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Liberia
Poverty Note
Tracking the Dimensions of Poverty

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ACRONYMS AND ABBREVIATIONS

BPHS	Basic Package of Health Services
CFSNS	Comprehensive Food Security and Nutrition Survey
CWIQ	Core Welfare Indicator Questionnaire
DHS	Demographic Health Survey
EGRA	Early Grade Reading Assessment
GDP	Gross Domestic Product
HIPC	Heavily Indebted Poor Country
HIV	Human Immunodeficiency Virus
HOI	Human Opportunities Index
ICRW	International Center for Research on Women
ILO	International Labour Organization
IMF	International Monetary Fund
LACE	Liberia Agency for Community Empowerment
LFS	Labor Force Survey
LICUS	Low Income Country Under Stress
LISGIS	Liberia Institute of Statistics and Geo-Information Services
MMR	Maternal Mortality Ration
MTEF	Medium Term Expenditure Framework
NTA	National Transit Authority
PGH	Pattern of Growth Hypothesis
TVET	Technical and Vocational Education and Training
UNESCO	United Nations Educational Scientific and Cultural Organization
USAID	United States Agency for International Development
WDI	World Development Indicator
WHO	World Health Organization
WPP	Water Partnership Program

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TABLE OF CONTENTS

Figures:

Tables:

Boxes:

Annexes:

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EXECUTIVE SUMMARY

1. **Poor governance and nearly fifteen years of brutal conflict have made Liberia one of the poorest countries in the world.** The civil conflict destroyed lives, key institutions, and infrastructure, and ground the Liberian economy to a halt. Schools and hospitals were damaged or destroyed, and key social services were severely disrupted. Major infrastructure, including roads, railroads, electricity generation and transmission, and potable water and sewerage facilities, were utterly destroyed. The 2003 Accra Comprehensive Peace Accords marked the beginning of a new era for Liberia. The accords facilitated the deployment of 15,000 United Nations military personnel and supported the establishment of a transitional government. The gradual return of security eventually led to the free and fair legislative and presidential elections of November 2005, which resulted in the inauguration of Africa's first democratically elected female president (January 2006).

2. **The Government of Liberia has embarked on a National Visioning Exercise that will set the framework for Liberia's long-term planning.** The Government's transformational vision is that Liberia will become a middle-income country capable of meeting and sustaining its own development aspirations by 2030. In the short term, the economy will be characterized by high and sustained growth, improved standards of living for its population, and a gross national income (GNI) per capita above US$1,000.[1] This growth will be driven by a robust private sector with sustained high levels of investment, both foreign and domestic.

3. **An important objective for the democratically elected government of post-conflict Liberia is to reduce poverty.** As part of its long-term vision plan, the Government is preparing a second Poverty Reduction Strategy (PRS) to set out its medium-term approach to poverty reduction. The current climate of peace and security, as well as continued improvements in the economy, offer the Government a unique opportunity to improve on the gains that it has made in reducing poverty under its previous Poverty Reduction Strategy. However, as cross-country evidence has shown, growth alone is not sufficient for poverty reduction. The Government must also take steps to break the cycle of chronic poverty by ensuring that the poor are given opportunities and support to emerge from poverty, and that those who have emerged from poverty do not fall back into poverty.

4. **Evidence points to a link between exclusion and conflict in a wide variety of settings, and Liberia is no exception.** To address this, the second Poverty Reduction Strategy focuses on *inclusive* growth, with poverty reduction linked not only to human development objectives but also to peace and security. Addressing the root causes of exclusion that lead to conflict are a priority for Liberia. To that end, the second PRS aims to address some of the cross-cutting issues that contribute to exclusion, such as gender and youth issues.

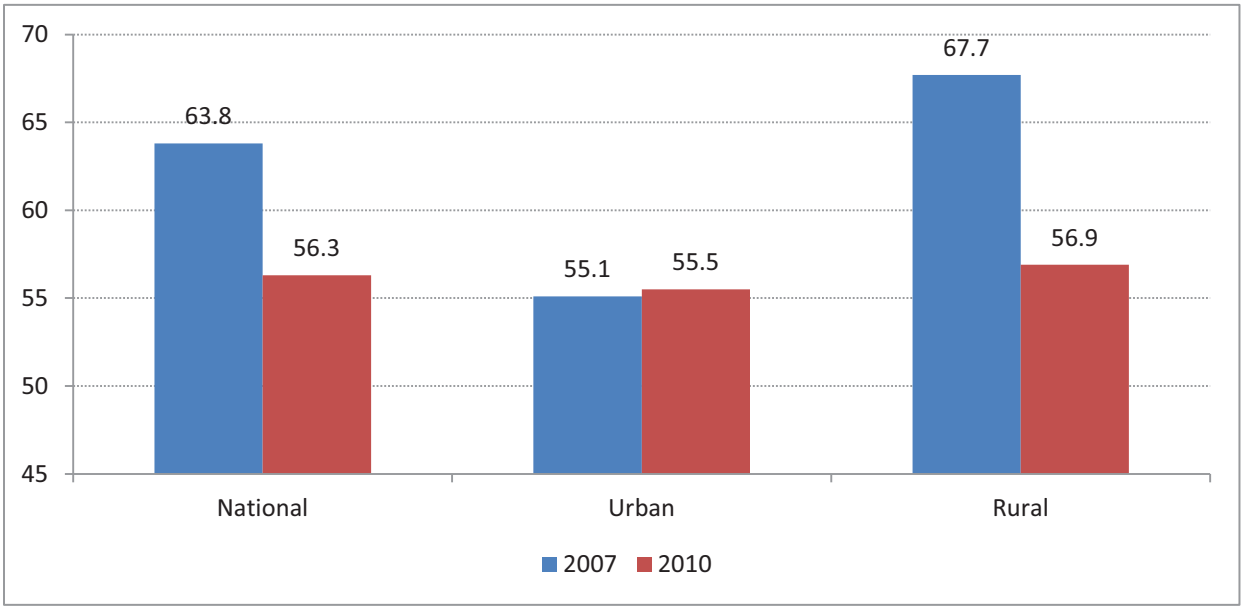
[1] See Ministry of Planning and Economic Affairs, Government of Liberia-Republic of Liberia: Agenda for Transformation (draft August 2012).

5. **This Poverty Note is intended to assist the Government in formulating evidence-based policies aimed at poverty reduction.** The Policy Note draws from rich information provided by the 2007 and 2010 Core Welfare Indicator Questionnaires (CWIQs). It also benefits from qualitative data from a relatively large number of focus groups on gender and youth. In addition, the Note benefits from the analysis contained in the 2011 Human Opportunities report for Liberia, which focuses in particular on access to education. The key finding of the Note are summarized below:

Overview of Poverty in Liberia

6. **In 2007, nearly two-thirds of Liberia's population were living below the poverty line and almost half were living in extreme poverty. However, based on data from the 2010 CWIQ, poverty is estimated to have fallen to 56.3 percent in 2010.** The most dramatic change was in rural areas, with little fall in poverty levels in urban areas (Figure 1).

Figure 1: Incidence of Poverty (2007 and 2010)



Source: Staff calculations based on data from the 2007 and 2010 CWIQs.

7. **Subjective indicators of poverty and welfare from the 2007 and 2010 CWIQs suggest that overall, Liberians in general perceived improvements in their poverty and welfare status between 2007 and 2010.** In 2010, many Liberians held the perception that the economic situation of their community was the same or better compared to a year ago. However, the perception of changes in poverty and welfare status across the six regions and fifteen counties are quite mixed.

Household Size and Poverty

8. **The empirical evidence from Liberia's poverty data suggests that larger households have a lower consumption per equivalent adult**. This relationship holds even after controlling for the differences in needs among different persons through the use of the adult equivalence

scale. An additional person in the household reduces consumption per equivalent adult, with the impact ranging from no loss to a loss of 25 percent of consumption per adult, depending on the case.

9. **Historically, Liberian households have been large, but they are getting smaller.** In many cases, households consist of immediate and extended family members. In some cases, particularly the largely rural South Eastern parts of the country, men have more than one wife, which adds more children to the family. However, Liberian households are getting smaller and the urban/rural difference in household size is disappearing. There has been a substantial reduction in the average household size from 6.2 in 1984 to 5.0 in 2010.

10. **The reduction in the average household size may be largely attributable to the decline in fertility rate from 6.9 in 1984 to 5.4 in 2007 and 5.2 in 2010.** The relatively high fertility rate in the past, in part reflect early marriage or cohabitation; so the declining rate may reflect the fact that more women are postponing marriage. Declining fertility is strongly associated with women pursuing secondary and tertiary education. Knowledge of contraceptive methods is generally high among all women in Liberia and even higher among men. However, while there is an increasing trend in the use of contraception, the overall use is very low even among sexually active unmarried women. Further, knowledge and use of contraception is much lower among poor households, and this helps to perpetuate the cycle of large poor households.

Education and Poverty

11. **Consumption levels are higher and poverty lower for households with heads that have secondary schooling.** More than half of household heads have no secondary education; and 38.2 percent of household heads have no education at all. In 2007, the national poverty headcount for households whose heads had no education was 72.6 percent, compared with 54.2 percent for household heads that had completed secondary education. Improved access to education is generally seen to improve the probability of getting better remunerated work, reducing the likelihood of poverty and social exclusion, and providing positive externalities of higher productivity growth and enhanced health. There is ample evidence that these advantages hold in Liberia, and that those without education do worse. There is also a sharp rural/urban divide; 45.1 percent of rural household heads have no education at all compared with 30.1 percent of urban household heads.

12. **The quality of education is also an issue, as the literacy rate is low even for those who have gone to school.** Data from the 2008 Population and Housing Census shows that the level of literacy among the 60-64 age group was only 25.8 percent. The generally low level of literacy among older Liberians is not the result of the conflict, but rather, of a deficient education system. However, the general level of literacy in the country appears to be improving, particularly for the younger working-age population and women. For example, among the 15-29 age group, 73 percent are literate. There has also been noted improvement in the overall literacy rate, from 54.5 to 58.9 percent, between 2007 and 2010. The literacy rate for women increased from 41 percent to 47 percent over the same period.

13. **The low levels of schooling of household heads in Liberia generally, and in rural areas in particular, have implications for poverty from one generation to the next**. Cross-country studies have shown that parental education has implications for the education of

children. There is also some evidence from cross-country research that a mother's education has a significant impact on both grade attainment and current enrollment, while the father's education is more important in determining current enrollment. Empirical work in Liberia shows that circumstances play a major role in educational disparities among Liberian children. Analytical work done using data from the 2007 and 2010 CWIQs shows that circumstances, especially parental education, but also gender, orphan-hood, birth order, location, and exposure to conflict explain much of the educational disparities among Liberian children.

14. **Overall gross enrollments at the primary and secondary levels have shown modest improvement.** The overall gross enrollment at the primary level increased from 86.3 percent in 2007 to 87.7 percent in 2010. However, expanding access to education continues to pose a challenge, particularly with respect to the large number of over-age children enrolled at all levels of education. Although gross enrollment rates at the secondary level are about half what they are at the primary level, there has been some improvement between 2007 and 2010. Overall gross enrollment at the secondary level increased from 50.9 percent in 2007 to 58.4 percent in 2010. The rate for males increased from 56.9 percent to 65.1 percent, while the rate for females increased from 44.2 percent to 51.7 percent.

15. **The institutional structure of technical and vocational education (TVET) in Liberia is highly fragmented in terms of providers and government oversight; and funding and training is not demand driven.**[2] Approximately 15 percent of training institutes are government run, while the remaining 85 percent are managed by private individuals, religious missions, and NGOs. Among more than 500 teachers surveyed, almost 80 percent were untrained and held only trade certificates (no degrees). Governance and management of TVET are inadequate at both the institutional and central government levels. A few institutions have full budget control and show some relatively strong strategic and management capabilities, as well as some accountability. Most others have neither the capacity nor the mandate to define and implement their institutional strategies or manage resources. Outcomes, skills, and results of training are not measured in most cases, and there are generally no adequate mechanisms to align training services with economic demand.

Gender and Poverty

16. **The poverty analysis based on the 2007 CWIQ data for Liberia suggests that there are few statistically significant differences between male-headed and female-headed households**. At the national level, the rate of poverty for male-headed household was 64.6 percent, compared with a slightly lower rate of 61.6 percent for female headed households. In rural areas, while the overall rate of poverty is generally higher, the rate of poverty for male-headed households was also higher (68.8 percent) than for female-headed households (64.1 percent). However, the picture for urban areas is reversed. Although showing lower poverty overall—as to be expected, female headed households showed a slightly higher level of poverty than male headed households (57.2 percent compared with 54.1 percent).

17. **Despite the 14-year civil conflict, male-headed household still dominate in Liberia.** In 2007, at the national level, male-headed households constituted 74.3 percent of the population, compared with 25.7 percent for female-headed households. The numbers were little changed in

[2] See World Bank, "Liberia Employment and Pro-Poor Growth," Report No. 51925-LR, November 2010.

2010. In rural areas, however, male-headed households increased from 70.1 percent in 2007 to 74.1 percent in 2010, while female-headed household declined from 29.9 to 25.9 percent. For urban areas, there was a modest decrease in the proportion of male-headed households, from 74.6 to 73.5 percent, and a concomitant increase in female-headed households, from 25.4 to 26.5 percent.

18. **In Liberia, women tend to have unequal access to employment and other economic opportunities, with dire consequences for female-headed households.** Although the rate of unemployment for women is lower (4.3 percent) than that for men (7.1 percent) this only reflects the fact that more women are engaged as unpaid family laborers. More women are also engaged as own-account workers. Although Liberia has made important strides in its efforts to promote gender equality, women tend to earn much less than men across most sectors in Liberia, according to data from the 2010 Labor Force Survey (LFS); the only notable exceptions being sectors that are largely dominated by women, including wholesale and retail trade, education, and health services.

Employment and Poverty

19. **The type of employment does not seem to have much effect on households' level of consumption or on their probability of being poor.** This is surprising to the extent that in many other countries, when the household head belongs to the public sector or the private formal sector, the household is typically better off than when the head is self-employed, especially in agriculture. By contrast, if the head of household in Liberia is unemployed or inactive, the negative impact on consumption and poverty is rather large in most instances—indeed, larger than in other West and Central African countries. In Liberia, controlling for other characteristics, the unemployment of a household head reduces a household's consumption level by 37.5 percent in Monrovia, 21 percent in other urban areas, and 17 percent in rural areas versus having a household head employed. Having an inactive head of household reduces consumption by 25 percent in other urban areas and 32 percent in rural areas.

20. **Labor force participation rates are relatively high in Liberia, but generally lower for women.** The labor force participation rate among the working age population (15-64) was 73.1 percent in 2007. This rate is in line with the Sub-Saharan Africa rate of 72 percent in 2007. Liberia's labor force participation rate for the 25-64 age group was much higher (81.6 percent) than for youths aged 15-24 (58.1 percent). The male participation rates are consistently higher than that for females, and the International Labour Organization (ILO-2008) suggests that this could be the result of difference in education, discrimination in recruitment, as well as the burden of domestic work, which discourages women's participation in the labor market. A substantial part of the labor force is engaged in the informal and agricultural sectors. In 2007, more than 80 percent of the labor force was employed in the informal non-agricultural and agri-business sector. However the greater part of such employment is at low wages, contributing to the phenomenon of the working poor. Moreover, a substantial part of the Liberian labor force is considered to be in "vulnerable employment.[3]"

21. **The rate of unemployment is generally higher for males than for females across location and welfare groups**. In 2007, the rate of unemployment for men was 7.1 percent,

[3] See Footnote 31.

compared with 4.3 percent for women. Women tend to have better employment opportunities in urban environments, but often must contend with sexual harassment. In focus group consultations conducted in 2010 with more than 400 participants in several counties, women in Liberia reported that in urban environments they were aware of far more jobs and were more likely to identify higher-skilled jobs that were available to them.

Household Assets and Poverty

22. **Households with a larger land size available for cultivation tend to have higher consumption and a lower probability of being poor, as expected.** While a measurement of poverty based on income or consumption expenditure may be useful for establishing a poverty line, a broader assessment of household welfare status should also focus on asset ownership. Asset holdings, both physical and financial, are key determinants of current and future welfare. The asset holdings of the household not only determine the income stream but are also important for coping with shocks.

23. **Comparative data for 2007 and 2010 show a sharp reduction in house ownership and an increase in rental and free use.** In 2010, 59.5 percent of households reported that they owned their dwelling. This is sharply down from the 67 percent of households that reported ownership of their current dwelling in 2007. This largely reflects the dynamics in rural areas, where house ownership fell from 77.5 percent of households in 2007 to 66.6 percent of households in 2010. In urban areas, by contrast, house ownership increased from 43.9 to 51 percent of households over the same period. These dynamics are important from a policy perspective, given the widespread disputes over land ownership following the conflict.

24. **A comparison of the overall distribution of households by security of land tenure showed an improvement between 2007 and 2010, but the dynamics in the different regions are of policy importance.** The percentage of households having secure land tenure (in terms of deeds, leasehold or tenancy agreements, and receipts of payment) increased from 75.3 percent in 2007 to 82.9 percent in 2010. This largely reflects the dynamics of resettlement after the 14-year conflict. The most significant changes appear to be the substantial increase in the percentage of households having tenancy agreements, from 3.2 percent in 2007 to 31 percent in 2010; and a concomitant decrease in the percentage of household with leasehold agreements from 36.2 percent to only 1.4 percent over the same period.

25. **It is paradoxical that landlessness is so high in a country where the land mass is substantial relative to its population.** Liberia covers approximately 111, 370 square kilometers and has a population of 3.5 million people, with about 742,000 households. As the 2010 CWIQ survey shows, nearly 62 percent of those households are landless. The high proportion of households, both urban and rural, reporting landlessness in a context where large land concessions are given to foreign investors raises some concerns.

26. **The ownership of livestock assets is important for both food and the fact that they can be easily sold to respond to income shocks.** However, the 14-year conflict has all but wiped out this asset base for most Liberians. A large proportion of Liberian households own no livestock. Overall, 97.3 percent of household own no sheep and 94 percent of households own no goats, while only 2.3 percent of households own more than one sheep and 4.6 percent own more

than one goat. Although, as would be expected, the livestock ownership is higher in rural than in urban areas, it is only marginally so.

27. **Access to formal credit is generally low in Liberia, and it is particularly difficult for the rural poor to get credit to acquire productive assets.** Only a small percentage of the population has access to financial services, and small and medium enterprises (SMEs) have relatively limited access to finance. However, access is improving. Liberia's ranking on the "getting credit" indicator from the 2012 Doing Business survey was 98th out of 183 countries—substantial improvement on its ranking of 139th on the 2011 survey. The lack of formal banking service has given rise to informal substitutes, including "susu" and "savings clubs" as mechanisms for saving and gaining access to credit.

28. **The combination of the lack of key assets such as seeds, tools, credit, land, and savings to fall back on in the event of crop loss makes agriculture a daunting venture for the poor.** Among both farming and non-farming households, the three most important constraints to agriculture are lack of seeds, lack of tools, and lack of financial capital.

Household Access to Services

29. **Isolated households tend to have lower consumption levels and a higher probability of being poor.** Access to social and economic services is crucial for building the assets of the poor, including good mental and physical health and education and skills, as well as providing access to social capital. The 2007 CWIQ shows that in spatial terms, the North Central (38.3 percent), Greater Monrovia (16.7 percent), South Central (15.2 percent), and South Eastern A (10.5 percent) regions make the largest contributions to overall poverty. This in part reflects the relative isolation of these regions and their comparatively lower levels of access to food, infrastructure, and basic services, including education, health, and potable water.

30. **Less than half of the population in Liberia has access to an all-season road within 5 kilometers, and only slightly more than half has access to any road within 5 kilometers.** In terms of access to all-season roads, the situation is similar across urban and rural areas. In terms of the regions, the North Western region has the highest proportion of its population (58.5 percent) within 5 kilometers or less from an all-season road, and the lowest proportion of its population 30 kilometers or more from any road. At the other extreme is the North Central region, where only slightly more than a third of its population is within 5 kilometers of an all-season road, and 21 percent of its population is 30 kilometers or more from any road.

31. **Physical access to basic services (education, health, and water) is limited by the distances to these services.** Nearly 30 percent of rural out-of-school children (aged 6-11) said it was because the school was too far away. Less than a third of the population of the country is within five kilometers of a primary or secondary school. Poor access to health services partly explains why at the end of the civil war, the health status of the Liberian population was among the worst in the world. However, since 2007, the Government has made substantial progress in delivering a basic package of health services. Slightly more than half of Liberia's households have access to safe drinking water within 5 kilometers or less. In terms of the rural/urban divide, the data from the 2010 CWIQ suggest that access is higher in rural (nearly 60 percent) than in urban (45.8 percent) areas. The lower level of access in urban areas, and particular greater

Monrovia, reflects the destruction of the water treatment plants and distribution systems during the conflict, and the challenges of rehabilitating these facilities.

32. **Access to security (police) and judicial services (courts) is quite low across Liberia, despite the prevalence of sexual and gender-based violence and violence related to land disputes.** Less than a quarter of the population is within five kilometers of a police station or a court, while more than half is 30 kilometers or more from such services. The situation is worse in rural areas, where most conflicts are settled by local, traditional institutions, which sometimes are biased against local minorities or individuals who do not follow community norms.

Recommendations

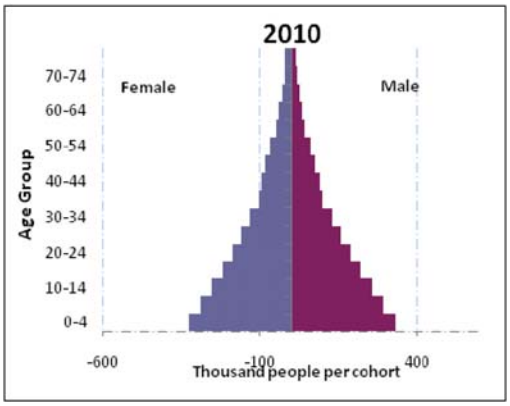
Summary Recommendations: Equalizing Opportunities and Building Assets of the Poor	
Poverty Dimension	**Recommendation**
Household Size and Poverty	• Increase the general awareness of the practice of early marriage, in order to bring the general practice in conformity with the law; • Develop strategies to reduce the substantial gap between knowledge and use of contraceptives generally and the low use among poor households in particular.
Education and Poverty	• Ensure that spending on public education—including spending on adequate infrastructure, highly skilled and experienced teachers, and relevant learning materials and supplies—targets disadvantaged and/or marginalized children, especially at the pre-primary and primary levels. School grants should be weighted so that poor children receive more benefits. Such spending is justified by the likely high level of social returns; • Consider targeted conditional cash transfers based on school enrollment and attendance as one policy option to help improve the access of the poor to pre-primary through secondary education; • Improve roads and increase the availability of lower-cost transportation in hardest to reach areas, to help increase access to schools. This requires coordination between national transportation development plans and school mapping by the Ministry of Education; • Strengthen the institutional framework for TVET, including the inclusion of private sector partnerships, to ensure improvement in the quality of training and alignment with labor market
Gender and Poverty	• Develop poverty targeting mechanisms based on means testing that incorporate multiple dimensions of poverty and welfare, to ensure that poor female-headed households are not excluded from poverty interventions; • Make strategic use of conditional cash transfers and other support mechanisms to close the gender gap in education and ensure that girls are not disadvantaged at all levels of the education system, but particularly at the primary and secondary levels.
Employment and Poverty	• Strengthen agricultural extension services to improve farming practices, in order to increase productivity and reduce post-harvest losses; • Consider the introduction of crop loss support through, e.g., public works programs. This would help to reduce volatility in farming incomes and encourage piloting of innovative techniques in agriculture that could in substantial increase in productivity and production.
Household Assets and Poverty	• Consider the introduction of revolving livestock schemes for poor farmers administered by the Ministry of Agriculture in partnership with NGOs or CBOs, with accompanying technical assistance in the relevant animal husbandry; • Consider providing support for mechanical land preparation to allow farmers to undertake paid employment while land is being prepared for planting, and also to have larger plots of land to plant than would be possible with manual labor.
Household Access to Services	• Prioritize the construction or rehabilitation of rural roads and market infrastructure to facilitate access to markets, as well as to social services such as schools and health centers. Consider using the Liberia Agency for Community Empowerment (LACE) as the instrument of implementation; • Consider the use of mobile clinics for the delivery of the basic package of health services to underserved remote areas.

1. INTRODUCTION

A. COUNTRY CONTEXT

1.1 **Poor governance and nearly fifteen years of brutal conflict have made Liberia one of the poorest countries in the world**. The civil conflict destroyed lives, key institutions, and infrastructure, and ground the Liberian economy to a halt. Schools and hospitals were damaged or destroyed and key social services were severely disrupted. Major infrastructure including roads, railroads, electricity generation and transmission, potable water and sewage facilities were utterly destroyed. The most recent national accounts estimate (2010) puts Liberia's gross national income per capita at US$240,[4] making it one of the poorest countries in the world (Box 1.1).

Box 1.1: Country Demographics and Vital Statistics



Population:	3.7 million (2011 est.)
Population growth rate:	2.7% (2011est.)
Life expectancy:	45 years
Rural population:	40%
GNI per capita:	US$240 (2011)
Total area:	111,370km^2
Land area:	96, 320km^2
Population density:	38 per km^2
Principal exports:	Rubber, iron ore, timber

1.2 **The 2003 Accra Comprehensive Peace Accords marked the beginning of a new era for Liberia.** The accords facilitated the deployment of 15,000 United Nations military personnel, including up to 250 military observers and 160 staff officers; up to 1,115 UN police officers, including units to assist in the maintenance of law and order throughout Liberia; and a civilian component to support the implementation of the ceasefire agreement and peace process. The accords also supported the establishment of a transitional government. The gradual return of security eventually led to the free and fair legislative and presidential elections of November 2005, which resulted in the inauguration of Africa's first democratically elected female president (January 2006). Although the president's party failed to win a majority in parliament, the result of active exchanges with the opposition and civil society soon led to support and enactment of a number of reforms on a variety of fronts.

1.3 **The Government of Liberia has embarked on a national visioning exercise, Liberia Rising, which will set the framework for Liberia's long-term planning.** It involves delineating thematic areas with clear benchmarks to be met over the 18-year visioning period.

[4] Estimate based on the Atlas Methodology from the World Development Indicator database, World Bank, 2012.

Medium-term plans will be included within the long-term plan to translate the vision into goals and action plans. As a result, Liberia's post-HIPC[5] investment plan, Medium-Term Expenditure Framework (MTEF), Budget Framework, Economic Growth Strategy, and other critical development tools will be linked with its strategy for civic education, reconciliation, and political governance throughout the visioning period, commencing in 2012 and concluding in 2030.

1.4 **The aim of the Government's transformational vision is for Liberia to become a middle-income country capable of meeting and sustaining its own development aspirations by 2030.** It is envisioned that Liberia will become a country characterized by high and sustained growth and improved living standards, with gross national income (GNI) per capita above US$1,000. This growth will be driven by a robust private sector that will provide sustained high levels of investment, both foreign and domestic. The vision includes a citizenry that shares a strong sense of identity and is actively engaged with government in a bottom-up process of national development. This transformational vision also seeks to consolidate institutions of good governance; and reduce historic disparities and marginalization through policies of growth with equity and a commitment to moral, ethical, and accountable governance.

1.5 **An important objective for the democratically elected government of post-conflict Liberia is to reduce poverty.** The Government is preparing a second Poverty Reduction Strategy, within the context of its longer-term vision plan, to set out the strategies and actions that it will pursue over the medium term to achieve this objective. The current climate of improved peace and security and a rapidly improving economy offers the Government a unique opportunity to craft poverty reduction policies and programs that are based on sound evidence.

B. OBJECTIVES OF POVERTY NOTE

1.6 **This brief Poverty Note has two primary objectives.** First, it aims to provide detailed analysis of some of the key determinants of poverty in Liberia and how these interact, particularly at the household level. This analysis will be based on both quantitative and qualitative data. Second, the Poverty Note attempts, on the basis of the analysis, to identify evidence-based policy options and priorities for reducing poverty in Liberia, in line with the Government's objectives.

C. METHODOLOGY AND DATA SOURCES

1.7 **This Poverty Note draws on primary data from Core Welfare Indicator Surveys (CWIQs) conducted in 2007 and 2010 by the Liberia Institute of Statistics and Geo-Informational Services.** The estimations of summary measures of poverty were based on these data sets. Since the 2010 CWIQ did not include data on consumption expenditure, the poverty estimates for 2010 were estimated using a poverty model, which utilizes key predictor variables from the 2007 and 2010 surveys (see Annex 2 for the technical details of the estimation).

1.8 **The analysis in this Note also draws on a background paper, "Rapid Qualitative Assessment of Gender Poverty and Economic Decision-making in Liberia"** carried out for this study. That paper aimed at deepening the understanding of the status of and trends in gender norms and power relations surrounding key choices women and men make about their education, occupations, and accumulation and protection of major productive assets. The background paper

[5] Liberia achieved HIPC completion point in June 2010.

is based on a number of focus group discussions held in ten communities across all regions of the country.

1.9 **The analysis also draws on work done by the World Bank for the estimation of a Human Opportunities Index (HOI) for Liberia.** The HOI focuses on "opportunities" for children, where "opportunities" refer to access to basic goods and services (education, good habitation and health conditions) that improve the likelihood of a child maximizing his/her human potential. The HOI analysis itself draws on data from the 2007 and 2010 CWIQs as well as the 2007 Demographic Health Survey conducted by the Government.

1.10 **This Note is also informed by the World Bank Social Development Department's work on Societal Dynamics and Fragility in Liberia, and on Youth Exclusion and Youth Violence in Liberia and Sierra Leone.** Field work for the Societal Dynamics and Fragility study took place between November 2010 and January 2011, and included a political economy analysis, an expert seminar, and field interviews and focus groups in five counties of Liberia. Field work for the report on Youth Exclusion and Youth Violence in Liberia and Sierra Leone was carried out between August 2011 and March 2012. Twelve hundred individual interviews and one hundred focus groups were held in all counties throughout Liberia and Sierra Leone.

2. OVERVIEW OF POVERTY IN LIBERIA

2.1 **In 2007, nearly two-thirds of Liberia's population were living below the poverty line, and almost half were living in extreme poverty.** Based on the 2007 CWIQ, 64 percent of the population, or 1.7 million individuals, were poor. Poverty was 68 percent in rural areas compared to 55 percent in urban areas. Poverty was highest in the South Eastern A region, where more than three-quarters of the population was poor, contributing about one-tenth to national poverty. However, the largest contribution to national poverty was from the populous North Central region, which accounted for more than a third of the national poverty in 2007 (Table 2.1).

Table 2.1: Table Poverty in Liberia (2007)

2007	Poverty headcount	Share of population	Number of poor	Contribution to poverty
National	**63.8**	**100.0**	**1,725,806**	**100.0**
Area of residence				
Urban	***55.1***	***30.9***	***459,570***	***26.6***
Rural	***67.7***	***69.1***	***1,266,236***	***73.4***
Region				
Greater Monrovia	48.5	22.0	288,695	16.7
North Central	68.1	35.8	660,129	38.3
North Western	76.3	10.0	206,547	12.0
South Central	58.9	16.5	262,678	15.2
South Eastern A	76.7	8.8	181,713	10.5
South Eastern B	67.2	6.9	126,044	7.3

Source: Based on 2007 CWIQ.

2.2 **Based on data from the 2010 CWIQ, the incidence of poverty at the national level is estimated to have fallen to 56 percent from 64 percent in 2007.** As Table 2.2 and Figure 2.1 below show, the overall reduction is due mainly to the decline in rural areas, as urban poverty actually showed a marginal increase. The overall drop in poverty has been largely a result of economic growth, averaging nearly 7 percent over the period (Figure 2.2); a sharp fall-off in inflation, particularly since 2008; and steps taken by the Government to (a) target the agriculture sector under its Poverty Reduction Strategy (PRS)[6]; and (b) provide income support to the poor and vulnerable through the Liberia Agency for Community Empowerment (LACE). This improvement is all the more impressive in that it happened in the context of the global food crisis and the global economic crisis in 2008/09. As Figure 2.3 below shows, as a result of the global crises, inflation in Liberia spiked above 20 percent in mid-2008, with food prices increasing nearly 40 percent. However, to the Government's credit, with prudent fiscal policy and some targeted measures, including an expansion of food support programs and a removal of tariffs on rice—the primary food staple in Liberia—the authorities have been able to keep inflation to more moderate levels and maintain macroeconomic stability since 2009.

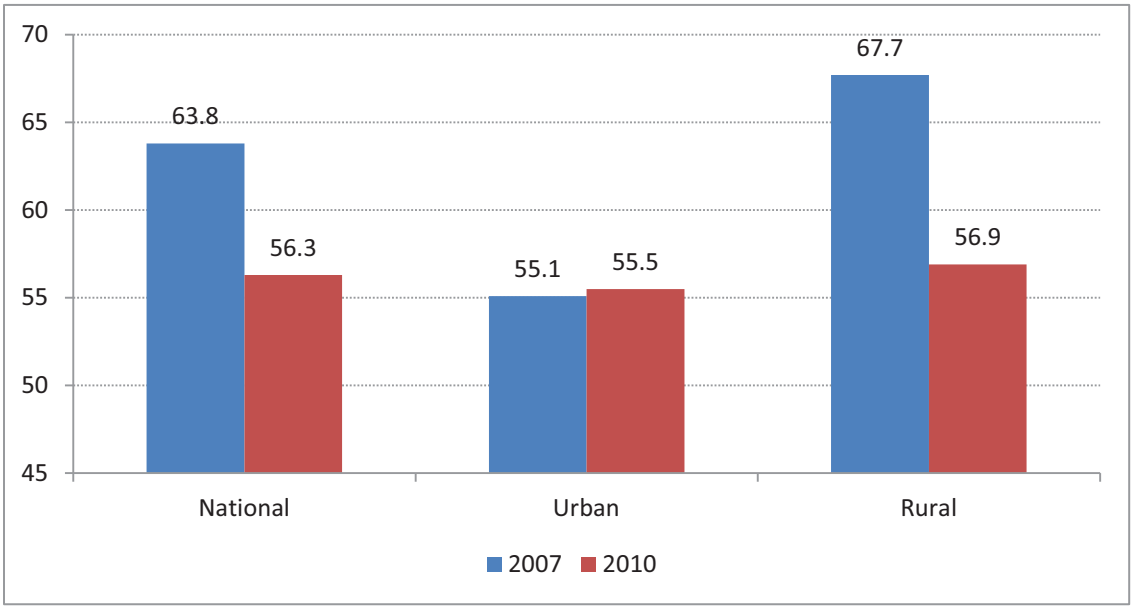
[6] Almost one third of the deliverables under Economic Revitalization pillar of the PRS were targeted to the agricultural sector. Important support to the sector included the provision of technical and material inputs to farmers to stimulate increased production.

Table 2.2: Poverty in Liberia (2010)

2007	Poverty headcount	Share of population	Number of poor	Contribution to poverty
National	**56.3**	**100.0**	**2,074,212**	**100.0**
Area of residence				
Urban	***55.5***	***45.7***	***934,844***	***45.1***
Rural	***56.9***	***54.3***	***1,137,892***	***54.9***
Region				
Greater Monrovia	43.0	27.2	431,573	20.8
North Central	66.6	30.6	751,959	36.3
North Western	59.4	8.8	192,088	9.3
South Central	50.3	17.5	323,921	15.6
South Eastern A	64.7	8.4	200,603	9.7
South Eastern B	62.1	7.4	170,202	8.2

Source: Bank Staff calculations, based on data from the 2010 CWIQ.

Figure 2.1: Liberia Poverty Headcount (2007 and 2010)



Source: Staff calculations based on data from the 2007 and 2010 CWIQs

2.3 **The positive relationship between growth and poverty reduction is well established in many countries, and there is no evidence to suggest that Liberia is an outlier in this regard.** A substantial number of cross-country studies, including the very influential study by Dollar and Kraay (2000); as well as cross-regional studies, including that of Ravallion and Chen (2007), suggest a positive correlation between economic growth and poverty reduction. Furthermore, there is some empirical evidence to suggest that the impact of growth on poverty is much larger in cases where inequality is falling (this is discussed further in the subsequent section on inequality).

2.4 **The pattern of growth matters for poverty reduction.** There is some support for the view that the composition and source of growth matter either directly or indirectly for poverty reduction. In fact, Montalvo and Ravallion (2009) have suggested the following Pattern of Growth Hypothesis (PGH):

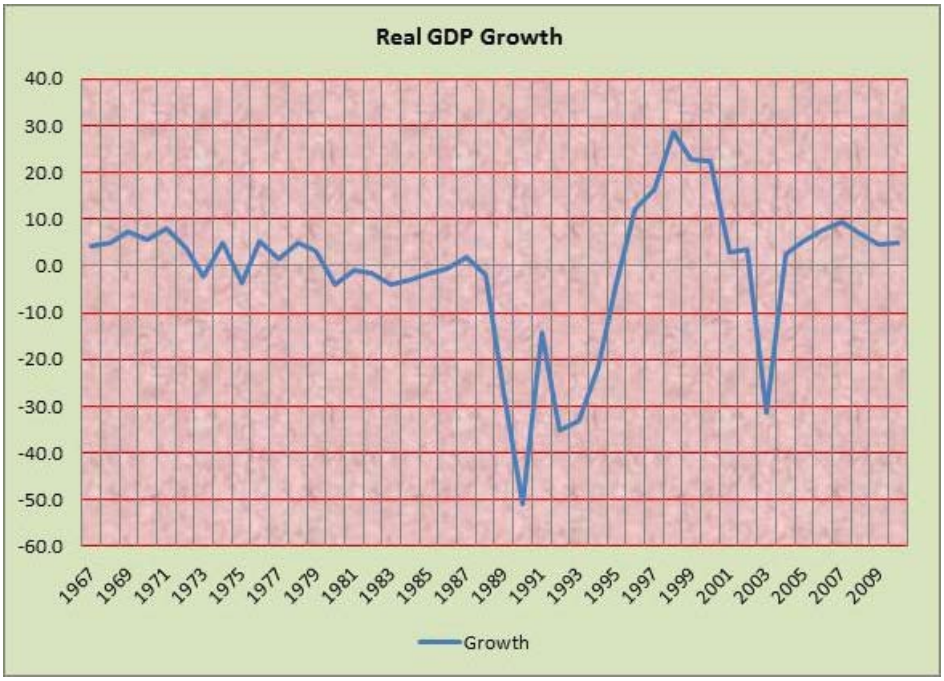
"The sectoral and/or geographic composition of economic activity affects the aggregate rate of poverty reduction independently of the aggregate rate of growth."

Support for this hypothesis is drawn from their work in India, which shows that rural economic growth has had more impact on poverty than urban economic growth; that growth in the tertiary (mainly services) sector has had more impact than growth in the primary (mainly agriculture) sector; and that the secondary (mainly manufacturing) sector appears to have brought little direct gain to India's poor. Although the findings from cross-country analysis by Loayza and Raddatz (2006) generally support the principle of the PGH; that study also highlights some important differences that have implications for policy. For example, while Montalva and Ravallion (2009) found that growth in services is relatively more important than agriculture for reducing poverty in India, Loayza and Raddatz (2006) found that, in developing countries generally, agriculture is relatively more important than services. These different findings draw attention to the need for policymakers to implement policies that are based on a clear understanding of their own country-specific circumstances.

2.5 **The current pattern of investment and growth in Liberia may not favor rapid and sustained poverty reduction in the future.** Currently, the largest portion of Liberia's growth is driven by the capital-intensive, enclave (i.e., not linked to the rest of the economy) natural resource sectors. Employment growth in these sectors tends to be rapid at start-up but to quickly level off and thereafter show only marginal increases. Such growth is therefore likely to have only a small positive impact on poverty over the medium to long term, compared to the same level of growth driven by broader-based sectors such as agriculture and services, which could draw in more of the poor. In addition, as Byerlee and Jackson (2005) have pointed out, agriculture has the strongest forward and backward linkages to other sectors of the economy and has the largest growth elasticity of poverty and consequently the largest overall potential to reduce poverty.

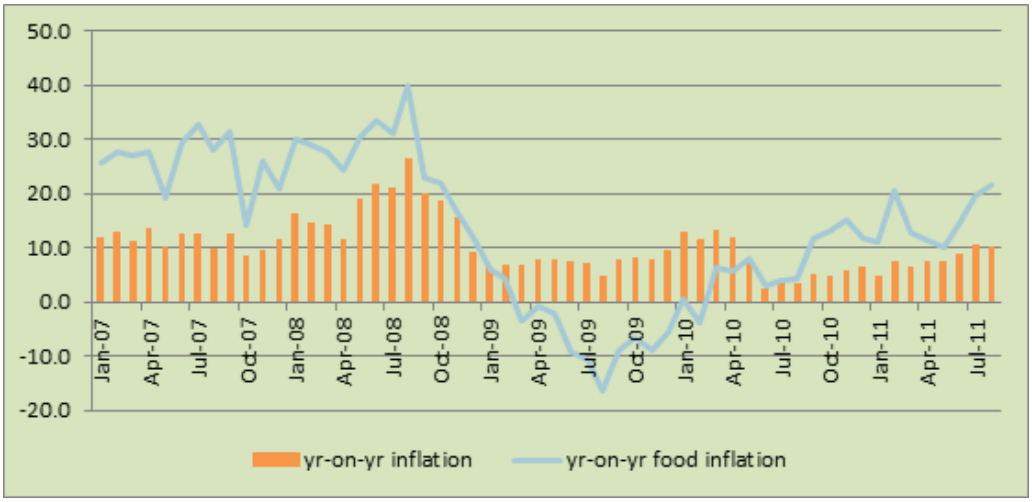
2.6 **Liberia has a history of natural resource-driven growth characterized by low levels of employment and consequently high levels of poverty.** This pattern of growth, sometimes called "growth without development," (Clover et al 1966) is driven primarily by foreign direct investment (FDI) and the export of primary commodities, which also makes the economy vulnerable to external shocks. Before the war, Liberia's exports were dominated by iron ore, which accounted for more than 50 percent of total exports in US dollar terms, compared to rubber and timber exports, which accounted for about 24 and 15 percent of total exports, respectively. When the GDP contribution of the mining sector was at its peak of about 28 percent in 1974, just before the full onset of the fuel crisis, the sector accounted for only about 10 percent of the employed labor force. In comparison, services (excluding Government services), which contributed about the same share of GDP as the mining sector, accounted for nearly 19 percent of the employed labor force. In sharper contrast, agriculture, which contributed only 9 percent of GDP in 1974, employed approximately 43 percent of the labor force.

Figure 2.2: Liberia Real GDP Growth (1967-2010)



Source: Staff calculations based on data from Government, IMF, and World Bank.

Figure 2.3: Liberia Inflation and Food Prices



Source: Bank Staff calculations based on data from Liberia Institute of Statistics and Geo-Information Services (LISGIS).

Depth and Severity of Poverty

2.7 **Based on data from the CWIQ, the population poverty gap[7] was estimated at 24.4 percent and the household poverty gap was estimated at 21.5 percent in 2007.** The data also showed that the poverty gap is much wider for rural than for urban areas, at 26.3 and 20.2

[7] The poverty gap is the mean distance below the poverty line as a proportion of the poverty line, where the mean is taken over the whole population, counting the non-poor as having zero poverty gap.

percent, respectively. In terms of regions, the South-Eastern A region has the highest poverty gap, at 34.3 percent, while the Greater Monrovia area has the lowest gap, at 16.3 percent (Table 2.3). This means that a larger share of the population in the South-Eastern A region is further away from (below) the poverty line than in any other region of the country. This region also has the second highest incidence of poverty after the North Central region. The data for 2010 show some improvement in the South-Eastern A region where the poverty gap is 25.3 percent, 9 percentage points lower than in 2007 and the largest regional improvement. As Table 2.3 shows, there was little change in the severity of poverty in the North Central region. Given the share of the overall population as well as the incidence and severity of poverty, the North Central and South-Eastern A regions represent obvious regions for policy focus in any effort to reduce the overall incidence and severity of poverty in Liberia.

Table 2.3: Liberia Poverty Gap Estimate (2007 and 2010)

Location	Poverty Gap ($P_{\alpha=1}$) 2007	Poverty Gap ($P_{\alpha=1}$) 2010
National	**24.4**	**21.0**
Area of residence		
Urban	***20.2***	***21.6***
Rural	***26.3***	***20.5***
Region		
Greater Monrovia	16.3	14.4
North Central	27.4	27.1
North Western	29.4	20.8
South Central	20.3	17.8
South Eastern A	34.3	25.3
South Eastern B	25.2	23.5

Source: Staff calculations based on the 2007 and 2010 CWIQ.

2.8 **Poverty is most severe in the South Eastern A part of the country,** which is both physically and economically isolated, and least severe in the Greater Monrovia area where economic activities are generally more robust and employment opportunities are greater (Table 2.4), even though the demographics of these areas are very similar to the national demographics (Table 2.5). The South Eastern B part of Liberia includes three counties; River Gee and Maryland, both of which border Côte D' Ivoire; and Grand Kru on the Atlantic Ocean side. The primary economic activity in these counties is subsistent agriculture. Although Grand Kru also has logging and mining potential, it has not been developed largely because of poor infrastructure, including lack of roads. Indeed, Grand Kru has been referred to as the "Walking County," as more than two-thirds of its area is inaccessible by car. The differences between the severity of poverty at the household level and at the population level in the poorest countries are generally not great. Table 2.4 highlights that while the severity of poverty in rural areas has declined between 2007 and 2010, in line with the reduction in the incidence of poverty, in urban areas the severity of poverty has actually increased over the same period.

Table 2.4: Liberia Poverty Severity Estimate (2007 and 2010)

Location	Severity of Poverty ($P_{\alpha=2}$) 2007	Severity of Poverty ($P_{\alpha=2}$) 2010
National	**12.7**	**10.9**
Area of residence		
Urban	***10.4***	***11.6***
Rural	***13.7***	***10.3***
Region		
Greater Monrovia	7.7	6.9
North Central	14.5	14.8
North Western	15.0	10.2
South Central	9.8	8.9
South Eastern A	20.6	13.4
South Eastern B	12.5	12.2

Source: Staff calculations based on the 2007 and 2010 CWIQ.

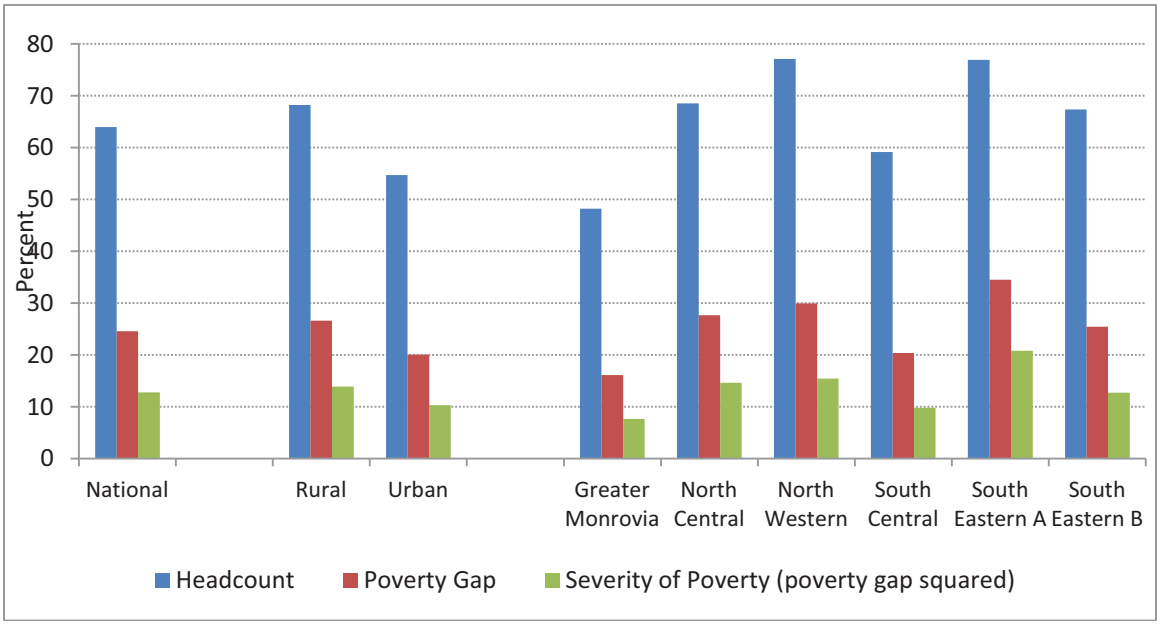
Table 2.5: Demographic Indicators for Counties in Poorest Regions

Counties	Demographic Indicators				
	HH Size	Dependency ratio	Sex of HH head Rural		Elderly headed HHs
			Male	Female	
River Cess	5.5	1.43	88%	12%	10%
River Gee	5.9	1.35	91%	9%	10%
Maryland	5.6	1.33	89%	11%	12%
Grand Kru	5.8	1.61	90%	10%	7%
Liberia	5.6	1.37	87%	13%	8%

Source: Comprehensive Food Security and Nutrition Survey (2006).

2.9 **The incidence, depth, and severity of poverty are generally greater in rural than in urban areas.** As summarized in Figure 2.4, poverty in 2007 was highest in the rural South Eastern A part of the country and lowest in urban Greater Monrovia. This finding is not surprising given the general tendency towards the centralization of socio-economic activities in the capital and the paucity of infrastructure in rural areas. The dependency on subsistence agriculture, or in some places on pit sawing, artisanal mining, or fishing, increases the fragility of the economic situation in most rural areas.

Figure 2.4: Poverty Incidence, Gap, and Severity by Region (2007)

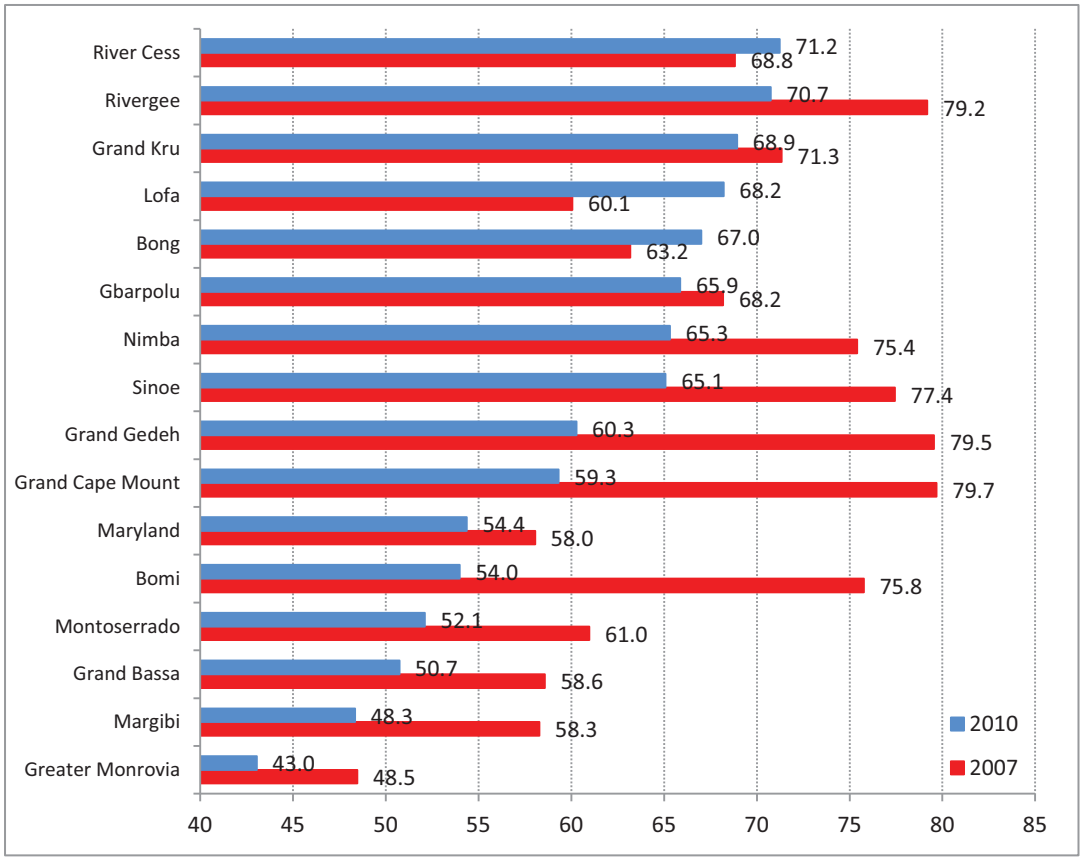


Source: Staff Calculations based on data from the 2007 CWIQ.

2.10 **Across Liberia's 15 counties, the poverty incidence is highest in River Cess and lowest in Margibi.** Figure 2.5 presents a ranking of counties based on the estimated poverty incidence for 2010. River Cess, with an estimated poverty rate of 71.2 percent, is one of Liberia's least developed and most isolated counties.[8] It is rich in timber and fishery but has little by way of infrastructure to enable exploitation of these resources. The county's main economic activities include oil palm production, hunting, and subsistence agriculture. It has less than two percent of the country's business enterprises[9]. Acute and chronic malnutrition rates are high. As shown in Table 2.5, River Cess has a high dependency ratio of 1.43 compared with the national average of 1.37. At the other end of the spectrum is Margibi, the county with the lowest incidence of poverty, estimated at 48.3 percent in 2010. The county has numerous rubber plantations, including the longstanding Firestone and Salala plantations, which have been important not only in the provision of jobs, but also housing and education and health services.

[8] River Cess County Development Agenda (2008 -2012).
[9] LISGIS Business Enterprise Survey, unpublished.

Figure 2.5: Ranking of Counties by Poverty Incidence (2010)



Source: Staff calculations based on data from the 2007 and 2010 CWIQ.

2.11 **The dynamics of the poverty incidence between 2007 and 2010 have been quite mixed, with most counties experiencing a decline (Figure 2.5).** The counties showing the fastest pace of poverty reduction over the period were Bomi (down nearly 22 percentage points, to 54 percent) and Grand Cape Mount (down 20 percentage points, to 59 percent). At the other extreme, three counties showed an increase. The incidence of poverty in Lofa, a relatively isolated county in the Northern region increased from 60.1 percent in 2007 to an estimated 68.2 percent in 2010. In Bong, in the North Central region where the development of iron ore mines was delayed in part due to the global crisis in 2008/09, the incidence of poverty increased by 3.8 percentage points to 67 percent. In River Cess, in South Eastern region bordering Cote D' Ivoire, the incidence of poverty increased from 68.8 percent to 71.2 percent.

Inequality

2.12 **Liberia has a long history of inequality and social exclusion, which were in part responsible for the conflict.** Inequality is a drag on poverty reduction. Cross-country evidence suggests that higher inequality results in a lower rate of poverty reduction for the same level of growth. At the same time, the relationship between growth and inequality is not fixed. As Kanbur (2004) has pointed out, there are considerable variations in what happens to inequality as per capita income changes, with cases where inequality goes up with growth, and cases where inequality goes down with growth. Both of these cases can be imagined for Liberia. If growth is largely driven by the capital-intensive enclave sectors associated with natural resource

extraction, then inequality is likely to increase with growth. However, if the Government is able to diversify the economy to the extent that growth is largely driven by agriculture, services, or light manufacturing, then inequality could go down with the increase in growth. The latter scenario, which would obviously be more pro-poor, is more likely to launch the economy into a more virtuous cycle with higher future growth. Liberia's recent history has shown that a reliance on growth largely driven by the capital-intensive natural resource sector may not be sustainable, but for reasons only partly related to economics.

2.13 **Inequality and social exclusion appear to be linked to deep-seated practices and norms.** In focus groups held in rural Liberia for a study on Societal Dynamics and Fragility (World Bank, forthcoming) individuals explained how decision-making at the community level was based on longstanding arrangements that grant power either to specific families or ethnic groups, or to those who have, over time, gained the respect of other community power holders. These decision-makers allocate community resources and resolve disputes between community members. Young people, former combatants, those from minority tribes, those originally not from the community, or others with dissenting opinions have a harder time obtaining resources and have few allies when engaged in disputes.

2.14 **Rural communities often separate their inhabitants into "citizens" and "strangers," with implications for individual contributions to the community.** In a focus group held in Montserrado County, community members explained that those who were not originally from the community, but had arrived during the war, were not considered citizens. These "strangers" would have to adapt to local cultural practices before they were allowed to become decision-making citizens. While they remained strangers, however, they were required to pay taxes to the community that citizens had no obligation to pay, and were also required to contribute labor on demand

2.15 **Comparable data for 2007 and 2010 show that inequality, as measured by the GINI coefficient, was marginally lower in 2010 than in 2007.** As Table 2.6 below shows, the Gini fell from 0.36 in 2007 to 0.35 in 2010. However, what is more interesting is that inequality rose in urban areas and fell in rural areas. Both phenomena are consistent with the trend of rural poor and illiterate persons migrating to urban areas in search of opportunities, which reduces the number of poor in rural areas while offsetting the gains from economic growth enjoyed by the urban educated, particularly those with tertiary education.

Box 2.1: The Paradox of High Food Poverty in Country of Abundant Fertile Lands

Estimates based on the 2007 CWIQ show that about 60 percent of the Liberian population and more than half of households were below the food poverty line in that year. Moreover, 65 percent of the rural population and nearly 60 percent of rural households were food poor.

At the same time, Liberia's considerable agricultural potential is largely unrealized. The World Bank's recent Diagnostic Trade Integration Study (2009) highlighted Liberia's comparative advantage in a number of tradable sectors, including rubber, cocoa, and palm oil. However, the country's potential in domestic agriculture, including production of basic commodities, remains largely unexploited even in the face of its substantial food import bill. Between 2006 and 2009, Liberia's food import bill averaged 27.4 percent of total imports, with rice accounting for nearly half of total food imports in 2009. Liberia's agricultural potential lies in its vast acreage of arable, fertile land, availability of water for irrigation, and substantial unemployed labor. The total land area in Liberia is estimated at 9.8 million hectares (USAID 1998). Of this total, forest occupies 4.9 million hectares; arable land is estimated at 4.6 million hectares; and potential pasture land is estimated at some 0.2 million hectares. Liberia's tropical climate is ideally suitable for a number of crops. The rainy season—April to November—records an annual average rainfall of 2,400 millimeters, with a spatial variation from 2,000 to 5,000 millimeters. This level of rainfall is more than adequate for most crop growth. In addition, the Food and Agricultural Organization (FAO 2008) estimates that Liberia's irrigation potential is approximately 600,000 hectares. Citation Even at current low yields this amount of arable land is more than adequate to provide for national food self-sufficiency in the key staples.

The low levels of domestic food production are due to several factors, including land tenure issues; low quality and quantity of inputs, including seeds and fertilizer; and the lack of extension services. These factors combine to keep domestic food agriculture at or below subsistence levels for the many small farmers involved in the sector.

Table 2.6: Liberia Inequality by Location

Location	GINI 2007	GINI 2010
National	**0.333**	**0.344**
Urban/rural location		
Urban	***0.335***	***0.326***
Rural	***0.327***	***0.362***
Region		
Greater Monrovia	0.326	0.3385
North Central	0.355	0.3360
North Western	0.274	0.3174
South Central	0.288	0.3317
South Eastern A	0.325	0.3227
South Eastern B	0.301	0.3370

Source: Staff Calculations based on Data from the 2007 and 2010 CWIQ.

Subjective Poverty and Welfare

2.16 **Subjective indicators of poverty and welfare[10] suggest that overall, Liberians in general perceived a reduction in their poverty status and an improvement in welfare**

[10] The 2007 and 2010 CWIQ included a module comprising 14 questions related to subjective perceptions of poverty. See Annex 2 for entire module.

between 2007 and 2010. In 2010, 8.9 percent of households perceived themselves as poor, down from 9.7 percent of households in 2007. Furthermore, in 2010, 36.8 percent of households considered themselves "fairly poor" compared with about half of total households in 2007. At the other end of the spectrum, in 2010, 0.5 percent of households perceived themselves as "rich" and 2.7 percent as "fairly rich," compared with 0.1 percent and 1.4 percent, respectively for 2007. As would be expected, more rural households considered themselves poor relative to urban households, but also perceived improvements in their status over the period as shown in Table 2.7. Some support for these perceptions of improved welfare also comes from the fact that households indicated they were able to save more and borrow less in 2010 compared to 2007. In 2010, 27.3 percent of households reported that they were able to "save a lot/a little money," compared with 10.7 percent of households in 2007. In addition, in 2010, 25.8 percent of households reported the need to borrow, substantially down from 43.6 percent of households in 2007.

Table 2.7: Distribution of Households by Perception of Wellbeing based on Income

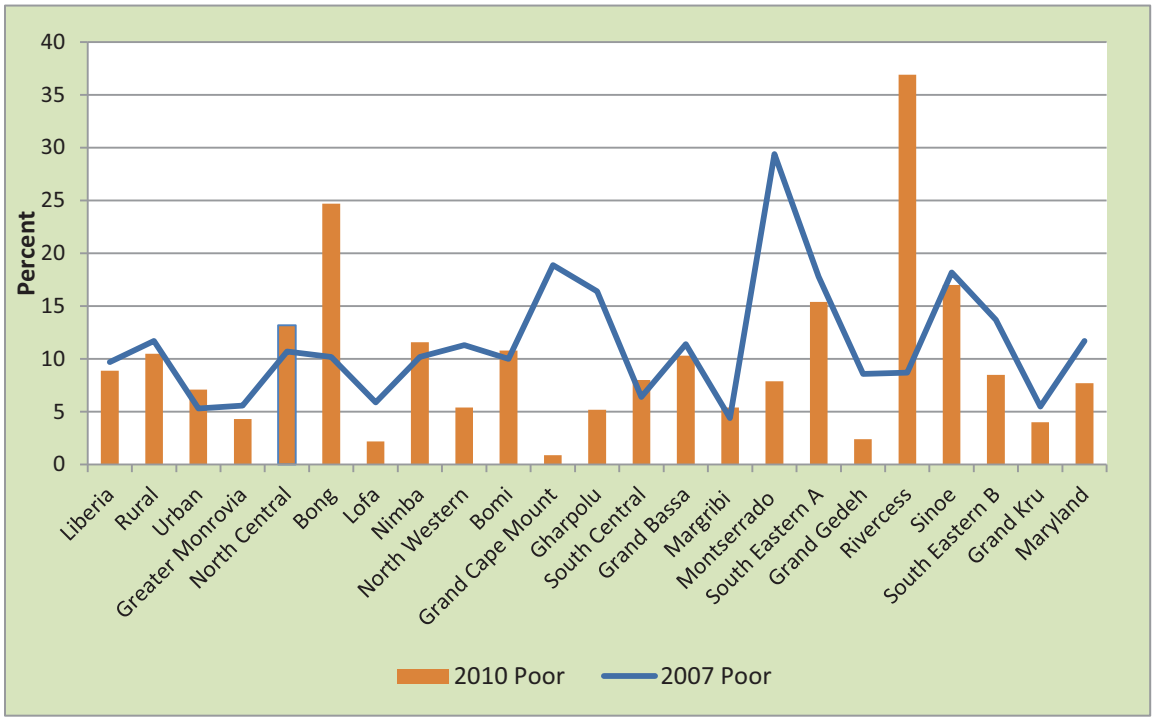
Location	2007				2010			
	Living very well	Living reasonably well	Living carefully	Living with difficulty	Living very well	Living reasonably well	Living carefully	Living with difficulty
Liberia	**1.1**	**10.0**	**31.2**	**57.7**	**6.0**	**17.1**	**39.6**	**37.2**
Rural	***0.8***	***8.1***	***28.4***	***62.7***	***4.8***	***15.1***	***40.4***	***39.7***
Urban	***1.8***	***14.1***	***37.1***	***47.0***	***7.4***	***19.6***	***38.7***	***34.3***
Region								
Greater Monrovia	1.9	11.6	36.8	49.8	7.1	21.3	38.3	33.4
North Central	0.6	8.6	26.9	63.9	6.9	10.8	44.9	37.4
North Western	0.2	17.6	38.1	44.1	3.5	26.3	40.2	30.0
South Central	1.7	6.7	31.4	60.2	4.5	17.2	39.9	38.5
South Eastern A	1.4	7.7	29.6	61.3	7.5	14.4	27.0	51.0
South Eastern B	1.0	11.0	25.9	62.2	3.2	18.2	35.9	42.7

Source: Staff Calculations based on Data from the 2007 and 2010 CWIQ.

2.17 **However, the perceptions of changes in poverty and welfare status across the six regions and fifteen counties are quite mixed (see Annex 3).** In term of households that perceive themselves as poor, the biggest nominal gainer was the North Western Region, where 11.3 percent of households reported being poor in 2007, compared to 5.4 percent in 2010. The South Eastern B region also registered some gains, from 13.7 percent of households in 2007 to 8.5 percent of households in 2010. The South Eastern A region showed marginal nominal gains, going from 17.8 percent of households reporting being poor in 2007 to 15.4 percent in 2010. Two regions, North Central and South Central, reflected nominal losses in terms of household perception of their poverty status. In the North Central region, which includes Bong, Lofa and Nimba counties, 13.2 percent of households reported being poor in 2010, up from 10.7 percent of households in 2007. In the South Central region, which includes Grand Bassa, Margibi, and Montserrado counties, 8 percent of households reported being poor in 2010, compared with 6.4 percent in 2007. The stark outlier in this region is Montserrado County, which showed a substantial reduction in the percentage of households reporting being poor, from 29.4 percent in 2007 to 7.9 percent in 2010. What is even more interesting, from a policy perspective, is that in this same county, the percentage of households perceiving themselves as relatively rich increased from 2 percent in 2007 to 5.7 percent in 2010. This finding is not entirely surprising, since the

capital city, Monrovia, is located in Montserrado County, and public and private sector economic activities tend to be concentrated in the capital city.

Figure 2.6: Distribution of Households by Perceived Poverty Status (2007 and 2010)



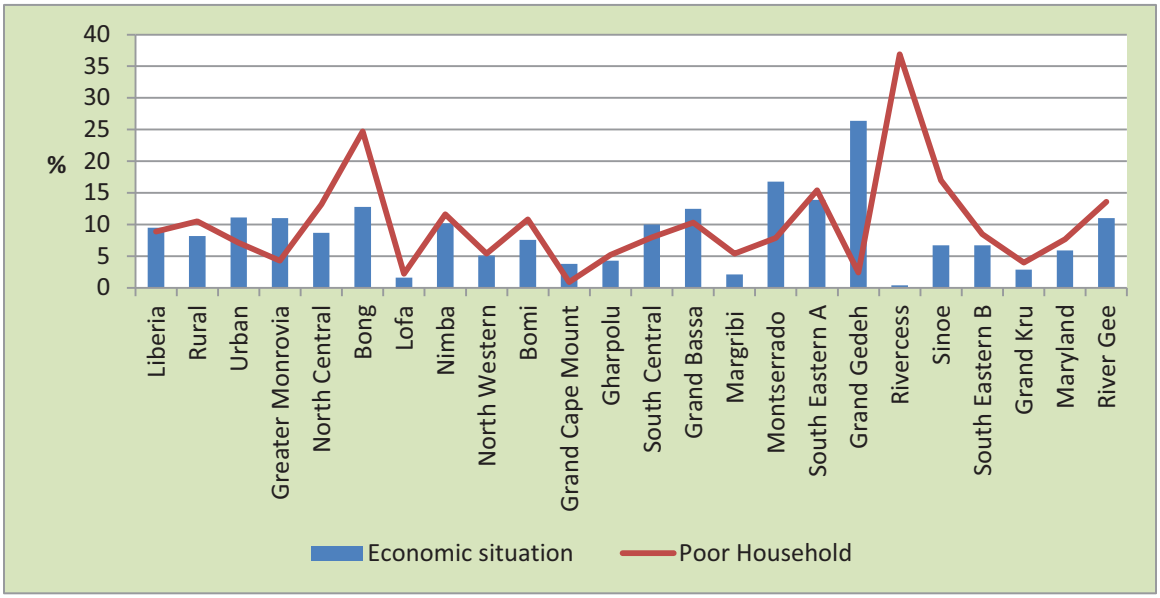
Source: Staff calculations based on data from the 2007 and 2010 CWIQ.

2.18 **Most households across the six regions and 15 counties perceive an improvement in their poverty status.** However, Bong County in the North Central region and River Cess County in the South Eastern A region are remarkable outliers (Figure 2.6). In the case of Bong County, the percentage of households that perceived themselves to be poor more than doubled, from 10 percent in 2007 to nearly 25 percent in 2010. In the case of River Cess, that percentage more than quadrupled, from 9 percent in 2007 to almost 37 in 2010. These perceptions are consistent with the findings from the quantitative data, which showed that the incidence of poverty increased in these two counties between 2007 and 2010.

2.19 **In 2010, many Liberians held the perception that the economic situation in their community was the same or better compared to the year before.** The 2010 CWIQ data showed that for the country as a whole, less than a quarter of households considered that the economic situation of their community was a little worse or much worse, while three quarters reported that the economic situation in their community was either the same or better. It is interesting to note that households in urban areas were generally less positive than rural households (see table in Annex 4). Of the urban households, 11.1 percent reported that the economic situation of their community was much worse than the year before, compared with 8.2 percent of rural households. On the upside, 74.2 percent of urban households reported that the economic situation in their community was the same or better, compared with 77.1 percent of rural households. This finding may reflect the expectations gap between urban and rural

households. The data from focus groups across both urban and rural areas suggest that the more rural and isolated a community is, the more positive its perceptions; the more urban and developed it is, the less positive. Figure 2.7 below shows the congruence between the perception of changes in household poverty status and perceived changes in the economic situation of the community.

Figure 2.7: Congruence between Perceived Household Poverty Status and Economic Situation



Source: Staff Calculations based on Data from the 2007 and 2010 CWIQ.

2.20 **The level of poverty in Liberia is much higher than in Sub-Saharan Africa comparators.** National poverty data for Sub-Saharan Africa are scarce and are often not immediately comparable across countries because the poverty lines may differ, for a number of reasons. However, the World Bank produces poverty estimates, including for the Africa region, based on a common international poverty line.[11] These estimates suggest that the poverty in Liberia is much higher than in comparator Sub-Saharan countries and well above the average for Sub-Saharan Africa (Table 2.8). The substantial differences in poverty during the 1996 to 2002 period may in large part be explained by the civil war and its adverse impact on economic activities and the delivery of key social services.

[11] The US$1.25 per day poverty line

Table 2.8: Poverty in Liberia and Selected Comparator Countries

Country	Population	Share of the population below PPP $1.25 a day				
		1996	1999	2002	2005	2008
Liberia	3.3	98.2	80.0	69.7	86.5	83.1
Central African Republic	4.0	72.8	68.0	66.9	63.3	63.8
Congo Republic	4.0	56.4	60.1	56.3	54.1	53.4
Serra Leone	5.5	62.6	73.9	59.9	50.3	44.7
Sub-Saharan Africa		58.1	57.9	55.7	52.3	47.5

Source: World Bank.

Growth and Poverty Dynamics over the Medium to Long Term

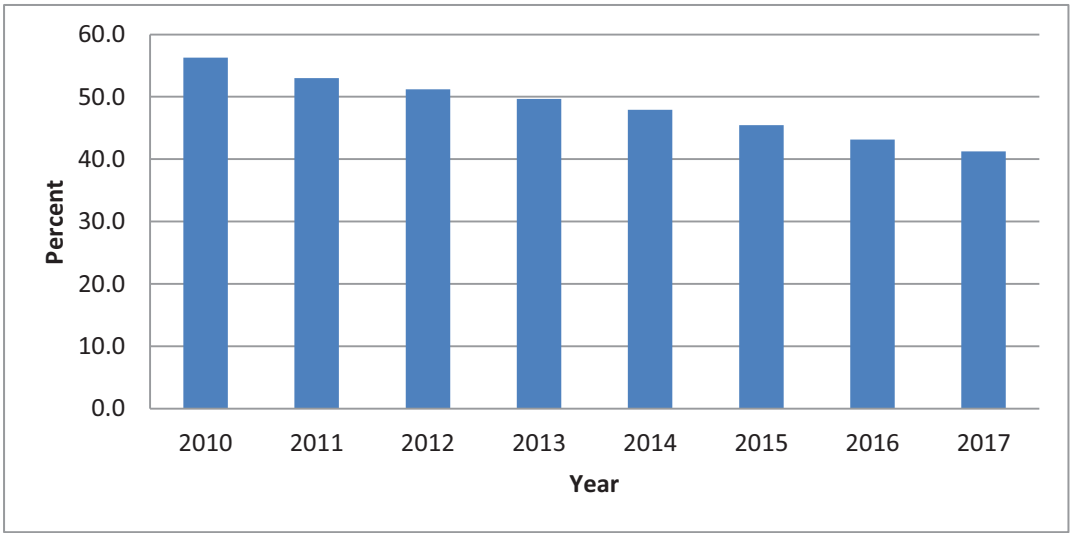
2.21 **Liberia has posted a strong post-conflict economic recovery, with real GDP growth averaging more than six percent between 2005 and 2011.** The prospects for growth in the medium to longer term are good, with increasing investments in the natural resource sectors, including mining, rubber and forestry. There is also the prospect of the discovery of oil in commercial quantities, which would further spur long-term growth and employment. In the medium term (the period of the next Poverty Reduction Strategy (2012 -2017), if it is assumed that the economy grows at an annual average rate of about 8 percent between 2010 and 2017 (driven mainly by the mining sector) with the level of inequality remaining about the same (Gini of 0.33) and inflation remaining subdued, Liberia could see further meaningful reduction in the poverty headcount. Under these assumptions, simulation using the MAMS model developed for Liberia[12] shows that the poverty headcount would fall gradually from 56 percent in 2010 to about 41 percent in 2017 (Figure 2.8). The simulations also suggest that under assumptions of more modest GDP growth of about 5 percent over the long term, the poverty head count could fall below 20 percent by 2030, when Liberia hopes to be classified as a middle-income country.

2.22 **The greatest threat to Liberia's prospects for growth and poverty reduction is a return to conflict**. Global experience suggests that about 40 percent of post-conflict countries fall back into conflict within a decade, particularly if the root causes of the conflict have not been adequately addressed.[13] Given the fact that Liberia is still within that critical window (the conflict ended in 2003), it is essential that the Government continue its efforts to create a more inclusive economy and deliver robust economic growth that will expand opportunities for the entire population.

[12] Liberia: Strategic Policy Options for Liberia's Medium Term Growth and Development Strategy and Liberia Rising 2030, Report No. 67300-LR, World Bank (2012).

[13] See USAID (2009), "A Guide to Economic Growth in Post-Conflict Countries," Office of Economic Growth, Bureau for Economic Growth, Agriculture and Trade.

Figure 2.8: Simulation of Poverty over the Medium Term



Source: Simulation for Liberia MAMs Model.

2.23 **The remaining chapters of this Poverty Note examine the major correlates of poverty and how they interact in greater detail.** The major correlates were identified from regressions done on data from the 2007 CWIQ by Backiney-Yetna et al., (2008). The primary explanatory variables include: (a) geographic location; (b) demographic characteristics (number of infants, children, adults, and seniors, and their squared value), whether the household head is a woman, the age of the head, and the marital status of the head; (c) characteristics of the household head, including level of education, socioeconomic group, and whether the head has a second job; (d) the education level of the spouse of the household head, where there is one; and (e) other variables such as land under cultivation, migration related to the war, and access to infrastructure.

3. HOUSEHOLD SIZE AND POVERTY

3.1 **The empirical evidence from Liberia's poverty data suggests that larger households have a lower consumption per equivalent adult (Table 3.1).** This relationship holds even after controlling for the differences in needs among different persons through the use of the adult equivalence scale (Wodon 2012). An additional person in the household reduces consumption per equivalent adult, with the impact ranging from no loss to a loss of 25 percent of consumption per adult, depending on the case. It should be pointed out that the empirical findings for Liberia may not be typical for Africa, as other researchers (for example, Kamuzora, 2001) have shown that a pattern of less poverty with larger household size was indicated by data from 21 African countries. Of the sample, only two countries, Ghana and Togo, showed less poverty with smaller household size.[14] The findings for Liberia relative to the findings in other African countries highlight the need for a careful examination of emerging patterns, the historical context, and the possible demographic, cultural and social and economic factors affecting the dynamics of household size. This is an important prerequisite for policy formulation.

Table 3.1: Household Size and Consumption Expenditure by Quintile (2007)

Quintile	HH Size	HH Total Consumption Expenditure (L$)	HH Food Consumption Expenditure (L$)	Per Capita Consumption Expenditure (L$)	Per Adult Equivalent Expenditure (L$)	Food Share (%)	Non-food Share (%)
1	6.4	50,374.6	26,042.6	7,815.0	10,417.5	49.7	51.5
2	6.1	86,648.3	45,205.8	14,125.4	18,683.5	52.7	44.1
3	5.7	108,734.8	56,004.3	19,139.1	25,216.2	52.3	45.2
4	5.4	133,746.6	67,906.1	25,008.3	32,827.8	51.7	46.0
5	4.2	194,143.1	90,992.9	49,526.8	62,447.3	49.1	49.9
Total	5.4	122,015.8	60,442.5	25,357.1	32,693.8	51.0	47.4

Source: Core Welfare Indicator Survey, 2007.

3.2 **Liberian households are getting smaller and the urban/rural difference is disappearing.** Data from the 2010 CWIQ show that the mean household size in Liberia in 2010 was 5.0, down from 5.4 in 2007 (Table 3.2). The breakdown of the distribution for 2010 shows that more than half of the households had more than five persons and nearly a quarter of households had more than seven persons. In rural areas, 54.6 percent of households had more than five persons, while in urban areas, 53.3 percent of household had more than five persons. However, in terms of the mean household size, the difference between rural and urban seems to have disappeared in 2010, with the same mean household size of 5.

[14] Since Kamuzora's definition of poverty is not based on consumption expenditure but on a possessions index (a composite of household possessions, mainly that of the head), and quality of housing and sanitation, the obvious question that is raised is whether the relationship between household size and poverty is sensitive to the definition of poverty.

Table 3.2: Distribution of Households by Size (2007 and 2010)

Location	1-2 Persons	3-4 Persons	5-6 Persons	7+ Persons	Mean Household Size 2007	Mean Household Size 2010
Liberia	**12.8**	**33.2**	**30.9**	**23.1**	**5.4**	**5.0**
Rural	***11.8***	***33.6***	***32.1***	***22.5***	***5.3***	***5.0***
Urban	***13.9***	***32.7***	***29.4***	***23.9***	***5.5***	***5.0***
Greater Monrovia	15.4	34.7	28.5	21.4	5.5	4.8
North Central	10.8	32.6	31.0	25.6	5.4	5.1
North Western	12.8	38.5	30.2	18.5	5.0	4.7
South Central	12.0	35.7	31.8	20.5	5.3	4.9
South Eastern A	14.9	27.2	31.9	26.0	5.9	5.1
South Eastern B	9.5	22.9	37.8	29.8	5.9	5.5

Source: Core Welfare Indicator Survey, 2010.

3.3 **Historically, Liberian households have largely consisted of immediate and extended family members.** In some cases, particularly in the rural South Eastern parts of the country, men have more than one wife and more children are added to the family. For example, in Grand Kru County, 11 percent of male-headed households are polygamous and nearly 40 percent of households have more than 7 persons, with a mean household size of 6.1, well above the national average. This compares with Gbarpolu County, where only 4.1 percent of male-headed households are polygamous and only 6 percent of households have more than 7 persons, with a mean household size of 4.1. The number of persons living in a household is also a function of family income; the larger the family income, the larger the household is likely to be. The findings from a recent gender report[15] provide some support for this. The report, based on focus group discussions conducted in at least nine communities across Liberia, found that in general, there were fewer children in the less developed communities compared with those that were better developed. One notable exception was a predominantly Muslim community, where men tend to have more than one wife and many more children.

3.4 **Are households poor because they are large or are they large because they are poor**? This is an important policy question, since it determines whether the focus should be on measures to reduce household size or on measures to reduce household poverty more generally. A number of household surveys across Asia, Africa, and Latin America have found a pattern of strong negative correlation between household size and consumption.[16] For example, on the basis of analysis of household data from the Philippines, Orbeta (2005) showed a negative impact, on average, of additional children on household welfare, and concluded that larger family size is

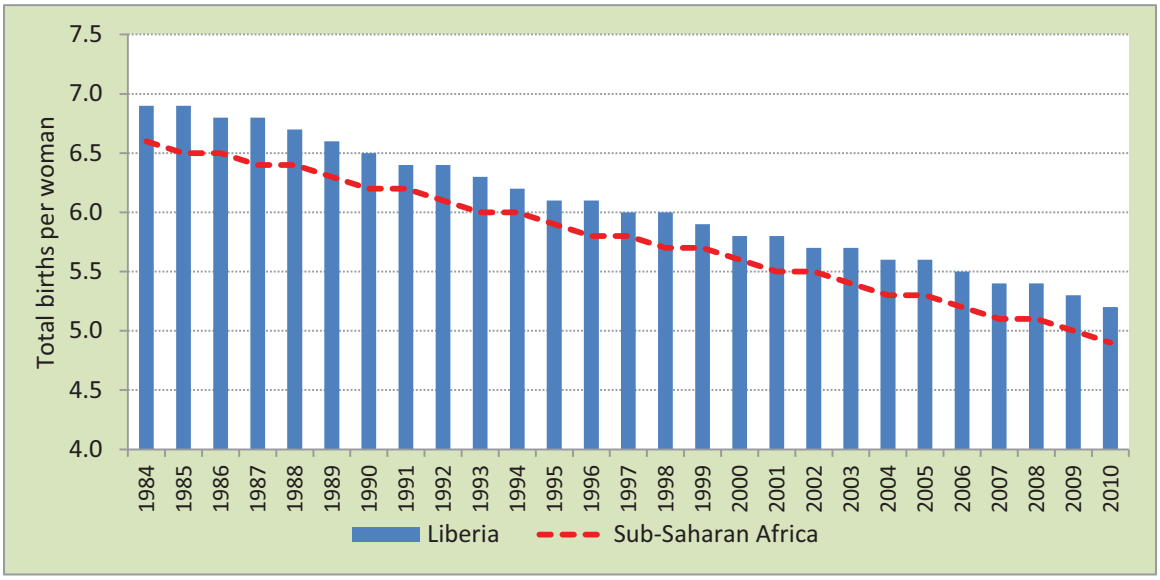
[15] Rapid Qualitative Assessment of Gender, Poverty and Economic Decision-making in Liberia. World Bank Background Paper, 2011.

[16] See Lanjouw and Ravallion (1994) Poverty and Household Size. Policy Research Working Paper No. 1332. World Bank

associated with higher poverty incidence, gap, and severity; his analysis also suggested that these negative impacts are regressive; i.e., the negative impact of additional children on poorer households are larger than on less poor households. Orbeta argued that the impact of larger household size works through the channels of lower household savings rate and levels, and reduced work participation and wage income of mothers. However, Lanjouw and Ravallion (1994) argue that the basis for the "stylized facts" that in developing countries large families tend to be poorer is questionable, as the correlation between poverty and household size is sensitive to the size elasticity of the cost of living. The findings from Kamuzora (2001) for African countries also support the view that larger households are not necessarily poorer. However, there is some anecdotal evidence[17] to suggest that in Liberia, many poor families trade off quantity of children for quality of children (more children that are poorly educated), particularly in cases where the adults generally believe that children's main roles are to take care of their parents in old age.

3.5 **There has been a substantial reduction in the average household size in Liberia, from 6.1 persons per household reported in 1984 census[18] to 5.1 reported for the 2008 census.** The reduction in the average household size since the 1984 census is consistent with the trend decline in the fertility rate and the crude birth rate. As Figure 3.1 below shows, since 1984, Liberia's fertility rate has declined in line with the trend for Sub-Saharan Africa, but is consistently above that rate. It is plausible to assume that the reduction in the average household size between 1984 and 2008 could to some extent be attributable to the decline in fertility rate as well as migration, displacement, and mortality resulting from the 14-year civil conflict, which may have reduced the size of the current generation. However, the data for Liberia on migration and displacement is sparse, and experiences across other post-conflict countries are mixed.

Figure 3.1: Fertility Rates, Liberia vs. Sub-Saharan Africa



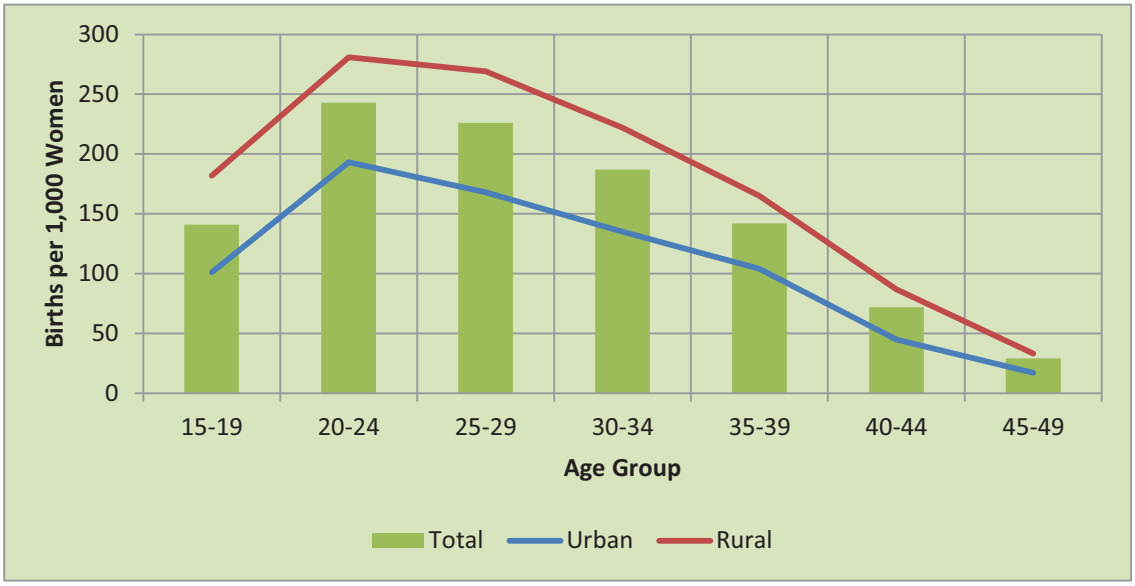
Source: Staff calculation from World Bank Data, World Development Indicator (WDI) database.

[17] Rapid Qualitative Assessment of Gender, Poverty and Economic Decision-making in Liberia, World Bank Background Paper, 2011.
[18] Data based on the 1984 Census reported in the 2008 census.

3.6 **Liberia's past high fertility rate reflected, in part, early marriage or cohabitation.** The 1986 Liberia Demographic and Health Survey (DHS) reported that 36 percent of women aged 15-19 and 75 percent of women aged 20-24 had already entered a union, and fewer than 1 percent of those between 45-49 years said they had never been married. In 2006, Liberia was ranked 13th out of the top 20 "Hot Spot" countries for child marriage by the International Center for Research on Women (ICRW, 2006). The ICRW highlighted that child marriage perpetuates an unrelenting cycle of gender inequality, sickness, and poverty. It argues that girls who marry as children are more susceptible to health risks associated with early sexual initiation and child bearing, including HIV/AIDS, and are also subjected to domestic violence, sexual abuse, and social isolation, all of which have a high prevalence in Liberia.

3.7 **The declining fertility rate may reflect the fact that more women are postponing marriage.** In 2008, the Government passed a new Domestic Relations Law, which sets the minimum legal age for marriage at 18 years for women and 21 years for men. However, in reality the custom of early marriage is still very widespread, particularly in rural areas. The 2007 DHS showed that 20.2 percent of women aged 15-19 were either married or cohabiting. For women aged 20-24, 61.6 percent had already entered a union. For women between 45-49 years, the rate did not change—fewer than 1 percent said they had never married. Data from the 2007 DHS suggest that the peak childbearing groups are aged 20-24 and 25-29, which contribute 23 and 22 percent, respectively, to the total fertility rate. As Figure 3.2 below shows, while the fertility rate at each age is higher in rural areas, there is little differentiation between rural and urban in the general pattern of fertility, with the rate declining as women age.

Figure 3.2: Age Specific Fertility Rates, Total, Urban and Rural (2007)

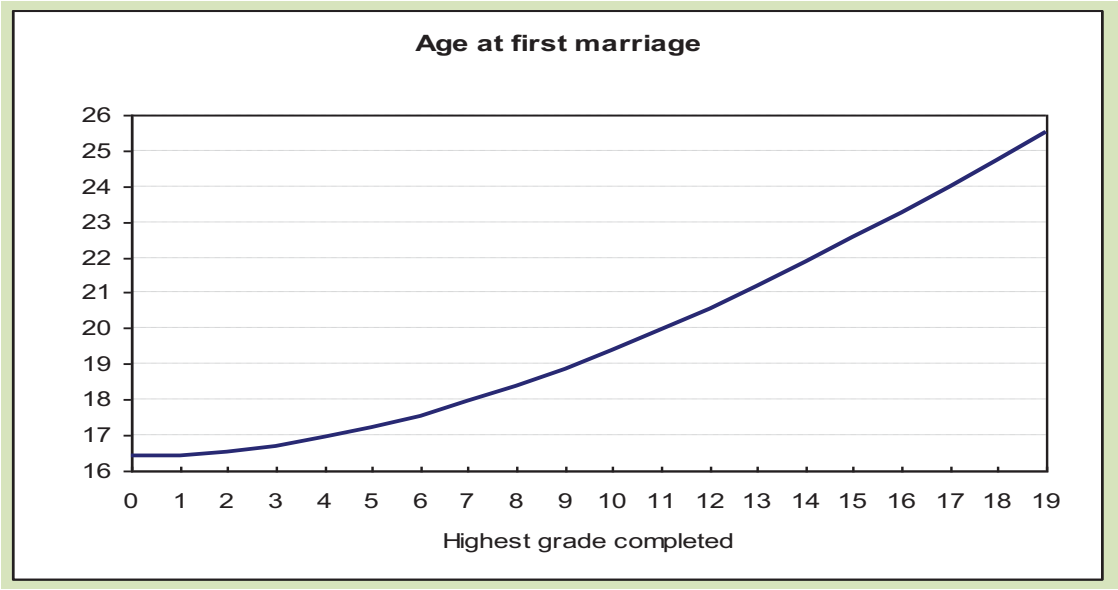


Source: Staff calculations based on 2007 Liberia Demographic Health Survey.

3.8 **Education, and particularly secondary and post-secondary education, appears to lower the fertility rate in Liberia.** Based on data from the 2007 DHS, the fertility rate for women with no education is 6.0; the rate falls marginally to 5.9 for women with primary education, but falls rather sharply to 3.3 for women with secondary education or higher. As empirical research has made clear, the relationship between education and fertility is complex. However, for Liberia, at first approximation it appears that education and particularly secondary

education delays marriage. The data from the 1986 Demographic and Health Survey indicated that the median age of first marriage for women with no education was 16.8 years. However, it rose to 17.3 years for those with primary education, and rose further to 20 years for women with some secondary education. Data from the 2007 DHS (Figure 3.3) suggest a similar pattern (in addition to the fact that more women were postponing marriage as discussed above). Among women aged 25-49, the median age of first marriage for those with no education was 17.8 years; this rises to 18 years for those with primary education, and rises further to 20.6 for women with secondary education and higher.

Figure 3.3: Liberia-Age of First Marriage by Highest School Grade Completed



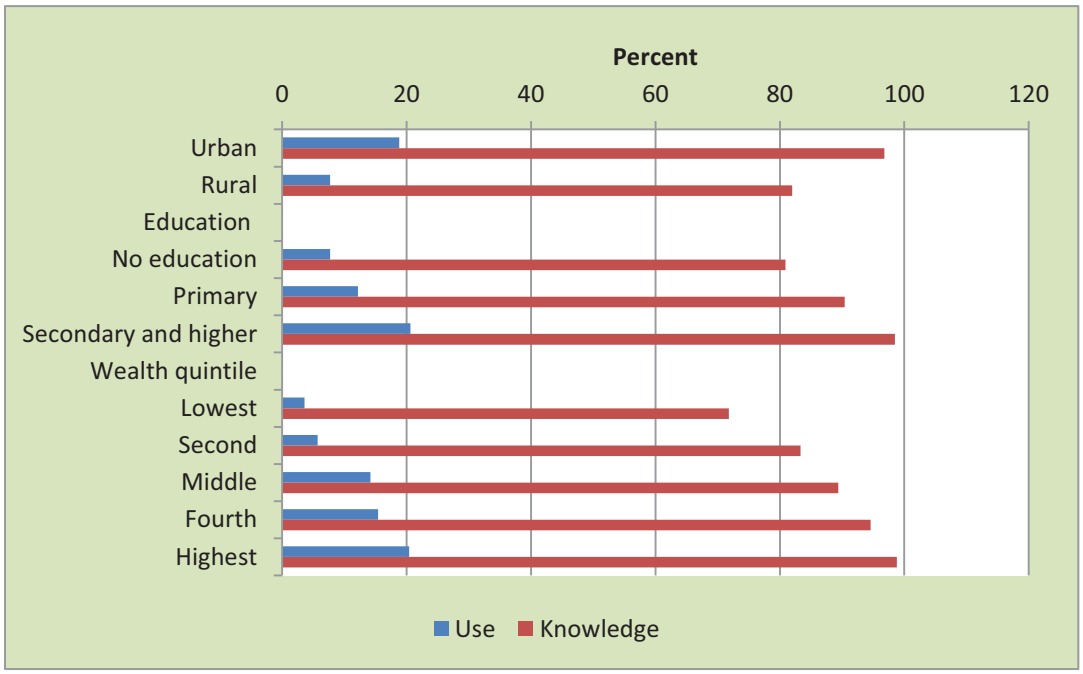
Source: Staff calculations based on 2007 Liberia Demographic Health Survey.

3.9 **Knowledge of contraceptive methods is generally high among all women in Liberia, and even higher among men.** Data from the 2007 Demographic and Health Survey show that 86.8 percent of all women in the age group 15-49, know of at least one method of contraception. This reflects an improvement compared with 1986, when 72 percent of women had knowledge of at least one method. The data for 2007 also suggest that the knowledge of contraceptive methods is higher for women in the 35-39 age group, for urban women, and for women in the wealthiest quintile. The data also suggest that the knowledge of contraceptive methods is higher for men than for women. This may reflect the higher level of literacy among men.

3.10 **However, while there is an increasing trend toward the use of contraception, the overall use is very low, even among sexually active unmarried women**. Data from the 2007 DHS show that for the 15-49 age group, only 13.3 percent of women use any form of contraception. Among married women, 11.4 percent use contraception, and among sexually active unmarried women, 27.3 percent use contraception. The data also suggest that the pill and the male condom are the two most preferred methods. Further, contraception is higher for urban women, and women with more education. Interestingly, the proportion of women with no education using contraception is 7.7 percent, but this increases to 12.2 percent for women with primary education and more dramatically to 20.6 percent for women with secondary education or higher. What is also interesting to note is that the use of contraception is still low (14.8 percent)

among women with five or more children. As Figure 3.3 below shows, there is a substantial gap between knowledge and the use of contraception in Liberia.

Figure 3.4: Contraceptive Knowledge and Use in Liberia

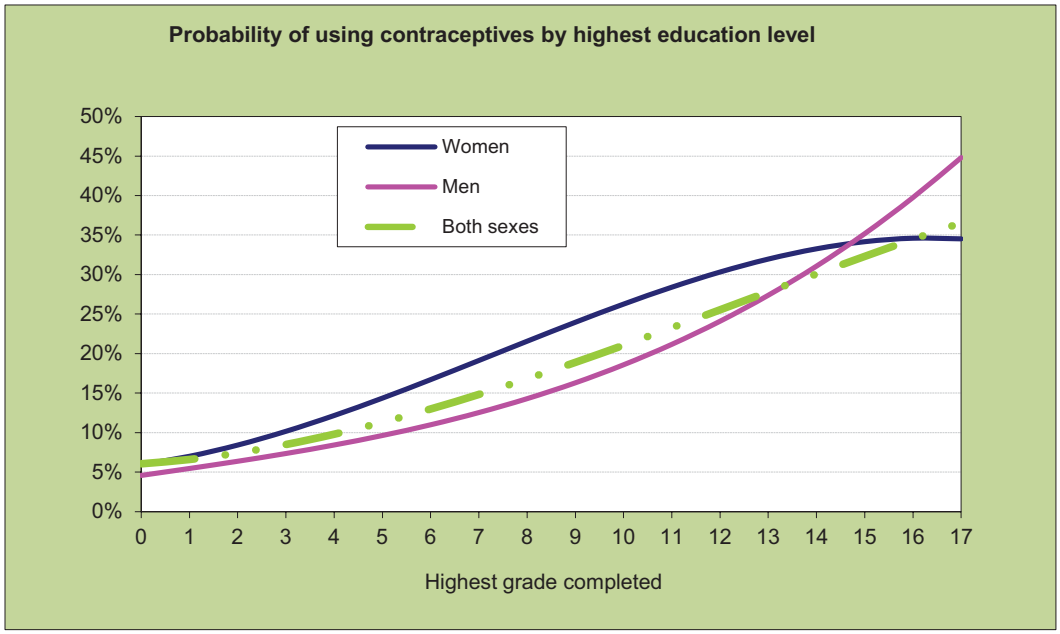


Source: Staff calculations based on 2007 Liberia Demographic Health Survey.

3.11 **The lower knowledge and use of contraception among poor households helps to perpetuate the cycle of large poor households.** As Figure 3.4 above shows, knowledge about contraceptives is near 100 percent among wealthy married women, compared to just 72 percent for poor married women. In terms of the media through which women receive information, 60 percent of wealthy women receive family planning messages via radio, 13 percent through television, and 18 percent through the print media. The comparable figures for poor married women are 13.7 percent for radio, 0.4 percent for television, and 0.7 percent for print media. The difference between wealthy and poor women is equally stark in terms of use of contraceptives. Among wealthy married women, slightly more than 20 percent reported using contraceptives, compared to fewer than 4 percent for poor married women.

3.12 **Contraceptive prevalence between women and men diverges, with women having a higher probability of use than men at lower education levels (Figure 3.5)**. With 6 years of education, the probability of women using contraceptives is nearly twice (18 percent) that of men (11 percent). However, a different picture emerges at the higher levels of education, where the probability of contraceptive use is higher for men than women, implying that men may be more proactive in investigating contraceptive options at the 16+ education levels. The probability of women using contraceptives is 35 percent versus 45 percent for men at 17 years of education, and this nearly doubles at higher levels. This may be attributed to several factors, including: (a) HIV/AIDS is on the rise and this sensitizes men to the use of condoms (knowledge on HIV increases with education); (b) men are financially more independent and thus not willing to have children out of wedlock; and (c) changing attitudes and a cultural shift, with men taking greater responsibility for their fertility.

Figure 3.5: Contraceptive Use by Highest School Grade Completed



Source: Author's calculations based on data from the Liberia DHS, 2007.

3.13 **In Liberia, public sector health facilities are the most common source of contraception.** In 2007, the public sector provided about half of the modern contraceptive methods used by women in Liberia, mostly through hospitals, health centers, and clinics. The private sector, including hospitals and clinics, doctors, pharmacies, and the Family Planning Association of Liberia together provide about 31 percent of the contraception used. About three-quarters of the women who obtain their contraception from the public sector do so free of cost, compared with 38 percent of those who obtain contraception from private sources.

Policy Implications and Recommendations

3.14 **Historically, Liberian households have been large, consisting of immediate and extended family members.** Liberia's population growth and household size has been largely determined by: (a) high although declining fertility rates; (b) the practice of early marriage; (c) the widespread practice of polygamy, as well as households with multiple partners or with children from multiple partners, particularly in rural areas, and (d) the generally low contraceptive use, particularly among poor and uneducated women.

3.15 **However, recent survey data show a declining trend in household size since 1984, and this trend is likely to continue.** Further improvements in access to health and education, particularly secondary education for girls, could result in a higher percentage of women delaying marriage, and a further decline in the overall fertility rate. While the gender gap in primary education has been substantially reduced and is likely to be further reduced as the Government builds more schools, there may be need for more affirmative policy actions at the secondary level. In particular, policy needs to address the root causes of the low secondary enrollment of girls in both urban and rural areas. Policy should address the cases where parents prioritize the education of boys, since boys are more likely to support their parents while girls are more likely to have responsibilities for their husbands' families. The practice of trading off quantity of

children for quality of children in poor households has implications for chronic poverty and therefore should also be the focus of policy.

Recommendations

- *Increase the general awareness of the negative effects of early marriage, to bring the general practice in conformity with the law;*
- *Develop strategies to reduce the substantial gap between knowledge and use of contraceptives generally and the low use among poor households in particular.*

4. EDUCATION AND POVERTY

4.1 **Consumption levels are higher and poverty lower for households with heads that have secondary schooling.** Improved access to education is generally seen to improve the probability of getting better remunerated work, reducing the likelihood of poverty and social exclusion, and providing positive externalities of higher productivity growth and enhanced health. There is ample evidence that these advantages hold in Liberia. In the 2007 CWIQ, the national poverty headcount for households whose heads had no education was 72.6 percent, compared with 54.2 percent for household heads that had completed secondary education. Furthermore, the poverty rate for household heads with post-secondary education was substantially lower at 42 percent (Table 4.1). The 2010 CWIQ data, while showing an across-the-board reduction in poverty for all levels of education, also show lower levels of poverty for those with more schooling (Table 4.2). Notably, those who completed primary education saw the largest reduction—22 percentage points—in the poverty headcount between 2007 and 2010. This compares with a 13 percentage point reduction for those with no education.

Table 4.1: Poverty by Education of Household Heads-Level and Location (2007)

	Poverty Headcount			Share of the Population (%)			Number of Poor	Contribution to Poverty (%)
	Urban	Rural	National	Urban	Rural	National	National	National
Education level of head								
None	73.1	72.4	72.6	24.7	50.1	42.2	159,777	48.0
Some primary	58.7	60.7	60.4	3.9	9.3	7.7	23,657	7.3
Completed primary	78.0	67.8	70.3	3.1	4.3	3.9	13,644	4.2
Some secondary	53.5	66.0	62.5	19.1	21.8	21.0	64,756	20.1
Completed secondary	49.4	61.1	54.2	32.2	10.1	16.9	44,329	13.7
Post secondary and above	36.3	51.9	42.0	17.0	4.4	8.3	16,183	5.0

Source: Staff estimates from the Liberia 2007 CWIQ.

4.2 **However, the incidence of poverty is still high, even among those with secondary and post secondary education.** As Table 4.1 above shows, in 2007, more than 50 percent of households whose head had completed secondary education were poor, and 42 percent of households whose head had post-secondary education were poor. The situation improved somewhat in 2010, as Table 4.2 below shows. However, more than a third of households in which the head had post-secondary education were still poor. This highlights the general lack of employment opportunities in Liberia. While those with higher education are relatively better off, even those with higher levels of education lack employment opportunities.

Table 4.2: Poverty by Education of Household Heads—Level and Location (2010)

	Poverty Headcount			Share of the Population (%)			Number of Poor	Contribution to Poverty (%)
	Urban	Rural	National	Urban	Rural	National	National	National
None	60.4	59.2	59.6	31.5	46.3	39.5	174,670	47.8
Some primary	53.3	45.6	48.3	7.8	12.2	10.2	36,615	10.0
Completed primary	54.3	45.5	48.4	2.9	5.1	4.1	14,648	4.0
Some secondary	47.0	45.1	46.1	22.3	19.8	21.0	71,620	19.6
Completed secondary	36.9	36.2	36.7	26.0	14.1	19.5	53,149	14.5
Post secondary and above	34.7	38.1	35.5	9.5	2.5	5.7	15,030	4.1

Source: Staff Estimates from the Liberia 2010 CWIQ.

4.3 **The broad negative legacy of the war is also seen at the household level, where more than two-thirds of household heads have no secondary education**. In fact, as Table 4.3 below shows, in 2007, 43.7 percent of household heads had no education, and fewer than a quarter had secondary education. In 2007, only 3.4 percent of household heads had tertiary education. There was also a sharp rural/urban divide, with more than half of rural household heads having no education at all, compared with about one quarter of urban household heads. Notably, in the poor North Western part of the country, 62.5 percent of household heads had no education at all. The educational achievement at the household level largely mirrors that at the population level, where 40 percent of the population had no education at all. The rural/urban divide at the national level was also obvious; 48 percent of the rural population had no education at all, compared with 24.7 percent of the urban population.

4.4 **However, the data for the 2010 CWIQ reflect a modest improvement in the education of household heads**. In 2010, the percentage of household heads with no education was 38.2, down from 43.7 in 2007. At the same time, the proportion of household heads with primary education showed a modest increase, to 14.6 percent from 11.7 percent in 2007. There was also a four percent increase in the proportion of household heads with senior secondary education over the same period (Table 4.3). One dynamic which raises policy concerns is the fact that while the proportion of rural household heads without education fell from 52.2 percent in 2007 to 45.1 percent in 2010, the proportion of urban household heads with no education increased from 24.9 to 30.1 percent during the same period. This dynamic at the household level mirrors that at the population level, where the rural population showed a marginal drop in the proportion with no education, from 48.1 percent in 2007 to 47.6 percent in 2010, while the urban population showed a substantial increase, from 24.7 to 30.6 percent during the period. This may in part reflects the rapid migration of the rural poor to urban areas in search of opportunities as the economy recovers. The policy concern is that many of those moving to urban areas may in fact be unemployable because of their low level of education and skills.

Table 4.3: Distribution of Highest Education Level by Household Head (2007 and 2010)

2007	None (%)	Primary (%)	Secondary (%)		University (%)	Vocational (%)	Technical (%)
			Junior	Senior			
Liberia	**43.7**	**11.7**	**13.4**	**23.6**	**3.4**	**1.4**	**2.9**
Rural	***52.2***	***14.1***	***14.4***	***15.5***	***0.8***	***0.9***	***2.2***
Urban	***24.9***	***6.4***	***11.4***	***41.3***	***9.1***	***2.5***	***4.5***
Greater Monrovia	19.7	6.5	11.1	44.4	10.7	2.5	5.2
North Central	51.7	12.4	15.4	16.3	1.3	1.1	1.9
North Western	62.5	5.3	8.6	19.6	0.8	0.5	2.7
South Central	45.2	16.7	13.1	18.6	1.6	1.7	3.2
South Eastern A	49.6	16.9	13.5	15.3	1.7	1.3	1.7
South Eastern B	36.7	16.4	19.3	24.0	1.6	0.4	1.7
2010	**None (%)**	**Primary (%)**	**Secondary (%)**		**University (%)**	**Vocational (%)**	**Technical (%)**
			Junior	**Senior**			
Liberia	**38.2**	**14.6**	**13.6**	**27.7**	**5.3**	**0.3**	**0.3**
Rural	***45.1***	***17.7***	***13.0***	***21.7***	***2.1***	***0.3***	***0.3***
Urban	***30.1***	***11.0***	***14.4***	***34.9***	***9.2***	***0.2***	***0.3***
Greater Monrovia	25.6	9.3	14.5	38.2	12.1	0.2	0.2
North Central	48.4	15.0	12.6	20.6	2.9	0.3	0.1
North Western	50.4	15.6	11.9	20.2	1.7	0.0	0.2
South Central	37.8	17.9	12.4	27.7	3.8	0.1	0.3
South Eastern A	36.8	20.3	15.4	24.5	1.5	0.8	0.7
South Eastern B	32.2	17.9	17.8	29.8	1.5	0.3	0.6

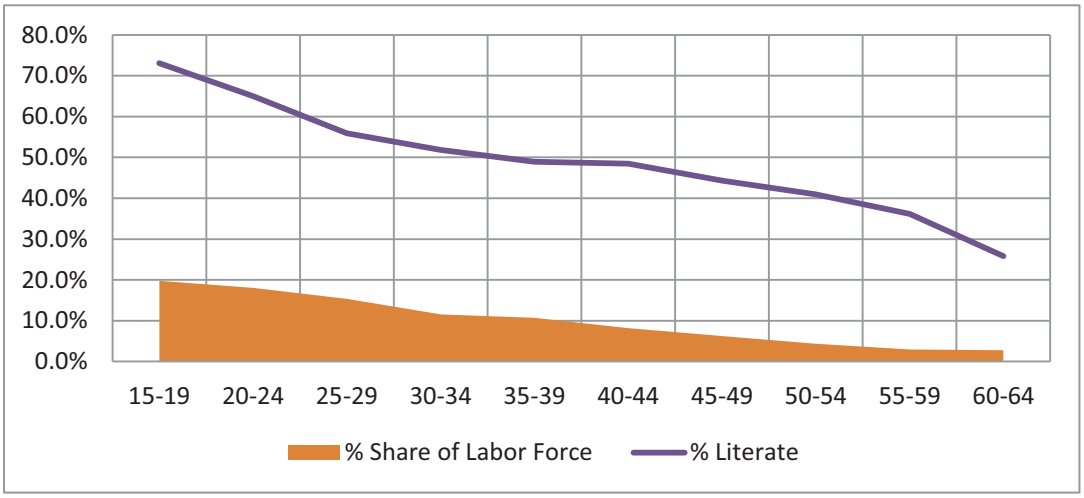
Source: 2010 CWIQ.

4.5 **The quality of education is also an issue, as the literacy rate is low even for those who have gone to school.** Data from the 2008 Population and Housing Census show that the level of literacy among the 60-64 age group is only 25.8 percent. The generally low level of literacy among older Liberians is not the result of the conflict, but rather of a deficient education system. As far back as 1972, when the Government was spending 3.7 percent of GDP on education, the World Bank[19] pointed to the deficiencies in the Liberian education system, including poorly trained and underpaid teachers, unsuitable physical plant, and scarcity of teaching materials. The few good educational institutions mainly served the elites and expatriates, while educational opportunities for the majority of Liberians were limited. Only three of ten students entering school would go on to complete grades 1-6. In 1970, the dropout rate reached an estimated 67 percent, largely for financial reasons—even though education was free. In 1970, the adult literacy rate was just 15 percent.

[19] World Bank (1972), Report and Recommendation of the President, Liberia First Education Project Report No. P1044.

4.6 **The general level of literacy in the country appears to be improving, more sharply for the younger generation and women.** Figure 4.1 below shows a very positive trend, with a significantly higher literacy rate among the younger working-age population, which has important implications for the labor market. Among the 15-29 age group, 73 percent are literate. As Table 4.4 below shows, there has been noted improvement in the literacy rate between 2007 and 2010, from 54.5 percent to 58.9 percent, driven largely by improvement in the female literacy rate, although male literacy increased by 3 percent. While there was an improvement in the rural literacy rate, from 45.5 percent in 2007 to 49.8 percent in 2010, the urban rate dropped from 73.6 percent to 69.0 percent during the period, possibly reflecting the migration of illiterates from rural to urban areas in search of livelihood opportunities.

Figure 4.1: Liberia Distribution of Labor Force by Literacy Status



Source: World Bank staff based on 2008 Population and Housing Census.

Table 4.4: Distribution of Literacy Rate by Location and Gender

Location	2007			2010		
	Male (%)	Female (%)	Overall Literacy rate (%)	Male (%)	Female (%)	Overall Literacy rate (%)
Liberia	**68.6**	**41.0**	**54.5**	**71.7**	**46.9**	**58.9**
Rural	***60.9***	***30.8***	***45.5***	***64.0***	***36.4***	***49.8***
Urban	***84.8***	***62.7***	***73.6***	***80.1***	***58.6***	***69.0***
Greater Monrovia	88.2	67.5	77.7	84.7	65.2	74.8
North Central	64.4	33.8	48.8	63.8	36.2	49.2
North Western	53.9	31.0	42.2	60.1	30.6	45.4
South Central	63.4	33.6	47.9	66.8	43.9	54.9
South Eastern A	55.9	27.7	41.7	71.9	44.6	58.1
South Eastern B	74.8	39.1	56.5	75.3	46.8	61.0

Source: Staff calculations based on data from the 2007 and 2010 CWIQ.

4.7 **The education of the spouse is also a key determinant of the poverty status of the household.** For example, at the national level, for households where the spouse has no education, the poverty headcount is 59 percent compared with only 6.5 percent for households where the spouse has post-secondary education. More importantly, the data show that even the attainment of primary level education by the spouse can make a significant difference in the poverty status of the household. For those households with some primary education, the poverty headcount is 44.3 percent, and for those who have completed primary school the poverty headcount falls to 25 percent. These sharp differences in poverty status with marginally greater achievement in education highlight the increased probability of being employed and the wage premium attached to those with an education, in an environment where the literacy rate and skill levels are low. This observation is supported by the fact that the impact of spousal education on the level of poverty is much more pronounced in urban areas, where employment opportunities are greater. For urban households in which the spouse has no education, the poverty headcount is 45.2 percent. This drops dramatically to 16.3 percent with some primary education and to a low of 5.2 percent when the spouse has post-secondary education. The data highlight the positive poverty impact that could result from improvement in education even at the primary level.

Table 4.5: Net and Gross Enrollment Rates in primary and Secondary Schools, 2007

	Residence Area		Quintile					
	Urban	Rural	Q1	Q2	Q3	Q4	Q5	Total
	Primary enrollment rates							
Net enrollment (6-11)								
Total	47.5	32.8	28.8	32.1	36.1	41.8	49.5	37.3
Male	48.0	33.2	32.8	33.9	33.3	40.0	50.9	37.5
Female	47.1	32.3	23.8	30.0	39.1	44.0	48.3	37.1
Gross enrollment								
Total	93.1	83.3	77.8	86.5	87.5	86.6	94.3	86.3
Male	88.7	87.7	86.9	93.8	80.9	81.4	99.3	88.0
Female	97.4	78.2	66.7	78.0	94.4	92.7	90.1	84.5
	Secondary enrollment rates							
Net enrollment (12-17)								
Total	25.4	10.1	11.4	12.2	13.0	19.8	21.5	15.2
Male	27.7	11.2	12.6	13.3	15.4	19.1	22.8	16.0
Female	23.4	8.7	9.6	10.7	10.8	20.4	20.3	14.2
Gross enrollment								
Total	74.4	39.7	40.1	43.0	42.8	65.3	71.8	51.3
Male	86.8	44.9	43.4	51.0	54.5	72.5	75.6	57.2
Female	63.7	33.1	35.1	32.6	31.7	59.2	68.0	44.7

Source: Based on 2007 CWIQ survey.

4.8 **Empirical work in Liberia shows that circumstances play a major role in educational disparities among children (Box 4.1).** Work done by Abras and Cuesta (2011), using data from the 2007 and 2010 CWIQ, shows that circumstances, especially parental education, but also gender, orphan-hood, birth order, location, and exposure to conflict explain much of the educational disparities among Liberian children. Abas and Cuesta (2011) estimate a 2007 Human Opportunities Index (HOI) for school attendance among children 6-15 years of 59.5 percent, four percentage points below the observed coverage rate of 63.5 percent. For the same age group, their HOI estimate for 2010 is 60.3 percent, well below the observed coverage rate of 65.3 percent. In both years, the difference between the HOI and observed school attendance is

statistically significant. The results suggest that between 2007 and 2010, educational opportunities measured through school attendance of the 6-15 year age group have not become more equally allocated. Table 4.6 below shows the probabilities of attending school for eight types of children based on three circumstances: education of household head, gender of child, and location of household. The urban female child in a household where the head has at least primary education has the highest probability (74.8 percent) of access, while the rural female child in a household where the head has no primary education has the lowest (53.8 percent).

Box 4.1: The Human Opportunity Index: concepts and measurement

The Human Opportunities Index (HOI) measures how far a society is from universal provision of basic goods and services, such as sanitation, clean water, and education; and the extent to which those goods and services are unevenly distributed. A key feature of the HOI is that it takes into account not only the overall coverage rates of these services, but also how *equally* the coverage is distributed. It does so by measuring the extent to which those *without* coverage are concentrated in groups with particular circumstances (economic status, gender, parental education, ethnicity and so on)—that is, circumstances into which a child is born. More specifically, the *HOI is an inequality-sensitive coverage rate* that incorporates: (a) the average coverage of a good or service that society believes should be universal (implying that the *individual* is not held responsible for lack of access); and (b) whether that good or service is allocated according to an equality of opportunity principle.

An Illustrative Example

Consider two countries, A and B, each with a total population of 100 children. Each country has two groups of children, I and II, which consist, respectively, of the top and bottom 50 percent by per capita income. The coverage rate of school enrollment (or the average enrollment rate) for both countries is 0.6; i.e., 60 children attend school in each country. The table below shows the number of children going to school in each group for each country.

Groups by circumstance (e.g. income)	***No. of children of age 6-10 yrs enrolled in school***	
	Country A (100 children)	*Country B (100 children)*
Group I (top 50% by income)	40	35
Group II (bottom 50% by income)	20	25
Total	60	60

Given the total coverage rate, the principle of equality of opportunity will hold true for each country if each of the two groups in each country has the same rate of coverage, i.e. if each group has 30 children enrolled in school. But in reality, group II has 20 enrollments in country A and 25 in country B. This suggests that first, opportunities are unequally distributed and second, inequality of opportunities is higher in country A. The D-index is the share of total enrollments that is "misallocated," namely 10/60 and 5/60 for A and B, respectively. Therefore, $HOI_A = C_0 (1-D) = 0.6 * (1-10/60) = 0.50$; $HOI_B = C_0 (1-D) = 0.6 * (1-5/60) = 0.55$.

Even though both countries have equal coverage rates for enrollment, the higher inequality of opportunity in country A leads to the D-index being higher for A than for B, and the HOI being higher for B than for A. It is also easy to see that HOI will increase in a country if: (a) the number of enrollments in each group increases equally (in proportionate or absolute terms); (b) if enrollment for any group increases without decreasing the coverage rates of the other group; or (c) enrollment for group II increases, keeping the total number of children enrolled unchanged (implying enrollment in group I reduces by an equivalent amount). These three features relate to the "scale," "Pareto improvement," and "redistribution" properties of HOI, respectively – properties that are intuitively appealing.

4.9 **Policies to improve access must be carefully calibrated and effectively coordinated with other policy measures to improve circumstances.** An important conclusion from the redistributive simulations done by Abras and Cuesta is that draconian redistributive interventions—without sector changes or changes in circumstances—may lead to only modest improvements in the probability of attending school, and have little effect on the average vulnerability status of children. Such interventions would therefore have high costs but low benefits.

Table 4.6: Liberia—Distribution of Educational Opportunities (2007)

Type ID	Description	Estimated Probability of Access
1	Rural, female child, head with no primary	53.8
2	Rural, male child, head with no primary	55.4
3	Urban, female child, head with no primary	54.8
4	Urban, male child, head with no primary	55.4
5	Rural, female child, head with primary	67.5
6	Rural, male child, head with primary	67.5
7	Urban, female child, head with primary	74.8
8	Urban, male child, head with primary	72.9

Source: Abras and Cuesta (2011).

4.10 **Overall gross enrollment at the primary level has shown modest improvement.** The overall gross enrollment at the primary level increased from 86.3 percent in 2007 to 87.7 percent in 2010. This increase was driven primarily by the improvement in female enrollment, which increased from 84.4 to 87.4 percent, while the gross enrollment for males showed little or no improvement. This reflects the slump in male gross enrollment in rural areas, from 87.7 percent in 2007 to 82.7 percent in 2010. The situation was reversed in urban areas, where gross enrollment for males increased sharply, from 88.7 percent in 2007 to 95.8 percent in 2010, while enrollment for females increased only marginally, from 97.3 percent to 97.4 percent over the same period.

4.11 **Expanding access to education continues to pose a challenge, particularly with respect to the large number of over-age children enrolled at all levels of education**. Perhaps the most striking evidence of a struggling education system is reflected in the decline in overall net primary enrollment, from 37.2 percent in 2007 to 32.4 percent in 2010, with a larger drop for males (5.8 percentage points) than for females (4.6 percentage points). The drop was also more pronounced in urban (8 percentage points) than in rural areas (6 percentage points). The large discrepancy between 2010 net and gross primary school enrollment (32.4 percent versus 87.7 percent) reflects the fact that many primary school children are above the official primary school age (a legacy of war), which puts them at risk of repeating or dropping out of school. Internal efficiency of schooling is affected by school quality and the availability of basic resources such as adequate infrastructure and facilities, learning materials, and trained, motivated, and sufficiently compensated teachers. The 2006 School Fee Abolition Policy was expected to expand access to primary education, but because the Government did not allocate an adequate operating budget to schools to compensate for the loss of income from fees, school quality further deteriorated.

Table 4.7: Net and Gross Enrollment Rates in Primary and Secondary Schools, 2010

	Residence Area		
	Urban	Rural	Total
	Primary enrollment rates		
Net enrollment (6-11)			
Total	39.6	26.8	32.4
Male	38.9	26.5	31.6
Female	40.3	27.2	33.3
Gross enrollment			
Total	96.5	80.8	87.7
Male	95.8	82.7	88.2
Female	97.4	78.7	87.4
	Secondary enrollment rates		
Net enrollment (12-17)			
Total	24.1	10.7	17.4
Male	23.2	11.1	16.8
Female	24.9	10.2	18.0
Gross enrollment			
Total	71.1	45.7	58.4
Male	76.0	55.5	65.1
Female	66.8	34.7	51.7

Source: Based on the 2010 CWIQ.

4.12 **Although gross enrollment rates at the secondary level are about half what they are at the primary level, there have been some improvements between 2007 and 2010**. Overall gross enrollment at the secondary level increased from 50.9 percent in 2007 to 58.4 percent in 2010 (Table 4.7). The rate for males increased from 56.9 to 65.1 percent, while the rate for females increased from 44.2 to 51.7 percent. Notably, for urban areas, the overall gross enrollment rate fell from 74.4 percent in 2007 to 71.1 percent in 2010. For males, the rate dropped from 86.9 to 76 percent, while the rate for females actually increased, from 63.7 to 66.8 percent.

4.13 **Net enrollment at the secondary level increased from 15.1 percent in 2007 to 17.4 percent in 2010.** This was mostly driven by the increase in the female enrollment rate, which rose from 14.1 percent in 2007 to 18.0 percent in 2010. In urban areas, female enrollment increased from 23.4 to 24.9 percent, while in rural areas, it increased from 8.5 to 10.2 percent over the same period. For rural areas, the secondary gross enrollment rate for males was flat at 11.1 percent for 2007 and 2010. However, for urban areas, that rate actually fell sharply, from 27.7 percent in 2007 to 23.2 percent in 2010.

Table 4.8: Reason for Never Starting School, 2007

	Residence Area		Quintile					Total
	Urban	Rural	Q1	Q2	Q3	Q4	Q5	
				Boys aged 6-11				
Too young	8.2	19.7	16.4	15.4	21.1	20.1	19.3	17.9
Too far away	7.5	28.1	31.0	19.9	24.6	26.0	18.2	24.9
Too expensive	72.0	56.5	68.0	70.3	46.1	48.7	45.7	58.8
Working (home or job)	6.5	1.5	3.2	2.1	4.7	0.0	0.1	2.2
Useless/uninteresting	0.0	1.2	0.8	0.6	0.0	3.1	0.4	1.0
Illness	2.9	3.6	2.5	4.2	4.2	1.3	7.1	3.5
Orphaned	0.0	0.8	0.0	2.8	0.0	0.0	0.0	0.6
Other	19.6	15.1	7.3	8.0	21.2	28.3	26.7	15.8
				Girls aged 6-11				
Too young	10.0	17.9	25.1	7.3	7.3	18.1	25.2	16.2
Too far away	5.7	31.2	17.7	29.1	30.1	13.3	40.7	25.7
Too expensive	78.2	54.7	56.6	64.6	66.4	65.2	43.3	59.8
Working (home or job)	8.7	2.2	1.7	4.2	7.4	3.7	1.3	3.6
Useless/uninteresting	1.5	0.6	0.1	0.0	1.0	2.6	2.0	0.8
Illness	4.1	1.8	1.9	0.4	4.8	0.4	5.2	2.3
Orphaned	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other	10.4	18.3	16.4	15.0	14.0	9.9	29.2	16.6
				Children aged 6-11				
Too young	9.2	18.9	20.6	11.3	13.9	19.4	22.4	17.1
Too far away	6.5	29.5	24.7	24.6	27.5	21.4	30.0	25.3
Too expensive	75.5	55.6	62.6	67.4	56.7	54.7	44.5	59.3
Working (home or job)	7.7	1.8	2.5	3.2	6.1	1.3	0.7	2.9
Useless/uninteresting	0.9	0.9	0.4	0.3	0.5	2.9	1.2	0.9
Illness	3.6	2.8	2.2	2.2	4.5	1.0	6.1	2.9
Orphaned	0.0	0.4	0.0	1.3	0.0	0.0	0.0	0.3
Other	14.4	16.6	11.6	11.6	17.4	21.6	28.0	16.2

Source: Tsimpo and Wodon (2008).

4.14 **Despite improved gross school enrollment since the end of the war, many children are still not enrolled for various social and economic reasons**. As Table 4.8 below shows, the primary reason for children across all poverty groups not starting school is economic. In urban areas, nearly three quarters of parents with a child not enrolled said it was because school was too expensive. The proportion was much lower in rural areas, at 55.6 percent. In terms of poverty groups, 62.6 percent of those in the poorest quintile with an un-enrolled child said that cost was the issue, compared with just 44.5 percent of those in the wealthiest quintile.

4.15 **Although the Government declared primary education to be free and compulsory in 2002, education accounts for a substantial proportion of the household budget.** Moreover, although the Government increased its education budget from about 2.9 percent of GDP in 2007/08 to nearly 14 percent in 2011/12, households still bear a disproportionately large part of the burden of financing education. In 2007/08, of the total education system resources of US$77.2 million, only US$12.2 million was provided by the Government, less than half of the US$27 million provided by households. International donors provided some US$38 million of the total.

4.16 **Access to education is also affected by the distance to the school.** The second most important reason children are not in school is that the school is too far away from their household. This is more of an issue for the rural than the urban population. As Table 4.8 above shows, 29.5 percent of absenteeism at the primary level in rural areas was blamed on distance from school, compared with only 6.5 percent for urban areas. However, in terms of physical distance from schools, as Table 4.9 shows, there are only marginal differences between rural and urban households. For example, in 2007, 35.8 percent of the rural population was within 5 kilometers of a primary, compared with 37.9 percent for the urban population. At the other extreme, 28.2 percent of the rural population was more than 30 kilometers from a primary school, compared with only 18.4 percent for the urban population. The situation was fairly similar in 2010, although a slightly smaller proportion of the population appears to have access to primary education within 5 kilometers. Overall, it therefore appears that the "physical distance" alone does not explain the "too far away" reason for not starting school. One possible factor could be the absence or high cost of transportation in rural areas compared with urban areas.

4.17 **The difference in physical access between 2007 and 2010 was more pronounced at the secondary level.** In 2007, 15 percent of the population was within 5 kilometers of a secondary school, and this proportion almost doubled to 28.8 percent in 2010. For the rural population, this proportion more than doubled, from 12.3 percent of the population in 2007 to 29.1 percent in 2010. The share of the urban population within 5 kilometers of a secondary school showed a 7.4 percent increase over the same period. At the extreme, the proportion of the overall population 30 kilometers or more from a secondary school fell from nearly 59 percent in 2007 to 42.4 percent in 2010. This remarkable improvement in physical access at the secondary level is largely due to improvement in rural access, where the percentage of the population 30 kilometers or more from a secondary school fell substantially, from 69.2 percent in 2007 to 48 percent in 2010. There was little difference in urban access between 2007 and 2010.

Table 4.9: Access to Primary and Secondary Education by Region

2007	Access to Primary School			Access to Secondary School		
Location	**Within 5Km**	**6-29Km**	**30 Km**	**Within 5 Km**	**6-29Km**	**30Km or >**
Liberia	**36.4**	**38.4**	**25.2**	**15.0**	**26.2**	**58.9**
Rural	***35.8***	***36.1***	***28.2***	***12.3***	***18.5***	***69.2***
Urban	***37.9***	***43.7***	***18.4***	***21.1***	***43.3***	***35.6***
Greater Monrovia	42.1	42.2	15.8	24.4	42.3	33.4
North Central	36.1	39.8	24.1	11.8	22.1	66.1
North Western	40.6	41.5	17.9	12.7	20.5	66.7
South Central	33.4	24.9	41.7	17.5	20.2	62.3
South Eastern A	28.8	35.8	35.4	7.3	16.4	76.3
South Eastern B	31.6	49.6	18.8	8.8	30.4	60.9
2010	**Within 5Km**	**6-29Km**	**30 Km**	**Within 5 Km**	**6-29Km**	**30Km or >**
Liberia	**31.2**	**44.9**	**23.9**	**28.8**	**28.8**	**42.4**
Rural	***32.2***	***43.1***	***24.6***	***29.1***	***22.9***	***48.0***
Urban	***30.0***	***47.0***	***22.9***	***28.5***	***35.7***	***35.9***
Greater Monrovia	30.6	46.4	23.1	27.7	36.8	35.5
North Central	31.4	45.2	23.3	28.1	21.1	50.9
North Western	44.0	35.3	20.8	23.5	24.1	52.3
South Central	27.0	41.5	31.6	32.5	26.0	41.6
South Eastern A	32.0	50.3	17.6	37.0	37.1	25.9
South Eastern B	26.8	51.8	21.4	24.9	33.3	41.8

Source: Staff calculations based on data from the 2007 and 2010 CWIQs.

4.18 **The availability and quality of education at the primary and secondary level are affected by both supply and demand-side factors that pose major challenges.** On the supply side, the major factors include (a) lack of adequate school buildings, as nearly one-third of public schools were destroyed during the conflict; (b) a shortage of qualified teachers—recent data suggest that only one-third of primary school teachers and 60 percent of junior secondary teachers in public school have had training; (c) poor teacher management and deployment, with an oversupply of teachers in urban schools and severe shortages in rural areas; and (d) inadequate systems and measures for assessing learning achievements. On the demand side, a large number of primary school students are inadequately prepared for school. For example, early grade reading results from the Early Grade Reading Assessment (EGRA) show an average score of 16.7/50 for all students, 13.7/50 at grade 2 and 20/50 at grade 3.[20] Also, as discussed above, many of the poor cannot adequately demand educational services because of the associated costs.

Vocational Education

4.19 **The institutional structure of technical and vocational education (TVET) in Liberia is highly** fragmented **in terms of providers, government oversight, and funding.** A World Bank Scoping Mission[21] in March 2009 found that TVET providers fall into two groups: one

[20] See World Bank (2010). Project Appraisal Document, "Republic of Liberia: Fast Track Initiative Grant for Basic Education Project" Report No. 52843-LR.
[21] The objective of the mission was to assess demand and supply factors in ongoing TVET operations.

group comprises 10 to 15 public institutions, each with a potential capacity of 500 trainees; and the other comprises 100 to 150 non-public institutions, each with an average potential capacity of 20 to 40 trainees. A study of vocational training institutes conducted in 2006[22] found that approximately 15 percent were government run, while the remaining 85 percent were managed by private individuals, religious missions, and NGOs. Among more than 500 teachers surveyed, almost 80 percent were untrained and held only trade certificates (no degrees).

4.20 **Governance and management of TVET are inadequate at both the institutional and central government levels.** A few institutions have full budget control and show some relatively strong strategic and management capabilities, as well as some accountability. Most others have neither the capacity nor the mandate to define and implement their institutional strategies or manage resources. The small private providers are set up to respond to the mostly short-term demand for quick programs, without linkages to any type of qualification or articulation. Most of them are private, NGO, or church-owned operations without certification or accreditation. Governance at the central level is fragmented across several ministries (Education, Youth, Labor, Planning, Agriculture, and Finance), and intergovernmental coordination is lacking. A National Council for Technical and Vocational Education and Training is largely dormant. There are no accreditation or certification systems for the institutions and programs, and no qualification system for the trainees.

4.21 **Outcomes, skills, and results of training are not measured in most cases, and there are generally no adequate mechanisms to align training services with economic demand**. Both providers and employers acknowledge the mismatch between the limited scale of TVET programs (and thus the skills that the job seekers have) and short-term employment opportunities. It appears that the growth of certain industries is constrained by the lack of skilled manpower, while the expansion of training programs remains limited by the lack of jobs.

Returns to Education

4.22 **Although there are no recent estimates, indications are that the rates of return to investment in education in Liberia are high.** There has been a long-standing interest in estimating private and social returns to education both for policy and planning purposes. Substantial research in this area, including by Psacharopoulos (1973, 2002); and Mincer (1974) suggest in general that as a country develop and the level of education is maintained, the rate of returns to education will fall although Table 4.10 below suggest that the difference is much larger between low income and high income countries than between low and middle income[23]. The converse is that underdeveloped countries like Liberia with a low base of education should therefore have fairly high rates of return to education. In fact, estimates produced by Psacharopoulos (1993) based on 1983 data show private returns to primary, secondary and higher education in the order of 99.0, 30.5 and 17.0 percent, respectively. The social returns to investments at the comparable levels of education were 41.0, 17.0, and 8.0 percent respectively. The higher private returns relative to the social return at the primary may partly explain why households have been willing to invest so much (relative to public investment) in schooling at this level.

[22] UNESCO, Situational Analysis of the Technical, Vocational Education and Training System in Liberia, December 2006.
[23] With the notable exception for private returns at the higher levels of education.

Table 4.10: Returns to Investment in Education by Level and Income Status

Income Status	Private Returns (%)			Social Returns (%)		
	Primary	Secondary	Higher	Primary	Secondary	Higher
High Income	25.6	12.2	12.4	13.4	10.3	9.5
Middle Income	27.4	18.0	19.3	18.8	12.9	11.3
Low Income	25.8	19.9	26.0	21.3	15.7	11.2
Liberia	99.0	30.5	17.0	41.0	17.0	8.0
World	*30.6*	*46.4*	*23.1*	*27.7*	*36.8*	*35.5*

Source: Psacharopoulos, 1993 and 2002.

4.23 **Even though education seems to significantly increase opportunities in Liberia, there are several reasons why some choose not to prioritize schooling**. In the rural South East, focus group participants stated that children do not go to school because of the perception that schooling does not improve access to opportunities. In this area, there are few businesses to provide employment, and most the population is engaged in subsistence agriculture, so the impact of schooling may be reduced. In interviews across Liberia, women also stated that they did not finish school because their parents could not afford to send them, and they could not find other sources of support. Many young women also stated that they had older boyfriends with whom they stayed only because these older men paid for their schooling.

4.24 **In focus group research, while all youth expressed the view that getting an education was important, those in more developed areas had more specific reasons for their responses.** They had realistic expectations about what types of jobs they could get based on the education they had completed, while those in less developed areas knew simply that "education is better for my future," and some had unrealistic expectations about how much education they needed to get certain jobs. There were no significant differences within communities between young men and young women concerning attitudes to education: all considered it desirable and important for their future. Despite the value they put on education, most youth are disenchanted with the lack of jobs available to them, despite their skills and education. Many youth believe that it only matters "who you know" to get a job, though this does not discourage them from continuing school. They are becoming increasingly disillusioned, however, with the unfulfilled promises that are made to them by government and civil society.

"I'm not too happy because after graduation from high school, I could sell gas and in one day I sell one or two gallons, making US$1 profit. Even those who never went to school are doing better [than me]." – ***Young male, Jacksonville.***

Policy Implications and Recommendations

4.25 A focused effort on education and skills training is needed to prepare workers for the transformation of the economy from a primarily natural resource-based, labor-intensive economy to one that is natural resource-based and skill intensive. This focus on education and skills training is a necessary condition for inclusive growth, which will not only help to reduce poverty but also help to ensure the maintenance of peace and security.

4.26 Investments in expanding access and improving the quality of primary and secondary education in Liberia offer enormous potential for reducing the level and severity of poverty in Liberia. First, eliminating the substantial education and training deficit will enable a large

number of Liberians to take full advantage of the employment opportunities being created through the substantial foreign direct investment in the natural resources sector. Increased employment is the most direct and sustainable way of reducing poverty. Second, improving access for girls at the primary and secondary levels will have both direct (through increased employment) and indirect (through lower fertility and higher-quality children) effects on poverty in the short and longer term.

4.27 The financial cost of sending children to school, and physical access to schools, are major barriers to improving access for poor Liberians. Government interventions are therefore required to lower the cost and improve access to schools.

Recommendations

- *Ensure that spending on public education targets disadvantaged and marginalized children, especially at the pre-primary and primary levels, and includes adequate infrastructure, highly skilled and experienced teachers, and relevant learning materials and supplies. School grants should be weighted so that poor children receive more benefits. Such spending is justified by the likely high level of social returns;*
- *Consider targeted conditional cash transfers based on school enrollment and attendance as one policy option to help improve the access of the poor to pre-primary through secondary education;*
- *Improve roads and transportation services to schools in remote areas. This requires coordination between national transportation development plans and school mapping by the Ministry of Education;*
- *Strengthen the institutional framework for TVET, including private sector partnerships, to ensure improvement in the quality of training and alignment with labor market needs.*

5. GENDER AND POVERTY

5.1 **The poverty analysis based on the 2007 CWIQ data for Liberia suggests that there are few statistically significant differences between male-headed and female-headed households**. At the national level, the rate of poverty for male-headed household was 64.6 percent, compared with a slightly lower rate of 61.6 percent for female headed households (Table 5.1). In rural areas, while the overall rate of poverty was generally higher, the rate of poverty for male-headed households was also higher than for female headed households, at 68.8 and 64.1 percent, respectively. However, the picture for urban areas is reversed. Although showing lower poverty overall, female headed households showed a slightly higher level of poverty than male headed households (57.2 percent compared with 54.1 percent). The national and rural area results for Liberia are surprising, given what is known of the gender differences in education, as well as access to and ownership of assets, including land and livestock. There is some empirical evidence to suggest that the choice of poverty measure determines whether female-headed households are poorer than those headed by males, and that measures based on consumption expenditure may do some injustice to female-headed households.[24]

5.2 **Measurement issues aside, the explanation for the differences in poverty status of female-headed households may be quite complex**. First, it may well be that not all households that report as female-headed household are in fact female headed. The CWIQ data for Liberia do not make a distinction. In some instances, male domestic partners may be migrant workers in other parts of the country or overseas. The most recent data for 2010[25] show Liberia's stock of emigrants at approximately 430,000, or about 10 percent of the population, in places such as Guinea, Cote d'Ivoire, United States, Sierra Leone, and Nigeria. As a result, inward remittance inflows for 2010 were about US$57 million, the bulk of which are workers' remittances. Further, the data show that the location of female-headed households (rural or urban) also matters. One possible explanation for the lower female-headed poverty rate in rural areas is the greater probability of women having access to land and the fact that women predominate in domestic food production. As the 2007 Gender Needs Assessment shows, women constitute 53 percent of the agricultural labor force and are responsible for 60 percent of agricultural production. Women are also the main processors of agricultural products and are responsible for 80 percent of the trading in rural areas.

5.3 **However, deserving female headed households could be excluded from measures to reduce poverty.** To avoid the risk of deserving female-headed households being excluded from policy measures targeted to reduce poverty, there may be a need for policymakers to supplement poverty assessments based on consumption expenditure with other asset-based assessments. This is particularly important if the policy emphasis is to reduce vulnerability to poverty and chronic poverty. The assumption of greater vulnerability of female-headed households is based on studies which show that:

- Female-headed households tend to have fewer assets and less access to resources. Based on field studies in Uganda, Chua et al. (2000) found that women household heads were less likely to be accepted as members of credit groups because their households lack other

[24] See for example, Buvinić and Gupta, 1997 and Rajaram, 2009.
[25] Migration and Remittances Factbook 2011

potential income earners and they are therefore perceived to be more likely to default on loan repayments.

- Female-headed households (in Africa) tend to have higher dependency ratios. Data on dependency ratios compiled by Kishor and Neitzel (1996) for 25 countries in Sub-Saharan Africa and Latin America and the Caribbean showed all the Sub-Saharan African countries (9) with female-headed households had dependency ratios equal to or higher than male-headed households. In sharp contrast, all the Latin America and Caribbean countries (16) showed female-headed households with lower dependency ratios than male-headed households. The generally higher dependency ratios of female-headed household exacerbates the "double workday"[26] of the women who head households and contribute further to their cycle of poverty.

5.4 **Measures of welfare based solely on consumption and income metrics may have limited policy relevance in countries where asset poverty is high and social protection systems are weak or non-existent.** Since consumption expenditure is a flow variable, it only measures the household capability at a particular point in time, but gives little or no indication of the household's ability to withstand idiosyncratic shocks to incomes, or even shocks at the macro level that affect prices. A better understanding of the household's physical and financial assets—stock variables—would help policymakers to determine which households are likely to be pushed below the poverty line or into extreme poverty as a result of shocks.

Table 5.1: Poverty by Gender and Marital Status of Household Head

	Poverty Headcount			Share of the Population (%)			Number of Poor	Contribution to Poverty (%)
	Urban	Rural	National	Urban	Rural	National	National	National
Gender of the head								
Male	54.1	68.8	64.6	70	76.2	74.3	1,297,787	75.2
Female	57.2	64.1	61.6	30	23.8	25.7	428,019	24.8
Marital status of the head								
Single or never married	47.6	55.9	51.8	29.4	13.3	18.3	255,787	14.8
Monogamous	57.0	68.5	65.4	56.3	67.0	63.7	1,126,483	65.3
Polygamous	54.1	75.5	73.0	2.4	8.0	6.3	123,844	7.2
Widowed, divorced, separated	64.4	70.8	68.8	11.9	11.8	11.8	219,693	12.7

Source: Based on the 2007 CWIQ.

5.5 **Despite the 14-year civil conflict, male-headed household still dominate in Liberia.** In 2007, at the national level, male-headed households constituted 74.3 percent of the population compared with 25.7 percent for female headed households. The numbers were little changed in 2010. However, for rural areas, male-headed households increased from 70.1 percent in 2007 to 74.1 percent in 2010, while female-headed household declined from 29.9 percent to 25.9 percent (Table 5.2). On the other hand, for urban areas there was a modest decrease in the proportion of male-headed households, from 74.6 to 73.5 percent, and a concomitant increase in female-

[26] See for example, Blackden and Woden (2006).

headed households, from 25.4 to 26.5 percent. Table 5.3 summarizes the comparative profiles of male-headed and female-headed households in 2007 and 2010.

Table 5.2: Distribution of household Heads by Sex, 2007 and 2010

Location	2007		2010	
	Male (%)	Female (%)	Male (%)	Female (%)
Liberia	**73.2**	**26.8**	**73.8**	**26.2**
Rural	***70.1***	***29.9***	***74.1***	***25.9***
Urban	***74.6***	***25.4***	***73.5***	***26.5***
Greater Monrovia	71.7	28.3	74.0	26.0
North Central	74.0	26.0	70.2	29.8
North Western	67.7	32.3	74.8	25.2
South Central	76.0	24.0	77.2	22.8
South Eastern A	74.5	25.5	78.2	21.8
South Eastern B	73.5	26.5	73.7	26.3

Sources: Liberia 2007 and 2010 CWIQ.

Table 5.3: Comparative Profile of Male and Female-headed Households

Location	2007		2010	
	Male-headed HH	Female-headed HH	Male-headed HH	Female-headed HH
Average age of head (Years)	43.8	43.5	43.4	42.8
Complete Primary (%)	4.6	1.8	16.2	10.0
Complete Secondary (%)	18.9	9.3	31.2	17.9
University (%)	4.0	1.8	6.5	2.0
Literacy (%)	65.9	31.7	59.8	38.4
Dependency ratio	0.88	0.86	0.88	0.85
Single or never married (%)	7.1	17.1	9.6	21.1
Monogamous (%)	70.2	32.0	60.4	24.7
Polygamous (%)	5.9	2.3	5.6	1.6
Living together (%)	12.5	11.1	20.1	12.1
Widowed, divorced, separated (%)	4.4	37.5	4.3	40.6
Housing roof (iron) (%)	60.6	67.1	66.1	66.7
Housing floor (cement) (%)	35.7	38.9	45.4	46.2

Source: Based on data from the 2007 and 2010 CWIQ.

5.6 **In Liberia, women tend to have unequal access to employment and other economic opportunities, with dire consequences for female-headed households**. Although based on the ILO definition, the rate of unemployment for women is lower (4.3 percent) than that for men (7.1

percent), this only reflects the fact that more women are engaged as unpaid family laborers.[27] More women are also engaged as own-account workers. As the 2010 LFS shows, overall, 88.8 percent of women who are employed are considered to be in vulnerable employment, compared with 68.8 percent of men. In addition, women have to surmount many obstacles in their search for economic opportunities (Box 5.1).

Box 5.1: Problems Women Face in Seeking Economic Opportunities

Obtaining and keeping a job:

- Lack of productive skills is the main barrier to finding a job.
- Lack of contacts is the second most important barrier to finding a job.
- Lack of business skills is a barrier to keeping a job.
- Bad character (stealing, rough talk, lack of punctuality, etc.) also plays an important part in girls' and young women's inability to keep their jobs.
- Sexual harassment from employers is also an important problem for keeping a job.
- Other problems include lack of communication skills, opposition of boyfriends or husbands, and worries about children.

Starting and staying in business:

- Lack of starting capital (money or materials) is the main problem when starting a new business.
- Lack of contacts is the second most important issue in starting a business.
- Lack of business skills is the most important impediment to remaining in business.

Other less important factors include: (a) regulations prohibiting girls under 16 from selling goods on the street; (b) lack of market information; and(c) lack of sufficient customers due to high competition among businesses.

Source: World Bank (2008). Liberia Economic Empowerment of Adolescent Girls and Young Women Project: Girls' Vulnerability Assessment.

5.7 **Although Liberia has made important strides in its efforts to promote gender equality,[28] women tend to earn much less than men across most sectors in Liberia**. Data from the 2010 Labor Force Survey suggest that women earn substantially less than men across most sectors, the only notable exceptions being sectors that are largely dominated by women, including wholesale and retail trade, education, and health services sectors (Table 5.4). It is not clear whether this substantial gender difference in the average wages is related to differences in education levels or to other factors. If the differences were largely due to education one, would expect to see more equality in sectors which require relatively less education and fewer skills. However, even in the agriculture sector, the average wages for men are almost twice as high as for women. The LFS data also highlight the fact that women constitute, on average, a much smaller portion of the paid employment group. Although some progress has been made in addressing gender issues, the story of one young market woman (Box 5.2) suggest some of the difficulties that women face in post conflict Liberia.

[27] This is a widespread issue for women, as reported in the 2012 World Development Report: Gender Equality and Development. (World Bank 2011)

[28] In 2010, Liberia won the United Nation's MDG 3 award for outstanding leadership, commitment, and progress towards the achievement of the MDG 3 through the promotion of gender equality and women's empowerment across the country.

Table 5.4: Mean Weekly Cash Wages of Paid Employees in Selected Sectors (US$)

Selected sectors	Male	Female			Both sexes
	Wages	Wages	Share of Emp.		Wages
			Total	*Paid*	
Agriculture, forestry and fishing	63	32	50.3	21.6	57
Manufacturing	52	17	29.9	9.4	50
Construction	70	16	17.3	10.2	64
Wholesale and retail trade	29	53	69.6	34.0	36
Transportation and storage	52	31	18.7	6.9	51
Financial and insurance activities	94	56	22.1	20.3	87
Administrative and support services	160	80	23.3	23.8	142
Public administration	50	38	30.6	31.7	46
Education	48	64	32.0	30.7	53
Human health and social work activities	81	144	43.1	46.0	109

Source: Labor Force Survey, 2010.

Box 5.2: "Making it" from the Perspective of an Young Matadi Market-Woman

"I was in senior high (10th grade) student when I dropped out of school in 2001 because of pregnancy. My parents were in Ghana at that time and I had to take care of myself. The boy who impregnated me said that I should abort the child and I refused. Because of this, he abandoned me and I had to go through the struggle alone.

My parents returned in 2004 and even their presence did not change anything. I continue supporting myself and my daughter. I explained my problem to a friend who gave me US$100 with which I started charcoal business. I used to go out of town and buy the coal. I started selling in the day and went to school at night.
After high school I didn't go to school because of money business. I then swapped from coal market to selling of finger foods (fried plantain, acherkel [ground cassava meal]). I later took loan from a community yearly savings club through a recommendation by a friend. The club gave me L$3000, which I added to my business money. I was not keeping any money. I used it to add the profit to the market to make it big. And my market money was used to buy food in our house too. This made it impossible for me to save.

In 2008 when I was 23, I wrote the University of Liberia entrance exam and was successful. A friend gave me US$170, which I used to continue my business. I started selling farina (gari). I used to go out of town and bring the gari and sell by the bucket. I also used to bring other goods too.

Even though things have been difficult for me, if I were a young man, it would be more difficult. An example is my father who is not working. He does not feed his family, and they have no respect for him. The children are now the breadwinners. Like my business, it can help feed the house.

My experience has taught me stay away from having a boyfriend. I don't want to have a child out of marriage. I explain this to some of my friends and the little one. I advise them to take time in life - how to get around males and get into relationships. No one can advise me now because I did not listen when my parents used to tell me. I tell my daughter not to follow my mistake.

When I have money in times to come, I will look back at where I came from. I will buy land, build a house, educate my children, etc. I will inform my husband about my plans to take care of where I come from and own a land, or a house and if he does not agree, I will try to make him understand but if he refuses, I will go ahead with my plan because I know it is good and I know where I am coming from – my struggle, etc. The women's rights law and property rights law will back me if he does not agree to support my plan.

Even if I have a good job, I will still do my business because I know that business-will I will never lack.
The big, big, people out there must advocate and help the youth so that job opportunities must be provided to help with their school. And business without backing is nothing. Loan opportunities will help. I don't have a bank account but I save L$200 monthly in the savings club. I wish to be prosperous in my small business and progress in school so that people can see me and say "this girl came from the scratch and here is she today."

Policy Implications and Recommendations

5.8 **The poverty analysis based on the CWIQ data suggests that there is very little difference between male-headed and female-headed households**. However, this fact alone does not provide a solid basis for policy, since female-headed households are quite heterogeneous, and affected differently by the war as well as internal and external migration. It is therefore easy to agree that "female headship" by itself may not be a good basis for targeting the poor. However, in order not to disadvantage poor female-headed households in the implementation of poverty reduction measures, there is need for better information on the non-consumption dimensions of poverty as well as household characteristics. A metric for targeting the poor should also factor in employment, asset ownership, and access to social and economic services.

5.9 **Going forward, strategic policy measures are needed to reduce gender inequality and improve equality between male-headed households and female-headed households along multiple dimensions of welfare**. Such policies, to be effective, need to follow and be responsive the entire life cycle of women, from birth through schooling and entry into the labor market.

Recommendations

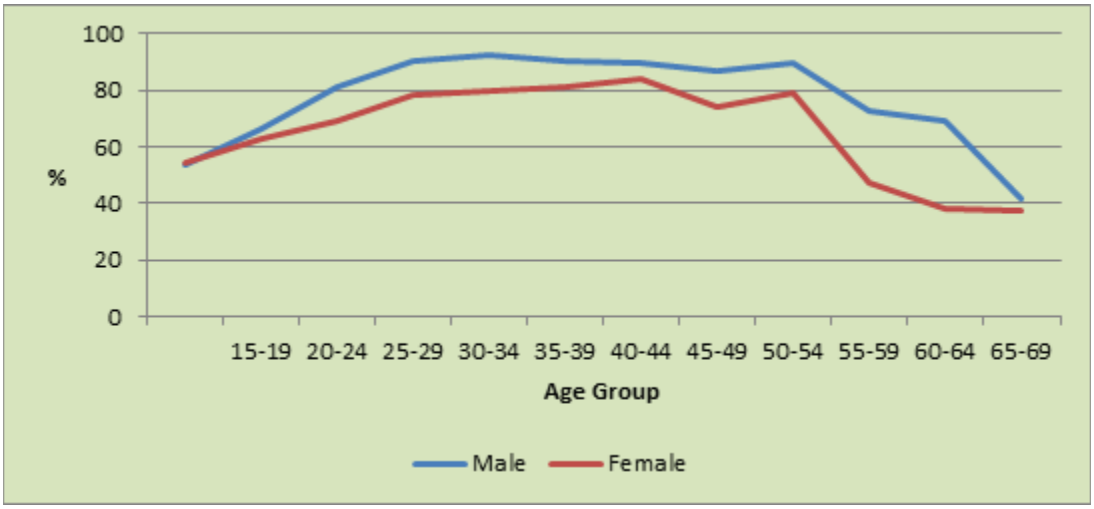
- *Develop poverty targeting mechanisms based on means testing that incorporate multiple dimensions of poverty and welfare to ensure that poor female-headed households are not excluded from poverty interventions;*
- *Make strategic use of conditional cash transfers and other support mechanisms to close the gender gap in education and ensure that girls are not disadvantaged at all levels of the education system, but particularly at the primary and secondary levels.*

6. EMPLOYMENT AND POVERTY

6.1 **In Liberia, the type of employment does not seem to have much effect on the level of consumption of households, or on their probability of being poor.** This is surprising to the extent that in many other countries, when the household head belongs to the public sector or the private formal sector, the household is typically better off than when the head is self-employed, especially in agriculture. However, if the household head in Liberia is unemployed or inactive (i.e., not in the labor force), the negative impact on consumption and poverty is rather large in most instances, and indeed larger than what has been observed in other West and Central African countries. Controlling for other characteristics, the unemployment of a household head reduces a household's consumption level by 37.5 percent in Monrovia, 21 percent in other urban areas, and 17 percent in rural areas, versus having a household head employed. Having an inactive head reduces consumption by 25 percent in urban areas and 32 percent in rural areas.

6.2 **Labor force participation rates are relatively high in Liberia, but generally lower for women (Figure 6.1).** The labor force participation rate among the working age population (15-64) was 73.1 percent in 2007, in line with the Sub-Saharan Africa rate of 72 percent. Liberia's labor force participation rate for the 25-64 age groups was much higher (81.6 percent) than for youths aged 15-24 (58.1 percent). The male participation rates in 2007 were consistently higher than that for females, which the ILO suggests could be the result of differences in education, discrimination in recruitment, and the burden of domestic work, which discourages women's participation in the labor market.[29] The 2007 CWIQ data show that the labor force participation rates for males and females were about the same for the 15-18 age group (54 percent), but rose much faster for males, peaking at 92.5 percent for the 35-39 age group. On the other hand, the participation rates for women tended to rise relatively more slowly, and also to peak at a lower level (84 percent) much later in the age cycle (45-49), which coincides with the end of child bearing.

Figure 6.1: Labor Market Participation Rate, Males versus Female (2007)

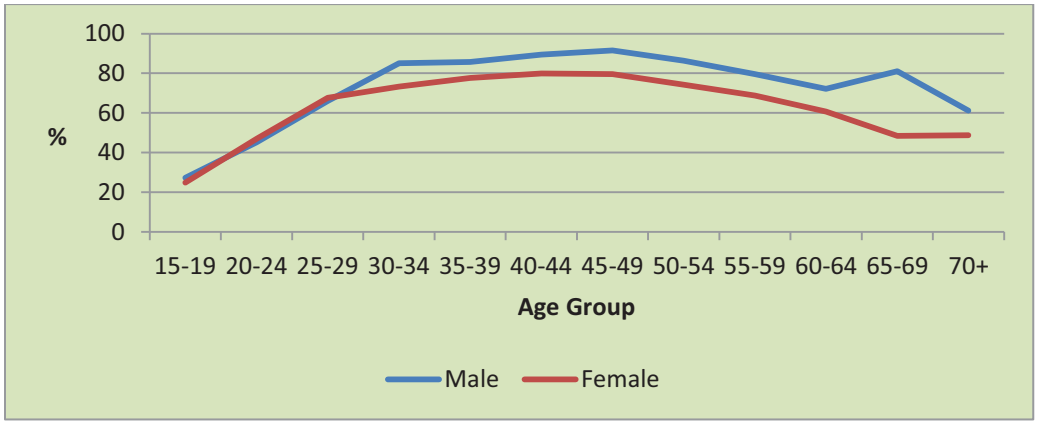


Source: Staff calculations based on the 2007 CWIQ data.

[29] Towards Decent Work in Liberia: A Labour Market and Employment Assessment, ILO and the Ministry of Labour, Liberia.

6.3 **Data from the 2010 Labor Force Survey show an overall labor force participation rate of 62.8 percent.** Unfortunately, the labor participation rates for the 2007 CWIQ and the 2010 LFS are not directly comparable, largely due to differences in sample size. A notable characteristic of the 2010 data is that the participation rate is dramatically lower for both males and females in the younger age cohorts than in the older age groups (Figure 6.2). For example, for the 15-19 age group, the rates for males and females are 27.3 and 24.8 percent, respectively. The lower labor market participation at the lower age cohort may reflect the fact that persons are staying in school longer, particularly at the upper levels, as their perceived poverty status improves. This is supported by data for secondary gross enrollment, which show an increase from 50.9 percent in 2007 to 58.4 percent in 2010. The gender breakdown shows an increase from 56.9 to 65.1 percent for men and from 44.2 to 51.7 percent for women. Over the same period, the percentage of households that perceive themselves as "poor" fell from 9.7 to 8.9 percent, while the percentage of those who perceive themselves as "fairly poor" fell even more, from 51 percent in 2007 to 36.8 percent in 2010.

Figure 6.2: Labor Market Participation Rates, Males versus Females (2010)



Source: LISGIS, Labor Force Survey.

6.4 **A substantial part of the Liberian labor force is engaged in the informal and agriculture sectors.** In 2007, more than 80 percent of the labor force was employed in the informal non-agricultural and agri-business sector.[30] However, the greater part of such employment was at low wages, contributing to the phenomenon of the working poor. Moreover, a substantial part of the Liberian labor force is considered to be in "vulnerable employment." This includes workers who are engaged in own-account work or are contributing family workers, and are therefore unlikely to have regular salary, pension, or health benefits. The 2007 CWIQ also showed that only17 percent of the employed were in paid employment (Table 6.1). For 2010, the LFS data show that only 18.1 percent of those employed are in paid employment, while own-account workers and unpaid family workers (contributing family workers) account for 62.7 and 16.2 percent of employment, respectively. Focus group discussions held in 2011 for a World Bank study[31] also found overwhelmingly that Liberians prefer self-employment to other kinds of employment.

Table 6.1: Employment Status by Area and Quintile

[30] Towards Decent Work in Liberia: A Labour Market and Employment Assessment, ILO and the Ministry of Labour, Liberia. ILO and Ministry of Labor (2008).

[31] **World Bank (2011)** Rapid Qualitative Assessment of Gender, Poverty and Economic Decision-making in Liberia, Background Paper.

Employment Status	Residence area (%)		Quintile (%)					
	Urban	Rural	Q1	Q2	Q3	Q4	Q5	Liberia
Paid employee	33.8	11.2	10.3	12.7	14.8	19.4	26.2	17.0
Self-employed with employees	3.4	1.6	4.0	1.4	1.0	2.2	2.2	2.1
Self-employed no employees	31.1	32.5	37.3	33.5	29.6	32.6	28.9	32.1
Unpaid family worker	29.9	53.9	46.6	51.9	53.9	44.8	41.7	47.8
Domestic employee	1.1	0.7	1.7	0.4	0.4	1.0	0.7	0.8
Apprentice	0.6	0.0	0.2	0.0	0.3	0.1	0.3	0.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Based on the 2007 CWIQ data.

6.5 **More than half of Liberia's poor are engaged in crop farming.** As shown in Table 6.2, 54.8 percent of those in the poorest quintile are engaged in crop farming, compared with about 32 percent of those in the wealthiest quintile. Other notable areas of employment for the poor are wholesale/retail trading and community services. For the poor, wholesale/retail trading is presumed to be largely female-dominated, retail petty trading of agricultural and other basic commodities. These petty traders provide important economic services, including linking farmers to rural and urban markets; however, they often work under very challenging conditions. In many cases, they operate in unsanitary markets far from home. Children often grow up in these markets and are often kept away from school to help mothers. Community services are most often provided by NGOs, including community-based organizations (CBOs). These organizations are important sources of employment in Liberia, and are perhaps the most important sources of non-farm employment in rural areas.

Table 6.2: Sector Employment by Area and Quintile

Total labor force (15-64)	Residence area (%)		Quintile (%)					
	Urban	Rural	Q1	Q2	Q3	Q4	Q5	Liberia
Crop farming	4.6	60.5	54.8	54.6	48.3	44.8	31.9	46.6
Livestock/poultry	0.1	0.0	0.1	0.0	0.0	0.0	0.2	0.1
Forestry/logging	0.3	0.2	0.6	0.1	0.2	0.1	0.2	0.2
Fishing	0.8	0.1	0.3	0.5	0.2	0.3	0.2	0.3
Mining/quarrying	0.5	0.5	0.5	0.7	0.5	0.3	0.7	0.5
Manufacturing/processing	0.4	0.3	0.6	0.2	0.3	0.3	0.3	0.3
Electricity/gas/water supply	1.2	0.1	0.1	0.1	0.2	0.7	0.7	0.4
Construction	2.9	0.7	1.0	1.1	1.5	0.7	1.7	1.2
Wholesale/retail trades	15.7	4.0	4.3	4.6	5.1	9.7	10.5	6.9
Transport, storage, communications	2.7	0.3	0.7	0.2	0.5	1.0	2.0	0.9
Banking/financial services	1.2	0.1	0.1	0.2	0.4	0.3	0.8	0.4
Community services	13.8	4.6	3.9	4.7	6.1	8.2	10.9	6.9
Other	55.7	28.6	33.2	32.9	36.7	33.6	39.9	35.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Based on the 2007 CWIQ data.

6.6 **The typical definition of unemployment masks the severe lack of decent work in Liberia.** Based on the standard ILO definition, Liberia's unemployment rate was 5.7 percent in 2007.[32] This definition, however, does not account for the substantial disguised unemployment.

[32] This represents the share of the labor force not working, willing to work, and actively seeking work.

If the definition is broadened to include those who would like to work but do not seek work either because there is no work available or because they are in seasonal activity, the unemployment rate doubles to 11.1 percent. the differences in unemployment rates between poorer and richer individuals are reversed, as shown in Table 6.3, with 16.5 of individuals in the poorest quintile being unemployed, compared with about 11 percent in the overall the population.

Table 6.3: Labor Force Participation Rate and Unemployment Rate

	Residence area (%)		Quintile (%)					
	Urban	**Rural**	**Q1**	**Q2**	**Q3**	**Q4**	**Q5**	**Liberia**
	Labor force participation rate							
15-24	36.4	69.5	48.8	65.3	62.7	55.6	58.1	58.1
25-64	74.6	84.9	69.2	85.0	85.2	85.2	82.7	81.6
Total	60.2	79.4	61.4	77.7	76.6	75.1	74.5	73.1
	Unemployment rate, standard definition							
15-24	14.0	2.0	2.1	4.2	4.3	4.4	7.9	4.6
25-64	13.8	2.9	7.4	5.7	6.3	5.7	6.0	6.2
Total	13.9	2.6	5.8	5.2	5.7	5.4	6.4	5.7
	Unemployment rate, extended definition							
15-24	24.5	7.3	14.5	9.6	10.4	9.8	12.3	11.2
25-64	20.2	7.0	17.4	8.9	10.0	9.5	10.1	11.0
Total	21.2	7.1	16.5	9.1	10.2	9.6	10.7	11.1

Source: Based on the 2007 CWIQ data.

6.7 **The rate of unemployment is generally higher for males than females across location and welfare groups**. In 2007, the rate of unemployment for men was 7.1 percent, compared with 4.3 percent for women. As Table 6.4 below shows, the rate of urban unemployment was more than double the national unemployment rate for both men and women, although lower overall for women. The rural unemployment was well below both the national average and the urban rate, and notably, rates for men and women were much closer, especially among the youth. The substantially lower rate of unemployment and the greater equality between men and women in rural areas is in part explained by the fact most of the labor-intensive economic activities (mining, rubber, oil palm production) take place in rural areas. The rate of unemployment for males in the poorest quintile is more than twice the rate of unemployment for women. However, the difference falls dramatically for the wealthiest quintile, where the rate of unemployment for males is only marginally higher than that for females.

6.8 **Women tend to have better employment opportunities in urban environments, but often must contend with sexual harassment.** In focus group consultations conducted in 2010 with more than 400 participants in several counties in Liberia, women reported that in urban environments they were aware of far more jobs and were more likely to identify higher-skilled jobs that were available to women. However, women are faced with pressures to exchange sex for jobs and pay raises. In several communities, women reported that the practice was prevalent in their communities and affected as many as 70 to 80 percent of all women. This is not surprising, given the pervasiveness of sexual and gender-based violence in Liberia, especially since the conflict.

Table 6.4: Unemployment Rate (15-64) by Gender, Area, and Poverty Status (2007)

	Residence area (%)		Quintile (%)					
	Urban	Rural	Q1	Q2	Q3	Q4	Q5	Liberia
				Both sexes				
15-24	14.0	2.0	2.1	4.2	4.3	4.4	7.9	4.6
25-64	13.8	2.9	7.4	5.7	6.3	5.7	6.0	6.2
Total	13.9	2.6	5.8	5.2	5.7	5.4	6.4	5.7
				Males				
15-24	18.0	1.9	2.7	4.5	4.4	7.3	9.0	5.3
25-64	15.5	4.2	11.1	7.5	7.4	7.6	6.1	7.7
Male total	16.0	3.5	8.3	6.5	6.5	7.6	6.8	7.1
				Females				
15-24	10.1	2.1	1.2	3.9	4.2	2.4	6.8	3.8
25-64	11.8	1.7	3.6	3.9	5.3	3.5	5.8	4.4
Females total	11.4	1.8	2.9	3.9	4.9	3.2	6.1	4.3

Source: Based on the 2007 CWIQ data.

6.9 **A high proportion of Liberian workers, both male and female, are engaged in vulnerable employment.**[33] As Table 6.5 below shows, nearly 80 percent of Liberians are engaged in vulnerable employment in 2010, with a much higher proportion (88.8 percent) accounted by females compared to males (88.8 compared to 68.8 percent). This result primarily from the fact that a large majority of Liberians in the labor force are in the informal sector, and nearly two-thirds of all workers are own-account workers. There is no evidence to suggest that this employment structure only evolved as a result of or following the conflict, as pre-conflict data for 1980 showed that 72 percent of the labor force was employed in subsistence agriculture. In terms of the rural/urban divide, nearly 94 percent of employed rural women were in vulnerable employment compared with 82.6 percent for employed urban women. For rural employed males, 80.5 percent were in vulnerable employment compared with 54.1 percent for urban employed males.

[33] As noted by the ILO (2007) this indicator provides information how many persons are vulnerable to economic risk because of weak institutional employment arrangements. The categories of own-account workers and contributing family workers are considered particularly vulnerable when it comes to both economic risk and strength of the institutional arrangements, two qualities which are closely intertwined. Given that the institutional arrangements for the work of own-account workers and contributing family workers are likely to be weak, such workers are more likely to (a) lack contractual arrangements, which can lead to a lack of job security; and (b) lack the degree of social protection and social safety nets that govern wage and salaried workers, and are therefore not likely to benefit from social security, health, or unemployment coverage.

Table 6.5: Status of Employment and Vulnerability, by Gender and Area

Status of employment	Urban (%)		Rural (%)		Total (%)		
	Male	Female	Male	Female	Male	Female	Total
Paid employee	40.5	14.2	17.2	4.4	27.5	8.7	18.1
Employer	3.8	2.5	1.1	1.2	2.3	1.8	2.0
Own-account worker	46.2	72.0	64.2	66.7	56.2	69.1	62.7
Member of producers' cooperative	1.6	0.8	1.2	0.6	1.4	0.7	1.0
Contributing family worker	7.9	10.6	16.3	27.0	12.6	19.8	16.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Vulnerable employment	***54.1***	***82.6***	***80.5***	***93.8***	***68.8***	***88.8***	***78.8***

Source: Based on data from Liberia Labour Force Survey, 2010.

Policy Implications and Recommendations

6.10 **Employment is a key channel for poverty reduction in Liberia, but low levels of education and skills pose challenges.** In 2007 and 2010, the poor tend to be unemployed, underemployed, or have low-quality jobs. The largest proportion of the poor are engaged in the agriculture and informal sectors. Furthermore, comparative data for 1980 suggest that this structural feature of the Liberian economy has persisted over time, perhaps owing to the failure of industry and services to emerge as strong sectors, drawing labor from agriculture. Given the generally low level of education and skills of the poor engaged in these sectors, it is unlikely that there will be any significant labor mobility from the agriculture sector to the industrial and services sectors the short to medium. Policy measures to reduce poverty should therefore target these sectors directly and indirectly. Such measures should focus on improving incomes in the agriculture sector by increasing productivity and production, to raise farmers from the subsistence level to having a marketable surplus.

Recommendations

- *Strengthen agricultural extension services to farmers, to increase productivity and reduce post-harvest losses through improved farming practices;*
- *Consider the introduction of crop loss support through, e.g., public works programs. This would help to reduce the volatility in farming incomes and encourage innovation in agriculture that could result in substantial increases in productivity and production.*

7. HOUSEHOLD ASSETS AND POVERTY

7.1 **Households with a larger land size available for cultivation tend to have higher consumption and lower probability of being poor, as expected**. While a measurement of poverty based on income or consumption expenditure may be useful for establishing a poverty line, a broader assessment of the welfare status of households should also focus on asset ownership. It is obvious that if a household's only asset is its labor, then it would have fewer options than a household which has physical or financial assets. In Liberia, displaced households that have returned to their place of origin actually seem to be better off, after controlling for other variables, than non-displaced persons, perhaps because those who were displaced had more liquid assets to enable them to leave their place of origin in the first place.

7.2 **Asset holdings, both physical and financial, are key determinants of current and future welfare.** The asset holdings of the household not only determine the income stream, but as Little et al. (2006) have pointed out, are also an important mechanism for coping with shocks. Households that are currently in poverty but have opportunities to accumulate both productive and non-productive assets through access to credit are better able to weather shocks and increase their income stream over time, and so are more likely to escape poverty in the future. This is in sharp contrast to poor households that operate at the subsistence level and have no access to credit, and therefore are unable to accumulate even productive assets. Such households have no mechanisms for coping with shocks, which therefore push them further into poverty.

7.3 **Comparative data for 2007 and 2010 show a sharp reduction in house ownership and an increase in rental and free use.** As Table 7.1 below shows, in 2010, 59.5 percent of households reported that they owned their dwelling. This is sharply down from the 67 percent of households that reported ownership in 2007. This largely reflects the dynamics in rural areas, where house ownership fell from 77.5 percent of households in 2007 to 66.6 percent of households in 2010. In contrast, in urban areas, house ownership increased from 43.9 to 51 percent of households over the same period. These dynamics are important from a policy perspective, given the endemic nature of disputes over land ownership following the conflict. One possible explanation for the sharp reduction in house ownership in 2010 could be that with the general lack of titles or other legal instruments of ownership, many households had incentive to report ownership (and did so in the 2007 survey) with the hope that the issue of ownership would eventually be resolved in their favor, as the real owners were likely out of the country.[34] However, since 2007 many rightful owners have returned and have asserted ownership of dwellings, shifting more households into rental or free use.

[34] It has been reported that the same plot of land in Liberia is often sold to multiple owners. Land ownership is based on common law, which requires a land deed as proof of ownership. However, a parallel system of customary law, which allows the use of land based on verbal agreements, is also prevalent. Many land deeds were lost during the conflict and the resulting displacement of people. The Government established the Land Commission in 2009 to help resolve land conflicts and establish rightful ownership.

Table 7.1: House Ownership and Tenure by Location

Location	2007			2010		
	Own (%)	Rent (%)	Free Use (%)	Own (%)	Rent (%)	Free Use (%)
Liberia	**67.0**	**19.5**	**13.5**	**59.5**	**23.1**	**17.4**
Area of residence						
Rural	***77.5***	***6.6***	***15.9***	***66.6***	***11.6***	***21.8***
Urban	***43.9***	***47.7***	***8.4***	***51.0***	***36.7***	***12.3***
Region						
Greater Monrovia	40.8	51.2	8.0	42.2	48.4	9.4
North Central	75.9	9.9	14.2	68.6	10.0	21.4
North Western	79.3	8.1	12.6	70.6	12.1	17.3
South Central	60.6	15.9	23.5	56.2	18.8	25.0
South Eastern A	85.8	7.8	6.4	70.8	13.3	15.9
South Eastern B	78.2	8.7	13.2	71.1	13.8	15.1

Source: Based on data from the 2007 and 2010 CWIQ.

Table 7.2: Types of Land Tenure, Liberia and Regions

2007						
Location	**Secure tenancy (%)**					**None (%)**
	Total	**Land Deed**	**Leasehold**	**Tenancy Agreement**	**Receipt**	
Liberia	**75.3**	**18.9**	**36.2**	**3.2**	**16.9**	**24.7**
Rural	***67.9***	***12.2***	***48.0***	***1.9***	***5.7***	***32.1***
Urban	***91.4***	***33.4***	***10.4***	***6.1***	***41.6***	***8.6***
Greater Monrovia	90.5	30.5	9.2	6.0	44.8	9.5
North Central	74.3	15.2	47.9	2.3	8.8	25.7
North Western	57.7	14.7	35.5	0.9	6.7	42.3
South Central	75.0	14.7	42.2	4.9	13.2	25.0
South Eastern A	66.3	19.6	38.2	1.3	7.2	33.7
South Eastern B	71.0	16.8	45.6	1.1	7.5	29.0
2010						
Location	**Secure tenancy (%)**					**None (%)**
	Total	**Land Deed**	**Leasehold**	**Tenancy Agreement**	**Receipt**	
Liberia	**82.9**	**26.6**	**1.4**	**31.0**	**4.6**	**19.3**
Rural	***80.3***	***21.3***	***2.1***	***44.6***	***3.6***	***8.7***
Urban	***86.0***	***32.8***	***0.7***	***14.9***	***5.7***	***31.8***
Greater Monrovia	88.0	35.1	0.3	3.6	6.3	42.7
North Central	80.4	19.6	1.6	47.2	5.3	6.8
North Western	80.9	10.6	1.8	54.0	4.8	9.7
South Central	79.7	28.2	1.6	32.4	1.9	15.6
South Eastern A	85.2	38.3	3.0	31.9	2.1	9.8
South Eastern B	80.9	26.0	2.4	37.5	4.3	10.7

Source: Based on data from the 2007 and 2010 CWIQ.

7.4 **A comparison of the overall distribution of household by security of land tenure showed an improvement between 2007 and 2010 but the dynamics in the different regions are of policy importance**. The percentage of households having secure land tenure (in terms of deeds, leasehold or tenancy agreements and receipts of payment) increased from 75.3 percent in 2007 to 82.9 percent in 2010 (See Table 7.2). This largely reflects the dynamics of the resettlement from the population churning that resulted from the 14-year conflict. The most significant changes appear to be the substantial increase in the percentage of household having tenancy agreements, from 3.2 percent in 2007 to 31 percent in 2010, and a concomitant decrease in the percentage of household with leasehold agreement from 36.2 percent to only 1.4 percent over the same period. From a policy perspective, the improvement in land tenure in some of the poorest regions including the South Eastern A region which had a poverty headcount rate of 77 percent in 2007 is a positive development. In this region, the percentage of household with secure tenure increased from 66.3 percent in 2007 to 85.2 percent in 2010 reflecting increases in land deeds and tenancy agreement. At the same time the percentage of households with no secure tenure fell from 33.7 percent in 2007 to 9.8 percent in 2010.

7.5 **A possible cause for policy concerns is the dynamics of household land tenure in Greater Monrovia and other urban areas.** Notably, the percentage of households with secure tenure in urban areas fell from 91.4 percent in 2007 to 86.0 percent in 2010. At the same time, the proportion of households with no form of tenure increased from 8.6 to 31.8 percent. For the Greater Monrovia area, the proportion of households with secure tenure decreased from 90.5 percent in 2007 to 88 percent in 2010, and over the same period, the proportion of households with no tenure increased from 9.5 to 42.7 percent (Table 7.2). These dynamics in urban areas reflect the increasing urbanization of the country as more and more persons move to urban areas in search of employment opportunities.

Table 7.3: Distribution of Household by Land Owned

Location	2007	2010	2007			2010		
	Landless (%)	Landless (%)	< 1 ha (%)	1-5 ha (%)	>5 ha (%)	< 1 ha (%)	< 1 ha (%)	>5 ha (%)
Liberia	**46.0**	**61.6**	**16.8**	**13.8**	**7.8**	**3.1**	**8.9**	**42.0**
Rural	***30.5***	**49.3**	**23.2**	**20.3**	**7.3**	***1.6***	**10.1**	**57.8**
Urban	***80.2***	**76.1**	**9.4**	**6.2**	**8.3**	***6.3***	**6.3**	**7.2**
Greater Monrovia	84.4	86.7	2.7	1.2	9.4	2.7	6.8	6.2
North Central	33.2	33.6	30.4	25.9	10.0	2.2	8.4	56.2
North Western	32.5	59.5	11.9	22.3	6.3	2.4	6.9	58.2
South Central	51.3	74.8	11.6	8.3	5.4	3.8	8.1	36.8
South Eastern A	19.1	56.6	26.0	14.8	2.6	5.7	15.1	60.1
South Eastern B	31.5	52.9	26.2	15.3	5.5	5.4	16.5	46.6

Source: Staff calculations based on data from the 2007 and 2010 CWIQs.

7.6 **It is paradoxical that landlessness is so high in a country where the land mass is substantial relative to its population.** Liberia covers approximately 111,370 square kilometers and has a population of nearly 4 million people, living in about 742,000 households. However, in 2010, nearly 62 percent of those households were landless, up from 46 percent in 2007 (Table 7.3). Moreover, landlessness is not just an issue in urban areas, as nearly half of rural households are landless. In the South Central region of the country, for example, 74.8 percent of households

are landless, up from 51.3 percent in 2007. The data may suggest a crisis of access to land at the household level. However, this data should be interpreted with caution, since in many cases, under tribal rules, land is owned by the community collectively and user rights are given to members of the community. Households that report as landless may in fact have open-ended access to land. The issue of the ownership and use of land is best summarized in the words of a Liberian:

"*There is also a lot of problems with land here. Everyone has land, but nobody knows whose land belongs to who. People came to sell the land, then they sold it 2, 3, 4 times, and they have a deed every time. So more than one family shows a deed, there is trouble. So then nobody develops on the land because it will only cause trouble."*[35]—***School Principal***

7.7 **The high proportion of households, both urban and rural, reporting landlessness in a context where large tracts of lands are given in concession to foreign investors raises some concerns**. A recent study, "Rising Global Interest in Farmland" (World Bank 2010b), concluded that "land acquisition often deprives local people, in particular the vulnerable, of their rights without providing appropriate compensation." The report also points out that in a number of countries, investors are treated more favorably than local smallholders, for example in terms of tax payments and the ability to obtain land and other resources. Access to land has been and remains a contentious issue in Liberia, and the general consensus is that it is the single most important issue that could precipitate a return to conflict.

7.8 **In rural communities, land is often under the control of community elders and chiefs, who allocate its use according to tradition.** In many cases, this arrangement seems to work well, as there is enough land for most community members. The more powerful members do tend to get land in better locations or better quality land, however. Problems arise when land is scarce, when there are large population movements, or when, for one reason or another, there are disputes. In these cases, youth may lose out. Youths have complained that they cannot get adequate farming land in some communities where land is scarce. Many Mandingo individuals have also faced problems when returning from situations of forced displacement, if the land they had occupied was being used by other individuals, and communities rejected the Mandingos' claims, stating that they were never community "citizens."

7.9 **Access to land is a gender issue as well.** Although the Liberian laws (both customary and statutory) give equal rights to men and women in inheritance and access to land, in practice women tend to have less access, largely owing to customary practices and norms. This is in spite of the fact that they make substantial contributions to the agriculture sector. According to a 2009 USAID study,[36] women heading households are unable to contribute labor within the communal system, restricting their access to the communal land disbursement system, which is controlled by a patriarchal community social-political structure.

7.10 **The ownership of livestock assets is important for both food and the fact that they can be easily sold to respond to income shocks**. However, the 14-year conflict has all but wiped out this asset base for most Liberians. As Table 7.4 below shows, a large proportion of Liberian households own no livestock. Overall, in 2007, 96.3 percent of household owned no

[35] Rapid Qualitative Assessment of Gender, Poverty and Economic Decision-making in Liberia:
A background report to inform the 2011 Liberia Poverty Assessment and the 2013 World Development Report
[36] USAID: Liberia Food Security Country Framework FY 2010-2014. October 2009.

sheep and 92 percent of households owned no goat. Further, only 2.8 percent of households owned more than one sheep and only 5.3 percent owned more than one goat. Although, as would be expected, livestock ownership is higher in rural than in urban areas, it is only marginally so. In rural areas, 94.9 percent of households own no sheep and 88.8 percent own no goat. It is not surprising that of rural areas, the poorest regions (North Western and South Eastern A) generally have the highest proportions of households with no sheep or goats. As Table 7.4 also shows, the situation regarding livestock ownership changed very little between 2007 and 2010.

Table 7.4: Distribution of Households by Number of Livestock Owned

2007	Sheep Ownership (%)			Goat Ownership (%)		
Location	**No sheep**	**1 sheep**	**>1 sheep**	**No goat**	**1 goat**	**>1 goat**
Liberia	**96.3**	**0.9**	**2.8**	**92.0**	**2.7**	**5.3**
Rural	***94.9***	***1.3***	***3.8***	***88.8***	***4.0***	***7.3***
Urban	***99.2***	***0.1***	***0.7***	***99.0***	***0.1***	***1.0***
Greater Monrovia	99.6	0.0	0.4	99.6	0.0	0.4
North Central	92.6	1.9	5.5	85.4	5.9	8.8
North Western	99.5	0.1	0.5	98.5	0.6	1.0
South Central	97.9	0.6	1.5	95.6	1.1	3.3
South Eastern A	98.6	0.6	0.9	90.5	2.0	7.5
South Eastern B	93.0	1.1	6.0	84.8	3.3	11.9
2010	**No sheep**	**1 sheep**	**>1 sheep**	**No goat**	**1 goat**	**>1 goat**
Liberia	**97.3**	**0.4**	**2.3**	**94.0**	**1.4**	**4.6**
Rural	***96.3***	***0.5***	***3.2***	***91.6***	***2.0***	***6.4***
Urban	***98.5***	***0.3***	***1.2***	***96.9***	***0.7***	***2.4***
Greater Monrovia	99.2	0.2	0.6	99.5	0.2	0.3
North Central	94.7	0.9	4.4	89.8	3.3	6.9
North Western	97.6	0.2	2.2	95.4	0.6	4.0
South Central	98.1	0.4	1.5	93.1	0.7	6.2
South Eastern A	98.6	0.1	1.3	94.2	0.9	4.9
South Eastern B	96.8	0.7	2.5	89.5	2.3	8.2

Source: Staff calculations based on data from the 2007 and 2010 CWIQs.

7.11 **Access to formal credit is generally low in Liberia, and it is particularly difficult for the rural poor to get credit to acquire productive assets**. Only a small percentage of the population has access to financial services, and SMEs have relatively limited access to finance. However, access is improving. Liberia's ranking on the "getting credit" indicator in the 2012 Doing Business survey is 98th out of 183 countries—a substantial improvement over its 2011 ranking of 139th. Credit is still, however, constrained by stringent licensing procedures for new banks; rudimentary payment and settlement systems; and weak credit reporting. Access to finance outside Monrovia has improved as commercial banks have expanded their services to 10 of the country's 15 counties; however, five counties still lack banking services.

7.12 **The combination of the lack of key assets such as seeds, tools, credit, land, and savings to fall back on in the event of crop loss makes agriculture a daunting venture for the poor**. As Table 7.5 below shows, among both farming and non-farming households, the three most important constraints to agriculture are lack of seeds, lack of tools, and lack of financial capital. The fourth major constraint, reported as lack of household labor, is rather surprising given the average household size as well as the high level of unemployment and underemployment in Liberia. There are two possible explanations: (a) poor households have no savings or other assets to fall back on during the planting and growing period and therefore

cannot afford to forego paid employment to prepare land, plant, and tend the crops to harvest; (b) while underemployment is the norm, at specific points in the agricultural cycle, such as rain-dependent land preparation, labor availability does become a binding constraint.

Table 7.5: Agricultural Constraints by Type of Agricultural Household

	Farming HHS (49%)	HHS with land but not farming (18%)	HHS without land (34%)	Total
Lack of seeds	50%	56%	46%	50%
Lack of tools	47%	52%	54%	50%
Lack of financial capital	29%	39%	30%	31%
Lack of household labor	27%	37%	23%	28%
Groundhog attack	30%	10%	7%	19%
Bird attacks	17%	5%	5%	19%
HH engaged in other activity	10%	12%	18%	13%
Lack of arable land	3%	3%	34%	13%
Returned late for planting season	2%	25%	3%	6%

Source: Republic of Liberia: Comprehensive Food Security and Nutrition Survey (CFSNS), 2006.

Policy Implications and Recommendations

7.13 **Ownership of or access to assets are key determinants of poverty, and of the ability of household to deal with shocks and escape poverty**. The long conflict robbed both the poor and non-poor of important productive assets, including livestock and access to land. The poor, particularly the rural poor, are further disadvantaged by the fact that they have little or no access to formal or even informal credit to rebuild or replace those assets. It is obvious that access to land is the most important policy issue in this regard, since legal ownership instruments may also help address issues of access to credit in many cases. However, the land issues are quite complex, requiring at the very least some practical harmonization of statutory and customary law—a longer-term prospect. In the shorter term, the Government will need to provide opportunities to the poor to acquire productive assets. Since most of the poor are engaged in subsistence agriculture, this is an obvious sector for policy interventions.

Recommendations

- *Consider the introduction of revolving livestock schemes for poor farmers, administered by the Ministry of Agriculture or in partnership with NGOs or CBOs, with accompanying technical assistance in the relevant animal husbandry;*
- *Consider providing support for mechanical land preparation to allow farmers to undertake paid employment while the land is being prepared, and also to plant larger plots of land that would be possible with own labor.*

8. HOUSEHOLD ACCESS TO SERVICES

8.1 **Isolated households tend to have lower consumption levels and a higher probability of being poor.** Access to social and economic services is crucial for building the assets of the poor, including good mental and physical health and education and skills, as well as providing access to social capital. The 2007 CWIQ showed that in spatial terms, the North Central (38.3percent), Greater Monrovia (16.7 percent), South Central (15.2 percent), and South Eastern A (10.5 percent) regions make the largest contributions to overall poverty. This in part reflects the relative isolation of these regions and their comparatively lower levels of access to food, infrastructure, and basic services including education, health, and potable water. Access to key economic and social services provided by the state or the private sector lowers household costs and increases consumption. Many of the economic and social services provided by the government or private sector benefit from economies of scale, and so they cost much less than in cases where households self-provide.

8.2 **In many cases, women and children are the primary beneficiaries of improved access to services.** This is so because generally women and children also pay the highest costs for the lack of access to services. For example, where access to water is limited in a community, women and children are usually responsible for carting water. Where access to health services is limited, women and children bear a disproportionately large share of the health risks, including high infant and maternal mortality. Labor and time saving services such as water and electricity are particularly beneficial to female-headed households, which are usually time constrained because of the dual roles of women.

Table 8.1: Access to Nearest Food Market by Region

2007	Access to Nearest Food Market (% of population)					
Location	**Within 5 Km**	**6-14 Km**	**15-29 Km**	**30-44 Km**	**45-59 Km**	**60 + Km**
Liberia	**14.7**	**10.2**	**13.3**	**9.4**	**7.5**	**45.1**
Rural	***13.8***	***5.9***	***6.5***	***5.0***	***7.6***	***61.3***
Urban	***16.8***	***19.7***	***28.8***	***19.2***	***7.3***	***8.2***
Greater Monrovia	13.6	18.7	29.8	20.0	7.5	10.3
North Central	18.4	8.2	7.4	4.4	6.3	55.2
North Western	4.2	7.8	10.2	3.1	15.9	58.9
South Central	20.3	7.3	10.7	12.1	7.6	42.0
South Eastern A	11.6	6.7	8.7	7.3	4.4	61.3
South Eastern B	5.0	8.2	8.1	6.5	4.5	67.8
2010	**Within 5 Km**	**6-14 Km**	**15-29 Km**	**30-44 Km**	**45-59 Km**	**60 + Km**
Liberia	**19.7**	**13.2**	**17.6**	**13.0**	**5.7**	**30.8**
Rural	***20.2***	***10.7***	***12.8***	***9.7***	***6.2***	***40.5***
Urban	***19.1***	***16.1***	***23.4***	***16.9***	***5.1***	***19.3***
Greater Monrovia	17.9	17.7	25.5	19.0	3.4	16.4
North Central	18.9	11.9	13.5	10.7	7.4	37.6
North Western	29.9	9.6	10.7	6.4	5.3	38.1
South Central	14.9	11.5	17.6	10.8	4.8	40.3
South Eastern A	18.5	12.5	15.7	11.7	10.1	31.6
South Eastern B	29.9	11.2	16.1	15.3	4.2	23.5

Source: Based on data from the 2007 and 2010 CWIQs.

8.3 **Access to food markets is limited and uneven across Liberia.** As Table 8.1 shows, in Liberia as a whole, less than one fifth of the population is within 5 kilometers of a food market, while more than 30 percent of the population is at least 60 kilometers or more from a food market. In urban areas, about 19 percent of the population is within 5 kilometers of a food market and about the same percentage is 60 or more kilometers away, but public transport is more likely to be available, so distance is less of an issue. About 20 percent of the rural population is within 5 kilometers of a food market, while twice as many rural residents are 60 or more kilometers away. This is largely a function of the sparseness of the population in rural areas and the difficulty of achieving the economies of scale required for viable rural markets. Large distances from food markets create problems on both the demand and supply side, as surplus households cannot viable dispose of their surpluses and it is much more costly for deficit households to participate in the markets. Long travel distances therefore tend to increase food costs, with implications for individual welfare. For example, in 2011, a 50 kilogram sack of rice cost 30 percent more in Plibo, a remote town in the South Eastern part of Liberia, than in Tubmanburg, a town close to the capital city of Monrovia. In a focus group, one adult male from Woimah stated; "I am not happy because it takes ten hours walking distance to reach Zorzor to access the active market."

8.4 **Empirical work has suggested a positive correlation between market access and poverty.** A study by Minot (2006), using regression analysis on Demographic and Health Survey and Household Budget Survey data from Tanzania, found that rural poverty is associated with remoteness but that the relationship is weak. The channel for the relationship may in fact be very complex, but better access to domestic and foreign markets could mean greater demand for farm products and therefore higher prices and higher income. On the input side, it could also mean lower costs. However, market access, which has both physical and economic dimensions, is a function not just of the availability of road infrastructure, but also the availability and cost of public transportation.

8.5 **The lack of formal banking services has given rise to informal substitutes including "susu" and "savings clubs."** The susu usually consist of a group of people who know and trust each other and put money in a pool to be withdrawn by each person at the end of an agreed cycle. There are two types of susu in Liberia—the daily/weekly/monthly susu and "Nigerian susu." In the former, each member puts in the same amount on a daily/weekly or monthly basis and takes turns withdrawing the total pool amount. In the Nigerian susu, members can put in any amount they want and their withdrawal is calculated based on the amount they have put in. This type of susu is more popular in urban communities. Savings clubs allows members to save and get loans. Membership in this club requires the deposit of a certain amount of money or the pledging of assets including land, houses, or motor vehicles to the treasurer. Loans are based on the amount deposited or the value of the assets pledged. The interest rates on such loans are reported to range from 25-100 percent.[37]

8.6 **Access to electricity services is limited across Liberia, and practically nonexistent in rural areas**. Much of the power infrastructure, including the Mount Coffee hydro plant and its entire distribution network were destroyed during the civil war. As Table 8.2 below shows, in 2007, at the national level, no household reported using electricity for cooking and fewer than one percent used electricity for lighting. In 2007, 1.7 percent of households were using

[37] Rapid Qualitative Assessment of Gender, Poverty and Economic Decision-making in Liberia

generators for lighting. In 2010, one percent of households used electricity for cooking and 2.8 percent of household used electricity for lighting, while nearly 5 percent used generators for lighting. In 2007 nearly 5 percent of urban households used generators for lighting. This increased to 8.1 percent in 2010. As would be expected, the use of electricity both for cooking and lighting is substantially lower in the rural than in urban areas. The high cost of electricity, either from the limited public grid or through self-provision from generators, limits its use even by non-poor households. In April 2010, the price of electricity from the limited grid was US$0.43 per kilowatt-hour (kWh), one of the highest in Sub-Saharan Africa. Analysis done by the World Bank[38] suggests that those without access to electricity pay even more for other sources of lighting: the use of dry cell batteries costs US$74.01/kWh, car batteries US$8.43/kWh, candles US$8.27/kWh, generators US$3.96/kWh, and kerosene for lighting US$1.53/kWh.

Table 8.2: Distribution of Households by Use of Electricity and Generators (percent)

Location	2007			2010		
	Households Using Electricity for Cooking	Households Using Electricity for Lighting	Households Using Generators for Lighting	Households Using Electricity for Cooking	Households Using Electricity for Lighting	Households Using Generators for lighting
Liberia	**..**	**0.6**	**1.7**	**1.0**	**2.8**	**4.8**
Rural	**..**	***0.4***	***0.3***	***0.9***	***0.8***	***1.9***
Urban	**..**	***1***	***4.7***	***1.1***	***5.1***	***8.1***
Greater Monrovia	..	1.5	5.9	1.0	6.8	11.2
North Central	..	..	0.4	1.1	1.7	2.0
North Western	..	..	0.2	0.6	0.3	3.2
South Central	..	1.7	1.1	0.9	1.6	2.0
South Eastern A	..	..	0.3	1.4	0.3	1.6
South Eastern B	..	0.1	0.4	0.5	0.3	3.8

Source: Based on data from the 2007 and 2010 CWIQs.

8.7 **Less than half of the population in Liberia has access to an all-season road within 5 kilometers, and only slightly more than half has access to any road within 5 kilometers.** In terms of access to all-season roads, the situation is similar across urban and rural areas. The North Western region has the highest proportion of its population (58.5 percent) within 5 kilometers of an all-season road and the lowest proportion of its population 30 kilometers or more from any road. At the other extreme is the North Central region, where only slightly more than a third of its population is within 5 kilometers of an all-season road, and 21 percent of its population is 30 kilometers or more from any road (Table 8.3).

[38] See World Bank 2011, "Options for the Development of Liberia's Energy Sector."

Table 8.3: Access to Road Infrastructure by Region

2007	Access to All-Season Road			Access to Any Road		
Location	**Within 5 Km**	**6-29 Km**	**30 Km or >**	**Within 5 Km**	**6-29 Km**	**30 Km or >**
Liberia	**47.0**	**16.6**	**36.5**	**66.0**	**17.1**	**16.9**
Rural	***41.9***	***10.1***	***48.0***	***63.0***	***14.0***	***23.0***
Urban	***58.4***	***31.3***	***10.3***	***72.8***	***24.2***	***3.1***
Greater Monrovia	61.4	27.7	10.9	79.4	18.2	2.4
North Central	54.4	10.2	35.5	67.2	14.2	18.6
North Western	21.3	12.8	66.0	75.2	18.4	6.4
South Central	51.0	18.8	30.2	61.3	14.9	23.7
South Eastern A	26.7	17.4	55.9	38.9	20.1	41.0
South Eastern B	17.9	14.1	68.0	50.5	27.3	22.2
2010	**Within 5 Km**	**6-29 Km**	**30 Km or >**	**Within 5 Km**	**6-29 Km**	**30 Km or >**
Liberia	**45.1**	**28.0**	**27.0**	**57.6**	**24.1**	**18.2**
Rural	***45.8***	***22.8***	***31.3***	***58.3***	***21.6***	***20.1***
Urban	***44.3***	***34.0***	***21.8***	***56.7***	***27.2***	***16.0***
Greater Monrovia	40.5	37.8	21.6	53.1	30.3	16.6
North Central	36.8	26.8	36.5	55.0	24.2	20.8
North Western	58.5	16.7	24.8	77.5	12.5	10.0
South Central	53.4	23.4	23.2	59.1	22.9	18.1
South Eastern A	50.7	25.0	24.2	56.3	19.3	24.4
South Eastern B	54.0	23.6	22.4	59.2	24.2	16.6

Source: Staff calculations based on data from the 2007 and 2010 CWIQ.

8.8 **Access to public transportation is limited across the country, but poor rural roads further constrain the mobility of the rural population**. Public transportation is provided by a mix of buses operated by the state-owned National Transit Authority (NTA) and privately owned taxis. Buses and taxis operate mainly in the urban centers, where roads are better. In the peri-urban and rural areas, much of the public transportation is provided by commercial motorcyclists known as "phen-phen". The informal commercial motorcyclist service emerged in response to the rapidly growing demand for transportation services following the end of the war in 2003.

8.9 **Overall access to public transportation has improved between 2007 and 2010, with rural areas showing the largest improvement**. In 2007, only 33.6 percent of the population had access to public transportation within 5 kilometers, while 45.2 percent was 30 kilometers or more from public transport (Table 8.4). Only 28 percent of the rural population is within 5 kilometers of public transport and more than half are 30 kilometers or more from access to public transport. Almost half of the urban population was within 5 kilometers of access to public transport in 2007, and only 15.5 percent were 30 kilometers or more away. The situation was somewhat improved in 2010 thanks to better roads and an increase in the number of taxis and phen-phen, with 38.6 percent of the population having access to public transportation with 5 kilometers and 32.6 percent having to go 30 kilometers or more to gain access, down from 45.2 percent in 2007. Furthermore, in 2010, 41.7 percent of the rural population had access to public transport within 5 kilometers up from 28 percent in 2007. Table 8.4 also shows sharp improvements between 2007 and 2010 in some of the regions.

Table 8.4: Access to Public Transport by Region

Location	Access to public transport (% of population)					
	2007			2010		
	Within 5 Km	6-29Km	30 Km or>	Within 5 Km	6-29Km	30 Km or>
Liberia	**33.6**	**21.2**	**45.2**	**38.6**	**28.8**	**32.6**
Rural	***27.9***	***13.8***	***58.3***	***41.7***	***20.2***	***38.0***
Urban	***46.7***	***37.8***	***15.5***	***35.0***	***39.0***	***26.0***
Greater Monrovia	48.4	35.6	16.0	31.5	45.9	22.6
North Central	32.4	14.9	52.7	33.0	20.6	46.3
North Western	19.9	22.8	57.3	55.6	18.6	25.9
South Central	39.0	19.6	41.4	44.5	26.5	29.2
South Eastern A	17.9	17.4	64.7	45.8	22.4	31.7
South Eastern B	20.9	14.3	64.9	46.6	24.9	28.6

Source: Staff calculations based on data from the 2007 and 2010 CWIQs.

8.10 **Physical access to education services is limited by the distances children have to travel to school, often by walking.** As noted above, nearly 30 percent of out-of-school children (aged 6-11) in rural areas cited distance as the primary reason for being out of school. As Table 8.5 below shows, less than a third of the population of the country is within five kilometers from a primary or secondary school. There are only marginal differences in physical access at the primary level. However, at the secondary level, 28.5 percent of the urban population is five kilometers or less from a school compared with 22.9 percent of the rural population. Of the regions, the North Western has the highest access at the primary level, while the South Central has the lowest. At the secondary level, South Eastern B has the highest access and North Western the lowest.

Table 8.5: Access to Primary and Secondary School by Region

Location	Access to Primary School			Access to Secondary School		
	Within 5	6-29Km	30 Km or>	Within 5 Km	6-29Km	30Km or >
Liberia	**31.2**	**54.4**	**23.9**	**28.8**	**28.8**	**42.4**
Rural	***32.2***	***43.1***	***24.6***	***22.9***	***26.7***	***13.2***
Urban	***30.0***	***47.0***	***22.9***	***28.5***	***35.7***	***35.9***
Greater Monrovia	30.6	46.4	23.1	27.7	36.8	35.5
North Central	31.4	45.2	23.3	28.1	21.1	50.9
North Western	44.0	35.3	20.8	23.5	24.1	52.3
South Central	27.0	41.5	31.6	32.5	26.0	27.6
South Eastern A	32.0	50.3	17.6	37.0	37.1	25.9
South Eastern B	26.8	51.8	21.4	24.9	33.3	41.8

Source: Staff calculations based on data from the 2010 CWIQ.

8.11 **Access to basic health services is limited across all of Liberia,** largely because the 14-year conflict resulted in the destruction or damage of much of the infrastructure for these services. In addition, many of the qualified health providers migrated during the conflict and have been slow in returning. In 2012, the Ministry of Health reported that there were 4,189 public health workers, little change from the 4,000 health workforce, including 168 doctors,

reported in the 2007 assessment done by UNFPA.[39] With a population of some 3.7 million, these figures are well below the Sub-Saharan average of 1.3 health worker per 1,000 people, and much lower than the minimum of 2.5 health workers recommended by the World Health Organization (WHO). The widely dispersed population further complicates the delivery of health services with so few health workers. As Table 8.6 shows, in 2010 for Liberia as a whole, only 13.6 percent of the population was within 5 kilometers of a health clinic, 86.4 percent was six kilometers or more from the nearest clinic, and more than half of population was 30 kilometers or more from the nearest health clinic. As Table 8.6 shows, the access data for 2010 reflect little overall change in physical access to health compared with 2007. However, some notable improvements have been observed in some of the regions. For example, the percentage of the population with access to basic health services within 5 kilometers more than doubled in South Eastern B region, from 7.2 percent in 2007 to 16.1 percent in 2010. At the same time, the share of the population 30 kilometers or more from health services dropped from 68.7 percent in 2007 to 45.9 percent in 2010. Improvements were also registered in the South Central and South Eastern A regions.

Table 8.6: Access to Basic Health Services and Water by Region

2007	Access to Health Clinic			Access to Drinking Water		
Location	**Within 5 Km**	**6-29Km**	**30 Km or>**	**Within 5 Km**	**6-29Km**	**30Km or >**
Liberia	**13.9**	**23.4**	**62.8**	**64.0**	**27.5**	**8.5**
Rural	***13.6***	***14.8***	***71.6***	***65.4***	***26.8***	***7.8***
Urban	***14.6***	***42.8***	***42.6***	***60.7***	***29.3***	***10.1***
Greater Monrovia	16.8	42.1	41.1	63.4	28.7	7.9
North Central	16.1	15.8	68.2	66.4	23.6	10.0
North Western	16.5	24.5	59.0	69.3	25.5	5.2
South Central	9.3	16.4	74.4	69.2	26.5	4.2
South Eastern A	8.7	19.1	72.3	44.6	37.0	18.4
South Eastern B	7.2	24.1	68.7	57.4	37.4	5.2
2010	**Within 5 Km**	**6-29Km**	**30 Km or>**	**Within 5 Km**	**6-29Km**	**30Km or >**
Liberia	**13.6**	**28.5**	**57.9**	**53.5**	**30.7**	**15.8**
Rural	***12.5***	***21.0***	***66.5***	***59.9***	***26.7***	***13.2***
Urban	***14.9***	***37.3***	***47.8***	***45.8***	***35.5***	***18.6***
Greater Monrovia	13.9	37.7	48.4	37.4	39.6	23.0
North Central	12.4	21.2	66.3	56.3	28.6	15.2
North Western	17.0	25.0	57.9	67.4	22.2	10.4
South Central	12.0	25.0	63.0	61.6	25.9	12.4
South Eastern A	14.8	28.1	57.2	70.2	25.3	4.6
South Eastern B	16.1	37.9	45.9	46.4	35.1	18.4

Source: Staff calculations based on data from the 2007 and 2010 CWIQs.

8.12 **The rural/urban divide is not very great in term of the physical access to health services.** The 2010 data shows that in rural areas, 12.5 percent of the population is within 5 kilometers of a health clinic compared with 14.5 percent for the urban population. At the other

[39] UNFPA (2007). Assessment of current interventions in Sexual and Gender Based Violence & HIV/AIDS and perspectives for future programming in Liberia

extreme, 87.5 percent of the rural population is six kilometers or more from the nearest health clinic, compared with 85.1 percent for urban dwellers. However, nearly two-thirds of the rural population is 30 kilometers or more from the nearest health clinic, compared with fewer than half of urban dwellers. The data show only marginal differences compared with 2007. One notable change was the reduction in the proportion of the rural population that was 30 kilometers or more from the nearest health clinic, from 71.6 percent in 2007 to 66.5 percent in 2010.

8.13 **Poor access to health services partly explains why at the end of the civil war, the health status of the Liberian population was among the worst in the world**. Life expectancy at birth had dropped to 42 years (WHO 2006), compared with the 45-year average for other low-income countries under stress (LICUS). Infant mortality and under-5 mortality were estimated at 157, and 235, per 1,000 live births, respectively—among the highest in the world in 2004. Malaria was the leading cause of child morbidity in Liberia, accounting for about 42 percent of cases, followed by diarrhea at 22 percent, and acute respiratory infections at 12 percent. The maternal mortality ratio (MMR) was also very high, estimated at 760 deaths per 100,000 births in 2004.

8.14 **Since 2007, the Government has made substantial progress in delivering a basic package of health services.** In 2007, the Ministry of Health and Social Welfare launched the Basic Package of Health Services (BPHS)[40] with the aim of jumpstarting a robust health care delivery system across all of Liberia. The BPHS is focused on primary care, and provides guidance to clinics, health centers and hospitals regarding the standard of services they are expected to provide. By 2009, approximately 35 percent of the government's health facilities were implementing the BPHS. This increased to 80 percent in 2010, and the latest report, produced in 2011, indicates that approximately 84 percent of government health facilities are implementing the BPHS.

8.15 **Slightly more than half of Liberia's households have access to safe drinking water[41] within 5 kilometers.** In terms of the rural/urban divide, the data from the 2010 CWIQ suggest that access is higher in rural areas (nearly 60 percent) than in urban areas (45.8 percent). Of the regions, the Greater Monrovia area has the lowest access, with only 37.4 percent of its population having access to safe drinking water within 5 kilometers or less. It is also interesting to note that in South Eastern A (one of the poorest regions), 70.2 percent of the population has access to safe drinking water within 5 kilometers or less.

8.16 **The lower level of access in urban areas, and in particular Greater Monrovia, reflects the destruction of water treatment plants and distribution systems during the conflict, and the challenges of rehabilitating this infrastructure.** It is estimated that piped water in Greater Monrovia is at only about 25 percent of the pre-war capacity.[42] A 1995 report on samples of wells tested in Monrovia showed that approximately 75 percent of the samples had measurable aerobic bacterial contamination. Forty-five percent of these wells had some level of e. coli bacteria present, and 10 of the 12 conducted pathogen tests (83 percent) indicated the presence of unknown pathogenic organisms.[43] A 2011 sampling of 200 water sources across

[40] See Annex 2 for the components of the package.
[41] Safe drinking water is defined as piped water (in dwelling or public pipe) or protected wells.
[42] UNICEF 2009. Liberia launches safe-water campaign to prevent disease outbreaks.

[43] *Well Inspection Report, Monrovia, Liberia", Unpublished Life water International report prepared August, 1995 for the European Union and the Liberia Water and Sewer Corporation, Guly/UN Drive, Monrovia, Liberia.*

Monrovia supported by the Water Partnership Program (WPP)[44] found that 58 percent of the water points tested showed presence of e. coli.

Table 8.7: Household Access to Improved Water Source by Region

Location	2007				2010			
	Improved water source*	Piped into dwelling or compound	Public tap or standpipe	Vendor truck	Improved water source*	Piped into dwelling or compound	Public tap or standpipe	Vendor truck
Liberia	**51.5**	**3.8**	**31.3**	**2.4**	**57.3**	**8.4**	**39.1**	**3.8**
Rural	***49.1***	***3.0***	***30.0***	**..**	***48.5***	***4.0***	***35.0***	***0.2***
Urban	***57.1***	***5.7***	***34.3***	*7.7*	***67.7***	***13.5***	***43.9***	***7.9***
Greater Monrovia	56.0	7.6	34.0	11.0	77.4	19.2	50.5	12.8
North Central	*50.0*	*3.7*	*26.6*	..	*62.7*	*3.1*	48.9	0.1
North Western	*68.6*	*2.5*	*58.3*	..	*40.1*	*6.7*	28.7	0.0
South Central	*38.0*	*1.3*	*17.6*	..	*39.1*	*3.8*	23.6	0.6
South Eastern A	*44.3*	*1.2*	*28.3*	..	*54.7*	*7.7*	29.3	0.1
South Eastern B	*60.4*	*3.7*	*42.7*	..	*25.3*	*1.5*	16.3	0.3

Source: Staff calculations based on data from the 2007 and 2010 CWIQs.

8.17 **Slightly more than half of households in Liberia had access to an improved water source, and fewer than 10 percent had water piped into their dwelling in 2010**. As Table 8.7 shows, only modest progress has been made between 2007 and 2010, and most of this progress has been made in urban areas, where 67.7 percent of households reported access to an improved water source in 2010 compared with 57.1 percent of households in 2007. In addition, urban access to piped-in water more than doubled between 2007 and 2010 thanks to new water projects in Monrovia. Of concern is the fact that some regions, most notably South Eastern B and North Western, have reported substantially lower household access to improved water source between 2007 and 2010. In 2010, only 16.3 percent of households in the South Eastern B region reported access to public tap or standpipe—substantially lower than the 42.7 percent reporting such access in 2007.

8.18 **Access to security (police) and judicial services (courts) are quite low across Liberia, despite the prevalence of sexual and gender-based violence and violence related to land disputes**. Less than a quarter of the population is within five kilometers of a police station or a court, while more than half of the population is at least 30 kilometers away. The situation is worse for rural areas, where almost two-thirds of the population is 30 kilometers or more from the nearest police post (Table 8.8). Human Rights Watch has reported that lack of public confidence in the police and judicial has resulted in several deaths from incidences of vigilante justice.[45]

[44] The Water Partnership Program (WPP) is a multi-donor trust fund established in 2009 and administered by the World Bank.
[45] Human Rights Watch, World Report 2009.

Table 8.8: Access to Security and Judicial Services by Region

Location	Access to Security Services			Access to Judicial Services		
	Within 5 Km	6-29Km	30 Km or>	Within 5 Km	6-29Km	30Km or >
Liberia	17.4	23.5	59.1	21.3	20.6	58.1
Rural	18.0	17.6	64.3	22.5	19.0	58.6
Urban	16.7	30.3	53.0	19.8	22.5	57.7
Greater Monrovia	16.9	28.4	54.6	20.6	16.9	62.5
North Central	16.4	19.8	63.8	22.5	20.8	56.8
North Western	21.3	22.5	56.2	18.8	22.9	58.2
South Central	15.7	22.3	62.0	24.4	18.1	57.6
South Eastern A	20.2	23.2	56.5	15.3	26.5	58.2
South Eastern B	20.0	24.0	56.1	20.8	30.3	48.8

Source: Staff calculations based on data from the 2010 CWIQ.

Policy Implications and Recommendations

8.19 **Access to social and economic services is critical to the poor.** Such access helps to build the assets of the poor and facilitate their engagement in the economy, enabling them to take advantage of the opportunities that are presented. The data suggest that there is very limited access to key economic and social services across Liberia. This is largely a result of the fact that the rural population is so thinly dispersed and that the Government currently lacks the fiscal space to increase the institutional capacity for providing such services.

Recommendations

- *Prioritize the construction or rehabilitation of rural roads and market infrastructure on the basis of their contribution to the opening up of access to markets, as well as social services such as schools and health centers. Consider using the Liberia Agency for Community Empowerment (LACE) as the instrument of implementation;*
- *Consider the use of mobile clinics for the delivery of the basic package of health services to remote areas that are currently underserved.*

Annex 1: Poverty Measures[46]

Three poverty measures of the FGT class (Foster, Greer, and Thorbecke 1984) are used, namely the headcount, the poverty gap, and the squared poverty gap. The poverty headcount is the share of the population which is poor, i.e. the proportion of the population for whom consumption per equivalent adult y is less than the poverty line z. Suppose we have a population of size n in which q people are poor. Then the headcount index is defined as:

$$H = \frac{q}{n}$$

The poverty gap, which is often considered as representing the depth of poverty, is the mean distance separating the population from the poverty line, with the non-poor being given a distance of zero. Arranging consumption in ascending order y_1,...., $y_q < z < y_{q+1}$, ..., y_n with the poorest household's consumption denoted by y_1, the next poorest y_2, etc. and the richest household's consumption by y_n, The poverty gap is defined as follows:

$$PG = \frac{1}{n}\sum_{i=1}^{q}\left[\frac{z - y_i}{z}\right]$$

where y_i is the income of individual i, and the sum is taken only on those individuals who are poor (in practice, we often work with household rather than individual consumption). The poverty gap is thus a measure of the poverty deficit of the entire population, where the notion of "poverty deficit" captures the resources that would be needed (as a proportion of the poverty line) to lift all the poor out of poverty through perfectly targeted cash transfers.

The squared poverty gap is often described as a measure of the severity of poverty. While the poverty gap takes into account the distance separating the poor from the poverty line, the squared poverty gap takes the square of that distance into account. When using the squared poverty gap, the poverty gap is weighted by itself, so as to give more weight to the very poor. Said differently, the squared poverty gap takes into account the inequality among the poor. It is defined as follows:

$$SPG = \frac{1}{n}\sum_{i=1}^{q}\left[\frac{z - y_i}{z}\right]^2$$

The headcount, the poverty gap, and the squared poverty gap are the first three measures of the Foster-Greer-Thorbecke class of poverty measures, and a common structure is evident that suggests a generic class of additive measures (additive measures are such that aggregate poverty is equal to the population-weighted sum of poverty in various sub-groups of society). The general formula for this class of poverty measures depends on a parameter α which takes a value of zero for the headcount, one for the poverty gap, and two for the squared poverty gap in the following expression:

$$P\alpha = \frac{1}{n}\sum_{i=1}^{q}\left[\frac{z - y_i}{z}\right]^{\alpha}$$

[46] From: Wodon (2012), Poverty and the Policy Response to the Economic Crisis in Liberia.

Annex 2: Methodology for Estimating Poverty from the 2010 CWIQ

I. Introduction

Poverty mapping is a relatively new tool to estimate the welfare and the degree of inequality at lower aggregation levels such as enumeration areas. This technique was originally used to estimate welfare at the census level but is being applied to other surveys. This model uses the household expenditure survey to estimate household welfare and applies it to data that does not have expenditure information.

The Liberia 2007 survey was the first in fourteen years due to the civil strife which ended in 2003. The overall objective for conducting the Core Welfare Indicators Questionnaire (CWIQ) survey was to provide information that would enable the preparation of a poverty profile as a baseline for the first (2008) Poverty Reduction Strategy Paper (PRSP). The 2007 survey included a module on household expenditure. On the other hand, the second CWIQ (2010) contains basic information for the enumerated households in the country but did not include expenditure or income information. The challenge therefore was to estimate comparable poverty data for 2010 to allow the Government to monitor poverty reduction under the PRSP.

In this Poverty Note, we estimate consumption-based welfare (poverty and inequality) measures for Liberia at the county and region-levels as well as rural-urban. The estimation procedure combines the 2007 CWIQ which contains expenditure variables and the 2010 CWIQ which does not have expenditure variables. The estimation procedure is described in detail in Elbers, Lanjouw and Lanjouw (2002).

II. Methodology

Poverty mapping consists of three stages. In the first stage, the two surveys or census and survey data are examined for compatibility, that is, only variables with the same definition and distributions are used in the second stage. In the second or modeling stage, a series of regressions are run to model expenditure and decompose the random unexplained components. When a plausible welfare model is obtained, this is applied to a third—simulation stage. The simulation stage uses the model parameters and performs repeated drawings (usually about 100 but could be more) on different random components to bootstrap the household expenditure. The estimated welfare is then aggregated at different levels.

III. Data

Two data sets were used to estimate the welfare measures. It should be noted that this tool can use survey to census mapping or survey to survey mapping. The consumption aggregate used was one that was generated for the country from the 2007 CWIQ and discussed and accepted in 2007.

Since the 2010 CWIQ did not include a module on consumption expenditure. The estimation of the poverty headcount relied on the approach described below to estimate poverty levels based on per capita consumption expenditure[47].

IV. Empirical Approach

a) A set of potential explanatory variables from both data sets is selected. These are to be used in the regression model to predict welfare measures in the data that does not contain any expenditure data. Only variables that are strictly comparable in the 2007 and the 2010 surveys or census-survey were used in the regression. This reduces potential errors or model breaking down due to non-comparison. The assessment to determine whether the variables are statistically similarly distributed over households in both surveys is a very important process. Definitions in both surveys must be similar and if the definition is changed between surveys then variables are not the same statistically.

   Both the 2007 and 2010 Liberia CWIQ survey questionnaires are identical and and all the key potential variables are defined in the same manner. Certain variables were constructed by combining information from several questions as an approximate measure.

Table A1: Poverty lines (Liberian $) in 2007

	Food poverty line L$	Non-food poverty line L$	Total/absolute poverty line L$
Rural	14,514	6,910	21,424
Urban	14,431	15,793	30,224

   The poverty line values in Table A1 above were included in data set to make estimation easy to simulate. Thus the national absolute line was Liberian $30,224 per year per adult equivalent.

b) A stepwise regression procedure was implemented in PovMap to select the variables from the set of potential variables. All household variables that were significant at the 5% level were selected to be in the final regression. Following Azzarri et al (2005) we estimated the following model for the Liberia data:

$$C = \alpha + \beta X + \gamma I + \delta Z + \varepsilon$$

Where C is the log of per-capita total household consumption, X, I and Z are sets of continuous, dummy and categorical variables and Ɛ is the error term. Several different models were estimated and the final accepted, most parsimonious model with the highest explanatory powers (based on the F statistics) is shown in Table A2 below:

[47]See Azzarri et al (2005) and Simler, Harrower and Massingarela (2003) for examples.

Table A2: Model output

HHSIZE and HHAGEY continuous variable

		Coefficient	Std. Err.	t	|Prob|>t
intercept	Constant	10.9546	0.0591	185.461	0.00000
BCYCLE_1	Bicycle ow nership	0.177	0.061	2.8998	0.00380
CAR_1	Car ow nership	0.5907	0.0918	6.4335	0.00000
CPHONE_1	Cellphone ow nership	0.273	0.0281	9.7087	0.00000
FLOOR_1	Cement/tiles/marble	0.1528	0.0279	5.474	0.00000
LAND_1	Land ow nership	0.0653	0.0226	2.8906	0.00390
MCYCLE_1	Motorcycle ow nership	0.3584	0.0863	4.1522	0.00000
VCRDVD_1	VCR/DVD ow nership	0.1961	0.0492	3.9831	0.00010
FUELCOOK_2	Kerosene	-0.4129	0.1005	-4.1064	0.00000
FUELCOOK_3	Charcoal	0.1454	0.0362	4.0171	0.00010
FUELCOOK_5	Gas	1.0242	0.3297	3.1061	0.00190
FUELCOOK_9	Other	-0.7262	0.3	-2.4203	0.01560
FUELLIGH_3	Battery/candles	-0.0861	0.0286	-3.0061	0.00270
FUELLIGH_9	Other	-0.2523	0.057	-4.4263	0.00000
GARBDISP_2	Garbage - Buried/burned	-0.0699	0.0212	-3.3014	0.00100
HHAGEY	HH head - Age	-0.0029	0.0007	-3.9823	0.00010
HHEDLEV_0	HH Head - No education	-0.16	0.026	-6.1619	0.00000
HHEDLEV_3	HH Head - Completed primary, but less than completed secondary	-0.1178	0.0513	-2.2945	0.02180
HHEDLEV_5	HH Head - Secondary, incomplete	-0.0904	0.0275	-3.2914	0.00100
HHMARST_3	HH Head - Marital status	0.0988	0.0446	2.2144	0.02690
HHSEX_1	HH Head - Sex	-0.0663	0.0229	-2.8919	0.00390
HHSIZE	Household size	-0.1073	0.0043	-24.9748	0.00000
REGION_1	Greater Monrovia	0.2277	0.0429	5.3127	0.00000
REGION_3	North Western	-0.0788	0.0337	-2.3366	0.01950
REGION_4	South Central	0.1401	0.0284	4.9384	0.00000
REGION_6	South Eastern B	0.1103	0.0403	2.7348	0.00630
ROOF_9	Other	-0.1068	0.049	-2.1808	0.02930
RURURB_1	Rural-urban - Urban=1	-0.3947	0.039	-10.1271	0.00000
TOILET_3	Pit latrine	-0.0879	0.0405	-2.1699	0.03010
TOILET_9	Other	-0.166	0.0393	-4.2244	0.00000
WALLS_5	Clay/mud	-0.0737	0.034	-2.17	0.03010
WATER_3	Borehole	0.074	0.0245	3.0244	0.00250
WATER_4	Wells (protected)	-0.1165	0.0272	-4.2763	0.00000
WATER_5	Wells (unprotected)	-0.1109	0.0412	-2.6938	0.00710
WATER_8	Vendor/truck	0.2513	0.0665	3.7795	0.00020

SST=1673.3445 SSR=552.5536 MSE=0.3148 RMSE=0.5611

F=51.6203 R2=0.3302 adjR2=0.3238

Annex 3: Distribution of Households by Perceived Poverty Status

Location	2007					2010				
	Poor	Fairly poor	Middle	Fairly rich	Rich	Poor	Fairly poor	Middle	Fairly rich	Rich
Liberia	**9.7**	**51.0**	**37.7**	**1.4**	**0.1**	**8.9**	**36.8**	**51.1**	**2.7**	**0.5**
Area of residence										
Rural	***11.7***	***55.7***	***31.0***	***1.5***	***0.1***	***10.5***	***39.4***	***47.8***	***2.1***	***0.2***
Urban	***5.3***	***40.9***	***52.3***	***1.3***	***0.2***	***7.1***	***33.7***	***55.1***	***3.4***	***0.7***
Regions										
Greater Monrovia	**5.6**	**38.9**	**53.5**	**1.7**	**0.3**	**4.3**	**34.9**	**56.3**	**3.5**	**1.0**
North Central	**10.7**	**59.1**	**29.3**	**1.0**	**0.0**	**13.2**	**36.1**	48.5	**2.1**	**0.1**
Bong	10.2	62.9	26.9	0.0	0.0	24.7	24.1	48.7	2.5	0.0
Lofa	5.9	53.2	40.3	0.0	0.5	2.2	35.6	60.7	1.5	0.0
Nimba	10.2	30.2	59.6	0.0	0.0	11.6	45.7	40.3	2.2	0.1
North Western	**11.3**	**53.9**	**30.3**	**4.4**	**0.0**	**5.4**	**44.0**	49.0	**1.4**	**0.3**
Bomi	10.0	58.1	30.4	1.5	0.0	10.8	39.8	46.9	1.7	0.8
Grand Cape Mount	18.9	50.4	30.8	0.0	0.0	0.9	44.4	53.3	1.4	0.1
Gharpolu	16.4	60.9	22.7	0.0	0.0	5.2	47.7	46.0	1.1	0.0
South Central	**6.4**	**51.7**	**40.9**	**0.7**	**0.2**	**8.0**	**37.9**	50.5	**3.1**	**0.4**
Grand Bassa	11.4	57.4	30.0	1.2	0.0	10.3	42.2	44.4	3.1	0.0
Margribi	4.4	53.3	40.6	1.7	0.0	5.4	30.2	62.4	1.4	0.5
Montserrado	29.4	37.5	31.0	2.0	0.0	7.9	41.9	43.6	5.7	1.0
South Eastern A	**17.8**	**39.3**	**41.8**	**1.0**	**0.0**	**15.4**	**33.9**	48.3	**1.9**	**0.5**
Grand Gedeh	8.6	54.5	28.0	9.0	0.0	2.4	23.3	70.9	2.7	0.8
Rivercess	8.7	46.2	44.7	0.4	0.0	36.9	33.7	28.3	0.7	0.4
Sinoe	18.2	56.7	25.1	0.0	0.0	17.0	50.3	30.9	1.6	0.2
South Eastern B	**13.7**	**54.8**	**30.9**	**0.5**	**0.0**	**8.5**	**39.1**	49.0	**3.0**	**0.4**
Grand Kru	5.5	58.3	35.5	0.7	0.0	4.0	45.6	47.6	2.8	0.0
Maryland	11.7	44.3	42.9	1.1	0.0	7.7	34.2	53.9	3.5	0.7
River Gee	10.2	50.2	38.5	1.1	0.0	13.6	44.6	39.9	1.9	0.0

Source: Staff Calculations based on Data from the 2007 and 2010 CWIQ.

Annex 4: Distribution of Households by Perception of Changes in the Economic Situation of Community

Location	Much worse	A little worse	Same	A little better	Much better	Don't' know
Liberia	**9.5**	**13.7**	**34.3**	**30.9**	**10.5**	**0.9**
Area of residence						
Rural	***8.2***	***13.8***	***34.2***	***33.2***	***9.7***	***0.9***
Urban	***11.1***	***13.7***	***34.5***	***28.2***	***11.5***	***0.9***
Region						
Greater	**11.0**	**13.1**	**39.6**	**24.9**	**10.3**	**1.0**
North Central	**8.7**	**12.5**	33.0	**35.1**	**10.6**	**0.1**
Bong	12.8	15.2	19.8	31.3	20.9	0.0
Lofa	1.6	6.5	32.2	47.2	12.5	0.0
Nimba	10.2	14.5	44.1	29.8	1.2	0.3
North Western	**5.1**	**16.5**	29.0	**40.1**	**8.5**	**0.8**
Bomi	7.6	10.3	43.5	29.8	7.9	0.8
Grand Cape	3.8	23.6	21.2	44.1	6.0	1.3
Gharpolu	4.3	13.9	24.2	45.4	12.1	0.1
South Central	**10.0**	**18.1**	28.6	**29.3**	**12.8**	**1.2**
Grand Bassa	12.5	19.7	32.2	33.6	1.1	0.9
Margribi	2.1	16.6	28.7	28.2	21.8	2.5
Montserrado	16.8	17.3	22.2	23.4	20.3	0.0
South Eastern	**13.9**	**6.1**	44.7	**21.0**	**11.4**	**2.9**
Grand Gedeh	26.4	5.6	22.9	29.1	15.8	0.2
Rivercess	0.4	2.5	67.6	19.9	8.0	1.7
Sinoe	6.7	10.1	57.8	9.9	7.7	7.8
South Eastern	**6.7**	**15.7**	28.1	**41.5**	**7.0**	**1.1**
Grand Kru	2.9	9.2	23.1	43.4	18.4	3.0
Maryland	5.9	15.8	27.2	49.2	1.9	0.0
River Gee	11.0	20.3	33.7	23.7	9.4	1.8

Source: Staff Calculations based on Data from the 2007 and 2010 CWIQ

Annex 5: Module for Assessment of Subjective Poverty in CWIQ

T – SUBJECTIVE POVERTY

Reference number

T-1 How do you feel about your livelihood based on your current income

- Living very well (1)
- Living reasonably well (2)
- Living carefully (3)
- Living with difficulty (4)

T-2 Do you feel that the following items are necessary to maintain a minimum standard of living
(ASK THE QUESTION FOR EACH LINE)
[Y=Yes, N=No]

FOOD:
- 01 Eat three meals every day (Y) (N)
- 02 Eat tubers/ cereals/ rice every day (Y) (N)
- 03 Eat vegetables every day (Y) (N)
- 04 Eat meat every day (Y) (N)

Clothing:
- 05 Having at least two outfits (Y) (N)
- 06 Having at least two pairs of shoes (Y) (N)

Housing:
- 07 To have housing (owner or renter) (Y) (N)
- 08 To have access to water and electricity (Y) (N)
- 09 To have tables and beds in the house (Y) (N)

Health, personal needs:
- 10 Afford health care (Y) (N)
- 11 Afford personal needs (Y) (N)

Employment:
- 12 To have stable, long term employment (Y) (N)

Transport:
- 13 Afford taxi/ bus/ pickup/ motorbike to work (Y) (N)

Education, leisure:
- 14 Be able to sent all children to school (Y) (N)
- 15 To have a radio (Y) (N)
- 16 To have a television (Y) (N)

T-3 How would you rate your standard of living in relation to other households in your community?

- The poorest (1)
- Fairly poor (2)
- Middle (3)
- Fairly rich (4)
- The richest (5)

T- 4 What is the minimum amount per month needed to satisfy your household basic needs? ($ Liberian)

[ ][ ][ ][ ][ ]

T- 5 What is your household financial situation?

- You save a lot of money (1)
- You save a little money (2)
- You satisfy your basic needs (3)
- You need to use your savings (4)
- You need to borrow money (5)

T-6 Is your household income?

- Very Unstable (1)
- Somewhat stable (2)
- Stable (3)

T- 7 During the past year, your household living standard:

- Increased (1)
- Stay the same (2)
- Decreased (3)

T- 8 During the past year, your community living standards:

- Improved (1)
- Stayed the same (2)
- Decreased (3)

T-9 In your opinion, what does it mean to be poor?
(ASK THE QUESTION FOR EACH LINE)
[Y=Yes, N=No]

1. Being unable to satisfy the basic level of subsistence (Y) (N)
2. Having difficult material condition (Y) (N)
3. Having a low level of human capital (education, health) (Y) (N)
4. Being marginalized, excluded from society (Y) (N)
5. Being vulnerable to life's various challenges (Y) (N)
6. Being unable to influence the condition of life (Y) (N)

T- 10 Are you satisfied that your household meets minimum needs such as...?
(ASK THE QUESTION FOR EACH LINE)

1=Satisfied
2=Somewhat satisfied
3=Not at all satisfied
4=Not applicable

FOOD:
- 01 Eat three meals every day (1) (2) (3) (4)
- 02 Eat tubers/ cereals/ rice every day (1) (2) (3) (4)
- 03 Eat vegetables every day (1) (2) (3) (4)
- 04 Eat fish/ meat every day (1) (2) (3) (4)

Clothing:
- 05 Having at least two outfits (1) (2) (3) (4)
- 06 Having at least two pairs of shoes (1) (2) (3) (4)

Housing:
- 07 Having access to water and electricity (1) (2) (3) (4)
- 08 Have furniture in the house (1) (2) (3) (4)

Health, personal needs:
- 09 Afford health care and medication when ill (1) (2) (3) (4)
- 10 Afford personal needs(soap, hair care etc) (1) (2) (3) (4)

Transport:
- 11 Afford taxi/ bus/ pickup/ motorbike to work (1) (2) (3) (4)

Education, leisure:
- 12 Provide for children's education (1) (2) (3) (4)
- 13 Have a radio (1) (2) (3) (4)
- 14 Have a television (1) (2) (3) (4)

T-11 Is any member of your household a member of an association
(ASK THE QUESTION FOR EACH LINE)
[Y=Yes, N=No]

- 1 Community (Y) (N)
- 2 Religious (Y) (N)
- 3 Professional (Y) (N)
- 4 Political (Y) (N)
- 5 Family (Y) (N)
- 6 Other specify_____ (Y) (N)

T-12 Who can your household depend on to provide assistance during difficult periods?
(ASK THE QUESTION FOR EACH LINE)
[Y=Yes, N=No]

- 1 Neighbors (Y) (N)
- 2 Religious Association (Y) (N)
- 3 Professional Association (Y) (N)
- 4 Friends (Y) (N)
- 5 Extended family (Y) (N)
- 6 Other (Y) (N)

T- 13 Do you think the reduction of poverty is a priority to government?

- Yes (1)
- No (2)

T-14 What do you think is the most important measure that the government should take to prove your household living standard?

- 01 Create employment
- 02 Improving access to education
- 03 Improving access to health education
- 04 Pave roads
- 05 Improving access to housing
- 06 Improve access to credit
- 07 Improve access to water and electricity
- 08 Increase salaries
- 09 regulate prices of basic commodities
- 10. Fight against corruption
- 11.Other_____

[ ][ ]

Annex 6: Basic Package of Health Services

The Basic Package of Health Services for Liberia consists of the following six core components:

Maternal and Newborn Health

Antenatal care

Labor and delivery care

Emergency obstetric care

Postpartum care

Newborn care

Family Planning

Child Health

Expanded Program on Immunization

Integrated management of childhood illnesses

Infant and young child feeding

Reproductive and Adolescent Health

Family planning

Sexually transmitted infections

Adolescent Health

Communicable Disease Control

Control of STI/HIV/AIDS

Control of tuberculosis

Control of malaria

Control and management of other diseases with epidemic potential

Mental Health

Emergency Care

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