure 2. The health indicator (one hour or more walking distance to a health facility) contributed the largest (40.1 per cent) to national multidimensional poverty. School attainment (10.5 per cent), an indicator under the education dimension, is the second largest contributor. Four indicators under living conditions, namely, cooking fuel (9.3 per cent), electricity (8.0 per cent), assets (7.9 per cent), and toilet (7.3 per cent) contribute the next largest in order of magnitude to multidimensional poverty while school attendance (1.7 per cent) is the least contributor.

Figure 2: Contribution of indicators to multidimensional poverty



4.4 Disaggregation of multidimensional poverty by locality of residence

Understanding the difference between the contributors to urban and rural poverty is fundamental for a national poverty alleviation strategy. The analysis under this subsection aims at finding out urban and rural poverty issues regarding their several distinct features and similarities. This will help in obtaining the right solutions for the right situations in the right places.

4.4.1 Level of multidimensional poverty by locality of residence

The urban MPI is 0.111 and that of rural is 0.440, signifying higher multidimensional poverty in rural localities than urban (Table 14). The urban MPI is significantly lower than the national MPI while the rural MPI is significantly higher than the national MPI. The poverty incidence shows that 72.0 per cent of the rural population is multidimensionally poor compared to 22.5 per cent of the urban population (Table 14). This clearly indicates that urban areas also experience poverty, but rural regions bear a heavier burden. This confirms existing evidence that rural areas are home to most of the poor worldwide (FAO and OPHI, 2022).

Table 14: MPI by locality of residence

Poverty cut-off (k)	Index	National	Urban	Rural
k-value=33%	MPI	0.261	0.111	0.440
	Headcount ratio (H, %)	45.0	22.5	72.0
	Intensity (A, %)	57.9	49.3	61.1

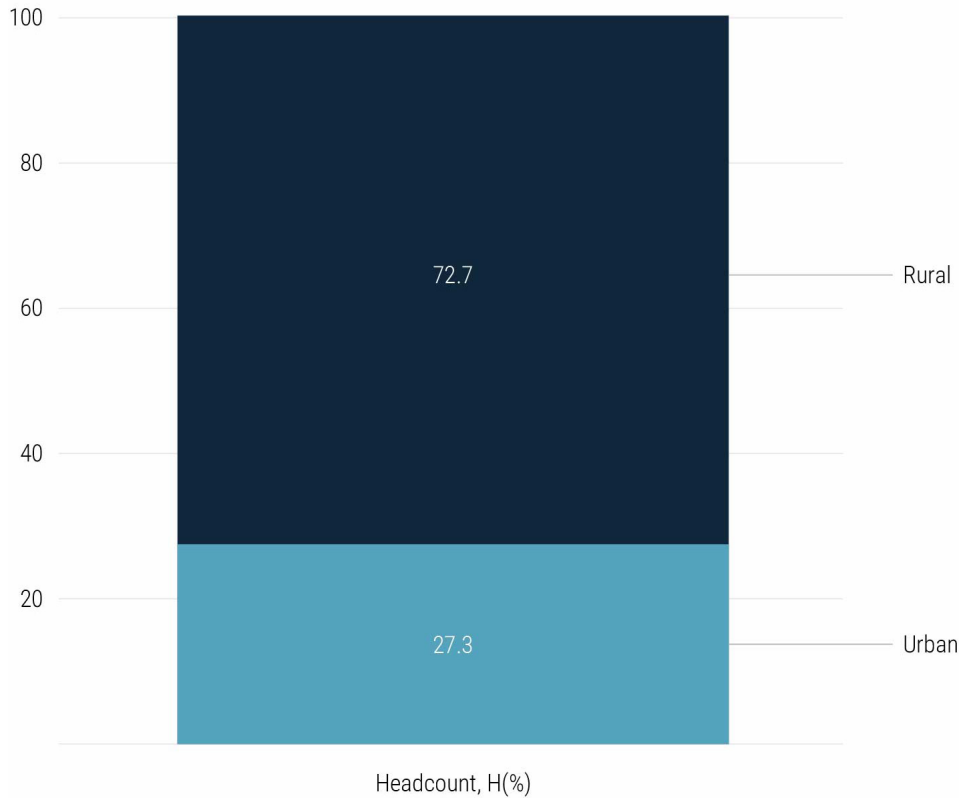
The intensity of poverty is higher among rural population than their urban counterparts. As indicated in Table 14, each poor person in a rural locality is, on average, deprived in about 61.1 per cent of the weighted indicators compared to 49.3 per cent for the urban poor.

4.4.2 Contributors to multidimensional poverty in localities of residence

How much urban and rural poor contribute to national multidimensional poverty is shown in Figure 3.

Though Liberia's population is predominantly urban (54.5 per cent) according to the 2022 LPHC, the rural poor contribute as high as 72.7 per cent to national poverty.

Figure 3: Contribution to multidimensional poverty by locality of residence



The three poverty dimensions impact differently on poverty in the different localities. Like the national picture, education is the lowest contributor to poverty in both urban (18.6 per cent) and rural (16.7 per cent) localities, with the contribution to rural poverty being lower than the national average (Figure 4). However, there is disparity in the ranking of the contributions of health and living conditions by locality of residence. While in rural localities deprivations related to living conditions is the second contributor to poverty, in the urban localities, health contributes the largest.

Figure 4: Contribution (%) of poverty dimensions to multidimensional poverty by locality of residence

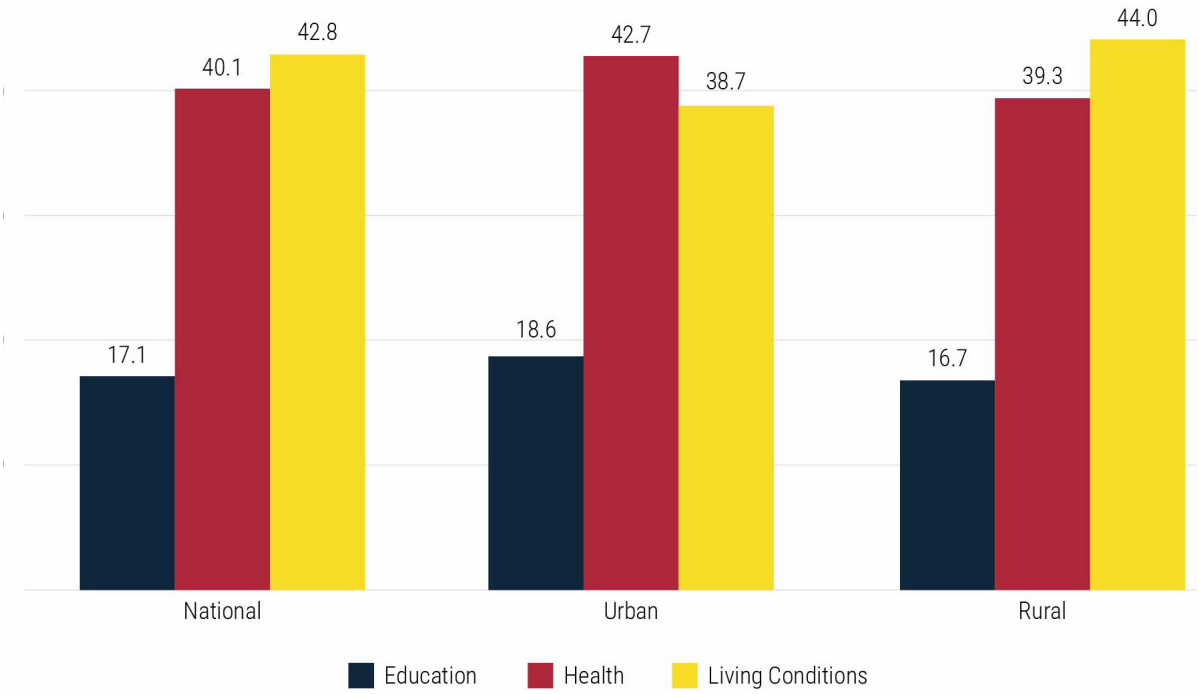


Table 15 provides information on the specific contributions of the 10 indicators to overall poverty by locality of residence. The health indicator contributes the largest to multidimensional poverty in both localities, but its contribution is higher in urban (42.7 per cent) than rural (39.4 per cent).

Table 15: Contribution (%) of indicators to multidimensional poverty by locality of residence

Indicator	National	Urban	Rural
Primary School	4.9	5.6	4.7
School attainment	10.5	10.7	10.5
School attendance	1.7	2.3	1.5
Health facility	40.1	42.7	39.3
Electricity	8.0	7.3	8.2
Toilet	7.3	6.2	7.7
Drinking water	4.3	3.6	4.6
Flooring	6.0	3.2	6.8
Cooking fuel	9.3	10.3	8.9
Assets	7.9	8.1	7.8
Total	**100.0**	**100.0**	**100.0**

School attainment contributed about one-tenth to multidimensional poverty in all localities, and this is the second largest contributor among the 10 indicators. This means MPI has significant links with educational attainment of the household. Cooking fuel is the third for both localities. School attendance (children of primary school age in the household not attending primary school) is the lowest contributor in both localities.

Six indicators among the urban population contributed higher to multidimensional poverty than the rural group. These are access to primary school, school attainment, school attendance, health, cooking fuel and assets. Flooring recorded the largest disparity in contribution to poverty between urban (3.2 per cent) and rural (6.8 per cent) groups.

In conclusion, seven in 10 (72.0 per cent) of rural dwellers are multidimensionally poor compared to about one out of five urban dwellers. However, from the findings, there are no significant differences between what contributes to multidimensional poverty in both localities.

4.5 Disaggregation of multidimensional poverty and gender of household head

According to Julka and Das (2015), the relationship between gender and poverty is a complex and controversial topic that is attracting increased attention. They indicated that, there are several practices and customs that are still prevalent in some countries that symbolize the subordination of women to men, making gender biases against women an intrinsic social issue as well. Thus, socioeconomic gender biases against women in some areas of the world place female-headed households at a greater risk of poverty, where women are the primary income earners.

The analysis of the 2022 Liberia MPI by gender of household head is to provide more insight into some root causes of multidimensional poverty in Liberia. This will help in realizing the policy towards the "Leaving No One Behind" mantra of the SDGs.

4.5.1 Level of multidimensional poverty and gender of household head

Information on the MPI disaggregated by gender of household head is shown in Table 16. The MPI for male-headed households (0.273) is higher than that of the female-headed households (0.237), indicating higher multidimensional poverty among male-headed households. The proportion of multidimensionally poor people in households headed by males is 46.5 per cent while that of female-headed households is 42.3 per cent. Male-headed households also have slightly higher poverty intensity than their female counterparts. A study by Milazzo and van de Walle (2015) revealed that poverty is found to have fallen for both male- and female-headed households, but in most countries, poverty has been falling faster for female-headed households as a whole.

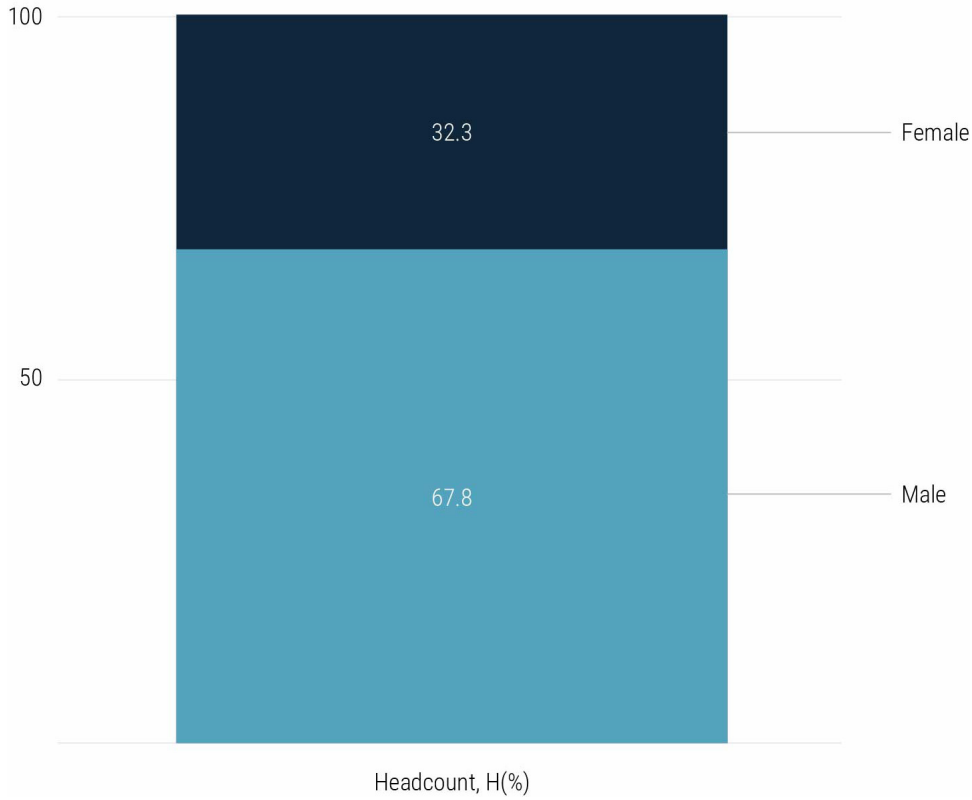
Table 16: Multi-dimensional poverty index, incidence and intensity of poverty and gender of household head

Poverty cut-off (k)	Index	National	Male	Female
k-value=33%	MPI	0.261	0.273	0.237
	Headcount ratio (H, %)	45.0	46.5	42.3
	Intensity (A, %)	57.9	58.7	56.0

4.5.2 Contributors to multidimensional poverty and gender of household head

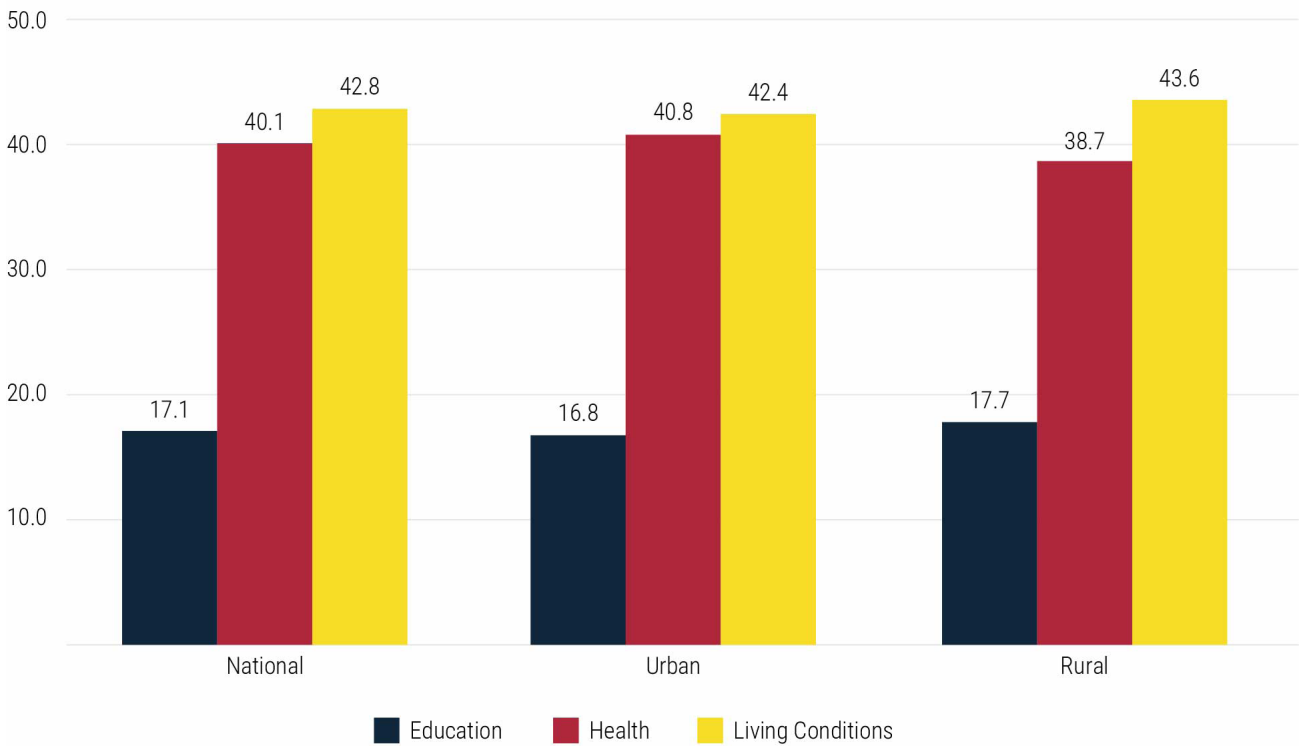
Male-headed households contribute 67.8 per cent to multidimensional poverty in the country (Figure 5), which is more than two times the contribution of female-headed households. It should be noted that male-headed households (64.4 per cent) are more than female-headed households (35.6 per cent) in Liberia.

Figure 5: Contribution to multidimensional poverty by gender of household head



A key area of concern has been the extent to which women and men face different levels of poverty and distinct barriers to poverty reduction (Boudet et al., 2018). Figure 6 presents how the poverty dimensions affect the different gender-headed households. Education's contribution to multidimensional poverty is slightly higher in female-headed households (17.7 per cent) than male-headed households (16.8 per cent). Living conditions also contribute slightly higher to poverty in female-headed households (43.6 per cent) than in male-headed households (42.4 per cent). The contribution of health, however, is higher in male-headed households.

Figure 6: Contribution (%) of dimensions to multidimensional poverty by gender of household head



Contributions of the individual indicators to multidimensional poverty by gender of household head is shown in Table 17. Generally, there are slight differences between the contributions of the indicators to multidimensional poverty of the two groups. Indicators that contribute higher in male-headed households than female-headed households are access to primary school, access to health facility, access to safe drinking water, and improved flooring.

Table 17: Contribution (%) of indicators to multidimensional poverty by gender of household head

Indicator	National	Male	Female
Primary School	4.9	5.0	4.5
School attainment	10.5	10.2	11.4
School attendance	1.7	1.6	1.8
Health facility	40.1	40.8	38.7
Electricity	8.0	7.9	8.1
Toilet	7.3	7.3	7.4
Drinking water	4.3	4.5	4.2
Flooring	6.0	6.0	6.0
Cooking fuel	9.3	9.1	9.5

Assets	7.9	7.6	8.4
Total	**100.0**	**100.0**	**100.0**

In sum, the analysis of multidimensional poverty in Liberia shows that poverty incidence among male-headed households is higher than female-headed households, which is contrary to the "feminization of poverty" hypothesis. A likely factor that can be used to explain this occurrence is that there are probably no socioeconomic gender biases against women in Liberia that place female-headed households at a greater risk of poverty. The 2017 multidimensional poverty for Ghana also shows clear evidence of male-headed households being more multidimensionally poor than their female counterparts. As noted by Aggarwal (2012), in spite of its widely held currency, the assertion that women-headed households are the 'poorest of the poor' has been contested on various grounds.

4.6 Disaggregation of multidimensional poverty and educational attainment of household head

Many studies, including that of Botha (2010) and Abaidoo and Read (2021), indicate that the educational attainment of the household head plays a crucial role in determining household poverty. These studies have established a negative correlation between the level of education and poverty.

4.6.1 Levels of multidimensional poverty and education attainment of household head

Table 18 gives some information about multidimensional poverty in relation to the educational attainment of household head. The MPI for household head with no education (0.372) qualification is the highest and this declines as household heads' educational level increases. Households with heads who have attained tertiary education status have the lowest multidimensional poverty. That is, households in which the head has a low level of education are more likely to be poor compared to others where the head has a higher level of education. The MPIs of households with heads having secondary and tertiary education are lower than the national average while the other two levels, no education and basic education, exhibit higher MPIs above the national average.

The same trend is observed with the poverty headcount as majority (62.4%) of households headed by people with no education are multidimensionally poor compared to 18.4 per cent for households whose heads have attained tertiary education. The data indicate a clear negative relationship between education and poverty. In terms of poverty intensity, the same picture unveils as the proportion drops from no education down to tertiary education. That is, as educational attainment of the household head increases, the weighted deprivations of the multidimensionally poor, on the average, reduce.

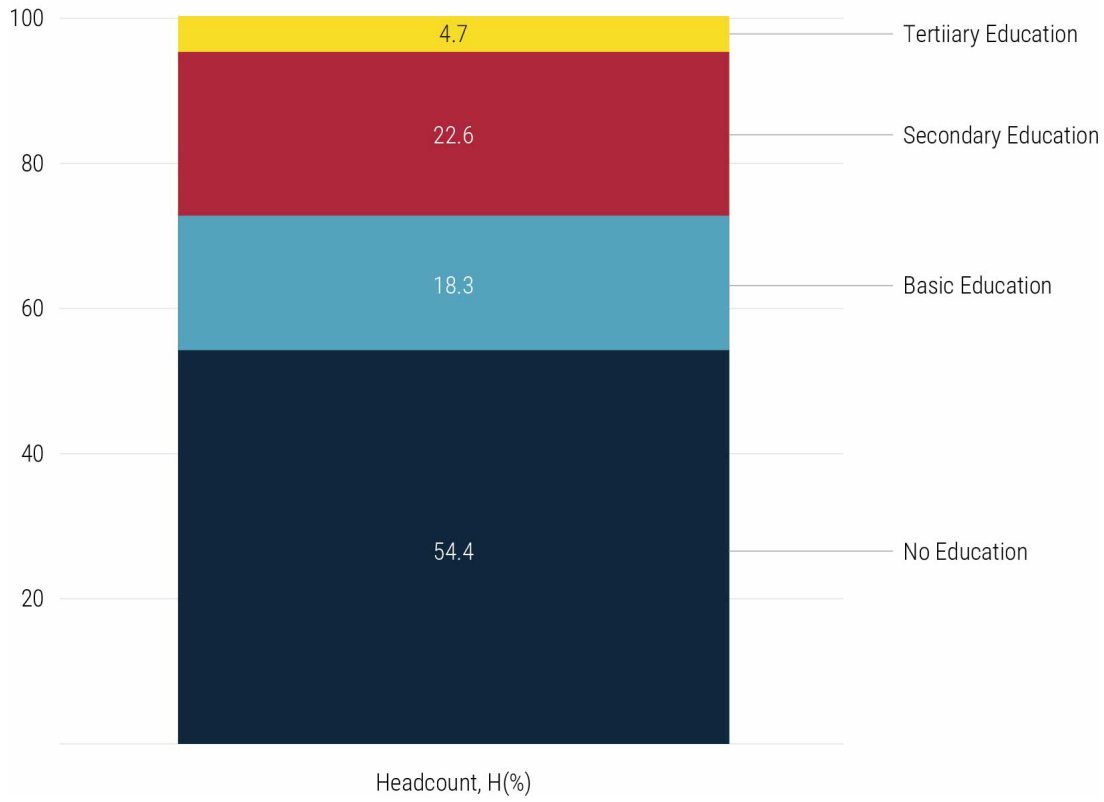
Table 18: Multidimensional poverty by education attainment of household head

Education Level	MPI	Headcount, H (%)	Intensity, A (%)
No Education	0.372	62.4	59.6
Basic Education	0.278	47.8	58.2
Secondary Education	0.175	31.8	55.0
Tertiary Education	0.092	18.4	50.0
National	**0.261**	**45.0**	**57.9**

4.6.2 Contributors to multidimensional poverty and educational attainment of household head

As indicated in Figure 7, the poor in households headed by people with no education contributed the highest (54.4 per cent) to multidimensional poverty. The second largest contributor is secondary education (22.6 per cent) with tertiary contributing the least of 4.7 per cent.

Figure 7: Percent contribution of educational attainment of household head to multidimensional poverty



Disparities exist in the different dimensions to multidimensional poverty by educational attainment of the household head as indicated in Table 19. Education dimension is the least contributor to multidimensional poverty in all the categories of household heads. However, among the different educational attainment levels, only households headed by persons with no education have the education dimension contributing more than the national average to multidimensional poverty. With regard to health, the contribution to poverty is positively correlated to educational attainment of household head. That is, as educational attainment of the household head increases, the contribution of health to multidimensional poverty also increases. The contribution of health to poverty increased from 35.6 per cent among households headed by persons with no education to 55.6 per cent among others headed by individuals with tertiary level education.

Table 19: Per cent contribution of dimension to multidimensional poverty by educational attainment of household head

Education Level	Education	Health	Living conditions	Total
No Education	19.9	35.6	44.5	100.0
Basic Education	13.4	43.3	43.3	100.0
Secondary Education	13.4	46.3	40.3	100.0
Tertiary Education	13.8	55.6	30.6	100.0
National	**17.1**	**40.1**	**42.8**	**100.0**

Living conditions dimension of poverty, on the other hand, is negatively correlated with educational attainment of household head (Table 20). As the educational attainment of the household head increases, the contribution of living standards to multidimensional poverty declines. Living conditions contribute 44.5 per cent to multidimensional poverty of households headed by persons with no education and declines with progression of education of the household head to 30.6 per cent for others with tertiary education.

Disparities also exist when the data are analysed by which dimension contributes more or less to multidimensional poverty by educational attainment of household heads. As indicated earlier, education is the least contributor to poverty in all the household categories. Living condition is the largest contributor in households headed by persons with no education (44.5 per cent). For households headed by basic education holders, health and living conditions contribute the same to poverty (43.3 per cent). Health contributes the highest to households headed by persons with secondary (46.3 per cent) and tertiary (55.6 per cent) levels of education.

Some patterns are observed in the contribution of the indicators to multidimensional poverty by education of household head. There is a negative correlation in contribution of some indicators to poverty in relation to the educational level of the head of household (Table 20). As the education level of the household head increases, the contribution of the indicator to poverty declines. These indicators are school attainment, school attendance, access to electricity, toilet, drinking water, flooring and assets. That is, as people become more educated, they are less deprived in these indicators. On the other hand, contribution to multidimensional poverty by access to primary school and health facility exhibit positive relationship with higher education of household head.

Table 20: Contribution of indicators to multidimensional poverty by education of household head

Indicator	National	No Education	Basic Education	Secondary Education	Tertiary Education
Primary School	4.9	4.6	4.7	5.3	6.9
School attainment	10.5	13.5	7.2	6.6	5.5
School attendance	1.7	1.8	1.5	1.5	1.4
Health facility	40.1	35.6	43.3	46.3	55.6
Electricity	8.0	8.4	8.0	7.5	5.1
Toilet	7.3	7.7	7.5	6.8	4.4
Drinking water	4.3	4.6	4.4	4.1	3.2

Flooring	6.0	6.5	6.2	5.0	2.3
Cooking fuel	9.3	9.1	9.3	9.5	9.4
Assets	7.9	8.2	7.9	7.4	6.2
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Considering the findings of this report, policymakers should consider education as an important driver for poverty reduction and ensure that majority of the population have access to higher level of education, especially tertiary.

4.7 Disaggregation of MPI by marital status of household head

Poverty and marital status are related factors that affect economic well-being of individuals and families, because poverty status is determined at the family level. The analysis under this subsection tries to unearth how marital status deferentially affects risk of poverty.

4.7.1 Level of multidimensional poverty and marital status of household head

The MPI of the population categorized by marital status of household head is presented in Table 21. The highest MPI is recorded for households headed by divorcees (0.322), followed by separated (0.320) and widowed (0.287). All these categories are not in any form of union. Households headed by married persons also have MPI above the national figure. Households with consensual union (0.244) and never married (0.201) heads have low MPI, which are below the national figure.

The headcount ratios indicate that majority of households headed by the divorced (53.1 per cent) and separated (54.1 per cent) are multidimensionally poor. Almost half of households headed by widows are also multidimensionally poor. Some explanation given by some researchers on this are that following widowhood, divorce or separation, women often lose economic support and protection, including labour assistance, labour earnings, access to land and other productive inputs that are conditional on marriage, and sometimes housing (Gray and Kevane, 1999; Torkelsson, 2007).

A little less than half of households headed by married persons are multidimensionally poor. The category with the lowest headcount ratio is the never married (36.3 per cent) headed households.

Table 21: Multidimensional poverty by marital status of household head

Marital Status	MPI	Headcount, H (%)	Intensity, A (%)
Consensual Union	0.244	42.8	57.0
Married	0.284	48.4	58.7
Separated	0.320	54.1	59.1
Divorced	0.322	53.1	60.6
Widowed	0.287	49.6	57.9
Never Married	0.201	36.3	55.4
National	**0.261**	**45.0**	**57.9**

4.7.2 Contribution to multidimensional poverty and marital status of household head

Households headed by married persons (66.2 per cent) constitute the largest proportion of the multidimensionally poor, followed by the never married (23.0 per cent) category (Table 22). In contrast, the households headed by divorcees constitute the least proportion in national multidimensional poverty.

Table 22: Contribution (%) to multidimensional poverty by marital status

Marital Status	Headcount, H (%)
Consensual Union	2.3
Married	66.2
Separated	2.2
Divorced	0.9
Widowed	5.3
Never Married	23.0

Like the other population categorizations analysed earlier, the education dimension contributes the least to multidimensional poverty (Table 23). Among the marital status categories, the education dimension contributes the highest to deprivation in households headed by the never married (18.7 per cent) and lowest among others headed by persons who are in consensual unions (15.0 per cent). Health is the second largest contributor to poverty in all the categories. Among the categories, health contribution to poverty is largest in households headed by persons in consensual unions (42.6%) and lowest in the never married category. Living condition is the largest contributor in all categories with the largest contribution occurring in households headed by the separated.

Table 23: Contribution (%) of dimension to multidimensional poverty by marital status of head of household

Marital Status	Education	Health	Living conditions	Total
Consensual Union	15.0	42.6	42.4	100.0
Married	16.6	40.7	42.7	100.0
Separated	17.2	38.6	44.2	100.0
Divorced	17.3	40.2	42.5	100.0
Widowed	17.5	39.2	43.3	100.0
Never Married	18.7	38.6	42.7	100.0
National	**17.1**	**40.1**	**42.8**	**100.0**

The health indicator contributes the largest to multidimensional poverty in all marital status categories, with the largest contribution recorded for the consensual union category (Table 24). School attainment is the second largest contributor to poverty in all the categories with the largest contribution of 11.6 per cent recorded for the widowed category.

Table 24: Contribution of indicators to multidimensional poverty by marital status of household head

Indicator	National	Consensual Union	Married	Separated	Divorced	Widowed	Never Married
Primary School	4.9	3.6	4.8	4.8	5.2	4.4	5.4
School attainment	10.5	9.8	10.2	10.7	10.7	11.6	11.4
School attendance	1.7	1.5	1.6	1.6	1.4	1.5	1.9
Health facility	40.2	42.6	40.7	38.7	40.3	39.2	38.6
Electricity	8.0	8.4	7.9	8.2	7.9	8.2	7.9
Toilet	7.3	7.3	7.3	7.5	7.4	7.3	7.3
Drinking water	4.4	3.5	4.5	4.4	4.4	4.1	4.3
Flooring	6.0	5.7	6.1	6.7	6.2	6.1	5.4
Cooking fuel	9.3	9.6	9.2	9.1	8.8	9.3	9.4
Assets	7.9	8.0	7.7	8.2	7.8	8.3	8.3

4.8 Disaggregation of multidimensional poverty and county of residence

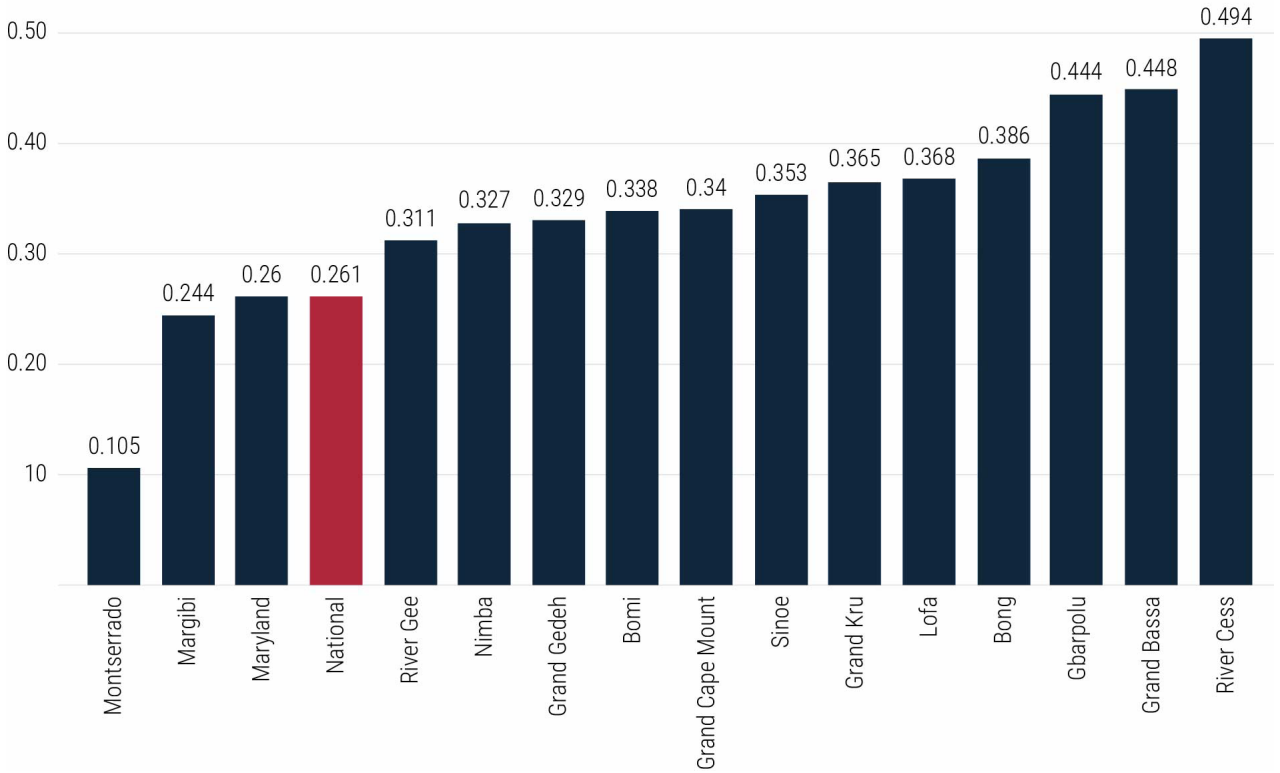
"Poverty and vulnerability in Liberia have geographic dimensions because of the historical patterns of growth and development" (Government of Liberia, 2018; p.6). In the introductory part of Liberia's PRSP of July 2008, the Government attributed the origins of the 14-year conflict to the systematic exclusion and marginalization of significant portions of the Liberian society from institutions of political governance and access to key economic assets. The Strategy Paper indicated that in the early days, land and property rights of the majority of Liberians were severely limited. Later, marginalization was perpetuated by the urban-based policies of successive administrations. It continued that most infrastructure and basic services were concentrated in Monrovia (in Montserrado County) and a number of other cities.

4.8.1 County level of multidimensional poverty

As indicated earlier, MPI ranges from zero to one, and a higher number signifies greater multidimensional poverty. For the purpose of easy identification of the multidimensional poverty status of each county, a ranking of the county MPI is presented in Figure 8.

Wide disparities occur among the counties. Montserrado (0.105) has the lowest MPI, making it the least poor county. Its MPI value is about 2.5 times lower than the national average (0.261). Margibi (0.244) has the second lowest MPI and Maryland (0.260) has almost the same MPI as the national average. All the other counties have MPI above the national average. Three counties, namely, Gbarpolu (0.444), Grand Bassa (0.448) and River Cess (0.494) stand out as having the highest MPI in comparison with all other counties.

Figure 8: Ranking of MPI by county



The MPI presented in Table 25 reveals the incidence and intensity of poverty across counties of Liberia. Per the poverty headcount ratios presented, only three counties have less than half of its population being multidimensionally poor. These are Montserrado (20.5 per cent), Margibi (42.9 per cent) and Maryland (47.2 per cent).

Table 25: MPI, headcount and intensity ratios by county

County	MPI	Headcount, H (%)	Intensity, A (%)
National	**0.261**	**45.0**	**57.9**
Bomi	0.338	56.9	59.4
Bong	0.386	63.0	61.3
Gbarpolu	0.444	72.0	61.7
Grand Bassa	0.448	67.9	66.0
Grand Cape Mount	0.340	58.2	58.4
Grand Gedeh	0.329	57.2	57.5
Grand Kru	0.365	63.9	57.1
Lofa	0.368	62.9	58.5
Margibi	0.244	42.9	56.9

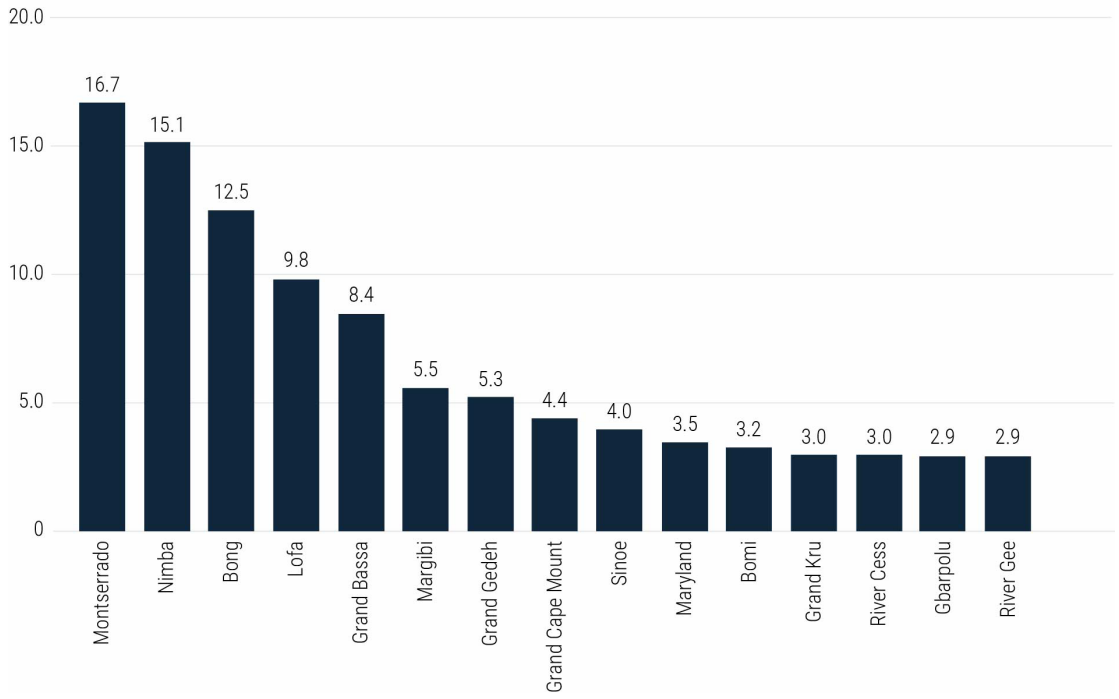
Maryland	0.260	47.4	54.9
Montserrado	0.105	20.5	51.2
Nimba	0.327	57.4	57.0
River Cess	0.494	76.9	64.2
River Gee	0.311	55.2	56.3
Sinoe	0.353	62.2	56.8

The highest pockets of poverty occur in River Cess (76.9 per cent), followed by Gbarpolu (72.0 per cent). Five counties that recorded poverty rates between 60 and 70 per cent are Sinoe (62.2 per cent), Lofa (62.9 per cent), Bong (63.0 per cent), Grand Kru (63.9 per cent), and Grand Bassa (67.9 per cent). The remaining counties, namely, River Gee (55.2 per cent), Bomi (56.9 per cent), Grand Gedeh (57.2 per cent), and Grand Cape Mount (58.2 per cent), have between 55 and 60 per cent of their population being MPI poor.

The intensity of poverty of 66.0 per cent in Grand Bassa is the highest among the counties, implying that the population identified to be multidimensionally poor in Grand Bassa is deprived, on average, in 66.0 per cent of the weighted indicators. The second highest is recorded in River Cess (64.2 per cent) with Montserrado (51.2 per cent) having the least (Table 25).

The share of the national poor people by county is displayed in Figure 9. Though Montserrado has the least proportion of its population being MPI poor, it is the dwelling place of the largest MPI poor population among the counties. That is, the 20.5 per cent MPI poor people in Montserrado (Table 25) constitute 16.7 per cent of the entire MPI poor people in Liberia (Figure 9). There should not be any confusion here. While the proportions being estimated are related to the total population of the county, the proportions presented in Figure 9 are based on the total national population. It should be noted that more than one-third of the country's population live in Montserrado. Nimba (15.1 per cent) hosts the second largest proportion of the national MPI poor people. Gbarpolu and River Gee are, however, the dwelling places for the least proportion of the national MPI poor people.

Figure 9: Percentage distribution of the poor by county



Source: Table A2

4.8.2 Contribution to multidimensional poverty at county level

The percentage contribution of each poverty dimension to the MPI is presented in Table 26. Among the three dimensions, living conditions contribute higher to the MPI in all counties except in Montserrado. The deprivation in living conditions is highest in Sinoe where about half of the poor are deprived in that dimension. Health contributes the highest to the MPI of Montserrado, while it is the second highest contributor in the remaining counties. In contrast, education is the least contributor to the MPI in all the counties.

Table 26: Contribution (%) of deprivation in dimensions to multidimensional poverty by county

County	Education	Health	Living Conditions	Total
Bomi	16.9	41.1	42.0	**100.0**
Bong	19.1	37.4	43.5	**100.0**
Gbarpolu	15.9	39.0	45.1	**100.0**
Grand Bassa	20.1	37.4	42.5	**100.0**
Grand Cape Mount	18.8	38.7	42.5	**100.0**
Grand Gedeh	16.5	39.2	44.3	**100.0**
Grand Kru	15.1	36.1	48.8	**100.0**
Lofa	16.7	37.6	45.7	**100.0**
Margibi	18.7	39.8	41.5	**100.0**
Maryland	16.0	41.0	43.0	**100.0**
Montserrado	17.5	47.2	35.3	**100.0**
Nimba	13.8	42.8	43.4	**100.0**
River Cess	15.4	39.4	45.2	**100.0**
River Gee	16.5	39.8	43.7	**100.0**
Sinoe	16.9	32.8	50.3	**100.0**
National	**17.1**	**40.1**	**42.8**	**100.0**

How the different poverty indicators contribute to MPI in the counties is presented in Table 27. The health indicator contributes the highest to the MPI in all counties. Among the counties, the contribution of health to the MPI is highest in Montserrado (47.2 per cent), the most developed county. Three other counties recorded the health indicator's contribution to the MPI above the national figure (40.2 per cent). These are Maryland (41.0 per cent), Bomi (41.1 per cent), and Nimba (42.8%).

School attainment is the second largest contributor to poverty in all counties except Montserrado. Nine out of the 15 counties have indicator contribution ratios above the national figure. The contribution of the other education indicators (access to primary school and school attendance of children of primary school going age) to multidimensional poverty is relatively low in all counties. Actually, school attendance plays a very minor role to poverty in all counties as its contribution is less than 2 per cent to total poverty.

Under the living conditions dimension, access to improved cooking fuel is the largest contributor to multidimensional poverty across all counties, followed by access to electricity and improved toilet.

Access to safe drinking water is the least contributor under the living conditions dimension, contributing an average of 4.4 per cent to total poverty.

Table 27: Contribution (%) of deprivation in indicators to multidimensional poverty by county

County	Primary School	School attainment	School attendance	Health facility	Electricity	Toilet	Drinking water	Flooring	Cooking fuel	Assets	Total
Bomi	5.1	10.6	1.2	41.0	7.8	8.2	3.3	5.8	9.1	7.9	100.0
Bong	4.9	12.3	1.9	37.4	8.6	7.5	4.0	6.7	8.9	7.8	100.0
Gbarpolu	4.0	10.5	1.3	39.0	8.2	7.8	4.8	7.7	8.8	7.9	100.0
Grand Bassa	7.3	11.1	1.7	37.4	7.9	7.4	5.9	6.2	8.3	6.8	100.0
Grand Cape Mount	4.9	12.3	1.6	38.7	7.8	7.7	3.7	5.9	9.2	8.2	100.0
Grand Gedeh	5.6	9.6	1.2	39.2	7.9	7.5	4.1	7.3	9.4	8.2	100.0
Grand Kru	3.2	10.3	1.6	36.1	8.0	8.5	6.4	7.4	9.6	8.9	100.0
Lofa	3.9	11.2	1.6	37.6	8.5	7.6	4.4	7.5	9.4	8.3	100.0
Margibi	6.0	11.0	1.8	39.7	8.6	7.1	4.2	4.8	9.4	7.4	100.0
Maryland	3.5	10.7	1.8	41.0	7.9	6.9	3.5	5.6	9.9	9.2	100.0
Montserrado	6.6	8.9	1.9	47.2	6.1	5.9	3.7	2.7	9.6	7.4	100.0
Nimba	2.5	9.7	1.6	42.8	8.7	7.6	3.6	5.8	9.6	8.1	100.0
River Cess	4.7	9.3	1.4	39.4	7.9	8.0	6.3	7.2	8.5	7.3	100.0
River Gee	4.0	10.7	1.7	39.8	7.6	6.1	4.7	7.3	9.6	8.5	100.0
Sinoe	4.9	10.4	1.6	32.8	8.4	9.1	6.6	8.0	9.6	8.6	100.0
National	**4.9**	**10.5**	**1.7**	**40.1**	**8.0**	**7.3**	**4.3**	**6.0**	**9.3**	**7.9**	**100.0**

4.9 Trend in multidimensional poverty

This section analyses how Liberia has made progress towards reducing the levels of multidimensional poverty using the Liberia MPI 2018 and the 2022 Liberia MPI computed for this report. The 2018 version used indicators from the 2013 Liberia Demographic and Health Survey, therefore, the reference period of 2013 is used instead of the year it was compiled (2018). The time span between the two periods for the analysis is 10 years (reference years inclusive). It should be noted, however, that though the poverty dimensions for the two reference periods are the same (education, health and living conditions), there are differences in some of the indicators. This can influence the results of the two periods, but it is assumed to be negligible.

Information on the 2013 MPI has been extracted from Table 1.4 (page 8) of the PAPD document. The drawback in the data is the unavailability of disaggregated data on contributions of the different dimensions to the MPI, to understand how poverty has decreased and to elicit the particular indicator changes accounting for the reductions.

The two data sets have been presented together in Table 28 for trend analysis. The overall picture points to a downward trend in MPI and poverty incidence in all areas of analysis. The national MPI fell by 0.086 from 0.347 in 2013 to 0.261 in 2022. This means that multidimensionally poor people in Liberia experience 8.6 per cent less of the weighted deprivations out of the total possible deprivations that could be experienced in 2013. The reduction in the MPI for the

urban multidimensionally poor (0.179) over the period is far larger than what is recorded for the rural MPI (0.041).

The poverty headcount (H per cent) fell from 71.2 per cent in 2013 to 45.0 per cent in 2022, a reduction of 26.2 percentage points. The urban poverty incidence reduced by 38.0 percentage points from 60.5 per cent in 2013 to 22.5 per cent in 2022, but the reduction in rural poverty is 12.9 percentage points.

Unlike the poverty incidence (H) which fell across all groupings, poverty intensity (A) increased in all groupings. That is, the average number of deprivations people experience at the same time has increased over the period under discussion. The non-correlation between the MPI poverty incidence and the average intensity of deprivation raises questions regarding poverty intervention and targeting. This suggests that interventions may not need to focus on reducing the numbers of the poor but rather the average deprivation. In this direction, the intervention may require focusing on the specific dimensions of deprivation.

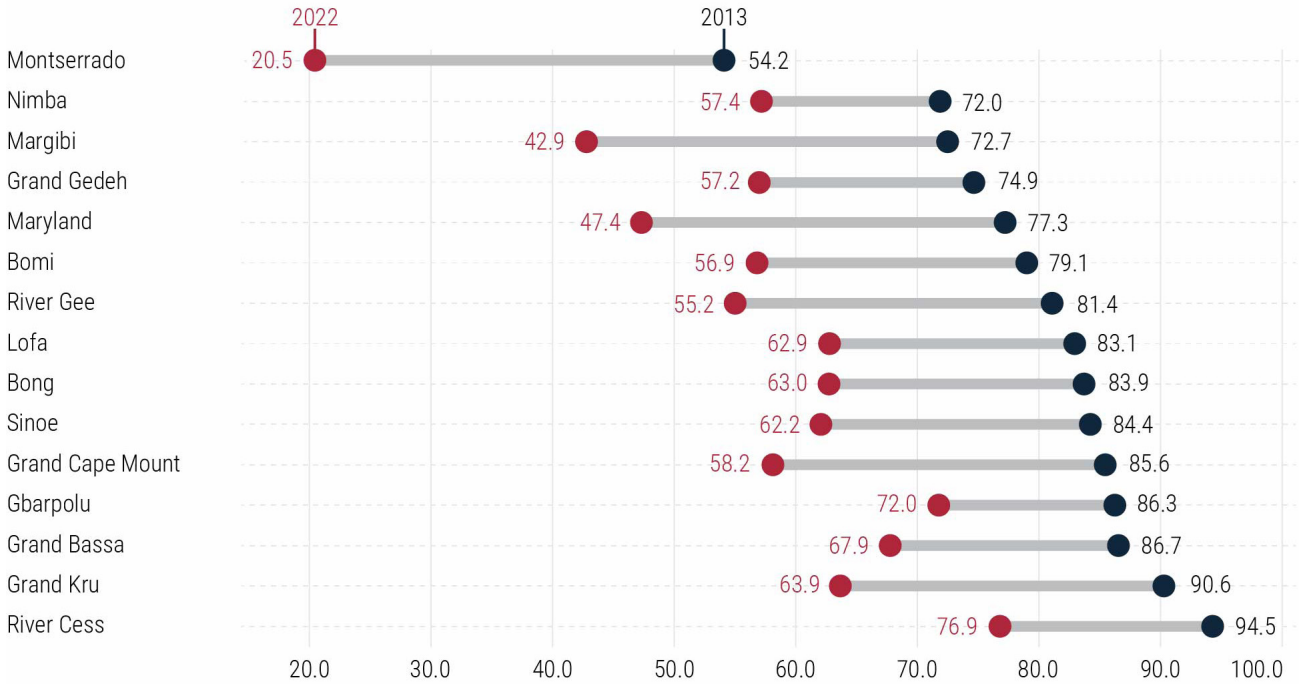
Table 28: Trend in MPI from 2013 to 2022

Area	2013			2022			Change		
	MPI	Headcount, H (%)	Intensity, A (%)	MPI	Headcount, H (%)	Intensity, A (%)	MPI	H	A
National	0.347	71.2	52.5	0.261	45.0	57.9	-0.086	-26.2	5.4
Locality of residence									
Urban	0.290	60.5	48.0	0.111	22.5		-0.179	-38.0	
Rural	0.481	84.9	56.6	0.440	72.0		-0.041	-12.9	
County									
Bomi	0.407	79.1	51.4	0.338	56.9	59.4	-0.069	-22.2	8.0
Bong	0.508	83.9	60.6	0.386	63.0	61.3	-0.122	-20.9	0.7
Gbarpolu	0.505	86.3	58.6	0.444	72.0	61.7	-0.061	-14.3	3.1
Grand Bassa	0.527	86.7	60.7	0.448	67.9	66.0	-0.079	-18.8	5.3
Grand Cape Mount	0.482	85.6	56.3	0.340	58.2	58.4	-0.142	-27.4	2.1
Grand Gedeh	0.349	74.9	46.6	0.329	57.2	57.5	-0.020	-17.7	10.9
Grand Kru	0.480	90.6	52.9	0.365	63.9	57.1	-0.115	-26.7	4.2
Lofa	0.457	83.1	55.0	0.368	62.9	58.5	-0.089	-20.2	3.5
Margibi	0.364	72.7	50.1	0.244	42.9	56.9	-0.120	-29.8	6.8
Maryland	0.388	77.3	50.2	0.260	47.4	54.9	-0.128	-29.9	4.7
Montserrado	0.250	54.2	46.2	0.105	20.5	51.2	-0.145	-33.7	5.0
Nimba	0.377	72.0	52.4	0.327	57.4	57.0	-0.050	-14.6	4.6
River Cess	0.536	94.5	56.7	0.494	76.9	64.2	-0.042	-17.6	7.5
River Gee	0.433	81.4	53.1	0.311	55.2	56.3	-0.122	-26.2	3.2
Sinoe	0.445	84.4	52.7	0.353	62.2	56.8	-0.092	-22.2	4.1

The MPI and its partial aggregates across counties presented in Table 28 reveal that Montserrado recorded the largest decline in both MPI (0.145) and headcount ratio (33.7 percentage points). Other counties that recorded declines above 0.100 are Grand Kru (0.115), Bong (0.122), River Gee (0.122), Maryland (0.128), and Grand Cape Mount (0.142). The largest change in intensity is recorded in Grand Gedeh (10.9 per cent).

A graphical representation of the changes in headcount ratios in the counties is presented in Figure 10. The green bubbles indicate the ratio in 2022 and the blue the ratio for 2013. River Cess remains the poorest county for both periods. Counties that have substantial decline in headcount ratios are Maryland, Margibi, Grand Cape Mount and River Gee.

Figure 10: MPI headcount ratios in 2013 and 2022 by county



In sum, Liberia has made significant progress on poverty reduction over time, with deprivations of Liberians from the perspectives of health, education and living conditions reducing by 26.2 percentage points from 71.2 per cent in 2013 to 45.0 per cent in 2022. Also, poverty reduced in all the counties over the period under discussion. The rate of reduction among the counties, however, is not the same across board. Post-war Liberia has benefited from many support programmes from development partners and bilateral donors across many sectors of the economy.

Alongside mainstream PRS programmes, the health and education sectors have been restructured. All these account for the reduction in poverty over the period of study.

Chapter 5: Conclusions, policy implications and recommendations

5.1 Conclusion

Ending poverty and hunger are central goals of the 2030 Agenda for Sustainable Development, as well as of most national development agendas. Multidimensional poverty measures have become widely accepted as tools to overcome the limitations of unidimensional metrics, such as monetary poverty measures. That is, the MPI provides insights into poverty across different dimensions beyond income. Since 2018, the MPI is seen as a "contribution to the implementation and monitoring of SDG 1, which aims to end poverty in all its forms everywhere, and to the achievement of the agenda's ambition and fundamental principle of 'Leaving No One Behind'"[7] . The 2022 Liberia MPI adapted indicators and weights that are more relevant to the national context to create tailored national poverty measures. People living in multidimensional poverty are deprived in at least one-third of the weighted indicators in health, education and living standards.

Findings of the report revealed that multidimensional poverty has reduced significantly from a rate of 71.2 per cent to 45 per cent over a ten-year period from 2013 to 2022. However, this national aggregate figure masks the full story of poverty in Liberia as the disaggregated data show wide disparities among areas. The report reveals that multiple deprivations are found mostly in the rural areas of the country, which is supported by the fact that as high as 72.0 per cent of rural dwellers are multidimensionally poor compared to 22.2 per cent of urban dwellers. County-wise, 13 out of the 15 counties have poverty rates above the national average. Montserrado is the least poor with MPI population of 20.5 per cent compared to River Cess with a rate of 76.9 per cent. The size and level of development of Montserrado always influence the national average.

Findings from this report suggest a very high deprivation ratio of household access to improved cooking fuel (97.6 per cent) nationwide. Using biomass (firewood and charcoal) as cooking fuel not only has negative health impacts but also deforestation, which represents a growing threat to all lives on earth. Majority of households are also deprived in access to electricity (61.7 per cent), a critical component for the country's development. These two indicators contributed largely to making the living conditions dimension become the largest contributor to multidimensional poverty.

Education is very important in poverty alleviation as evidenced in the negative correlation between education level of household head and level of multidimensional poverty. Households headed by the divorced, separated or widowed have high levels of multidimensional poverty compared to households headed by married, others in consensual unions and never married persons.

The MPI, as presented in this report, is useful as a guide to help the Government tailor poverty measures that reflect local indicators and data. The findings are expected to engender the monitoring of social progress of individuals and households towards meeting the SDGs in Liberia.

5.2 Policy implications and recommendations

Multidimensional poverty is still widespread throughout the country despite many policies, programmes and interventions implemented by successive governments and development partners. This report shows aspects in which the poor are deprived. It also has helped to reveal the interconnections among those deprivations. This enables policymakers to target resources and design policies more effectively. This is especially useful where the MPI has revealed areas or groups characterized by severe deprivation. With information on the nature and extent of multidimensional poverty across Liberia, policymakers can better respond to the call of SDG 1 to end poverty in all its forms. The findings can be used as a baseline for monitoring progress towards achieving SDG 1 by 2030.

Based on the findings of this report, policymakers should further explore how certain interventions are not yielding the necessary outcomes. Under

7 UNDP MPI 2022 FAQS and downloaded from https://hdr.undp.org/mpi-2022-faqs

education for instance, there are some counties like Nimba where deprivation in access to primary school is 7.5 per cent but deprivation in school attendance (children of primary school going age not in school) is 33.2 per cent. Bong also has primary school deprivation of 18.8 per cent but half (50.6 per cent) of the children are deprived in school attendance. The inter-connectivity among the indicators should be explored for adequate measures to be taken.

The largest contributor to multidimensional poverty is the living conditions dimension. It is, therefore, paramount to prioritize the use of resources in order to reduce the high deprivations in the indicators of living conditions, especially electricity and cooking fuel. Against the backdrop that the proportion of multidimensional poor individuals deprived in each of these indicators varies across counties, it is important to prioritize and sequence policy actions as functions of the size of the population of individuals and households facing each deprivation.

The second largest contributor to poverty is the health dimension. Expanding access to essential health services is a major component of the PAPD. It is stated in the PAPD document that "access to basic healthcare through the life cycle of all Liberians is a critical contributor to economic productivity and is a function of a healthy and thriving citizenry". To reduce deprivation in the health sector, health services should be within reach (less than one hour walking distance) of the citizenry. The quality of services is also essential beyond the provision of infrastructure.

The education dimension is the least contributor to multidimensional poverty. As efforts are being made to improve universal access, quality of the education that is provided should also be of priority.

The gap between the urban and rural localities in terms of the level of deprivation is too wide. This is one of the major causes of rural-urban migration which leads to unplanned urbanization and its attendant challenges.

Given that the results of the disaggregation of the MPI revealed that the River Cess, Gbarpolu, Grand Bassa, Grand Kru, Lofa, Bong and Sinoe counties present the highest incidence of multidimensional poverty, policies and programmes aiming to reduce multidimensional poverty in these counties should generally be given high-level priority.

The following are key policy recommendations that have emerged from the 2022 Liberia multidimensional poverty analysis. The findings can be used to:

1. Guide and influence national and sub-national budgets. Recommendations include using information on multidimensional poverty to broadly inform budgetary decisions to directly integrate multidimensional poverty into the budget allocation formulae. That is, the dimensions which will have the biggest knock-on effect on other dimensions should be prioritized in the budget.

2. Engender the broad targeting of geographic areas and groups in poverty based on a multidimensional poverty measure by locality of residence (urban/rural) and county. Deprivations in the indicators are sufficient to highlight the multiple deprivations people in poverty face in the localities and counties of residence. These multidimensional poverty indicators can be used to support efforts to raise awareness among the public, media, and more importantly politicians and top officials about the scale and intensity of the problem, by revealing the proportion of the population living in multidimensional poverty.

3. Guide multisectoral investment and coordination. Because of the multisectoral nature of multidimensional poverty, there is the need for investment across sectors and better coordination, often pointing to areas of deprivation overlap. For policy coordination, different poverty dimensions require the involvement of different sectors and actors. Using the multidimensional poverty measure can provide these actors with a common framework for coordination, prioritization and planning towards broader poverty reduction programmes across the country.

4. Identify and address social protection needs. Social protection is an important policy response to multidimensional poverty. Social protection programmes have impacts across a range of deprivations including food security, access to health and education, child protection outcomes and household productivity. National multidimensional poverty index (MPI) estimates can be used as part of the evidence in a needs assessment study to guide discussions towards a national social protection policy. As actors who work closely with the vulnerable in the society, civil society organizations can add valuable insights to the measurement.

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Appendix

Table A 1: Population distribution in 2022 by sex and county

County	Male	Female	Total
Bomi	68,574	65,131	133,705
Bong	235,208	232,353	467,561
Gbarpolu	51,121	44,874	95,995
Grand Bassa	150,280	143,409	293,689
Grand Cape Mount	96,757	82,110	178,867
Grand Gedeh	115,295	101,397	216,692
Grand Kru	56,999	52,343	109,342
Lofa	183,100	184,276	367,376
Margibi	152,699	152,247	304,946
Maryland	86,867	85,720	172,587
Montserrado	942,559	978,406	1,920,965
Nimba	312,018	309,823	621,841
River Cess	47,717	43,102	90,819
River Gee	65,471	59,182	124,653
Sinoe	79,362	71,787	151,149
Total	**2,644,027**	**2,606,160**	**5,250,187**

Table A 2: MPI, headcount and share of the poor (%) by county

County	MPI	Headcount, H	Share of Poor
National	**0.261**	**2,362,584**	**100.00**
Bomi	0.338	76,078	3.22
Bong	0.386	294,563	12.47
Gbarpolu	0.444	69,116	2.93
Grand Bassa	0.448	199,415	8.44
Grand Cape Mount	0.340	104,101	4.41
Grand Gedeh	0.329	123,948	5.25
Grand Kru	0.365	69,870	2.96
Lofa	0.368	231,080	9.78
Margibi	0.244	130,822	5.54
Maryland	0.260	81,806	3.46
Montserrado	0.105	393,798	16.67
Nimba	0.327	356,937	15.11
River Cess	0.494	69,840	2.96
River Gee	0.311	68,808	2.91
Sinoe	0.353	94,015	3.98