



LIVELIHOOD RESILIENCE AND ESCAPING POVERTY IN LIBERIA

For the development of a Dashboard for Livelihood
Security in Liberia

September 2024



Acknowledgements

Photo source: Staton Winter / United Nations in Liberia

This policy report is one of the outputs of the UNDP Liberia supported project, Social Cohesion and Reconciliation Index for Liberia 2023. The project was implemented by the Centre for Sustainable Peace and Democratic Development (SeeD) and the Liberia Peacebuilding Office (PBO).

The financial contributions of the Embassy of Ireland in Liberia and the Embassy of Sweden, and the UN Peacebuilding Fund (PBF) in Liberia are gratefully acknowledged, as they significantly contributed to the success of this project.

UNDP, PBO and SeeD would like to thank the following people and organisations for their work on producing this policy report.

Centre for Sustainable Peace and Democratic Development (SeeD)

Lead authors: Bertrand Baldet & Kando Serge Gbagbeu

Lead data analyst: Kando Serge Gbagbeu

Support team: Sonia Dasse, Ilke Dagli, Marian Machlouzarides, Orestis Panayiotou, Dominique Abdon Koko.

Liberia Peacebuilding Office (PBO)

United Nations Development Programme

Liberia Institute for Statistics and Geo-Information Services (LISGIS)

This report is the product of a dynamic and collaborative effort, enriched by the engagement of diverse stakeholders during a mission of SeeD researchers to Monrovia in July 2024. The mission encompassed presentations and in-depth discussions with representatives from the Peacebuilding Office, donors, government ministries, UN agencies, and other key partners. These engagements were instrumental in integrating local and institutional perspectives with robust quantitative data, ensuring that the statistical analyses were deeply grounded in Liberia's context. This mixed-methods approach highlights the synergy between strong quantitative evidence and the collective interpretation of data by local and institutional actors, fostering nuanced and actionable insights.

Disclaimer: The ideas, opinions and comments expressed in this report belong to the author(s) and are not attributable to the United Nations Development Programme or the Liberia Peacebuilding Office or the donors.

Acronyms and abbreviations

ARREST	Agriculture, Roads, Rule of Law, Education, Sanitation, and Tourism
CWIQ	Core Welfare Indicators Questionnaire survey
DATLiv	Dashboard for Tracking resilient Livelihoods
DHS	Demographic and Health Survey
GoL	Government of Liberia
LS	Livelihood Security
LSMS	Living Standards Measurement Study
NRM	Natural Resources Management
PAPD	Pro-Poor Agenda for Prosperity and Development

List of Figures

Figure 1. Construction of Livelihood Security Indicator	9
Figure 2. Proportion of respondents with a reliable income	10
Figure 3. Proportion of people in a situation of Food Security	10
Figure 4. Categories of Purchasing power.....	10
Figure 5. Heatmap Livelihood Security	11
Figure 6. Resilience Analysis of Livelihood Security	15
Figure 7. Change in Personal Security and Investment Environment since 2021.....	17
Figure 8. Heatmap Provision of Education services	20
Figure 9. Heatmap Access to state documents	21
Figure 10. Heatmap Intergroup contacts	22
Figure 11. Evolution of Livelihoods' stressors since 2021	26
Figure 12. Evolution of livelihoods' resilience capacities since 2021	26
Figure 13. Sociodemographic profile of the farmers respondents	27
Figure 14. Distribution of the farmers across the counties	28
Figure 15. Significant differences of the farmer category (Anova)	29
Figure 16. Top priorities policies according to the rural respondents	30
Figure 17. Frequencies related to Land security	33
Figure 18. Indicators correlated with Land Security	34
Figure 19. Environmental Security	35
Figure 20. Natural Resources Management practices	36
Figure 21. Levels of Environmental security and NRM per county	37

List of Tables

Table 1. Categories of Livelihood Security	12
Table 2. Variation of Livelihood Security per county since 2021	13
Table 3. Individual Resilience Capacities	18
Table 4. Change of Stressors and Resilience Factors per county since 2021	19
Table 5. Dashboard for monitoring Resilient Livelihood Security	25
Table 6. Farmers' Livelihood Security across the counties	31
Table 7. Livelihood Categories (Farmers sample)	32

Contents

Acknowledgements	1
Acronyms and abbreviations	2
List of Figures	3
List of Tables	3
Background	5
Executive Summary	6
Section I. The Situation of Livelihood Security in Liberia in 2023	8
1. Construction of Livelihood Security	8
2. A quick overview of the levels of food and economic security	9
3. Overview of the levels of livelihood security	11
3.a. The levels of livelihood security across the counties	11
3.b. The categories of livelihood security	12
3.c. The evolution of the levels of Livelihood Security across the country since 2021	13
Section II. The Determinants of Livelihood Security in Liberia	15
1. Similar patterns and dynamics since 2021	16
1.a. Lack of personal security and lack of investments as consistent stressors	16
1.b. Access to Health care services combined with specific individual skills remain key protective factors.....	17
2. What changed since 2021?.....	19
2.a. Development of Education to support Livelihood Security	19
2.b. Improving the access to administrative documents to support Livelihood Security	20
2.c. Improving intergroups relationships to strengthen livelihoods	22
3. Towards the construction of a Dashboard for monitoring Livelihood Security in Liberia to support arrest	23
3.a. Strategic Use and Policy Support for the Livelihood Security Dashboard	23
3.b. A first attempt of the Dashboard for Livelihood Security	24
Section III. Livelihood Security of the Farmers in Liberia in 2023	27
1. What are the characteristics of the farmers respondents?.....	28
2. The crucial role of local authorities	29
3. Assessment of Livelihood Security Levels Among Farmers	31
4. The question of the access to natural resources and its management	32
4.a. Landownership dynamics: a snapshot of land use and rights	33
4.b. Improving Natural Resources Management to strengthen environmental security ...	35
Section IV. Policy recommendations: suggestions to support the implementation of ARREST ...	41
Bibliography	43
Annex I: Methodology	44

Background

Liberia experienced another democratic alternance at the head of the State, with Joseph Nyumah Boakai in replacement of George Opong Weah. Soon in the new term, the new administration announced its strategic priorities for the next 5 years, that will cover areas like Agriculture, Roads, Rule of Law, Education, Sanitation, and Tourism, coined the ARREST Agenda. This decision illustrates a shift in the country's public policy focus, moving away from peacebuilding, as outlined in pillar 3 of the PAPD Agenda, and towards development, in line with the goals of the ARREST Agenda. From 2016 to 2021, three waves of survey's, aligned with the SCORE methodology, were conducted to provide robust evidence for accurate monitoring of the country's progress in achieving the Peacebuilding Plan's objectives. The ambition is now to adjust the SCORE metrics to provide evidence to support the new agenda.

Indeed, the third SCORE Liberia project (2020-2021) provided an opportunity to assess progress in Liberia since the closure of UNMIL on 30 March 2018, through reports around (i) progress towards sustaining peace, (ii) livelihood resilience and (iii) women and the peace dividend. This allowed us to provide policy makers with evidence-based insights which can optimize efforts to accelerate progress towards achieving key targets in the PAPD. This assessment was made possible by the work done in the previous waves (2016 and 2018) to establish a measure of social cohesion and resilience capacities in local communities for conflict prevention (SCORE Liberia 2016) and convert SCORE findings into evidence-based publications to serve as the baseline for a) Enhancing Good Governance, b) Addressing Violent Tendencies and c) Fostering Constructive Citizenship (SCORE Liberia 2018).

The current Liberia SCORE project (2023) provides an opportunity to assess progress in Liberia since the closure of UNMIL on 30th March 2018, toward the achievement of the Liberia Peacebuilding Plan's targets. It also explores the ability of SCORE metrics to provide insights that could inform the ARREST agenda. This is an important challenge to be tackled because it will establish a strategic continuity from peacebuilding to development focus, and help developing a Peace & Development Dashboard that could be useful for the Government of Liberia (GoL). The three reports in the 2023 series will explore a) livelihood resilience, b) the progress in women's situation and c) Civic Satisfaction as the bridge between peace and development. They build on the work and knowledge accrued through previous SCORE projects, and together provide policy makers with evidence-based insights to assess the achievement of PAPD's key targets and ensure the strategic continuity towards the country's new focus.

Executive Summary

Overall, since 2020, there has been mild improvement in livelihood security in Liberia, though significant territorial disparities persist. In the past four years, counties like Maryland and Bong have shown notable progress, while others, such as Grand Kru, River Cess, Sinoe, and Grand Bassa, have experienced sharp declines. Farmers, in particular, face lower levels of livelihood security compared to the general population. These trends highlight the uneven progress and growing vulnerabilities in key agricultural regions.

Securing Land Tenure to Promote Development and Institutional Trust. Secure land tenure, including rights to use, control, and transfer land, correlates with intergroup harmony, development satisfaction, and institutional trust. Robust legal frameworks to define and protect land rights, particularly for smallholder farmers, are essential. Educational campaigns are needed to inform farmers of their rights and strengthen local institutions for fair land transactions and dispute resolution. Prioritizing land ownership issues in rural areas within the ARREST strategy is crucial for Liberia's agricultural development and economic stability.

Preparing Farmers for Climate Change Through Effective Natural Resource Management. Currently, 92 percent of the farmers in Liberia live with either a critical or a severe level of livelihood security. The degradation of the climatic conditions will affect this category of the population more than the others. In this regard, effective Natural Resources Management (NRM) mechanisms are essential to mitigate climatic stressors and enhance environmental security for agriculture. Sustainable NRM strategies can reduce adverse climate impacts and ecological degradation through cooperative resource-sharing and collective management systems. Integrating secure land tenure with comprehensive NRM and environmental policies is critical for achieving sustainable development and resilience against environmental challenges.

Leveraging Local Authorities to Support Rural Livelihoods. Farmers place more trust in local authorities than other employment categories, due to their accessibility and responsiveness. This trust is reinforced by practical, economic, and cultural factors. Local authorities are seen as more capable of addressing immediate needs and crises. It is crucial to involve local authorities in the development and implementation of ARREST policies, particularly in rural areas. Their involvement will enhance adherence to projects and improve the efficiency of rural initiatives.

Strengthening State Presence and Safety Nets for Vulnerable Populations. Health services, education services, and the availability of administrative documents have been identified as critical resilience factors. These services act as safety nets during economic downturns, helping

vulnerable populations cope with stressors. The ARREST strategy's focus on developing these public sectors is well-founded. In rural areas, there is a significant expectation for improved road infrastructure and a more efficient healthcare system. Effective state presence and accessible public services are essential for implementing development policies and achieving poverty reduction objectives.

Developing an Evidence-Based Tool to Track and Enhance Livelihood Security. Longitudinal SCORE surveys indicate that the factors affecting livelihood security (LS) and resilience have remained stable over the years. This stability highlights the need for a robust Monitoring and Evaluation (M&E) tool, such as the proposed Dashboard for Tracking resilient Livelihoods (DATLiv). This tool will provide regular, intuitive updates to policymakers on local strengths and weaknesses, supporting the ARREST strategy. By delivering timely and actionable data, DATLiv will enable informed decision-making and targeted interventions to strengthen LS and resilience across Liberia.

Section I. The Situation of Livelihood Security in Liberia in 2023

1. Construction of Livelihood Security

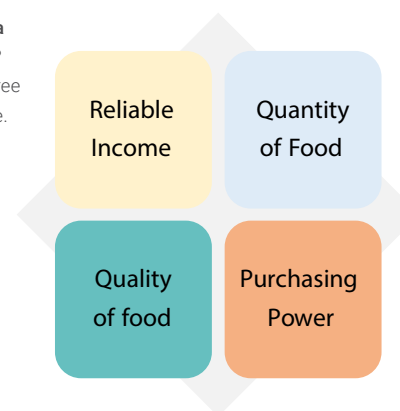
Investigating poverty requires to go beyond the sole economic situation. Academic research and international actors agree that poverty is a multidimensional concept which encompasses mental well-being, working conditions, political freedom, agency or dignity. Based on that approach, many indices and tools are available to assess the vulnerability of the households (see for instance the Living Standards Measurement Study (LSMS)¹, the Demographic and Health Survey (DHS)², the Core Welfare Indicators Questionnaire survey (CWIQ)³).

We used the same construction of Livelihood Security (LS) for this survey as the one we used in 2021. This allows us to compare the results obtained in 2023 with those reported three years earlier. Additionally, the Livelihood Security indicator, which remained unchanged, enables the development of a resilience analysis (also conducted in 2021). The third point of the first section of this report will focus on the development of a Dashboard that presents the levels of LS and its drivers since 2021.

Therefore, in this report, the livelihood security aims to measure the ability of a household to ensure basic needs. The indicator is built upon four dimensions articulating the purchasing power of the household, the reliability of its income, the quantity of food and the quality of food the members of the household can afford (Figure 1). In this respect, the LS relies on a food security dimension (e.g. Is there enough food in the household? Is the quality good enough?), it encompasses the stability of the income (e.g. Is the basic income dependable?) and eventually measures the living standards of the household (i.e. the ability to afford food, clothes, households' items).

The dimensions mentioned are understood based on individual posture. The design of the questionnaire helps to gauge the subjective perception of individuals. For instance, the results do not simply describe the objective amount of food provided, but rather whether the amount provided is considered sufficient to feed the members of the household. In this sense, the LS reflects approaches used to assess a subjective poverty measurement (Kuivalainen, 2014). The level of LS does not involve calculations of an objective poverty threshold. It simply indicates

Do you feel that you have a dependable basic income?
Two respondents out of three do not have reliable income.



Is your house able to provide enough food for its members?
45% of the household cannot bring enough food home.

Are you satisfied with the quality of food your house can afford? Half of the respondents are satisfied with the quality of food.

How would you estimate the amount of your household's income? Only 30% of the respondents have enough money to buy food and clothes.

Figure 1. Construction of Livelihood Security Indicator

whether, according to its members, the household income is enough “to make ends meet” with difficulty or not (Deleeck, 1989). In this literature, the MINQ question is frequently used to gather information on perceptions of subjective minimum income (i.e., what is the minimum income required to make ends meet?). Similarly, the LS provides an indication of the extent to which individuals believe their purchasing power, food consumption, and income reliability are sustainable. It offers a subjective overview of households' ability to meet basic needs and sheds light on their level of vulnerability.

2. A quick overview of the levels of food and economic security

The Figures 2, 3, and 4 provide information on the average economic and food security situations of the respondents. It appears that nearly two-thirds (65 percent) of the respondents feel that their income is not reliable enough to meet the needs of their household. Additionally, half of the respondents express dissatisfaction with the quality of food they can afford. Figure 4 further illustrates that most of the population falls into the second-lowest category of our purchasing power scale, with 56 percent indicating that they have enough money to buy food but not enough to purchase clothing. In essence, 70 percent of the respondents report being unable to afford clothing (combining category 1 (13.8 percent) and category 2 (56.2 percent)). While there has been a slight improvement since 2021 (when 78 percent fell into the first two categories in SCORE 2021), a significant portion of the population continues to experience economic and food insecurity.

¹ <https://www.worldbank.org/en/programs/lsms>

² <https://dhsprogram.com/>

³ <https://ghdx.healthdata.org/series/core-welfare-indicators-questionnaire-survey-cwiq>

Do you feel that you have a dependable basic income?

- Not at all
- Not really
- Yes, to some extent
- Yes, very much

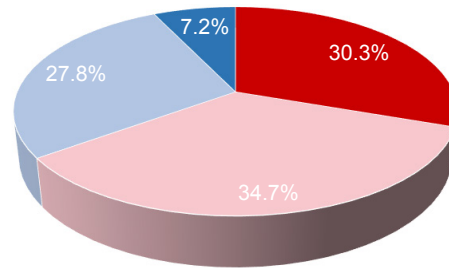
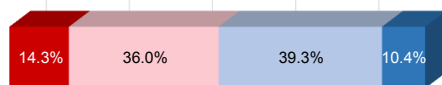
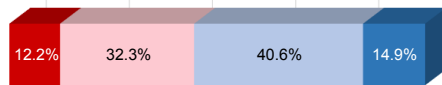


Figure 2. Proportion of respondents with a reliable income

Are you satisfied with the quality of food your house can afford?



Is your house able to provide enough food for its members?



- Not at all
- Not really
- Yes, to some extent
- Yes, very much

Figure 3. Proportion of people in a situation of Food Security

How would you estimate the amount of your household's income?

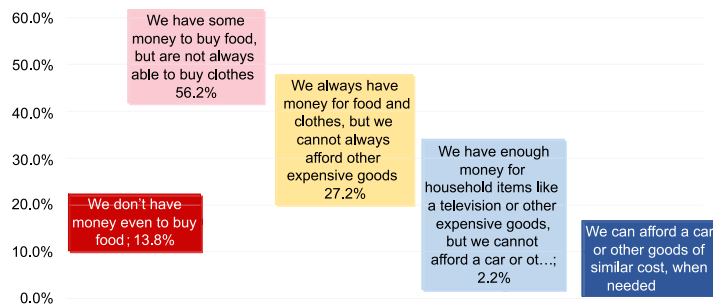


Figure 4. Categories of Purchasing power

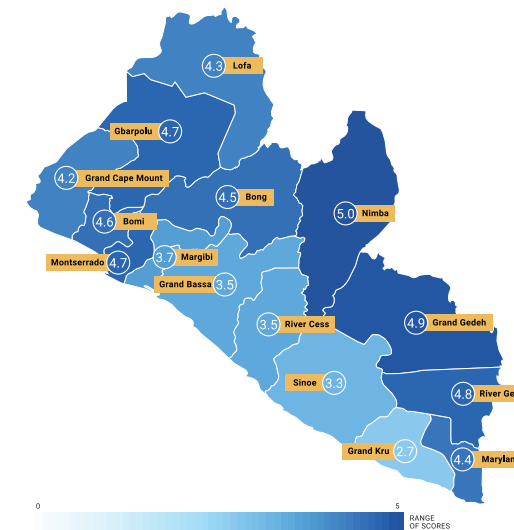
3. Overview of the levels of livelihood security

Following the construction of the LS indicator as explained above, the methodology assigns scores ranging from 0 to 10. The closer a score is to 10, the more people in the county exhibit secure levels of livelihood.

3.A. THE LEVELS OF LIVELIHOOD SECURITY ACROSS THE COUNTIES.

The Figure 5 provide an indication of the LS scores for each county, with an average score of 4.5. According to the scale construction of the questionnaire, a score of 4.5 indicates that most people lack a reliable income, struggle to afford enough food for their households, and have difficulty purchasing clothing. In this regard, the highest reported score (5.0 in Nimba) suggests that approximately 50 percent of respondents in this county are able, to some extent, to purchase food and rely on a reliable income. In other words, the overall situation is concerning because it means that **the county with the highest score is one in which "only" half of the population faces food and economic insecurity.**

Livelihood Security



The highest levels of LS are observed in Nimba (5.0), Grand Gedeh (4.9) and River Gee (4.8) whereas the lowest levels are reported in Grand Kru (2.7). The difference between Grand Kru and the other counties is significant as the second lowest level observed is in Sinoe (3.3).

Figure 5. Heatmap Livelihood Security

¹⁶ See section 3

3.B. THE CATEGORIES OF LIVELIHOOD SECURITY.

	Critical (0 - 3)	Severe (3 - 6)	Stressed (6 - 8)	Secure (8 - 10)
Bomi	11,1 %	77,5 %	10,7 %	0,7 %
Bong	23,8 %	55,4 %	12,7 %	8,1 %
Gbarpolu	12,9 %	76,2 %	9,4 %	1,6 %
Grand Bassa	38,1 %	55,8 %	5,8 %	0,4 %
Grand Cape Mount	29,8 %	53,4 %	10,3 %	6,5 %
Grand Gedeh	20,0 %	48,1 %	23,8 %	8,1 %
Grand Kru	55,0 %	37,8 %	6,7 %	0,6 %
Lofa	23,6 %	60,1 %	13,2 %	3,1 %
Margibi	29,5 %	62,8 %	5,7 %	1,9 %
Maryland	17,4 %	72,8 %	6,5 %	3,3 %
Montserrado	21,2 %	56,8 %	10,7 %	11,2 %
Nimba	7,9 %	77,1 %	11,4 %	3,6 %
River Cess	40,9 %	53,2 %	5,5 %	0,4 %
River Gee	18,5 %	56,9 %	20,5 %	4,1 %
Sinoe	47,9 %	46,0 %	4,9 %	1,1 %
Full Sample	22,9 %	59,8 %	10,8 %	6,5 %

Table 1. Categories of Livelihood Security

Most of the population is in a situation of severe insecurity (60 percent in average) and almost one respondent out of five is in a critical position (23 percent). Compared with the results observed in 2021 (29 percent within the critical category and 55 percent within the severe category), it seems that 6 percent of the population achieved to “escape” the critical category to “reach” the severe category. It is also worth noting that there are slightly more people in the secure category (6.5 percent instead of 4.1 percent in 2021). Overall, these results help to understand the average increase of LS (from 4.0 to 4.5): there are less individuals in the most critical category (6 percent less) and more individuals in the most “comfortable” category (2.5 percent more).

However, almost 83 percent of the population belong to the two lowest categories, meaning that more than 8 individuals out of 10 struggle to provide food for their household. In that regard, there is no significant difference since 2021 as there were 85 percent of the population in these two categories. There was a “transfer” from the lowest to the second lowest category meaning that there is almost no change if we put the attention on the combination of the two lowest categories.

Table 1 classifies the sample into four categories of LS according to this score. A score between 0 to 3 illustrates a household in a critical situation, a score between 3 and 6 describes a severe situation. From 6 to 8, the household is still under some stress and from 8 to 10 the household can be considered secure (e.g. they can fully buy enough good quality food, they can afford expensive items such as a television when needed).

As seen above, Gran Kru is the most vulnerable county (followed by Sinoe) as approximately 50 percent of the population is in a critical situation. **In these two counties every second respondent can hardly buy food and do not have a reliable income.** It is in Grand Gedeh that most of the inhabitants have a LS level above 6, followed by Bong, Montserrado and River Gee. In these counties approximately 1 respondent out of 4 belong to the two “superior” categories.

Among the various sociodemographic categories, it seems that the only significant differences are observed according to the area and the education level. For instance, people living in rural areas are significantly more likely to be in a situation of livelihood insecurity than people living in urban areas (respective scores of 3.9 and 4.5)⁴. Also, the level of LS increases with the level of education: respondents with no formal education report a score of 3.8, respondents with a Primary school background report a score of 4.3, respondents with a Secondary school background report a score of 4.4 and eventually respondents with a university background report a score of 4.9.

3.C. THE EVOLUTION OF THE LEVELS OF LIVELIHOOD SECURITY ACROSS THE COUNTRY SINCE 2021

As the Figure 5 presents the distribution of the scores across the counties in 2023, Table 2 helps to visualise the variation of the LS in each county since 2021.

A series of comments can be made based on the results from Table 2:

a. Four counties, namely Grand Kru, River Cess, Sinoe, and Grand Bassa, have reported a decline in LS since 2021. The observed decrease is significant, ranging between 1.5 and 2.0. To simplify, losing 2 points can be understood as 20 percent of the county's population experiencing a decline in their economic and/or food security. It is worth noting that these four counties previously held the highest scores in 2021. In other words, the decrease in livelihood has exclusively

County	2021	2023	Change
Grand Kru	4.7	2.7	-2.0
River Cess	5.4	3.5	-1.9
Sinoe	5.0	3.3	-1.7
Grand Bassa	5.0	3.5	-1.5
Montserrado	4.5	4.7	0.2
Gbarpolu	4.3	4.7	0.4
Grand Gedeh	4.3	4.9	0.6
Lofa	3.7	4.3	0.6
Margibi	3.0	3.7	0.7
Grand Cape Mount	3.3	4.2	0.9
Bomi	3.5	4.6	1.1
River Gee	3.6	4.8	1.2
Nimba	3.8	5.0	1.2
Maryland	2.9	4.4	1.5
Bong	2.7	4.5	1.8
Full Sample	4.0	4.5	0.5

Table 2. Variation of Livelihood Security per county since 2021

⁴ More details regarding the rural areas are provided in the section 3 of this report.

affected the four counties that were performing the best in the past.

b. Two counties, Maryland and Bong, have seen significant improvements since 2021, with respective increases of 1.5 and 1.8. It's worth noting that this represents a reversal of the previous trend: the counties with the highest increases were the ones with the lowest levels of LS two years ago.

c. Eventually, most of the counties experienced a mild improvement since 2021 (between 0 and 1)⁵. Most of the areas registered slightly better levels of food and/or economic security, implying a better average level (from 4.0 to 4.5). However, most of them range around the average score, which implies that most of the population in these counties struggle to feed all the members of their household and live with unpredictable income.

Section II. The Determinants of Livelihood Security in Liberia

A resilience analysis was implemented to identify the stressors and the resilience factors of LS. It aims to appreciate the capacities which help people to cope with those stressors and to identify what characterises those who cope relatively well⁶. The Figure 6 present the results of the analysis. Two essential adversities threaten LS (on the left side in red): lack of personal security and lack of investment environment tend to make people economically insecure. On the other side (in blue), specific state capabilities, specific individual skills and intergroup contacts help people to maintain a certain level of LS despite the existence of stressors.

A similar analysis was conducted in 2021⁷, it provides an opportunity to observe longitudinally the dynamics related to the LS phenomenon and to shed light on the regular patterns (1), on the variations (2) and on the potential monitoring opportunities (3).

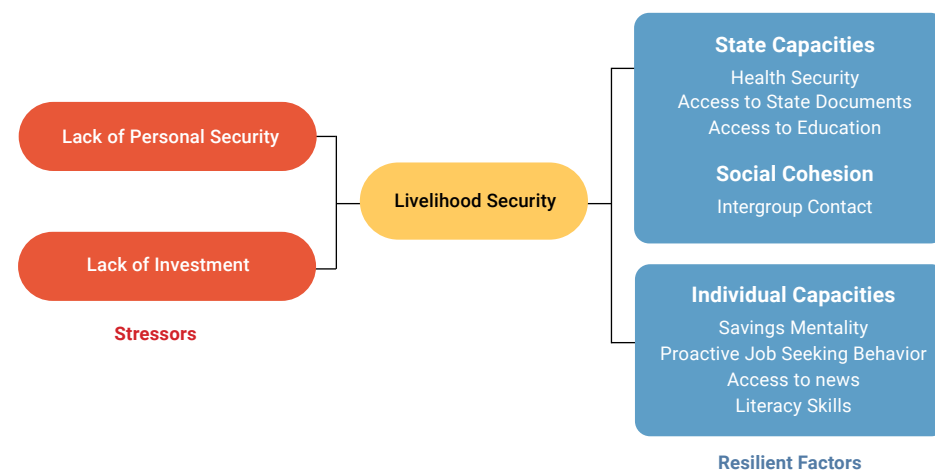


Figure 6. Resilience Analysis of Livelihood Security

⁶ Resilience analysis has been used in various fields and is an analytical strategy that allows researchers to test questions related to adversities and resilience/fragility factors. Further reading: Manjula, M., Srivastava, A. (2022). Resilience: Concepts, Approaches, Indicators, and Interventions for Sustainability of Positive Mental Health. In: Deb, S., Gerrard, B.A. (eds) Handbook of Health and Well-Being. Springer, Singapore

⁷ SCORE Report, 2021, Livelihood Resilience and Escaping Poverty in Liberia. Assessing adversities and opportunities for livelihood security. https://api.scoreforpeace.org/storage/pdfs/PUB_Liberia20_A5_Report-Livelihood_FINAL_20210806-compressed.pdf

⁵ And four counties reporting an increase between 1 and 1.2.

1. Similar patterns and dynamics since 2021

1.a. Lack of personal security and lack of investments as consistent stressors

The indicator “Personal Security” should be seen here as an illustration of “freedom from fear” as it appreciates to what extent people feel safe and protected from violence in their daily life.

Lack of physical security can disrupt critical aspects of daily life and undermine LS through different pathways. Disputes and violence can lead to the destruction of property, loss of assets or displacement and therefore deteriorate the means of production, leading to income instability. Additionally, physical insecurity perturbs the functioning of markets and trade routes, which are vital for economic activities. When markets are unsafe or inaccessible, families struggle to sell products and purchase necessary goods, exacerbating economic and food insecurity. Furthermore, fear of violence reduces mobility, preventing people from engaging in agriculture and employment. This limitation directly impacts their ability to generate income and access essential services. Moreover, physical insecurity impacts mental health as chronic stress from living in insecure environments can reduce productivity.

The lack of investment environment measures the extent of what people think that domestic and international investment in local business, farming and agriculture are deteriorating in their county. Agriculture was one of the main objectives of the PAPD and it remains a priority sector for the new government as it is integrated into the ARREST strategy. A recent World Bank report highlighted the necessity to attract foreign investment and to support investment in agriculture for poverty reduction and climate adaptation in a context of global market volatility⁸. Agricultural sector is particularly considered as a high priority as rural livelihoods are weak and vulnerable to climate change but also because strengthening the agricultural sector would increase food production and would help to provide employment opportunities⁹.

By disrupting economic activities and endangers physical and mental well-being, by reducing income opportunities and limiting access to essential services, the lack of personal security and the lack of a conducive investment environment make it difficult for individuals and communities to maintain sustainable and resilient livelihoods.

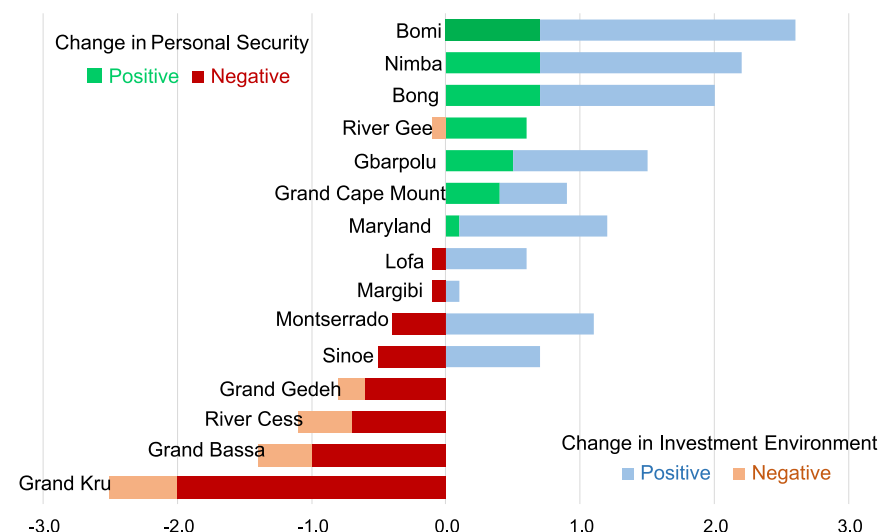


Figure 7. Change in Personal Security and Investment Environment since 2021

1.b. Access to Health care services combined with specific individual skills remain key protective factors

Like for the two stressors mentioned above, a series of resilient capacities remain the same than the once two years ago.¹⁰ First, state capabilities and particularly health care services (including WASH facilities and electricity) still operate as resilient factors.

Access to health services plays a critical role in enhancing LS by ensuring individuals maintain good physical and mental health, which directly increase productivity and financial stability. Preventive care reduces the likelihood of severe illnesses, minimizing unexpected healthcare costs and allowing families to invest in productive activities. Additionally, mental health care helps individuals cope with stress, anxiety, and trauma. In this regard, the access to health services (supporting physical and/or mental health) help individuals manage stress and make better decisions, contributing to more resilient livelihoods. Furthermore, health services prevent and control infectious diseases, creating a stable environment that supports economic activities. By addressing the specific health needs of vulnerable populations, such as the elderly and those

⁸ World Bank. Liberia Poverty Assessment - Toward a More Inclusive Liberia (English). Washington, D.C. : World Bank Group. <http://documents.worldbank.org/curated/en/099032124150035378/P17739418373d30c419ffb1cd3dd5dfb684>

⁹ See Section 3 of the report which is exclusively dedicated to rural livelihoods.

¹⁰ More information about the construction of these indicators can be found in the SCORE Report, 2021, Livelihood Resilience and Escaping Poverty in Liberia. Assessing adversities and opportunities for livelihood security. https://api.scoreforpeace.org/storage/pdfs/PUB_Liberia20_A5_Report-Livelihood_FINAL_20210806-compressed.pdf

with chronic illnesses, healthcare services ensure that all community members can contribute to and benefit from economic activities.¹¹

At the individual level, the analysis highlighted a series of specific capacities which were identified as well in 2021. These capacities are employment-related skills as they contribute in different ways to support the ability of individuals to perform on the job market (proactive job seeking behaviour, access to information and literacy skills) and are related to the ability to manage the income generated by the employment (savings mentality).

	Gender		Age Groups		
	Male	Female	18 - 29	30 - 49	50 & more
Savings Mentality	4.2	4.0	3.7	4.3	4.0
Job Seeking Behaviour	6.1	5.0	5.6	5.7	5.2
Access to news	4.5	3.3	3.9	4.0	3.4
Literacy	5.6	3.7	5.3	4.5	4.2

Table 3. Individual Resilience Capacities

Table 3 indicates that men consistently report higher levels of individual resilience capacities than women, suggesting that women may be more vulnerable when trying to make ends meet during adversities. Comparing age groups reveals an improvement in literacy levels, with younger generations scoring significantly higher than older ones. However, the younger generation is slightly less equipped with other individual capabilities compared to those in the 30-49 age group.

¹¹ Results about the levels of Health security across the counties can be found in the Dashboard (Table 5).

2. What changed since 2021?

2021	2023
Lack of Personal Security	Lack of Personal Security
Obstacles To Success	Obstacles To Success
Lack of Investment Environment	Lack of Investment Environment
Intergroup Tension	Intergroup Tension
Health Security	Health Security
Access to State Documents	Access to State Documents
Access to Education Services	Access to Education Services
Savings Mentality	Savings Mentality
Job Seeking Behaviour	Job Seeking Behaviour
Access to news	Access to news
Literacy	Literacy Skills
Numeracy Skills	Numeracy
Intergroup Contact	Intergroup Contact

Table 4. Change of Stressors and Resilience Factors per county since 2021

2.a. Development of Education to support Livelihood Security

On a long-term basis, the relationship between access to education and LS is clear and well-informed. School education equips individuals with essential skills for stable employment, fostering critical thinking and innovation, and improving health outcomes through better health practices. Education empowers individuals to participate in community decision-making, reduces social inequalities, and supports intergenerational benefits by encouraging investment in children's education. Additionally, it helps communities adapt to environmental and economic changes, stimulates local economic growth, and provides a stable foundation for overall community resilience and economic stability.

However, the results can also be interpreted as if the "current" access to school (i.e. the existence of school in the neighbourhood and the possibility to afford the basic costs of education) has an immediate impact on the household LS. The proximity of schools can have an immediate positive impact on LS by increasing school attendance and reducing travel-related costs and time. Shorter distances to schools minimize transportation expenses and travel time, allowing families to redirect savings and time towards productive economic activities, further supporting household stability. Proximity to schools also improves health and safety by reducing the physical strain and risks associated with long commutes. Children attending nearby schools are less likely to suffer from fatigue or encounter dangerous situations, leading to better health and academic performance. This health and safety benefit reduces the likelihood of health-related expenses, thereby enhancing economic stability.

The availability of schools in the community varies significantly across the country, demonstrating strong territorial variability (Figure 8). These differences are especially notable over relatively short distances. For example, Gran Kru district reports the lowest score (3.9), while its neighboring county, River Gee, reports the second-highest score (6.1).

The survey results underscore the critical importance of education in strengthening LS, clearly demonstrating the causal relationship between access to school services and improved economic stability. These findings

support the core philosophy of ARREST strategy, which posits that education and prosperity are inherently intertwined. By providing accessible education, the governance authorities not only equip individuals with the skills needed for stable employment and innovation but also fosters healthier, more empowered communities capable of adapting to various challenges. This comprehensive approach ensures that education serves as a cornerstone for sustainable development and prosperity in Liberia, reinforcing the belief that investment in education is essential for long-term economic growth and resilience.

2.b. Improving the access to administrative documents to support Livelihood Security

The lack of available administrative documents can challenge the daily life of many citizens and undermine their ability to ensure food and economic security for the members of the household.

Access to administrative documents (such as birth certificate, driving license, national IDs etc.) is crucial for LS as it provides individuals with a legal identity, enabling them to access essential services such as healthcare, education, and social protection. In this regard, the inability to get those documents can prevent receiving medical treatment or benefiting from government assistance programs which could directly undermine the LS of the individuals.

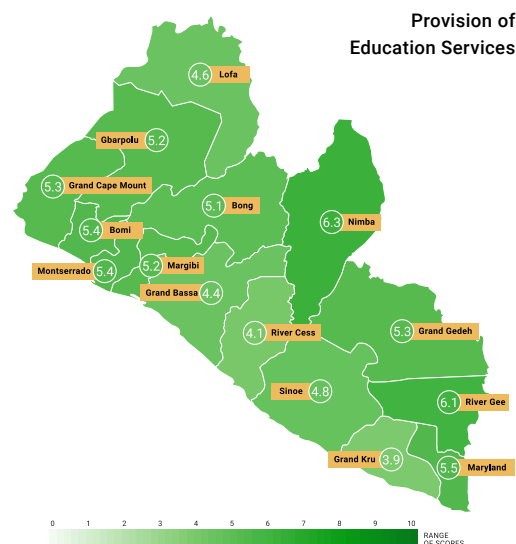


Figure 8. Heatmap Provision of Education services

Additionally, administrative documents like land titles and property deeds protect property rights, allowing individuals to invest in their assets confidently or to secure inheritance and succession rights¹². This security fosters agricultural productivity, business development, and home improvements, contributing directly to protect the family resources and therefore to support economic stability.

Furthermore, having proper identification is often a prerequisite for accessing formal financial services, such as banking, credit, and insurance, which are essential for investing in income-generating activities and providing a safety net against unforeseen events. Administrative documents also expand employment opportunities, as many formal jobs require proof of identity and qualifications. Access to these documents increases individuals' prospects for securing stable, better-paying jobs, thus enhancing LS.



Figure 9. Heatmap Access to state documents

Figure 9 highlights that **most citizens report inadequate access to state documents**. Additionally, the results indicate strong territorial discrepancies across the country. Prioritizing the availability of administrative documents would be a crucial entry point to support LS in Liberia. As it establishes legal identity and property rights, access to essential services, access to administrative documents enhances resilience against diverse stressors by empowering individuals to navigate legal systems and fully participate in economic and social life.

2.c. Improving intergroups relationships to strengthen livelihoods

The resilience analysis shows that the more individuals develop interactions with people from other social groups the more they will be able to maintain their livelihood despite their exposure to the stressors. There are multiple contextual hypotheses to justify such results.

¹² See Section 3

First, by multiplying the contacts beyond their own social group, expand their social networks and therefore facilitate the exchange of knowledge and skills across diverse communities. These connections provide access to valuable information, resources, and economic opportunities such as employment prospects and market insights. Diversified social networks enhance resilience by offering alternative support systems during economic downturns or crises, enabling individuals to adapt more effectively to changing circumstances and sustain their livelihoods.



Figure 10. Heatmap Intergroup contacts

coordinate responses to crises, and implement collective projects that benefit all members. In other words, intergroup contacts facilitate collective actions and advocacy efforts, empowering communities to influence policies that impact their economic opportunities. By collaborating with diverse groups, individuals can amplify their voices on issues affecting their livelihoods, advocate for policy changes, and access government support and resources.

Cultural exchange and innovation fostered by intergroup contacts can also stimulate creativity and adaptation, leading to improved practices and sustainable solutions that enhance productivity and resilience against environmental and economic challenges. Overall, intergroup contacts build social capital and promote collective action, strengthening community resilience and ensuring sustained LS.

Moreover, positive intergroup contacts contribute to peacebuilding and conflict mitigation by fostering understanding, trust, and cooperation among different communities. As observed in 2021, intergroup tensions operate as stressors for LS as they could disrupt economic activities. In this regard, the development of contacts and interactions across the social groups might reduce disputes and violence.

Additionally, positive intergroup contacts build social capital by fostering mutual trust, and reciprocity among diverse communities. Social capital enables communities to mobilize resources,

3. Towards the construction of a Dashboard for monitoring Livelihood Security in Liberia to support ARREST

This section advocates for the development and deployment of a comprehensive dashboard to monitor LS in Liberia. Leveraging SCORE data and systematic resilience analyses from the 2021 and 2023 waves, this evidence-based tool will track variations in key indicators affecting LS in Liberia.

3.A. STRATEGIC USE AND POLICY SUPPORT FOR THE LIVELIHOOD SECURITY DASHBOARD

Evidence-Based Tool to Monitor Livelihood Security Levels

The primary objective of this dashboard is to provide a comprehensive visualization of stressors and resilience factors affecting LS. The resilience analyses from 2021 and 2023 reveal consistent results, indicating stable structural and conjunctural dynamics over the years. This stability underscores the necessity of a tool that can longitudinally track these recurring indicators. The dashboard will focus on a predefined, concise list of indicators that have proven to be stable predictors of LS, ensuring targeted and efficient monitoring.

Flexible and Real-Time Analytics

This innovative tool will offer real-time, user-friendly analytics on LS across Liberia's counties. The dashboard will start with primary data collection via short surveys, followed by score calculation and integration of results into interactive visualizations. Once the indicators are established, enumerators can be regularly deployed to collect random data across various localities (the data collection can be focused on specific counties or only on rural areas for instance). This information will be recorded and updated in the dashboard, allowing for flexible and timely updates.

Supporting Development Strategies and ARREST Progress

Beyond monitoring LS dynamics, the dashboard will support informed decision-making and evaluate the impact of policies and programs aimed at improving LS. By providing regular updates, the dashboard will track the progress and outcomes of development policies. Additionally, it will facilitate pilot policy testing in specific areas, offering insights into the local impact of interventions. Its intuitive design will ensure that various stakeholders, including policymakers, can easily track and evaluate the effectiveness of their actions on the ground.

In summary, the development and deployment of a LS Dashboard in Liberia can be a strategic instrument to ensure evidence-based monitoring, flexible data analytics, and informed policymaking. This tool will play a crucial role in enhancing LS and supporting the nation's development goals.

3.B. A FIRST ATTEMPT OF THE DASHBOARD FOR LIVELIHOOD SECURITY

Drawing from the resilience analyses conducted in 2021 and 2023, we have developed a preliminary version of a Dashboard designed to track the evolution of LS¹³. This tool illustrates the changes in LS from 2021 to 2023, highlighting the extent to which LS in each county has increased or decreased over time. It is important to note that while the dashboard indicates trends, it does not provide the absolute levels of LS. For example, the dashboard may show an increase in personal security in Bomi over the past three years and a decrease in Grand Bassa. However, this does not imply that residents of Bomi necessarily feel safer than those in Grand Bassa. The tool focuses on the internal evolution of specific phenomena within each county rather than inter-county comparisons¹⁴.

The current version of the dashboard distinguishes between stressors (marked in red) and resilience factors (marked in green). This color-coding system enhances the clarity of the data. A red cell indicates an increase in a stressor or a decrease in a resilience factor. According to the resilience approach, LS can be compromised through two dynamics: either an increased prevalence of stressors or a decreased availability of resilience capacities. Therefore, a county with numerous red cells is prone to experience deteriorating LS, as residents face greater stress and diminished resilience compared to four years ago. In essence, **a “red” county signals worsening livelihood conditions and increased vulnerability for its inhabitants.**

¹³ The Dashboard contains the indicators identified by both resilience analyses (2021 and 2023).

¹⁴ However, a Table with the current and past scores in each county would also be available and allow the users of the Dashboard to compare the absolute levels across the counties.

	Bomi	Bong	Gbarpolu	Grand Bassa	Grand Cape Mount	Grand Gedeh	Grand Kru	Lofa	Margibi	Maryland	Montserrato	Nimba	River Cess	River Gee	Sinoe
Lack of Personal Security	-0.8	-0.6	-0.4	1.0	-0.3	0.6	2.1	0.1	0.1	0.0	0.5	-0.7	0.8	-0.6	0.5
Obstacles to Employment	-1.6	-2.6	-1.5	3.3	-0.4	-0.4	1.8	-2.7	-1.2	-1.4	-0.5	-3.1	2.8	-0.2	1.7
Lack of Investment Environment	-1.9	-1.3	-1.0	0.4	-0.5	0.2	0.5	-0.6	0.0	-1.0	-1.2	-1.4	0.4	0.1	-0.7
Intergroup Tension	-0.9	-1.4	-0.7	0.5	0.7	0.1	-0.4	-1.1	-0.3	0.2	0.5	-1.7	0.4	-0.2	-0.2
Access to medical facilities	2.2	0.1	0.8	-1.9	0.9	-0.7	-2.9	-0.5	-0.1	0.2	0.1	0.5	-1.3	0.6	-1.4
Access to clean water	-0.2	1.3	-1.0	-0.8	-0.3	-0.5	-2.3	-1.9	0.7	0.0	0.4	0.0	-0.7	0.8	-1.0
Quality of WASH facilities	-1.2	-0.2	-2.6	-1.0	-1.7	-0.1	-0.8	-2.4	0.6	2.0	0.3	0.1	-0.3	2.4	-0.7
Access to electricity	0.0	0.4	-1.5	-2.1	1.2	0.3	-1.0	-0.5	0.1	2.2	1.7	0.0	-1.9	1.9	-1.7
Access to State Documents	1.6	1.2	2.3	-3.9	-0.2	-2.1	-0.6	0.7	0.6	0.4	0.0	1.8	-2.7	-1.2	-3.2
Provision of Education Services	0.3	1.1	0.8	-2.4	0.1	-2.0	-1.0	0.5	0.4	-1.2	-1.2	1.5	-2.2	-0.3	-1.0
Savings Mentality	-0.1	-1.0	-0.4	0.6	-0.8	2.3	0.2	-0.1	0.3	1.6	0.4	0.4	1.0	2.0	0.4
Job Seeking Behaviour	0.6	1.7	0.5	-0.9	1.9	0.5	-1.4	1.3	-0.1	-0.5	-0.1	-1.5	-1.1	-0.4	-1.2
Access to news	3.3	0.0	3.1	-1.6	2.0	2.5	-2.1	0.0	0.6	2.3	1.9	1.4	-1.1	1.6	-1.9
Literacy Skills	-0.5	0.6	0.3	-1.8	0.8	0.7	-1.8	0.3	0.1	1.1	0.3	-0.1	-1.2	0.5	-1.7
Numeracy Skills	1.1	1.3	1.2	-0.1	1.1	0.4	-0.6	0.9	0.8	1.5	0.5	0.8	0.4	0.1	0.0
Intergroup Contact	0.6	-1.4	1.1	-0.4	-0.8	0.3	0.9	0.0	-0.8	0.6	-0.7	0.6	0.4	0.6	1.3

Table 5. Dashboard for monitoring Resilient Livelihood Security

The Dashboard reveals significant changes in vulnerability and resilience across Liberia's counties over the past four years. Individuals in Grand Bassa, River Cess, and Grand Kru have become significantly more vulnerable due to an increase in stressors and a decrease in resilience factors. Conversely, citizens in Bomi have experienced substantial improvements, with reduced exposure to stressors and enhanced access to resilience factors.

As shown with the following Figures, this tool can be crucial for policymakers helping them to quickly identify areas needing urgent attention and those that can serve as models of progress (see Figures 11 and 12).

Snapshot of Stressors

Who is more/less exposed today?

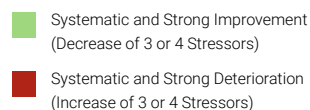
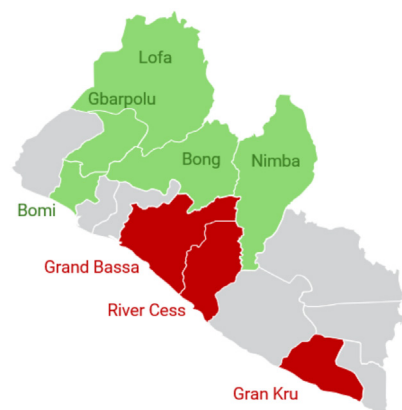


Figure 11. Evolution of Livelihoods' stressors since 2021

Snapshot of Resilience factors

Who is more/less endowed today?

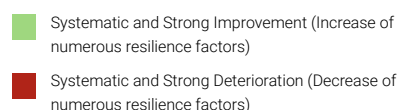
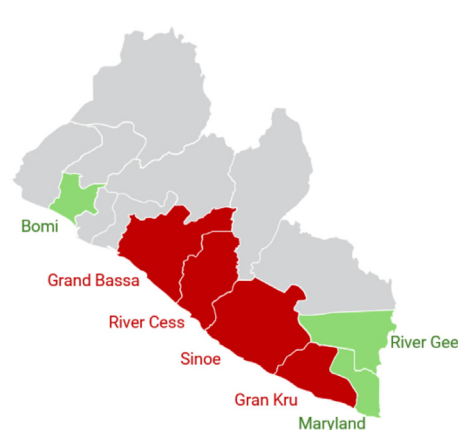


Figure 12. Evolution of livelihoods' resilience capacities since 2021

Section III. Livelihood Security Of The Farmers In Liberia In 2023

As the country prepares to transition from the Pro-Poor Agenda for Prosperity & Development (PAPD) to ARREST (Agriculture, Roads, Rule of Law, Education, Sanitation, and Tourism) as its development strategy, this analysis will focus on the pillar of agriculture. The objective of this section is to provide a detailed description of the situation of the respondents from rural areas who are involved in agriculture, farming, forestry, and fishing. The following results presented here are based on a sample of 1169 respondents, which accounts for approximately a third of the total sample.

In that regard, the following section aims to assist in the development of the national agricultural strategy by addressing the following questions: *In which counties are farmers experiencing the most livelihood insecurity? Where are the farmers with the highest levels of LS located? Does the distribution of farmers across the counties in terms of LS align with the trends observed in the full sample? Are there more farmers in the critical category compared to the average population? What are the priorities of this population category? To what extent does land security or Natural Resources Management mechanisms play a role in explaining the LS of farmers?*

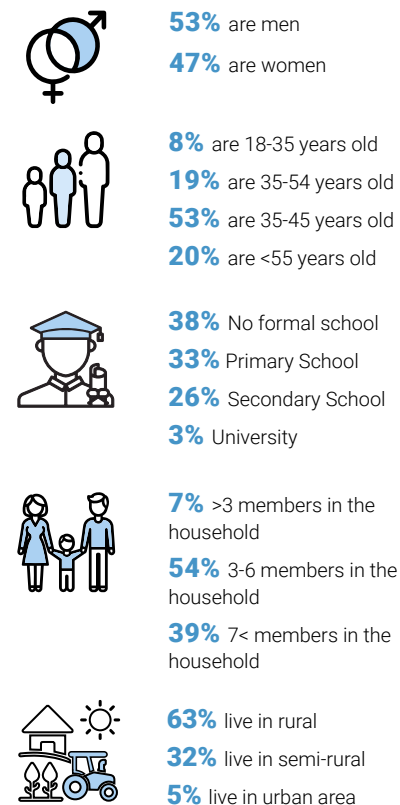


Figure 13. Sociodemographic profile of the farmers respondents

¹⁵ Respondents were categorized as farmers if they reported being involved in agriculture, fishing, or forestry activities.

1. What are the characteristics of the farmers respondents?

Figure 13 illustrates the typical profile of farmers in Liberia, providing clarity on the involvement of men and women in farming activities for instance¹⁵. The data shows that there is a relatively equal representation of men and women engaging in farming. Additionally, the age distribution of farmers indicates that a significant portion (50 percent) falls within the 35–54-year range, with only a small percentage (8 percent) of young individuals involved in farming. It is worth noting that educational background is not homogeneous among farmers. Roughly a third of the surveyed farmers have no formal education, another third has attended primary school, and the remaining third have attended secondary school.

Figure 14 provides an overview of the distribution of respondents involved in agricultural activities across different counties. The data shows that most respondents are located in Nimba: one farmer out of five from the sample live in this county. Lofa and Bong counties follow closely, with 14 percent and 12 percent of the total number of farmers interviewed, respectively. The situation in Lofa is especially concerning. Once known as Liberia's "breadbasket" due to its essential contribution to food security, particularly in rice production, the county now faces alarming challenges. Lofa's fertile land and rich agricultural traditions used to sustain large-scale farming, with 70% of the population involved in agriculture. Unfortunately, the civil war caused severe damage to infrastructure, led to the displacement of communities, and destroyed farmland.

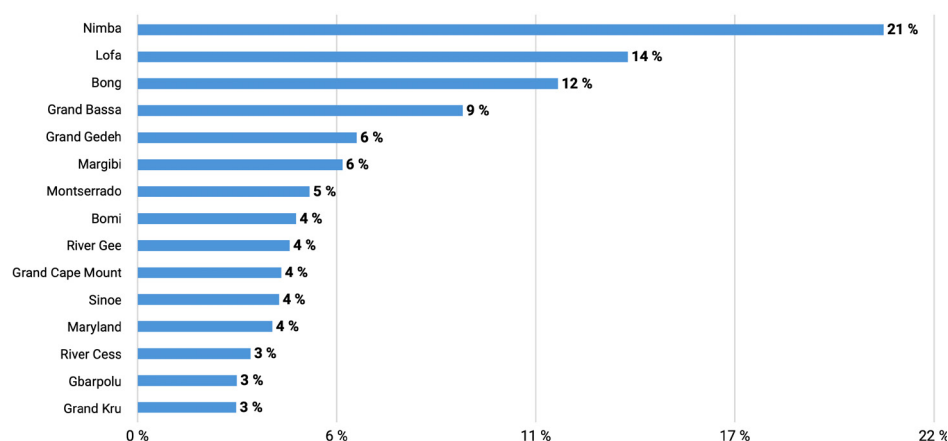


Figure 14. Distribution of the farmers across the counties

¹⁶ See Lofa County Development Agenda, County Development Committee, in collaboration with the Ministries of Planning and Economic Affairs and Internal Affairs. Supported by the UN County Support Team project, funded by the Swedish Government and UNDP. https://www.mia.gov.lr/CDA/Lofa%20CDA_web.pdf

Consequently, outdated farming methods, insufficient resources, and limited access to modern techniques have resulted in declining productivity and exacerbated the livelihood insecurity of farmers¹⁶.

Significant differences between farmers and other employment categories:



- 1. Lower levels of educational skills** (e.g. literacy skills, numeracy skills, language skills, general IT and computer skills).
- 2. Lower access to state services** (e.g. access to state documents, justice services, education services, health services, county service centers).
- 3. Lower levels of economic security** (e.g. lower individual income, lower household income).
- 4. Higher level of trust towards Local Authorities**

Figure 15. Significant differences of the farmer category (Anova)

Figure 15 outlines the unique characteristics of this particular population group. By "unique characteristics" we refer to a list of indicators that are significantly higher or lower for farmers in comparison to other employment categories¹⁷.

Four main characteristics set farmer respondents apart from other employment categories. Firstly, they report a lower level of specific skills, such as literacy, language, or IT skills, which are education related. Secondly, farmers report significantly less access to various public services, including justice, health services, and administrative services. Thirdly, as we will demonstrate below, individuals involved in agricultural activities are more likely to experience economic insecurity compared to others. Lastly, it is notable that farmers place more trust in local authorities than other respondents.

2. The crucial role of local authorities

Farmers in Liberia place more trust in local authorities due to a combination of practical, economic, and cultural reasons. As seen above, farmers are constrained by a limited skill set which can make it challenging for them to navigate and comprehend the complexity of the larger governmental system. Consequently, they may be more inclined to trust and depend on local authorities, who are more accessible and easier to engage with. Local authorities frequently communicate in ways that are familiar and comprehensible to farmers, thereby reducing the perceived obstacle to access and fostering trust.

¹⁷ To highlight significant differences between specific demographic groups within the dataset, an analysis of variable (ANOVA) was performed which is a well-known method used to compare several means at the same time using a fixed confidence level.

Farmers in remote locations with limited access to public services often rely heavily on local authorities for support and services. These local authorities serve as the main, and sometimes only, point of contact for farmers to access essential services. As a result, farmers tend to develop a stronger relationship and greater trust in local authorities compared to distant national or regional institutions, which may appear less reachable and responsive. Moreover, farmers, due to their economic vulnerability, often require immediate and direct assistance. Local authorities are generally more prompt in providing this aid. They are considered to be more responsive to the immediate and practical needs of farmers, offering support during times of crisis, including crop failures, natural disasters, or market fluctuations.

Local authorities live in the same communities as farmers, sharing challenges and circumstances. This proximity fosters trust as farmers are more likely to trust individuals who understand their issues firsthand and are part of their daily lives. In rural areas, traditional and local authorities play normative and historic roles as they are often seen as the custodians of community norms and values. Farmers often have more trust in local authorities because they embody continuity, tradition, and cultural identity, which are highly revered in rural settings. The long-standing involvement of local leaders in resolving conflicts, overseeing shared resources, and promoting social harmony further strengthens this trust.

Eventually, farmers often depend on informal networks and community-based support systems, with local authorities being an important part of these networks while national or regional officials are not. These informal networks play a critical role in everyday survival and cooperation, fostering a higher level of trust in local authorities who are considered essential members of these networks.

Overall, local authorities can play a crucial role in strengthening vertical social cohesion. Acting as intermediaries, they can bridge the gap between rural populations and national institutions by effectively communicating local needs. For example, respondents were asked to prioritize the types of policies they would like to see implemented. Figure 16 presents the results specifically for respondents in rural areas and shows that the main expectations in rural areas are targeted on road infrastructures and healthcare system.

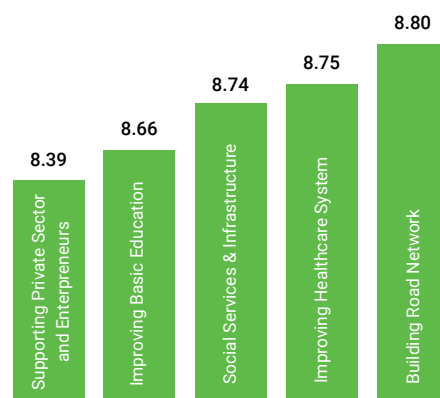


Figure 16. Top priorities policies according to the rural respondents

3. Assessment of Livelihood Security Levels Among Farmers

Table 6 shows that River Gee, Grand Gedeh, and Maryland are the counties with the highest levels of LS for respondents engaged in agricultural activities. The final column of the Table 6 presents a comparison between the LS of farmers and the average LS of each county. Generally, farmers in most counties have lower levels of livelihood security compared to the average population, except for Maryland. The disparity between farmers and the average population is especially pronounced in Monsterrado and Lofa.

Table 7 aims to provide a more precise explanation of the farmers' situation by analysing their distribution across the four LS categories. Several assumptions can be made:

a. Overall, **92 percent of the farmers in Liberia live with either a critical or a severe level of livelihood security.**

b. In many counties, such as Grand Bassa, Grand Cape Mount, Lofa, Montserrado, River Cess, and Sinoe, the distribution is almost similar in both categories, with approximately 40/50 falling into the critical or severe category.

c. In the other counties, most of the farmers fall into the severe LS (score between 3.0 and 6.0).

d. The situation in Grand Kru is particularly alarming, as nearly three out of four farmers are at a critical level. This means that **there are more than two times as many extremely poor farmers in Grand Kru compared to the rest of the country**, where "only" 30 percent of the farmers fall into this category.

e. Two counties show a better situation. River Gee and Grand Gedeh counties present a unique situation, as a quarter of the farmers from these areas fall into the third level of LS. Specifically, 24 percent of the farmers in Grand Gedeh and 23 percent in River Gee belong to the "stressed LS" category (score over 6.0), whereas only 7 percent of the farmers in Liberia belong to this category.

	Farmer	Average	Difference between Average and Farmers
River Gee	4.8	4.8	0.0
Grand Gedeh	4.7	4.9	0.2
Maryland	4.6	4.4	-0.2
Nimba	4.5	5.0	0.5
Gbarpolu	4.3	4.7	0.4
Bomi	4	4.6	0.6
Bong	3.9	4.5	0.6
Grand Cape Mount	3.6	4.2	0.6
Montserrado	3.5	4.7	1.2
River Cess	3.3	3.5	0.2
Sinoe	3.2	3.3	0.1
Grand Bassa	3.2	3.5	0.3
Lofa	3.1	4.3	1.2
Margibi	3	3.7	0.7
Grand Kru	2	2.7	0.7

Table 6. Farmers' Livelihood Security across the counties

Furthermore, these two counties have a higher number of farmers with "secure LS" (score over 8.0) compared to other counties (except for Maryland, which has 5 percent of secure farmers). In other words, the reason why Grand Gedeh and River Gee have the highest LS score, as observed in the table, is because more than one out of four farmers in these counties report a score over 6.0. On the other hand, in other counties, only an average of 5 percent of farmers manage to reach a score higher than 6.

	Critical (0 - 3)	Severe (3 - 6)	Stressed (6 - 8)	Secure (8 - 10)
Bomi	14,8 %	81,7 %	3,5 %	0,0 %
Bong	25,4 %	67,8 %	6,8 %	0,0 %
Gbarpolu	15,9 %	79,7 %	4,3 %	0,0 %
Grand Bassa	42,9 %	55,6 %	1,5 %	0,0 %
Grand Cape Mount	41,8 %	54,5 %	0,0 %	3,6 %
Grand Gedeh	19,2 %	51,0 %	24,0 %	5,8 %
Grand Kru	73,8 %	26,2 %	0,0 %	0,0 %
Lofa	51,6 %	41,9 %	6,5 %	0,0 %
Margibi	36,5 %	61,9 %	1,6 %	0,0 %
Maryland	15,0 %	70,0 %	10,0 %	5,0 %
Montserrado	50,0 %	50,0 %	0,0 %	0,0 %
Nimba	15,5 %	76,3 %	7,2 %	1,0 %
River Cess	44,1 %	53,5 %	2,4 %	0,0 %
River Gee	18,9 %	54,7 %	22,6 %	3,8 %
Sinoe	53,0 %	40,0 %	4,0 %	3,0 %
Total	30,3 %	61,2 %	7,1 %	1,4 %

Table 7. Livelihood Categories (Farmers sample)

4. The question of the access to natural resources and its management

Three specific indicators were examined to investigate the situations of the respondents involved in agricultural activities:

- **LAND SECURITY**, which measures the capacity of the landowners to use, control, and transfer their land (see Figure 17).
- **NATURAL RESOURCES MANAGEMENT**, which measures the existence and efficiency of different mechanisms and regulations intended to govern access to natural resources (see Figure 20).
- **ENVIRONMENTAL SECURITY**, which refers to climate-related shocks and stressors that undermine the livelihoods of individuals (see Figure 19).

4.A. LANDOWNERSHIP DYNAMICS: A SNAPSHOT OF LAND USE AND RIGHTS

Among the 1169 respondents involved in agricultural activities, 78 percent own land for agricultural purposes. A series of questions has been asked to estimate their level of land security

through three categories of property rights: the rights to use, the rights to control, and the rights to transfer (Schlager & Ostrom, 1992).

Approximately two-thirds of the farmers feel confident in their ability to use their land for agricultural activities and to earn income from it. This indicates that a significant one-third of landowners experience insecurity regarding the utilization of their own land. Most respondents (approximately 82 percent) believe they have control over their land including the ability to

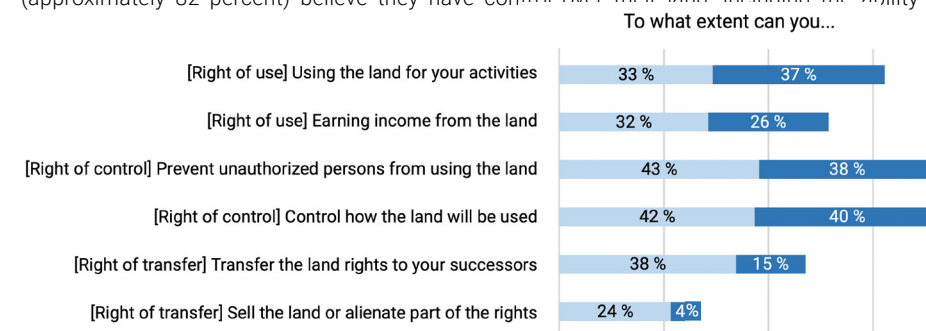


Figure 17. Frequencies related to Land security

determine its use and prevent unauthorized access. However, this also reveals that about one in five farmers (19 percent) are unable to prevent trespassers from using their land, highlighting gaps in land security. Moreover, many farmers face limitations in their transfer rights, with only about half (53 percent) confident in their ability to pass land rights to their successors and a mere 28 percent believing they can sell their land.

The issue of land security is critical for preventing tensions and ensuring livelihood stability for farmers in Liberia. The 2009 land concession to Malaysian company Sime Darby illustrates the risks associated with poorly managed land agreements. Covering 311,187 hectares across Gbarpolu, Grand Cape Mount, Bomi, and Bong, the concession sparked conflict due to inadequate consultation, compensation, and disregard for land ownership rights. Many communities, even those with legal titles, were not consulted before losing their land. As a result, farmers faced diminished access to essential resources, threatening their livelihoods, incomes, and cultural practices. This case underscores the importance of securing land rights to support agricultural communities and avoid undermining their social and economic wellbeing¹⁸.

These findings underscore the critical need for secure land tenure, encompassing the rights to use, control, and transfer land, as essential components for fostering agricultural development and economic stability in Liberia. The hypothesis that land security is a key pillar of the country's

¹⁸ <https://ejatlas.org/conflict/sime-darby-plantation-land-conflict-liberia>.

development trajectory is supported by the correlations observed with various social and economic phenomena¹⁹. As shown in Figure 18, land security is positively associated with intergroup harmony, satisfaction with development progress, and trust in institutions.

The phenomena associated with land security demonstrate that property rights are deeply woven into the social fabric. Securing landowner rights is not only related to intergroup relations

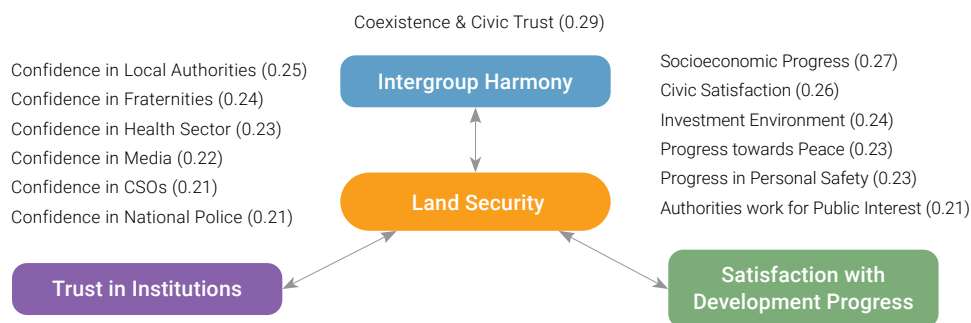


Figure 18. Indicators correlated with Land Security

but also with vertical social cohesion dynamics. Citizens' perceptions of effective governance and progress in essential sectors such as physical security, socioeconomic development, and peace are interdependent with the strengthening of landownership rights. In summary, land security should be prioritized on the development agenda as it relates to how citizens perceive the developmental efforts of governance actors.

It is also important to note that land security is not correlated with either natural resources management (NRM) or environmental security. This indicates that the perception of land ownership rights by farmers does not influence or is not influenced by their exposure to various climatic stressors and the methods by which natural resources are managed. However, it is important to note that there is a strong correlation between NRM and environmental security.

¹⁹ In statistics, correlations measure the strength and direction of the linear relationship between two variables. A correlation coefficient, ranging from -1 to 1, quantifies this relationship, with positive values indicating a positive association and negative values indicating a negative association. In other words, when two phenomena are positively correlated it suggests that these two phenomena are somehow associated and vary in the same direction. For instance, the Figure 18 shows that when we observe an increase of Land security, we also observe an increase of Coexistence and civic trust, and vice versa.

4.B. IMPROVING NATURAL RESOURCES MANAGEMENT TO STRENGTHEN ENVIRONMENTAL SECURITY

The strong association between Natural Resource Management and environmental security, (with a correlation coefficient of 0.53), is not surprising given that these two phenomena illustrate two sides of the same coin. Environmental security assesses the degree of vulnerability to stressors stemming from climatic dynamics. It informs about the socioeconomic impacts of the ecological degradations on the daily life of the farmers (see Figure 19). On the other hand, NRM evaluates the effectiveness of existing mechanisms and institutional responses in mitigating and managing these stressors (see Figure 20)²⁰. It encompasses strategies, policies, and practices aimed at the sustainable use and conservation of natural resources. The intertwined nature of these dynamics highlights that effective NRM is crucial for bolstering environmental security. When institutions implement robust NRM practices, they enhance their capacity to withstand and adapt to environmental stressors, thereby fostering a more resilient ecosystem and safeguarding the livelihoods dependent on these resources. Conversely, a high level of environmental security often reflects well-managed natural resources and responsive governance structures, underscoring the symbiotic relationship between the two.

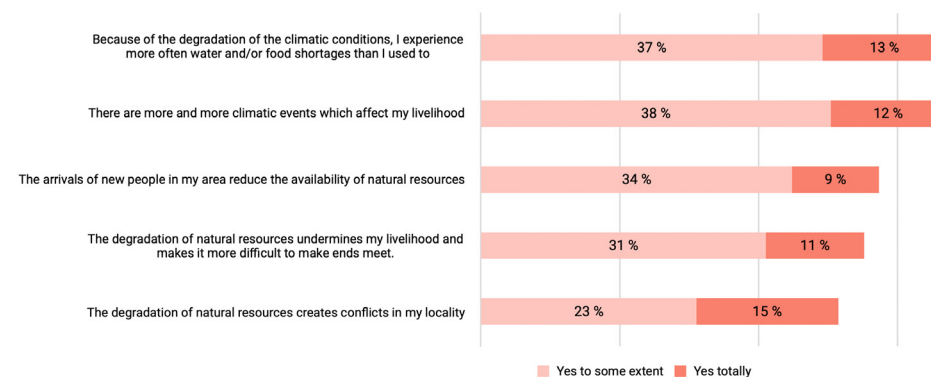


Figure 19. Environmental Security

Figure 19 reveals that 50 percent of farmers report experiencing frequent water or food shortages as a direct result of environmental degradation. An equal proportion of farmers believe that these environmental challenges significantly undermine their livelihoods. This indicates a substantial impact of ecological deterioration on agricultural productivity and community well-being.

²⁰ Both Figures 19 and 20 show exclusively the answers from farmers respondents.

Conversely, the primary unregulated disruptive practices contributing to these issues are related to the use of common resources (Figure 20). Overexploitation of ownership rights and the expansion of farming activities into unauthorized areas emerge as the predominant concerns in Natural Resource Management (NRM). These practices lead to the depletion of shared resources and encroachment on protected or unsuitable lands, exacerbating environmental degradation. The lack of collective management systems, such as shared water systems or cooperative resource-sharing arrangements, encourages individualistic behavior in accessing natural resources. Without enforced collective actions and mechanisms for equitable distribution and access, governance fails to promote sustainable practices. This shortcoming leads to the overuse and mismanagement of resources, undermining farmers' resilience to environmental challenges and jeopardizing the long-term sustainability of natural resources.

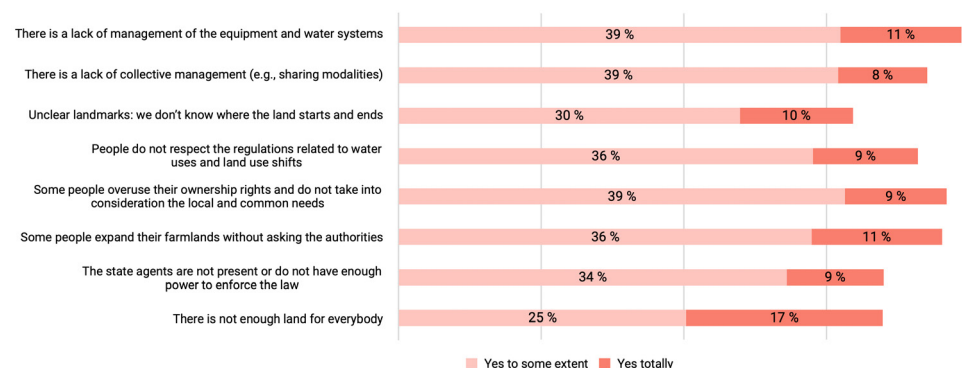


Figure 20. Natural Resources Management practices

To adjust the interventions and target them according to the local strengths and weaknesses, it is insightful to observe the territorial disparities in terms of level of vulnerability (environmental insecurity) and in terms of institutional responsiveness (NRM).

Figure 21 highlights Margibi and Sinoe as the most critical areas. Farmers in Sinoe are particularly vulnerable to climate degradation and lack effective regulatory mechanisms to ensure access to natural resources. Historically, livelihoods in Sinoe have depended heavily on forest resources. However, recent laws regulating hunting practices, combined with ongoing ecological degradation of forested areas, may explain the challenges observed in this county. On the other hand, the effectiveness of NRM mechanisms seem to be the most deficient in Margibi and the farmers of the county are greatly affected by ecological deterioration. NRM mechanisms seem to be well-accepted and the most effective in Bomi. Farmers in this county also report a high level of environmental security, which positions Bomi as one of the most secure counties in terms

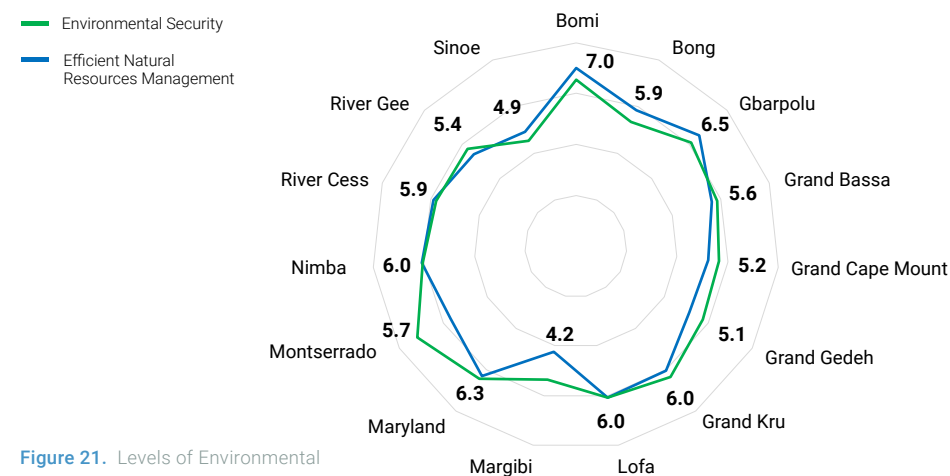


Figure 21. Levels of Environmental security and NRM per county

of NRM/Environmental security. Overall, Figure 21 confirms the strong correlation between NRM and environmental security. It illustrates that these two phenomena are closely linked and create coherent dynamics: individuals exposed to inadequate NRM mechanisms are often more vulnerable to environmental insecurity - and vice versa.

This means that effectively managing natural resources might contribute to greater environmental security. Proper NRM practices can mitigate the adverse effects of climate-related stressors and improve overall environmental resilience. **These findings highlight the importance of not only securing land tenure for socio-economic development and social cohesion, but also implementing additional strategies that specifically address natural resources management and environmental security.** By promoting integrated approaches that combine land tenure security with strong NRM and environmental policies, it becomes possible to achieve more holistic and sustainable development outcomes.

REVITALIZING LIBERIA'S FOOD BASKET: NIMBA, LOFA, AND BONG COUNTIES

Historically recognized as Liberia's food basket, Nimba, Lofa, and Bong counties have been pillars of the nation's agricultural production. Despite some recent improvements in livelihood security, these counties continue to face significant challenges, jeopardizing their ability to sustain their historical role as agricultural hubs.

1. Overview of Livelihood Security

In Nimba and Bong, significant improvements in livelihood security have been observed since 2021, with scores increasing by +1.8 and +1.2, respectively. These gains, driven by improved investment environments and enhanced personal security, place them among the most improved counties (see Table 2). Positive trends in these counties are reflected in a reduction of stressors and an increase in resilience capacities, apart from minor declines in intergroup contact and saving mentality. Importantly, Nimba, Bong and Lofa are three of only five counties reporting a general decrease in stressors without a corresponding decline in resilience factors, placing them in a favorable trajectory as they mitigate stressors while maintaining or improving resilience capacities (see Figures 11 and 12).

Lofa, while also showing some improvement with a livelihood security score increase to 4.3 (+0.6), presents a more troubling picture. The county's gains from better investments are undermined by a decline in physical security and resilience factors, particularly access to public services like water, sanitation, and hygiene (WASH), which experienced the steepest decline in the country (see Dashboard-Table 5). Physical insecurity in Lofa disrupts key economic activities by limiting farmers' mobility, access to markets, and their ability to cultivate and manage land effectively. The fear of violence, theft, and disputes forces many farmers to restrict their activities, leading to reduced productivity and further compounding their vulnerabilities. The deterioration of WASH services, a critical factor for public health and overall resilience, has further weakened productivity, especially in rural areas where agricultural activities rely on a healthy, active workforce. Together, these challenges undermine Lofa's ability to sustain and build upon investment gains, leaving its population increasingly exposed to external shocks and systemic stressors.

2. Focus on Farming Communities

The livelihood security of farming communities reflects the broader challenges faced by these counties. Farmers in Nimba and Bong report moderate livelihood security scores of 4.5 and 3.9, respectively, while those in Lofa experience the weakest score of 3.1, with over half living in critical insecurity (see Table 7). Lofa also exhibits the largest disparity between farmers' livelihood security and the county average, largely due to significant land security challenges (see Table 6).

Farmers in Lofa face severe land insecurity, with over a third unable to prevent unauthorized land use, control how the land is used, transfer land to successors, or sell it. Specifically, 15% of farmers in Lofa cannot prevent unauthorized access to their land (compared to the national average of 9%), 17% cannot control how their land is used (versus 8% nationally), 41% cannot transfer ownership to successors (versus 19%), and 56% cannot sell or alienate land rights (versus 28%). In contrast, Nimba and Bong report above-average land security, providing a stronger foundation for agricultural stability.

Natural resource management remains below average across all three counties, which is particularly troubling given their critical role in Liberia's food production. Inefficient NRM practices hinder sustainable resource use, compounding challenges to environmental security. In Bong, environmental insecurity is particularly pronounced, with 64% of farmers reporting frequent water and food shortages due to the degradation of climatic conditions (compared to the national average of 46%). However, Lofa demonstrates relatively stronger environmental security metrics, offering a potential area of resilience despite other vulnerabilities.

3. Recommendations for Revitalization

To restore their role as Liberia's agricultural heartland, targeted interventions are essential for Nimba, Lofa, and Bong counties.

Strengthening state presence, particularly in Lofa, is critical. This includes improving WASH infrastructure and ensuring reliable access to electricity and water to enhance public health and resilience, as well as bolstering physical security to create a safe environment for agricultural and livelihood activities.

Addressing land security in Lofa requires legal reforms to secure land rights, enabling farmers to prevent unauthorized use, control land usage, and transfer ownership. These reforms should be coupled with educational campaigns to inform communities about their land rights and establish transparent mechanisms for dispute resolution.

Promoting agricultural investment is also vital. Targeted financial tools and credit facilities should be made available, particularly in Lofa, to modernize farming practices and boost productivity. Supporting value-added agricultural initiatives, such as food processing facilities, can help diversify farmers' income streams.

Enhancing natural resource management and environmental security will require community-led resource management strategies to address deforestation and overexploitation, as well as the promotion of climate-smart agricultural practices. Training farmers in sustainable techniques will help improve yields and strengthen resilience against climatic stressors.

Section IV. Policy Recommendations: Suggestions To Support The Implementation Of ARREST

Message 1. Developing an Evidence-Based Tool to Track and Enhance Livelihood Security

Longitudinal SCORE surveys consistently indicate that the stressors undermining LS, as well as the resilience capacities reinforcing it, have remained relatively stable over the years. This persistence highlights the critical need for a robust Monitoring and Evaluation (M&E) tool capable of tracking variations in critical indicators across different counties and time points. The development of a Dashboard for Tracking resilient Livelihoods (DATLiv) designed to regularly and intuitively inform policymakers is recommended. This tool will provide frequent, clear snapshots of local strengths and weaknesses, supporting the ARREST strategy. By delivering timely and actionable data, the M&E tool will enhance the capacity of policymakers to make informed decisions, ensuring targeted and effective interventions to bolster LS and resilience across Liberia.

Message 2. Strengthening State Presence and Safety Nets for Vulnerable Populations

Three essential public sectors have been identified as significant resilient factors: Health services, Education services and administrative documents availability. During periods of economic recession or moderate growth, these basic services act as crucial safety nets, enabling vulnerable populations to withstand structural and/or temporary stressors. The trajectory of the ARREST strategy, which prioritizes the development of specific public sectors, appears to be well-founded in addressing these challenges. In this regard, it should be emphasized that the main expectations in the rural areas are targeted on road infrastructure development and more efficient healthcare system. Effective state presence and accessible public services are fundamental prerequisites for implementing development policies and are essential for achieving poverty reduction objectives. They establish a necessary framework for sustainable development initiatives, ensuring that interventions are grounded in providing critical support to communities in need.

Message 3. Leveraging Local Authorities to Support Rural Livelihoods

Among the different employment categories, farmers significantly place more trust in local authorities than the others. A combination of practical, economic, and cultural reasons can explain this situation. Partly due to limited access to public services, farmers tend to rely

on local authorities who are more accessible and better able to communicate in familiar terms. This dependence fosters a stronger trust in local officials over national or regional bodies, as local authorities are perceived as more responsive to farmers' immediate needs, such as during crises like crop failures or natural disasters. Their proximity and shared community values further strengthen this trust, making local authorities pivotal in farmers' informal networks for survival and cooperation. In this regard, it is crucial to ensure that local authorities are involved in the development of ARREST policies and through the interventions in rural areas. This will strengthen adherence to the projects and facilitate the efficiency of rural initiatives.

Message 4. Securing Land Tenure to Promote Development and Institutional Trust

Evidence indicates that land security, including rights to use, control, and transfer land, positively correlates with intergroup harmony, satisfaction with development progress, and trust in institutions. Given the evidence linking secure land tenure to broader developmental outcomes in Liberia, strong efforts should be made into implementing robust legal frameworks to define and protect land rights, particularly for smallholder farmers, ensuring equitable access and secure tenure. Additionally, educational campaigns are crucial to inform rural farmers about their rights and strengthen local institutions for fair land transactions and dispute resolution. To summarize, the results show how secure land tenure is crucial for Liberia's agricultural development and economic stability. In this regard, the implementation of ARREST strategy should prioritize the issue of land ownership in rural areas.

Message 5. Preparing Farmers for Climate Change Through Effective Natural Resource Management

Given the strong interconnection between Natural Resources Management mechanisms and vulnerability to climatic stressors, it is crucial to implement effective and socially accepted regulatory mechanisms for accessing natural resources. This is essential to enhance environmental security for agricultural activities. Effective NRM strategies can mitigate adverse climate impacts and ecological degradation by promoting sustainable resource use, cooperative resource-sharing arrangements, and collective management systems. Ensuring secure land tenure and enforcing sustainable practices are critical to preventing overexploitation and unauthorized land use. By integrating land tenure security with comprehensive NRM and environmental policies, it becomes possible to achieve holistic and sustainable development outcomes that bolster resilience against environmental challenges.

Bibliography

Deleeck, H. (1989). The Adequacy of the Social Security System in Belgium, 1976–1985. *Journal of Social Policy*, 18(1), 91–117. <https://doi.org/10.1017/s0047279400017220>

Kuivalainen, S. (2014). Subjective Poverty. In: Michalos, A.C. (eds) *Encyclopedia of Quality of Life and Well-Being Research*. Springer, Dordrecht. https://doi.org/10.1007/978-94-007-0753-5_2900

Schlager, E., & Ostrom, E. (1992). Property-Rights Regimes and Natural Resources: A Conceptual Analysis. *Land Economics*, 68(3), 249. <https://doi.org/10.2307/3146375>

SeeD (2021). *Livelihood Resilience and Escaping Poverty in Liberia. Assessing adversities and opportunities for livelihood security*, SCORE Report.

Annex I: Methodology

Data for the Liberia SCORE 2023 was collected between December 2023 and March 2024 across the country, with a total sample size of 3,844. Data for 2021 was collected between January and March 2021 across the country, with a total sample size of 3,874. Data for 2018 was collected between February and March 2018 across the country, with a total sample size of 6,206 respondents. Data is representative of age, gender and county, and was collected using quantitative face-to-face interviews.

Sample distribution in 2023

		(n)	(%)
Age Groups	18 - 24	466	12.1%
	25 - 34	903	23.5%
	35 - 54	1845	48.0%
	55 & more	630	16.4%
Gender	Male	1930	50.2%
	Female	1914	49.8%
Urbanity	Rural	1855	48.3%
	Semi-rural	1297	33.7%
	Urban	692	18.0%
County	Bomi	271	7.0%
	Bong	260	6.8%
	Gbarpolu	256	6.7%
	Grand Bassa	260	6.8%
	Grand Cape Mount	262	6.8%
	Grand Gedeh	260	6.8%
	Grand Kru	180	4.7%
	Lofa	258	6.7%
	Margibi	261	6.8%
	Maryland	184	4.8%
	Montserrado	419	10.9%
	Nimba	280	7.3%
	River Cess	235	6.1%
	River Gee	195	5.1%
	Sinoe	263	6.8%

