PRIMARY EDUCATION FINANCING IN UGANDA

ASSESSING THE IMPACT OF PRIMARY EDUCATION FINANCING ON RETENTION, COMPLETION, AND TRANSITION RATES IN WEST NILE AND KARAMOJA SUB-REGIONS

FY2021/22 – FY2023/24

MINISTRY OF FOREIGN AFFAIRS OF DENMARK

CSBAG
Budgeting for equity
Civil Society Budget Advocacy Group

OXFAM

Photo Caption: Pupils of Awa Primary School, in Odupi sub-county, Terego district of West Nile in Uganda. Awa Primary is one of the schools supported under the 5-year "Geared for success" (GFS) project, implemented by War Child Canada, Oxfam Canada and Oxfam in Uganda, in partnership with six community-based organizations in the Yumbe, Terego and Obongi districts

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Disclaimer:

The views and interpretations expressed in this report are the authors' and do not necessarily reflect those of DANIDA or the Ministry of Foreign Affairs of Denmark.

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LIST OF ACRONYMS AND ABBREVIATIONS

AG	Auditor General
ASER	Annual Status of Education Report
CAO	Chief Administrative Officer
CCT	Centre Coordinator Tutor
CRC	Convention on the Rights of the Child
CSBAG	Civil Society Budget Advocacy Group
DANIDA	Danish International Development Agency
DEO	District Education Officer
DINU	Development Initiatives for Northern Uganda
DIS	District Inspector of Schools
DRDIP	Development Response to Displacement Impacts Project
EAC	East African Community
EMIS	Education Management Information System
EPRC	Economic Policy Research Centre
FY	Financial Year
GDP	Gross Domestics Product
GE	Gender Equity
H/T	Head Teacher
KII	Key Informant Interview
KOICA	Korea International Cooperation Agency

LGPA	Local Government Performance Assessment
LGs	Local Governments
MoES	Ministry of Education and Sports
MoFPED	Ministry of Finance, Planning and Economic Development
NAPE	National Assessment of Proficiency in Education
NCDC	National Curriculum Development Centre
NGOs	Non-Government Organisations
NPA	National Planning Authority
NWSC	National Water and Sewerage Corporation
P.4	Primary Four
P.5	Primary Five
P.6	Primary Six
PPS	Probability Proportional to Size
PTA	Parents Teachers Association
PTR	Pupil-to-Teacher Ratio
SDG	Sustainable Development Goal
SNE	Special Need Education
ToR	Terms of Reference
UBOS	Uganda Bureau of Statistics
UGX	Uganda Shilling
UNATU	Uganda National Teachers Union
UNEB	Uganda National Examinations Board

UNESCO	United Nations Educational, Scientific and Cultural Organization
UNHCR	UN Refugee Agency
UNICEF	United Nations Children's Fund
UNOCHA	UN Office for the Coordination of Humanitarian Affairs
UNSER	Uganda National Schools Electronic Registry
UPE	Universal Primary Education
USDC	Uganda Society for Disabled Children
UWS-K	Umbrella Organisation for Water and Sanitation in Karamoja
WHO	World Health Organisation

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EXECUTIVE SUMMARY

Introduction

Access to quality primary education is a fundamental pillar for human capital development, yet significant disparities persist in Uganda's West Nile and Karamoja sub-regions. This study examines primary education financing, enrolment, retention, completion, and key infrastructure and teacher availability trends from FY 2021/22 to FY 2023/24. Despite the government's commitment to Universal Primary Education (UPE), persistent gaps in funding, high pupil-to-teacher and pupil-to-classroom ratios, inadequate infrastructure, and low transition rates to secondary education continue to undermine learning outcomes.

Background

Uganda's education sector operates under the Universal Primary Education (UPE) policy, aimed at providing free and equitable access to primary schooling. However, disparities in financing, infrastructure, and teacher availability have resulted in significant regional inequalities, particularly in the West Nile and Karamoja sub-regions. These areas face unique challenges, including high pupil enrolment due to refugee influx in West Nile, nomadic lifestyles in Karamoja, and widespread poverty, all of which contribute to low retention and completion rates.

While national education policies set standards for pupil-to-teacher ratios, classroom availability, and capitation grants, the study reveals that allocations remain insufficient to meet the needs of these underserved regions. The persistent underfunding of essential inputs such as teacher recruitment, school infrastructure, and instructional materials has exacerbated education inequalities, with Karamoja and West Nile recording some of the lowest completion and transition rates in the country.

Methodology Applied

A mixed-methods approach was used, combining quantitative and qualitative techniques. Quantitative data focused on budget allocations, expenditures, and performance metrics, analyzed using descriptive and inferential statistics. Qualitative insights were gathered through key informant interviews and field observations. Sampling included the Krejcie & Morgan formula for random sampling and purposive sampling for qualitative respondents. Tools including the Annual Status of Education Report (ASER) were employed alongside a review of government documents and policies.

Key Findings

1. **Low Completion and Transition Rates:** Karamoja records the lowest primary completion (18%) and transition to secondary education (12%) rates, while West Nile fares slightly better (38% and 29%, respectively), both significantly below national averages.
2. **Overcrowded Classrooms and High Pupil-to-Teacher Ratios:** Pupil-to-teacher ratios (PTR) are alarmingly high, with Karamoja at 1:108 and West Nile at 1:85, far exceeding the national standard of 53:1. Similarly, pupil-to-classroom ratios (PCR) remain well above acceptable levels, impacting learning conditions.
3. **Inadequate Education Financing:** The capitation grant per pupil has stagnated at UGX17,000 annually, well below NPA's recommended amount per learner of UGX63,546 for urban schools and UGX59,503 for rural schools.
4. **Teacher Shortages and Payroll Gaps:** Only 70% of teachers in Karamoja and 84% in West Nile are on the government payroll, compared to the national average of 95%. High absenteeism rates of 30% in Karamoja and 24% in West Nile further exacerbate learning challenges.
5. **Severe Infrastructure Deficiencies:** Only 18% of schools in Karamoja and 33% in West Nile have access to electricity, while staff housing remains inadequate, affecting teacher retention.
6. **Budget Release Discrepancies:** The actual budget disbursements for primary education are below the allocated amounts, with Karamoja receiving only 84% of its approved funding in FY 2023/24, leading to operational inefficiencies.
7. **Socio-Economic Barriers:** High dropout rates (52% in Karamoja and 37% in West Nile) are driven by poverty, child marriages, teenage pregnancies, insecurity, and socio-cultural factors, necessitating targeted social interventions.

Conclusion

The persistent disparities in primary education financing and service delivery in West Nile and Karamoja sub-regions have resulted in poor learning outcomes, low retention rates, and limited access to quality education. Addressing these challenges requires a multi-faceted approach, including increased budget allocations, targeted teacher recruitment, infrastructure investments, and stronger governance mechanisms. Without urgent intervention, these inequalities will continue to hinder human capital development and socio-economic progress in these marginalized sub-regions. Strengthened financial commitments and policy reforms are essential to ensuring that every child, regardless of location, has access to quality primary education.

Recommendations

1. **Increase Capitation Grants:** The government should revise capitation grants to NPA's recommended amount per learner of UGX63,546 for urban schools and UGX59,503 for rural schools to better support school operations and learning inputs.

2. **Enhance Local Government Education Financing:** Districts should allocate a fixed percentage of local revenues for teacher recruitment, school infrastructure, and learning resources.

3. **Improve Budget Credibility and Fund Utilization:** Full and timely disbursement of education budgets should be ensured, with stronger accountability mechanisms to track expenditures and minimize inefficiencies.

4. **Strengthen Teacher Recruitment and Payroll Inclusion:** The government should fast-track teacher recruitment and onboarding, while introducing hardship allowances for teachers in remote areas to improve retention.

5. **Reduce High Pupil-to-Teacher Ratios:** Targeted recruitment of teachers, coupled with improved attendance monitoring, will help address overcrowding in classrooms and improve learning outcomes.

6. **Invest in School Infrastructure Development:** Increased funding should be allocated to build additional classrooms, staff housing, and ensure access to electricity and water in schools.

7. **Strengthen Efforts to Reduce Child Marriages and Teenage Pregnancies:** Community-based interventions and adolescent-friendly reproductive health programs should be expanded to keep more girls in school.

8. **Enhance Monitoring and Accountability in Education Financing:** Stronger oversight mechanisms should be implemented to ensure efficient fund allocation and utilization, with active involvement of school management committees and Parent-Teacher Associations (PTAs).

1.0 INTRODUCTION

1.1 Introduction

The Civil Society Budget Advocacy Group (CSBAG) in collaboration with Oxfam and DANIDA commissioned an assignment titled "Assessing the Impact of Primary Education Financing on Retention, Completion, and Transition Rates in West Nile and Karamoja Sub-Regions during FY 2021/22 – FY 2023/24," that was conducted in the month of November 2024.

The report establishes the connection with global frameworks, particularly the Dakar Declaration, Sustainable Development Goals (SDGs), and Uganda's national development plans. The key SDG relevant to this study is SDG 4, which aims to ensure inclusive, equitable quality education and promote lifelong learning opportunities for all, a target that underscores the importance of financing education[1].

1.2 Objectives of the Study

The primary objective of this study was to assess the impact of education financing on learner performance in Uganda's West Nile and Karamoja sub-regions, with a focus on identifying gaps and opportunities to enhance equitable access to quality primary education. The specific objectives were:

(i) Examine the **Allocation** and **Utilization** of Primary Education Financing:

- Analyze the trends, structure, and adequacy of education financing at the national, sub-regional, and district levels.
- Evaluate the extent to which allocated funds are utilized to address disparities in West Nile and Karamoja sub-regions.

(ii) Assess Educational Inputs Supported by Financing:

- Investigate the availability and quality of key educational inputs, including teacher recruitment and retention, school infrastructure, learning materials, and resources for inclusive education.
- Identify specific challenges and barriers that limit the effective use of education financing to improve these inputs.

1. UNESCO (2014). Sustainable Development Goal: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all. United Nations Educational, Scientific and Cultural Organization.

(iii) Analyze the Correlation between Financing and Pupil Performance:

- Assess how financing influences key educational outcomes, including pupil enrollment, retention, completion rates, and performance in national exams like the Primary Leaving Examination (PLE).
- Explore variations in performance across gender, marginalized groups, and geographical areas within the sub-regions.

(iv) Provide Recommendations for Policy and Practice:

- Develop evidence-based recommendations to improve the efficiency and effectiveness of primary education financing.
- Suggest strategies to address financing gaps and ensure equitable access to quality primary education in West Nile and Karamoja sub-regions.

1.3 Context of the Assignment

Uganda's education system faces significant challenges in the financing of primary education. The government has made strides through various policy frameworks, yet gaps remain in terms of adequate resource allocation, distribution, and utilization[2]. A comparative examination of Uganda's education financing at both the national and regional levels is necessary to understand the disparities that exist, particularly between the West Nile and Karamoja sub-regions. While national efforts are in place to increase education funding, the regional variance in funding allocations and expenditure patterns directly impacts the quality of primary education, particularly in rural and underserved areas like West Nile and Karamoja that are subject of this study[3].

To fully address the study's main concern of primary education financing, it is imperative to examine both the trends in funding and the allocation of resources across key educational inputs, such as infrastructure, learning materials, and teacher capacity. Moreover, a focus on primary education financing as the central theme will help frame discussions about the adequacy of current policies and their alignment with broader development goals like those outlined in Vision 2040, NDP-IV Draft and SDG-IV[4].

2. Uganda Ministry of Education and Sports (2019). Education Sector Strategic Plan 2017/18 - 2029/30. Republic of Uganda.

3. Ministry of Finance, Planning, and Economic Development (MFPED) (2020). Public Investment Management and the Education Sector in Uganda: A Focus on Primary Education Financing. Government of Uganda.

4. UNESCO (2020). Global Education Monitoring Report 2020: Inclusion and Education: All means all. United Nations Educational, Scientific and Cultural Organization.

It can be stated that primary education forms the bedrock of Uganda's socio-economic development. Uganda as many other African countries is facing a learning crisis. Learning poverty, the share of children not able to read and understand an age-appropriate text by age 10, is estimated by the World Bank, United Nations Educational, Scientific and Cultural Organization (UNESCO), and other organizations at 80%.[5]

By anchoring the national development plans and global commitments under an adequately financed primary education cycle, the country's young labor-force even at that level without transitioning to other levels of learning or skilling, is able to perform basic economic activities that add value to the country's human development especially where the purpose of primary education as stated in the Uganda Education Policy Framework includes prioritizing numeracy and literacy proficiency (i.e. reading, writing and math), among others.

Uganda is signatory to several international instruments that guarantee the right to education and these have been domesticated into elaborate legal and policy framework that guarantees the right to education for all persons. Nationally, this is outlined in Article 30 of Uganda's Constitution as well as Article 34(2) and Section 8 of the Education Act which states that the government has the responsibility to provide statutory grants, hire, allocate, and compensate teaching and non-teaching personnel, and supply educational materials and other resources for development.

The government in 1996 introduced free primary education, which increased primary school enrolment from 3.1million in 1996 to 8.84 million consisting of 50% male and 50% female distribution in 2018[6]. However, despite the increase in enrolment, the education system has enormous challenges that present a threat to the right to education especially for marginalized groups. These include low school retention rates, quality of education and a very low transition rate to secondary level.

The 2022 World Bank report on inequality and access to human opportunities reveals that while enrolment has registered more equality, other areas like learner's gender, hard to reach and stay (under-served locations), and monetary well-being, which greatly impact education outcomes, are lagging.

Geographic location of the primary education facility accounts for more than 40% of all inequality in school enrolment and timely completion. The report further reveals that by FY2019/20 a paltry 20% of the learners aged 13-16 years had completed primary education cycle on time. Of interest to note is that Northern Uganda, with 10% of its learners completing primary education cycle on time thereby posting one of

5. UNESCO. Uganda: Education Country Brief. January 2024 https://www.iicba.unesco.org/en/uganda
6. Uganda Bureau of Statistics (2022). Primary school enrolment by class and sex

the lowest rates.[7] The strong influence of geographic location on school enrolment and timely completion - accounting for over 40% of inequality - highlights deep-rooted disparities in access to quality education, where remote and underserved areas such as those in West Nile and Karamoja sub-regions, face critical shortages in infrastructure, teacher availability, and learning resources, ultimately limiting educational outcomes and perpetuating socio-economic inequality.

A 2019 report by United Nations Children's Fund (UNICEF)[8] reveals that only 10% of children with disabilities in Uganda have access to special education services compared to a global average of 40%. In addition, Uganda hosts over 1 million refugees who rely on the same social services as host communities. This situation aggravates the already constrained provision of basic services in the refugee-hosting districts, which are among the least developed in the country[9]. If this trajectory continues, it will likely hamper Uganda's ambition to improve its human development indicator including the country's ability to deliver on services outlined in the national development plan and National Vision 2040 aspiration.

However, Uganda's education financing falls short of its national and international commitments. Analysis by CSBAG of the Education Sector budget for FY2020/21-FY2022/23 reveals the Education budget averaged at 12% in FY2020/21, 13% in FY2021/22 and 8% in FY 2022/23.

This is lower than the Dakar Declaration which requires African Union States to spend at least 20% of their National Budgets on Education. The per capita spending per learner is still inadequate. For example, in FY2022/23, the UPE Capitation Grant was translating to UGX17,000 per child. This is lower than the NPA's recommended budget per learner of UGX63,546 for urban schools and UGX59,503 for rural schools[10].

According to a study by UNICEF, at 2.2% of GDP and 8.4% of the total national budget, the level of spending on Education in Uganda falls short of international targets (5% of GDP and 20% of Total Budget-Dakar declaration). However, the education budget has been increasing in nominal and real terms over the past 5 years while capitation grant has remained somewhat static during the period.

7. World Bank (2022). Uganda Poverty Assessment Brief - Inequality in Access to Human Opportunities. Page 2.

8. UNICEF (2019). Situation Analysis of Children in Uganda.

9. Uganda Education Refugee Response Plans (2018-2021)

10. National Planning Authority (NPA) Proposal for Capitation Grant Rates. NPA, 2021, National Development Report: Strategic Framework for Uganda's Development, pages 8–12. Justification: NPA recommends UGX63,546 for urban schools and UGX59,503 for rural schools to address funding gaps and improve educational quality.

Table 3: Share of the education sector budget in the discretionary budget[11]

FY (UGX Billion)	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24
Education	1,808	2,013	2,303	2,321	2,746	2,829	3,167	3,399	3,700	3,600	3,800	2,497
Total Discretionary Budget	10,376	12,340	14,039	16,735	18,969	20,425	24,023	30,167	32,729	34,000	36,000	72,000
Percentage Share	17%	16%	16%	14%	14%	14%	13%	11%	11%	11%	11%	3.5%

Over the years, the education sector's on-budget finances have mainly been funded from domestic resources following adoption of international entities' recommendations. Domestic resources, which form the bigger part of education financing, have been on an increasing trend over the years (FY2017/18-FY2021/22) except in FY 2023/24, where a decline was registered, at 93% from 95% in FY2022/2023[12]. The significant decrease in the percentage share for FY 2023/24 is due to the substantial increase in the total discretionary budget, while the allocation to the education sector did not increase proportionally.

The proportion of external financing has begun to recover, following a phase of decline. As the share of the total education budget, external financing continued to decline, from 8% in 2017/2018 to 2% in 2021/2022. However, the external resources recovered slightly to 7% in FY2023/2024 from 5% in FY 2022/2023. The slight increase of the external resources for Education in FY2023/24 is attributable to new projects such as Uganda Learning Acceleration Program (ULEARN), the African Centers of Excellence II Project by UGX65.7bn as well as the Uganda Secondary Education Expansion Project by UGX128.6bn, mainly funded by the World Bank.[13]

The fluctuations in education budgets between FY 2020/2021 and FY 2023/2024 were significantly influenced by the COVID-19 pandemic, particularly the lockdown measures implemented through Presidential executive orders. On March 18, 2020, Uganda's President announced a nationwide lockdown, which included school closures as part of efforts to curb the spread of the virus. The decline in the proportion of domestic resources funding Uganda's education sector from 95% in FY2022/23 to 93% in FY2023/24 is primarily attributed to a reduction in external support.

11. Ministry of Finance, Planning, and Economic Development (MoFPED). (2013–2021). Approved Budget Estimates for Revenue and Expenditure: FY 2012/13 to FY 2020/21. Kampala, Uganda.

12. Sustaining the Gains in the Education Sector Uganda Budget Brief for Financial Year 2023/24

13. World Bank (2022). Confronting the Learning Crisis Lessons from World Bank Support for Basic Education, 2012–22 An Independent Evaluation

Notably, the number of donors contributing to the education sector decreased from six in FY2018/19 to only one in FY2023/24, with the World Bank remaining the sole major funder. This reduction in donor support was linked to concerns over financial mismanagement and lack of transparency within the government.

For instance, in 2022, the World Bank withheld a $1.5bn loan to Uganda due to issues related to corruption and the enactment of the Anti-Homosexuality Act. Similarly, the European Union reduced its development aid to Uganda by 20% over concerns of financial mismanagement. These actions have led to a decrease in overall funding for the education sector. The implications of this decline are significant, potentially affecting the quality of education due to reduced financial resources. To mitigate these effects, it is crucial for the government to engage transparently with stakeholders and ensure the efficient use of available resources to restore and maintain donor confidence.

The closure of schools for nearly two years disrupted planned education expenditures, especially for infrastructure, learning materials, and routine operations. Consequently, the education sector experienced budget reallocations to cater to remote learning initiatives and health safety preparations. This is documented in the MoES 2020 report on the pandemic's impact, which details how funds were repurposed for immediate pandemic needs[14].

In FY 2020/2021, funding levels for education declined as allocations were reprioritized for health and pandemic response efforts. However, as the country began to recover and schools reopened, subsequent budgets in FY 2022/2023 and FY 2023/2024 were adjusted to accommodate health safety measures, learning recovery, and school reintegration processes and not the core focus of the drivers of education outcomes as it were before the COVID-19 pandemic. This recovery-focused funding is outlined in Uganda's National Budget Framework Paper, which reflects the shift in priorities toward post-pandemic recovery[15].

Additionally, the 3rd National Development Plan (NDP III) emphasized education sector revitalization as a key strategy, underscoring the need for improved learning environments and addressing pandemic-induced challenges[16]. These adjustments align with the broader objectives of Vision 2040, which advocates for resilient education systems capable of withstanding external shocks[17].

14. Ministry of Education and Sports, Impact of COVID-19 on the Education Sector in Uganda: A Report, 2020, p. 12

15. Ministry of Finance, Planning and Economic Development, National Budget Framework Paper FY 2020/2021 to FY 2023/2024, 2020, p. 18.

16. Uganda 3rd National Planning Authority, National Development Plan III: 2020/2021–2024/2025, 2020, p. 47.

17. Uganda Vision 2040: A Transformed Ugandan Society from a Peasant to a Modern and Prosperous Country within 30 Years, p. 65.

1.4 International, Regional, and National Legal Frameworks

Uganda's commitment to delivering universal primary education is deeply rooted in international human rights conventions. Article 13 of the International Covenant on Economic, Social, and Cultural Rights (ICESCR) mandates that governments ensure access to free and compulsory primary education for all. By ratifying the ICESCR, Uganda became obligated to operationalize its principles, which directly influenced the adoption of the UPE policy in 1997.

Similarly, Article 28 of the Convention on the Rights of the Child (CRC) emphasizes the removal of financial and systemic barriers to primary education, ensuring inclusivity for marginalized groups. General Comment No. 11 of the UN Committee on Economic, Social, and Cultural Rights elaborates that states must provide adequate resources and adopt measures to meet these obligations effectively. However, financing challenges have limited Uganda's capacity to fully implement these commitments.[18]

The Dakar Framework for Action, adopted at the World Education Forum in 2000, emphasized the critical need for increased and equitable financing for education to achieve universal access and quality learning. The Declaration recommended that countries allocate at least 5% of their Gross Domestic Product (GDP) and 20% of their national budgets to education as a benchmark for sustainable funding.

This commitment aims to address disparities in access, quality, and outcomes, particularly for marginalized and underserved populations. The framework underlines that investment in education is pivotal for economic growth, social development, and the realization of other global goals. Despite the clear target, many countries, particularly in Sub-Saharan Africa, continue to struggle with achieving these financing thresholds, posing significant challenges to meeting education goals.[19]

According to the World Bank[20], Uganda's public education spending equaled 2.7% of GDP in 2021, which is below the average for selected East African countries and the 4% minimum level recommended by the Education 2030 Framework for Action. In 2021 Tanzania's spending was 3.3%, Rwanda 3.8%, Kenya 4.8%.

In the African context, Uganda's adherence to the African Charter on Human and Peoples' Rights and the African Charter on the Rights and Welfare of the Child underscores a regional commitment to advancing the right to education. Article 17 of the former and Article 11 of the latter emphasize equitable access to education,

18. ICESCR General Comment No. 11: Plans of Action for Primary Education", issued by the United Nations Committee on Economic, Social and Cultural Rights, p. 12–15

19. UNESCO. (2000). The Dakar Framework for Action: Education for All – Meeting Our Collective Commitments. Paris, p.14.

20. World Bank (2022). Economic Update for Uganda. 22nd Edition. More Effective, Efficient and Equitable Public Spending for Education will Help Uganda Realize its Potential.

particularly for marginalized communities such as the Karamoja pastoralists and refugee-hosting districts in West Nile. Regional frameworks advocate for the targeted allocation of resources to address disparities in access and infrastructure, which remain critical concerns in Uganda's primary education sector.[21]

Within the East African Community (EAC), the Protocol on Education and Training promotes harmonized education systems across member states. Uganda's participation in this protocol underscores its commitment to inclusivity, particularly in underserved districts. However, significant disparities persist due to insufficient financing and systemic inefficiencies, which have left rural and marginalized areas underfunded.[22]

On the Uganda legal scene, the 1995 Constitution, under Articles 30 and 34, guarantees every child the right to education and obligates the state to provide free primary education. These provisions underpin the Universal Primary Education (UPE) policy. However, the government's education budget allocations often fall short of constitutional mandates, limiting the effectiveness of UPE.[23] The Education Act of 2008 formalized the UPE framework, specifying the roles of the central government, local authorities, and communities in financing and managing primary education. Key Aspects of the Act include;

- The Central Government Responsibilities: Provides capitation grants to cover tuition fees for UPE learners; Pays teachers' salaries and funds school infrastructure development; Sets education policies, curriculum, and quality assurance standards through the MoES.
- Local Government Responsibilities (Districts, Municipalities, and Sub-counties):
- Oversee the implementation of UPE in their jurisdictions; Recruit and deploy teachers within the approved payroll structure; Support the monitoring and supervision of schools to ensure compliance with national standards.
- School Management Committees (SMCs) and Boards of Governors: Act as governance structures responsible for school administration and accountability; Manage school-level finances, including UPE capitation grants, to ensure funds are used transparently and effectively.
- Community and Parental Roles: Parents are expected to support their children's learning by providing lunch, scholastic materials, and basic hygiene needs; The local community contributes to school development through participation in

21. African Charter on Human and Peoples' Rights", specifically Article 11, which deals with the right to education. The document you referred to is the "African Commission on Human and Peoples' Rights Report", p. 45–50.

22. East African Community (EAC) Protocol on the Establishment of the East African Community Common Market", specifically the report from 2023, p. 20–23.

23. Republic of Uganda. (1995). The Constitution of Uganda (Articles 30 and 34). Kampala: Government of Uganda

infrastructure maintenance and management; Redistribution of Responsibilities and Duty Bearers.

The Act decentralized education governance, **giving local authorities a key role in implementation**, while the **central government retained policy control and financing functions**. By formalizing UPE, the law reinforced the state's duty to provide free and compulsory primary education, while also clarifying the shared responsibilities of parents, communities, and school governance bodies. Nevertheless, insufficient local revenue streams and limited central government transfers have undermined the Act's implementation in resource-constrained districts such as those in Karamoja and West Nile sub-regions.[24]

1.5 Structure of the Report

The report is structured under four sections; first is this Introduction section that sets the context for the study, highlighting the background, objectives, significance, and the structure of the report. Section two details the Methodology covering the study design, data collection methods, sampling approach, and limitations and mitigation measures thereof for challenges encountered during the assignment execution. Section three contains the key findings which include the analysis of education financing, assessment of availability and quality of teachers, stock and quality of infrastructure, learning materials, and resources for marginalized groups (refugees and SNE pupils.

The section also presents an analysis of the relationship between financing, inputs, and pupil performance, with a focus on regional equity gaps and systemic barriers. Section four presents key recommendations and conclusions for advocacy actions in addressing challenges and improving equity in primary education. The Annex section includes supplementary materials i.e. methodology, study tools used, references used, and stakeholder lists.

24. Republic of Uganda. (2008). The Education Act (pp. 17–22). Kampala: Government of Uganda

2.0 METHODOLOGY

2.1 Scope of the Study Assignment

This study entailed assessing the impact of primary education financing on learner performance in the West Nile and Karamoja sub-regions. It explored the interplay between financial investments, educational inputs, and learner outcomes to identifying disparities and gaps in education service delivery. This study focused on the following areas:

- **Education Financing:** Assessment of budgetary allocations, sources of funding, and expenditure patterns specific to primary education in West Nile and Karamoja sub-regions.
- **Educational Inputs:** Evaluation of teacher availability, infrastructure quality, access to learning materials, and inclusion resources to understand their adequacy and alignment with financing.
- **Learner Performance:** Analysis of performance metrics such as PLE results, enrollment, retention, transition rates, and factors influencing disparities in outcomes across schools and districts.
- **Stakeholder Engagement:** The study involved consultations with key stakeholders, including national and district education officials, teachers, civil society actors, and community representatives, to gather qualitative insights and validate findings.
- **Comparative Analysis:** A comparative perspective was adopted to evaluate the financing and performance in West Nile and Karamoja sub-regions relative to national average and standards, highlighting equity gaps and areas requiring targeted intervention.

2.2 The Study Design

This study employed a mixed-methods approach to comprehensively analyze the impact of primary education financing on student performance in West Nile and Karamoja sub-regions. The methodological framework ensured a robust exploration of both qualitative and quantitative data. The study utilized a cross-sectional design, incorporating diverse data sources to capture a snapshot of trends and dynamics within the specified financial years. Both primary and secondary data were included, enabling triangulation to enhance reliability and validity.

2.3 Study Area and Population

The research targeted districts in West Nile and Karamoja sub-regions, with specific focus on refugee-hosting districts, i.e. Madi-Okollo and Yumbe on one hand and areas faced with sporadic cattle-raiding and wildlife-human conflicts, i.e. Abim and Nabilatuk on the other. This geographic scope provided insights into sub-regional contexts in education financing and outcomes.

2.4 Rationale for the Choice of West Nile and Karamoja Sub-Regions

The selection of West Nile and Karamoja sub-regions for this study was influenced by unique socio-economic and geopolitical factors that have persistently hindered primary education outcomes. West Nile sub-region, located in north-western Uganda, hosts the largest number of refugees in the country, with over 1.3 million refugees, accounting for 65% of Uganda's total refugee population[25].

This influx has placed immense strain on the region's already limited education infrastructure. Refugee settlements like Bidibidi in Yumbe District and Rhino Camp in Madi-Okollo District have resulted in overcrowded schools, with pupil-to-classroom ratios reaching 1:150 in some areas.[26] Additionally, the UNICEF financing study clearly outlines inequities in finance distribution internally - this is also the rationale - the two sub-regions are financially marginalised.

In West Nile, the high poverty rate, estimated at 45.6%, exacerbates education challenges, as many households struggle to afford even basic school supplies - undermining the effectiveness of the UPE policy. According to the World Food Programme (WFP), 42% of households in West Nile face moderate to severe hunger, highlighting the persistent food insecurity in the region. This has a direct impact on learner retention, as hunger reduces attendance and participation in schools.[27]

The region also grapples with unique socio-cultural barriers. Child labor, often linked to agricultural activities, is widespread, while teenage pregnancies and early marriages contribute significantly to high dropout rates. Completion rates for primary education in West Nile stand at 38%, well below the national average of 61%.[28]

Karamoja remains one of Uganda's most underserved sub-regions, facing persistent challenges such as extreme poverty, insecurity, and cultural norms that hinder

25. UNHCR. 2023. Uganda: Refugee Education Response Plan Annual Report, p. 10
26. UNHCR. 2023. Uganda: Refugee Education Response Plan Annual Report, p. 12
27. WFP Uganda Annual Report 2023: Enhancing Food Security and Education Outcomes, p. 25
28. MoES. 2023. Education Management Information System (EMIS) Annual Data Report, p. 47

educational access and retention. According to Uganda's MoES, Karamoja sub-region has consistently recorded the lowest literacy rates in the country, with only 11% of its population considered literate as of 2022[29]. Poverty levels in the region remain staggering, with 66% of households living below the poverty line, far above the national average of 20.3%.[30]

Episodes of cattle raids, perpetuated by inter-ethnic conflicts and the proliferation of illegal firearms, continue to disrupt normal life and school attendance. Reports from the UN Office for the Coordination of Humanitarian Affairs (UNOCHA) reveal that over 40 schools out of 290 government-aided primary schools under the programme in the sub-region were temporarily closed due to insecurity in 2022 alone, affecting over 12,000 learners[31].

Wildlife incursions, particularly from Kidepo National Park, have added to the region's challenges, creating unsafe conditions for learners and teachers traveling to schools.[32] In addition to insecurity, child marriages and teenage pregnancies are prevalent. UNICEF report (2022) notes that 36% of girls in Karamoja sub-region are married before the age of 18, one of the highest rates in the country, and 30% of adolescent girls have experienced pregnancy.[33] Such practices contribute significantly to the region's high dropout rates, with completion rates for primary education in the sub-region standing at a dismal 18% in FY2022/23 compared to the national average of 61%.[34]

2.5 Sampling Strategy

For quantitative data components, such as the schools and pupils (girls and boys) were selected randomly (simple random sampling). The study applied the sampling formula authored by Krejcie & Morgan[35] to determine the sample size for number of schools to participate in the study. The sampling technique was chosen for this study because it provides a scientifically validated and widely recognized approach to determining sample sizes based on population sizes.

In contrast, respondents for qualitative data components such as key informant interviews were purposively selected because they – the District Education Officer and Chief Administrative Officer at each of the 4 districts were a given while the

29. Ministry of Education and Sports Annual Performance Report for the Financial Year 2022/2023, 2023, p. 37

30. UNICEF Uganda Annual Report 2022: Advancing Children's Rights and Well-being, p. 15

31. UNOCHA Uganda Humanitarian Brief 2023: Key Developments and Response Efforts, 2023, p. 8

32. Development Initiative for Northern Uganda (DINU) Report 2023: Progress and Impact on Education and Livelihoods. p. 19

33. UNICEF Uganda (2022). Advancing Children's Rights in Uganda: Key Achievements and Challenges, p. 18-20).

34. Ministry of Education and Sports (MoES). Education Management Information System (EMIS) Data Reports for FY 2021/22 to FY 2023/24. Kampala, Uganda. 2023, p. 45

35. Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. Educational and Psychological Measurement, 30(3), 607-610.

pupils were already identified for the quantitative tool administration as well and the respondent parents were those who had children enrolled at a UPE school in the study area.

To assess learning outcomes, six pupils - two from each of P4, P5, and P6 classes – were purposively selected to participate in a reading and numeracy assessment. From each class, one male and one female learner was chosen at random. The table below shows the targeted sample size achieved using the above formula.

Table 4: Sample size achieved for the quantitative tool administered

District	No. of Government [36] Aided Primary Schools in the District	Schools targeted	Schools achieved	%age	Pupils targeted	Pupils inter-viewed	%age
Abim	36	22	22	100%	132	127	96%
Madi Okollo	74	44	41	93%	264	170	64%
Nabilatuk	17	10	10	100%	60	76	127%
Yumbe	138	82	79	96%	492	464	94%
Grand Total	**265**	**158**	**152**	**96%**	**948**	**837**	**88%**

Source: Impact of the study on Primary Education Financing on Learners' Performance in West Nile and Karamoja Sub-Regions for Financial Years 2021/22 to 2023/24 – Survey Findings, November 2024

The assessment targeted a total of 158 schools across the West Nile and Karamoja sub-regions, with the Study successfully reaching 96% of these sampled schools. Regarding the pupils, 88% of the target sample was attained. The low attendance was primarily due to decreased school attendance following the completion of end-of-term exams. Additionally, pupils in Primary Seven were not assessed, as they had already completed their Primary Leaving Examinations. The table below shows the respondent segments that constituted the study qualitative tool administration.

36. Uganda National Schools Electronic Registry (UNSER)

Table 5: Sample achieved for the qualitative tool administered

Description	Category	Number (#)
District Staff/Division	Chief Administrative Officer (CAO)	04
Education Department	District/Division Education Officers	04
Community	Parents of a school-going learner	40
Pupils	The same pupils on whom quantitative tool was administered also participated in the ***reading, writing and arithmetic exercise***	837
Total		**885**

Source: Impact of the study on Primary Education Financing on Learners' Performance in West Nile and Karamoja Sub-Regions for Financial Years 2021/22 to 2023/24 – Survey Findings, November 2024

2.6 Data Collection Tools

For quantitative component, the study used structured questionnaires and data sheets sourced from school records and government reports such as the MoES, Uganda National Examinations Board (UNEB), National Service Delivery Standards, the Auditor General Reports, National Curriculum Development Centre (NCDC), Local Government Performance Assessments (LGPAs), and Uganda Bureau of Statistics (UBOS), from which detailed information on primary education service delivery standards, annual education budgets, regional funding allocations, and learner and school performance data were accessed. Additionally, expenditure data was sourced from district education offices, offering insights into actual spending on key educational inputs; teacher and learners' numbers, infrastructure, and learning materials. These data sets allowed for statistical analysis of financing trends, disparities, and their resulting influence on educational outcomes.

For qualitative component, the study employed Key Informant Interviews (KIIs) and Observations as primary data collection methods. KIIs were conducted with policy-makers, education officials, and leaders from civil society organizations at the national and district levels, as well as Head Teachers, parents and local community representatives. These interviews sought to gather in-depth insights on the challenges and strategies around financing, teacher availability, infrastructure availability, and gender and inclusion efforts in the target sub-regions.

Field observations were also carried out in the study schools within the sub-regions, providing firsthand information about the quality of the stock of school infrastructure, the availability of learning materials, and the general learning

environment. This included observation of classroom conditions, training facilities, and the teacher-to-pupil ratios. Data from these field visits were used to supplement and contextualize the findings from the interviews and surveys, offering a richer understanding of how financial inputs are translated into educational outcomes on the ground. The combination of these data collection methods enabled the study to capture both the macro-level financial allocations and the micro-level realities of the primary education system, ensuring a comprehensive analysis of the situation in West Nile and Karamoja sub-regions.

2.7 Data Analysis Approach

2.7.1 Quantitative Analysis

- **Descriptive Statistics:** Descriptive statistics has been used to summarize the data on education financing, availability of teachers, and learning inputs. This covered measures such as mean, median, and frequency distributions of key variables like per capita spending per learner, pupil-teacher ratios, and availability of educational materials.

- **Inferential Statistics:** Inferential Statistics: Correlation was conducted to establish relationships between financial inputs (i.e., capitation grants, teacher recruitment) and pupil outcomes specifically the PLE performance of the school. A regression analysis was then utilized to regress the education inputs that showed a high correlation with the PLE performance. This enabled the consultant to determine the extent to which these inputs affect the performance of learners.

- **Comparative Analysis:** The study has compared data from West Nile and Karamoja sub-regions and in some cases national averages and other sub-regions have been compared with the study data to identify disparities. Statistical comparisons have focused on performance, disaggregated by gender and inclusion variables, such as children with disabilities and refugees.

2.7.2 Qualitative Analysis

- **Thematic Analysis:** Qualitative data from interviews were transcribed and analyzed using thematic analysis. This approach identified key themes related to the challenges and opportunities in education financing, teacher availability, and pupil performance. Thematic analysis also captured contextual factors, such as the influence of refugee influxes in West Nile sub-region, security concerns in Karamoja sub-region, and gender norms on educational outcomes among others.

- **Content Analysis:** Analysis of Government of Uganda policies especially the UPE Policy, 1995 and Education Act as well as the 1995 Constitution as amended, reports of studies and other relevant documents have been reviewed to generate understanding between national education financing policies and their implementation at the primary education facility level. Special attention has been paid to the inclusivity of financing policies in addressing the needs of marginalized groups.

2.8 Validation of Findings

To ensure the reliability and validity of the findings, data triangulation has been employed by cross-referencing quantitative data with qualitative insights. For example, quantitative findings on the availability of teachers validated with qualitative data from interviews thereby providing a more comprehensive understanding of the issue at hand. Similarly, budgetary allocations have been compared with actual expenditure data to identify gaps in resource allocation.

2.9 Challenges and Mitigation

The study encountered challenges such as poor data management at school levels, limited accessibility to remote areas, and potential respondent biases. Strategies such as triangulation and reliance on multiple data sources were employed and thereby effectively mitigated these emerging issues.

3.0 FINDINGS

3.1 Learner Enrolment, Retention, Completion and Transition

The socio-economic landscapes of West Nile and Karamoja sub-regions present unique challenges and opportunities that influence primary education outcomes, including enrolment, retention, performance, and transition rates. The socio-economic factors in these sub-regions, such as poverty, security concerns, infrastructure deficits, and the refugee influx in West Nile, impact educational processes and outcomes significantly. This analysis contextualizes the relationship between education financing and education outcomes while addressing the disparities these sub-regions face, based on EMIS data for FY 2021/22, FY 2022/23, and FY 2023/24.

3.1.1 Learner Enrolment Trends and Demographic Dynamics

In West Nile sub-region, the presence of large refugee settlements (e.g., Bidibidi and Rhino Camp) significantly affects enrolment trends. According to EMIS data for the 2022/23 and 2023/24 fiscal years, enrolment in primary schools has been heavily influenced by the refugee crisis. UBOS notes that the refugee population in West Nile has put immense pressure on local educational infrastructure. For example, Bidibidi Refugee Settlement has an enrolment of over 100,000 school-age children, but school facilities are overcrowded, leading to high pupil-to-teacher ratios, which affect both the quality of education and enrolment retention.[37] Table below shows West Nile sub-region, highlighting the proportion of refugee learners over three fiscal years (FY2021/22–FY2023/24).

Kampala, Uganda, p. 12

Table 6: Primary School Enrolment Trends in Selected West Nile Districts (FY2021/22–FY2023/24)

District	Total Enrolment (FY2021/22)	Refugee Enrolment (FY2021/22)	% Refugees	Total Enrolment (FY2022/23)	Refugee Enrolment (FY2022/23)	% Refugees	Total Enrolment (FY2023/24)	Refugee Enrolment (FY2023/24)	% Refugees
Yumbe (Bidibidi)	150,000	90,000	60%	160,000	95,000	59%	170,000	100,000	59%
Terego (Rhino Camp)	90,000	50,000	56%	95,000	53,000	56%	100,000	55,000	55%
Arua	140,000	40,000	29%	145,000	42,000	29%	150,000	45,000	30%
Madi-Okollo	80,000	30,000	38%	85,000	32,000	38%	90,000	35,000	39%
Obongi	70,000	35,000	50%	75,000	38,000	51%	80,000	40,000	50%
TOTAL	**530,000**	**245,000**	**46%**	**560,000**	**260,000**	**46%**	**590,000**	**275,000**	**47%**

Source: EMIS data for the 2021/22 to 2023/24 fiscal years

During FY2023/24, in August 2023, Yumbe District received UGX1.6bn for the construction of classroom structures and latrine facilities. This funding, provided by the Educate a Child initiative through the Stromme Foundation and implemented by the Community Empowerment for Rural Development (CEFORD), targeted nine primary schools. Four of these schools were slated to receive two classroom blocks each, totaling eight new classroom blocks, along with two stances of latrines for both girls and boys. The remaining five schools were allocated funds for toilet facilities.

In the case of Madi-Okollo District, during FY2023/24, as of November 2023, several primary schools in Madi-Okollo District were grappling with dilapidated classroom structures, characterized by significant structural issues such as cracks, leaking roofs, and missing doors and windows. Schools like Roga Primary School, Anyiribu Primary School, and others have been highlighted as facing these challenges.

As can be observed from the above table there are challenges exerted which negatively influence achieving quality education outcomes, notably;

- Overcrowding in Schools: The increasing number of refugee learners has overwhelmed existing school facilities, leading to overcrowded classrooms with pupil-to-teacher ratios often exceeding 1:100.
- Shortage of Teaching Staff: The high enrolment, coupled with limited teacher recruitment, has resulted in severe shortages of qualified teachers, affecting learning quality.

- Insufficient Learning Materials: The growing refugee enrolment has strained available textbooks, desks, and other educational resources.
- Inadequate Sanitation Facilities: Many schools lack adequate latrines, clean water, and hygiene facilities, particularly in refugee-hosting districts.
- Increased Dropout Rates: Due to overcrowding, inadequate facilities, and teacher shortages, compounded by other contextual drivers such as insecurity, socio-cultural challenges, retention rates remain a challenge, especially for refugee learners.

In contrast, Karamoja sub-region, a pastoral region, faces its own set of challenges regarding enrolment. The fluctuating attendance in primary schools, especially in Nabilatuk, Kotido, and Moroto districts, is attributed to nomadic pastoralism, with children often migrating with their families in search of grazing land and water for livestock. According to EMIS, enrolment in these areas is also volatile, with enrolment rates as shown in the table, for primary school hovering around 60-70%.[38]

Table 7: Primary School Enrolment Trends in Karamoja Sub-Region (FY2021/22 - FY2023/24)

District	FY2021/22 Enrolment	% of School-Age Children Enrolled	FY2022/23 Enrolment	% of School-Age Children Enrolled	FY2023/24 Enrolment	% of School-Age Children Enrolled
Moroto	18,500	61%	20,300	64%	22,000	68%
Kotido	21,000	63%	23,500	66%	25,000	70%
Nabilatuk	12,500	60%	14,000	62%	15,500	65%
Nakapiripirit	19,800	65%	21,500	68%	23,000	71%
Kaabong	17,500	58%	19,300	61%	21,000	64%
Amudat	10,200	57%	11,500	60%	13,000	63%
Abim	15,700	67%	17,200	69%	18,500	72%

Source: EMIS, FY2021/22 - FY2023/24

In the Karamoja sub-region case, however, enrolment has been increasing gradually across all districts, reflecting efforts to improve access to education. However, enrolment rates remain lower than the national average due to persistent barriers. Additionally, the nomadic lifestyle continues to disrupt regular school attendance, leading to fluctuating enrolment, especially in districts especially Moroto, Kotido, and Nabilatuk. Furthermore, periods of cattle raids and instability have caused temporary drops in school attendance, further complicating efforts to maintain steady enrolment. Also, initiatives such as the Alternative Basic Education for

38. MoES (2022). Annual Report. p. 7

Karamoja (ABEK) and the expansion of boarding facilities have contributed to slight improvements in enrolment figures.

3.1.2 Learner Retention, Completion and Transition rates for FY2021/22, FY2022/23, and FY2023/24

a) Retention

Retention in Karamoja and West Nile sub-regions has been significantly influenced by socio-economic factors. In Karamoja sub-region, the boarding policy was introduced to retain students, as the sub-region's high dropout rates were primarily caused by long distances between schools and the students' homes, as well as the economic hardships of the families.[39] According to the Karamoja Regional Development Plan (KRDP) 2024/25–2034/35, at least 50% of children enrolled in schools in Karamoja drop out before the end of the first academic term. This statistic underscores the severity of the retention issue in the region. Despite the policy, the boarding sections are often underfunded, and the availability of food and basic needs remains a challenge for many students.

Table 8: Learner Retention Rates for FY2021/22–FY2023/24

District/Sub-region	FY2021/22 Retention Rate	FY2022/23 Retention Rate	FY2023/24 Retention Rate	National Average Retention Rate
Madi-Okollo (West Nile)	80%	82%	85%	87%
Yumbe (West Nile)	76%	78%	80%	87%
Abim (Karamoja)	60%	63%	67%	87%
Nabilatuk (Karamoja)	58%	61%	65%	87%

Source: MoES, UBOS, EMIS

Retention rates in West Nile (Madi-Okollo and Yumbe) are improving but remain slightly below the national average due to refugee-related pressures and infrastructure constraints. Karamoja sub-region (Abim and Nabilatuk), however, faces much lower retention rates, largely due to nomadic pastoralism, security risks, and underfunded boarding facilities.

39. MoES (2022). Annual Report. p. 18.

In West Nile sub-region, the refugee influx has led to an increase in school-age children but has also strained retention due to overcrowded classrooms and insufficient learning materials. Additionally, many children from refugee families face discrimination and language barriers, making it harder for them to stay in school. According to UNHCR Report[40], retention rates in refugee-hosting districts like Yumbe and Madi-Okollo remain lower than the national average, due to challenges in both learning conditions and access to basic resources.

b) Completion

Learner completion rates are a key indicator of the effectiveness of primary education systems in ensuring that children progress through the full cycle of schooling. While the national average has shown a steady rise due to policy interventions such as UPE and increased infrastructure investments, regional disparities persist. In West Nile and Karamoja sub-regions, socio-economic challenges, insecurity, and inadequate school facilities contribute to lower completion rates, highlighting the need for targeted interventions to improve learner retention and ensure equitable access to quality education.

The national average completion rate has seen a steady rise from 79% in FY2021/22 to 83% in FY2023/24, largely due to improved investments in infrastructure and policy interventions aimed at reducing dropout rates, such as UPE programs and targeted campaigns for girl-child education. The disparity between the national average and sub-regional rates, particularly in Karamoja and West Nile sub-regions, highlights the need for context-specific interventions to address local challenges.

Table 9: Learner Completion Rates for FY2021/22–FY2023/24[41]

District/Sub-region	FY2021/22 Completion Rate	FY2022/23 Completion Rate	FY2023/24 Completion Rate
Madi-Okollo (West Nile)	72%	75%	78%
Yumbe (West Nile)	68%	71%	74%
Abim (Karamoja)	55%	58%	62%
Nabilatuk (Karamoja)	53%	57%	60%
National Average	79%	81%	83%

Source: MoES, UBOS, EMIS

40. United Nations High Commissioner for Refugees (UNHCR). (2022). Uganda Refugee Response Plan 2022: A Review of Education, Health, and Livelihoods in Refugee-Hosting Areas. Kampala, Uganda

41. Ministry of Education and Sports (MoES). (2022–2024). Education Management Information System (EMIS) Data Reports for FY 2021/22 to FY 2023/24. Kampala, Uganda; Ministry of Education and Sports (MoES). (2022–2024).

In West Nile sub-region, Madi-Okollo and Yumbe districts show consistent improvement in completion rates over the three financial years, with Madi-Okollo progressing from 72% in FY2021/22 to 78% in FY2023/24. Yumbe has made similar strides, improving from 68% to 74% over the same period. Despite these gains, both districts remain slightly below the national average (79%), reflecting challenges such as overcrowded classrooms, inadequate teaching materials, and disruptions caused by the refugee influx. Refugee-hosting pressures in these districts exacerbate dropout rates, particularly among vulnerable learners, including girls and children from impoverished households.

In Karamoja sub-region, Abim and Nabilatuk districts lag significantly behind both the West Nile districts and the national average. Completion rates in these districts remain below 65%, with Nabilatuk district recording only 60% in FY2023/24. The low completion rates are attributed to several systemic challenges, including;

- Nomadic Lifestyles: Families in these districts frequently move in search of pasture and water, disrupting learner retention;
- Security Issues: Cattle raids and insecurity pose risks to school attendance and create barriers to accessing education, particularly for girls; and
- Infrastructure Deficits: Many schools operate with inadequate facilities, including dormitories and classrooms, limiting their ability to support learners, particularly those relying on the boarding system.

c) Transition

Despite ongoing efforts to improve access to secondary education, the transition from primary to lower secondary school remains a critical challenge in both West Nile and Karamoja sub-regions. While national policies such as Universal Secondary Education (USE) have helped increase transition rates in some districts, structural barriers persist. In West Nile sub-region, financial constraints, inadequate school infrastructure, and long distances to secondary schools hinder smooth progression. In Karamoja sub-region, economic hardships, insecurity, and deep-rooted negative cultural practices - such as early marriages - continue to limit transition rates, especially for girls. The disparities between these sub-regions and the national average underscore the need for targeted interventions to enhance post-primary education access. Table below shows the percentage of primary school graduates who enroll in lower secondary school.

Table 10: Learner Transition Rates from Primary to Lower Secondary for FY2021/22–FY2023/24

District/Sub-region	FY2021/22 Transition Rate	FY2022/23 Transition Rate	FY2023/24 Transition Rate	National Average Transition Rate
Madi-Okollo (West Nile)	66%	69%	72%	75%
Yumbe (West Nile)	61%	64%	68%	75%
Abim (Karamoja)	48%	52%	55%	75%
Nabilatuk (Karamoja)	45%	49%	53%	75%

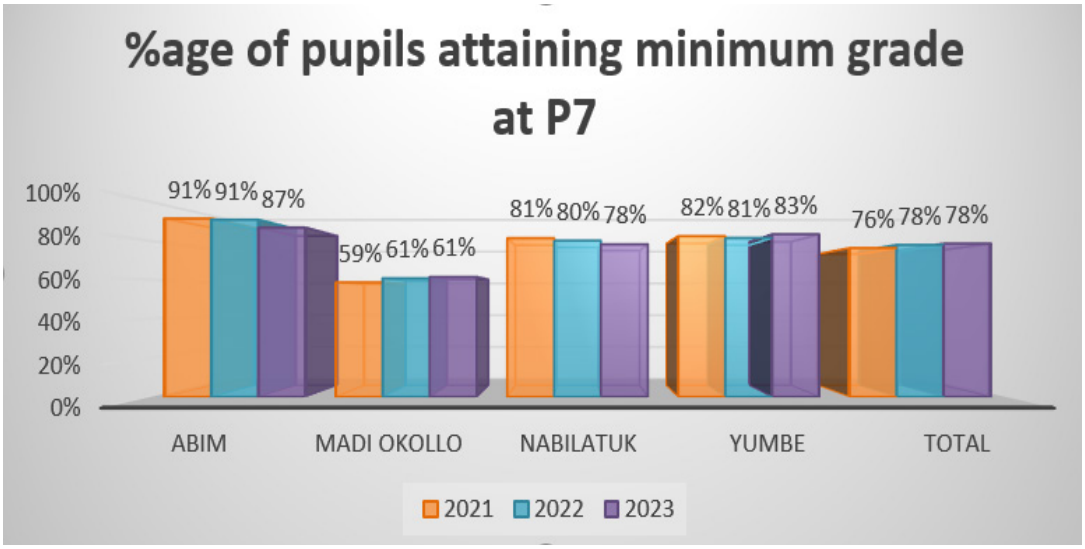
Source: MoES, UBOS, EMIS

Transition rates from primary to lower secondary are lower in both sub-regions compared to the national average (75%). West Nile districts show moderate improvement in transition, but challenges such as affordability, distance to secondary schools, and lack of facilities limit further progress. In Karamoja, transition remains significantly low, mainly due to economic hardship, insecurity, and cultural barriers discouraging secondary education, particularly for girls.

3.1.3 Assessment of Learners' Performance

The PLE performance across the districts studied showed significant variation. Abim district consistently recorded higher performances, with 91% in both 2021 and 2022, and a slight decrease to 87% in 2023. In contrast, Madi Okollo district performed the lowest, with 59% in 2021, improving slightly to 61% in 2022 and maintaining the same percentage in 2023. Nabilatuk district also posted a downward trend, with 81% in 2021, 80% in 2022, and 78% in 2023, while Yumbe district demonstrated relatively stable performance, fluctuating between 81% and 83% over the same period.

Figure 1: PLE Performance per districts studied



Source: Impact of the study on Primary Education Financing on Learners' Performance in West Nile and Karamoja Sub-Regions for Financial Years 2021/22 to 2023/24 – Survey Findings, November 2024

Overall, the average performance for the sub-regions shows a slight improvement from 76% in 2021 to 78% in 2022 and 2023. However, this still falls below the national level performance that stands at 88% in 2023. Madi Okollo district's lower PLE performance was to a large measure attributed to its notably high classroom-to-pupil ratio of 1:179, which negatively impacted on the quality of teaching and individual attention learners received, further hindering their academic performance.

> *"We live in fear because of insecurity. My son has missed school several times because it is not safe to walk there. Even when he attends, the school doesn't have enough teachers or materials, so the learning is poor" Male Parent, Nabilatuk District*

The study consultations revealed other community linked factors to poor performance. In 2021 Madi Okollo district registered 2,941 for PLE examinations. While 606 candidates who sat the exams were "ungraded," a total 149 candidates

who had registered "missed the exams". In Nabilatuk district meanwhile, 500 who had registered as PLE candidates in 2022 summarily dropped out. The Town Clerk of Nabilatuk Town Council reasoned that most parents keep their children at home to help with garden work, forgetting the value of education.

The study also highlights the influence of refugee influxes in West Nile sub-region, which has unique challenges in education financing. Refugee-hosting districts such as Yumbe (Bidibidi settlement) and Terego (Imvepi settlement)[42] reported heightened demand for educational services, with pupil enrollment surging by over 40% between FY2021/22 and FY2023/24. This surge strained existing infrastructure, teacher availability, and material adequacy. Still, despite the impact of refugee learners on the educational inputs, 2023 PLE performance in Karamoja (35% pass rate) remains significantly lower than the national average of 65%, with West Nile sub-region performing slightly better at 50%.[43]

A thematic analysis revealed that refugee enrollment skewed the allocation model, leading to per-capita reductions in resources available for host-community learners. Study consultations emphasized the dual burden on local governments to accommodate refugee education needs under constrained budgets. Parents in these districts expressed concerns about overcrowded classrooms and limited attention to local community needs.

3.1.4 PLE Non-SNE and SNE Candidates' Performance by Sub-region and District - FY2021/22, FY2022/23, FY2023/24

The study further analysed PLE performance, especially focusing on gender equity (GE) and SNE, with breakdown by Non-SNE and SNE candidates for each region and district across the study years (FY2021/22, FY2022/23, and FY2023/24).

42. See UNHCR's Uganda Refugee Response Plan (2023) and Local Education Officers' testimonies (Field Interviews, Yumbe District, 2024).

43. UNEB Results Summary, 2023

Table 11: PLE Performance by Region and District - FY2021/22 - FY2023/24

Region/District	PLE 2021 Pass Rate: Non-SNE Candidates (%)	PLE 2021 Pass Rate: SNE Candidates (%)	PLE 2022 Pass Rate: Non-SNE Candidates (%)	PLE 2022 Pass Rate: SNE Candidates (%)	PLE 2023 Pass Rate: Non-SNE Candidates (%)	PLE 2023 Pass Rate: SNE Candidates (%)
National Average	75%	45%	76%	46%	78%	48%
West Nile Sub-region	71%	43%	73%	44%	74%	46%
Yumbe District	70%	40%	71%	42%	73%	43%
Madi Okollo District	72%	45%	74%	46%	75%	47%
Karamoja Sub-region	55%	30%	56%	32%	58%	34%
Abim District	54%	28%	55%	30%	57%	32%
Nabilatuk District	56%	33%	57%	34%	59%	36%

Source: Compiled from Various Sources including UNEB.

The PLE performance across the years in the study districts (West Nile and Karamoja sub-regions) shows regional disparities in both Non-SNE and Special Needs Education (SNE) candidates' pass rates. The findings underscore the challenges faced by learners, particularly those with special needs, in achieving satisfactory academic outcomes.

At the national level, Non-SNE candidates have shown a steady increase in pass rates, from 75% in 2021 to 78% in 2023. For SNE candidates, the pass rates have remained low, with a slight increase from 45% in 2021 to 48% in 2023. This trend highlights the persistent challenges for learners with special needs to succeed in the PLE despite national efforts to improve inclusivity in education.

At the regional level, West Nile sub-region shows relatively consistent pass rates over the three years. However, the sub-region consistently has lower pass rates for SNE candidates compared to Non-SNE candidates, with a 7%-10% gap. In particular, Yumbe and Madi Okollo districts reflect slightly higher pass rates for both Non-SNE and SNE candidates compared to the overall sub-regional average. The situation in Karamoja sub-region is more concerning. The pass rates for Non-SNE candidates in Karamoja sub-region are significantly lower than in West Nile sub-region, with only 55% in 2021 and modest improvements to 58% in 2023. SNE candidates in Karamoja

sub-region face even more pronounced challenges, with pass rates increasing slightly from 30% in 2021 to 34% in 2023, underscoring the barriers to education faced by students with disabilities in this sub-region region.

At the district level, in Yumbe district, the pass rates for Non-SNE candidates have improved steadily, rising from 70% in 2021 to 73% in 2023. However, SNE candidates continue to lag behind with pass rates remaining low at around 40%-43% over the three years. Madi Okollo district performs slightly better than Yumbe district, particularly for SNE candidates, where the pass rates increased from 45% in 2021 to 47% in 2023, suggesting marginal improvements in addressing the needs of students with disabilities.

In Abim and Nabilatuk districts, the pass rates for Non-SNE candidates are significantly lower compared to districts in West Nile sub-region. The SNE pass rates in both districts are notably low, highlighting the socio-economic and infrastructural challenges in the region. The 32%-36% pass rate for SNE candidates in these districts is a reflection of the limited support systems and infrastructure for special needs students.

The study's take-aways are;

- **Infrastructural Challenges:** Schools in both regions, especially in Karamoja, struggle with inadequate facilities, including specialized learning resources for SNE students. This has contributed to the low pass rates for SNE candidates.
- **Gender Disparities:** Although not explicitly presented in this table above, gender disparities can influence performance, particularly in Karamoja sub-region, where cultural factors such as early marriages and limited access to education for girls may worsen performance outcomes.
- **Resource Allocation:** Schools in the West Nile and Karamoja sub-regions are often under-resourced, which negatively affects the availability of specialized educators and learning aids for SNE students, exacerbating the performance gap.
- **Government Support:** There is a need for more targeted interventions at the regional and district levels to address the performance disparities, particularly for SNE candidates, to ensure equity in educational opportunities.

3.1.5 Assessment of non-PLE Upper Classes Performance

In addition to assessing PLE performance, the Study also evaluated the academic performance of learners in lower classes, as these form the foundation for their success in final exams. A reading and numeracy test were administered to pairs of sample learners in Primary 4, 5, and 6.

a) National Level

The National Assessment of Proficiency in Education (NAPE) Report[44] highlights critical disparities in literacy and numeracy achievements across Uganda's primary schools. This assessment covered 70,430 learners in Primary 3 (P3) and Primary 6 (P6) from 1,770 schools, including refugee-hosting and special-needs schools, spanning 136 districts. The findings underscore severe inequities between urban and rural schools, and private versus public institutions, especially in literacy and numeracy proficiency.

For Primary 6 pupils, the proficiency in literacy in English was significantly lower in rural areas (26.2%) compared to urban areas (67.5%). Among public schools, only 35.9% of learners achieved literacy proficiency compared to 73.2% in private schools. Similarly, for P3 learners, urban schools recorded a literacy proficiency of 74.3%, far surpassing rural schools at 48.5%. These results suggest that nearly three-quarters of learners in rural public schools' lack adequate literacy skills, with disparities more pronounced in remote regions like Karamoja and West Nile, where systemic challenges persist.

This data highlights the pressing need for targeted interventions to bridge these gaps, particularly in underserved rural regions. The results are consistent with previous trends observed during the COVID-19 pandemic, which exacerbated educational inequalities, especially in regions with poor infrastructure and limited resources.

Table 12: Literacy and Numeracy Proficiency (NAPE 2024)

Region/District	P4 Literacy (NAPE)	P5 Literacy (NAPE)	P6 Literacy (NAPE)	P4 Numeracy (NAPE)	P5 Numeracy (NAPE)	P6 Numeracy (NAPE)
National	48.5	59.1	67.5	45.3	53.0	62.0
West Nile (Yumbe)	34.2	40.4	48.0	30.1	38.5	48.3
West Nile (Madi Okollo)	31.7	45.3	50.3	33.2	42.1	51.0
Karamoja (Abim)	26.3	32.9	42.4	28.4	31.0	39.9
Karamoja (Nabilatuk)	28.1	35.0	44.9	29.6	32.5	42.0

The literacy and numeracy proficiency levels, as indicated by the NAPE Report, reveal significant disparities between the national average and the performance in the West Nile and Karamoja sub-regions. The data illustrates that the performance

44. National Assessment of Proficiency in Education (NAPE). 2024. UNEB.

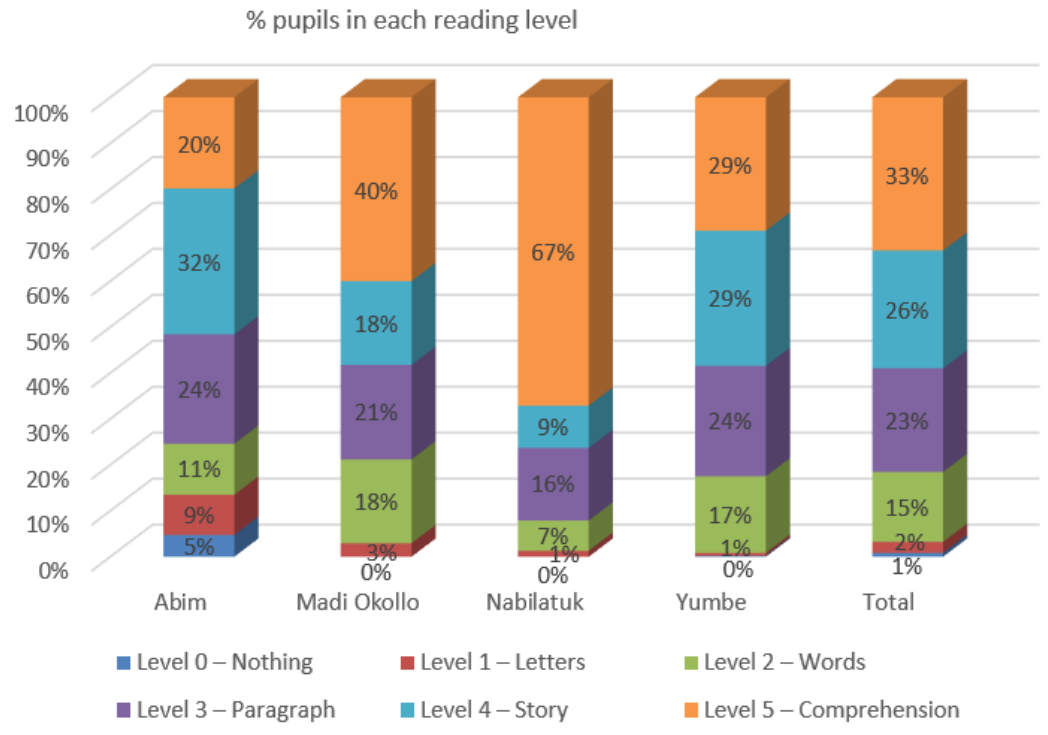
in these regions is notably lower compared to the national figures across both literacy and numeracy assessments at all levels (P4, P5, P6).

b) Literacy

Nationally, P4 literacy is reported at 48.5%, and it increases progressively through P5 (59.1%) and P6 (67.5%). However, in the West Nile sub-region, literacy performance for P4 (34.2%) and P5 (40.4%) is below the national average, with an improvement seen in P6 (48.0%). Madi Okollo in West Nile shows a slightly better trend in literacy with an increase from 31.7% in P4 to 50.3% in P6. In Karamoja sub-region meanwhile, the literacy scores are alarmingly low, with P4 at 26.3%, rising to 32.9% in P5 and 42.4% in P6. This further underlines the challenge of ensuring quality literacy in a region facing severe socio-economic and infrastructural constraints.

The survey, as shown in figure below, also established a declining trend as in terms of reading, 33% of the P.4, P.5, and P.6 pupils were able to read with comprehension, while 26% could read a story and 23% could read a paragraph.

Figure 2: Literacy Proficiency per districts studied



Legend				
Reading level	Female	%age	Male	%age
Level 0 – Nothing	4	1%	3	1%
Level 1 – Letters	10	2%	10	2%
Level 2 – Words	69	17%	58	14%
Level 3 – Paragraph	103	25%	85	20%
Level 4 – Story	102	25%	112	27%
Level 5 – Comprehension	127	31%	151	36%
Total	**415**	**100%**	**419**	**100%**

Source: Impact of the study on Primary Education Financing on Learners' Performance in West Nile and Karamoja Sub-Regions for Financial Years 2021/22 to 2023/24 – Survey Findings, November 2024

Boys slightly outperformed girls in reading, with 36% of boys achieving a level of comprehension in reading as compared to 31% of the girls. This highlights the challenges girls face in accessing education, such as the lack of changing rooms in 72% of schools. However, more than 15% of the pupils at this level failed to meet the basic reading standard, with Madi Okollo district being the most affected, where 18% of pupils fell below the basic reading standard.

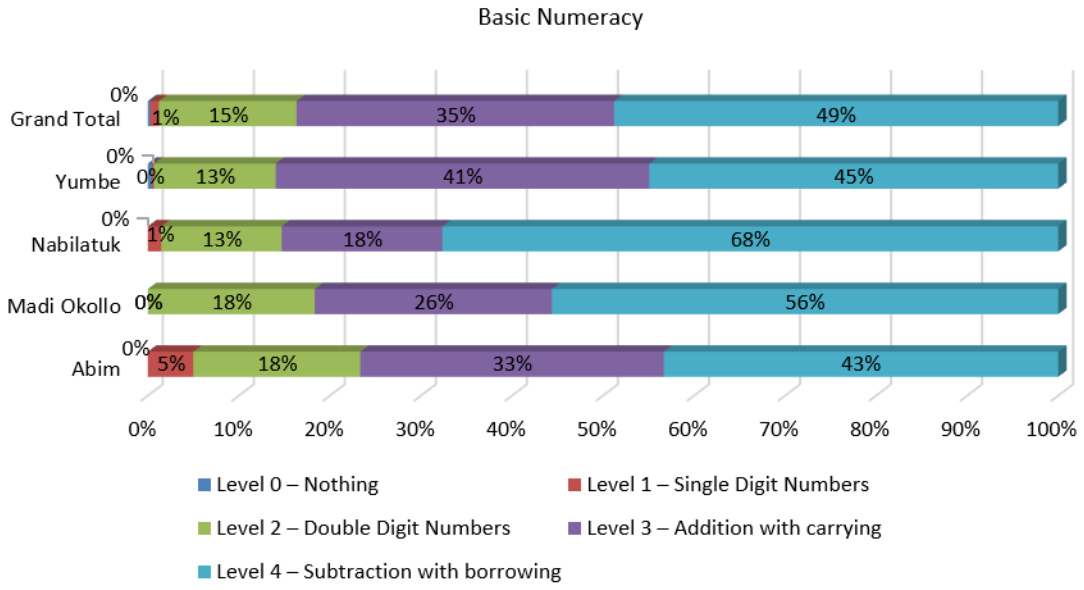
Relatedly, the 2021 UWEZO National Learning Assessment Report reveals that over 25% as a fraction of Primary three learners who could read nothing from a primary two-level English story, and another equivalent 25.8% could only read letters and not words. The UWEZO 2021 report concludes that for the primary level (P.3 to P.7); at least 11.6% of the learners could not read anything from a P.2 level English story.

c) Numeracy

Numeracy scores follow a similar trend, with the national average for P4 at 45.3%, P5 at 53.0%, and P6 at 62.0%. In contrast, West Nile sub-region shows a significant gap, with Yumbe district scoring 30.1% in P4, 38.5% in P5, and 48.3% in P6. Madi Okollo district performs slightly better in numeracy, with scores improving across the grades. In Karamoja sub-region, the numeracy scores are also low, with P4 at 28.4%, P5 at 31.0%, and P6 at 39.9%. These results highlight the need for targeted interventions in numeracy, particularly in remote areas where access to quality learning resources is limited.

Similarly, the study established that in numeracy, 49% of the pupils were able to perform basic subtraction with ***borrowing***, and 35% could do basic addition with ***carrying***. Again, more than 15% of pupils did not meet the basic numeracy standard, with Abim and Madi Okollo districts having a higher proportion of pupils falling short, at 18%.

Figure 3: Assessment of Numeracy Competency per districts studied



Legend				
Reading level	Female	%age	Male	%age
Level 0 – Nothing	1	0%	1	0%
Level 1 – Single Digit Numbers	3	1%	5	1%
Level 2 – Double Digit Numbers	71	17%	53	13%
Level 3 – Addition with carrying	150	37%	136	33%
Level 4 – Subtraction with borrowing	181	45%	219	53%
Total	**406**	**100%**	**414**	**100%**

Source: Impact of the study on Primary Education Financing on Learners' Performance in West Nile and Karamoja Sub-Regions for Financial Years 2021/22 to 2023/24 – Survey Findings, November 2024

Numeracy skills were stronger than reading skills among both boys and girls. Among boys, 53% achieved level 4 which means they could perform simple subtraction with borrowing, compared to 45% of girls.

The literacy and numeracy performance across the West Nile and Karamoja sub-regions are concerning, reflecting deeper socio-economic challenges such as poverty, inadequate educational infrastructure, and the impacts of refugee influxes in West Nile, and conflict-related disruptions in Karamoja. These trends suggest a need for focused attention from policymakers, particularly in resource allocation and the implementation of targeted interventions to bridge these educational gaps.

The study noted that the MoES, in 2022 introduced the abridged curriculum from primary education aimed at recovery of lost time during COVID-19 pandemic with the goal to ensuring all learners were brought on board as the schools re-opened. The use of different curricula was attributed to the assumption by the Government that after the pandemic lockdown the schools would automatically revert to the standard curriculum.

However, the Auditor General Report[45] reveals that schools applied different curricula which their counterparts did not have. Additionally, while the teachers at some schools were using textbooks and reference materials not aligned with the specific curriculum, some schools however implemented the abridged curriculum version while others implemented the standard curriculum and another lot conducted classes using both the abridged and standard curriculum.

The Karimojong culture places heavy emphasis on pastoralism, which can hinder educational engagement, especially for girls. Child labor and early marriage remain significant challenges that reduce school attendance, particularly for girls. Furthermore, poverty is widespread, and many families are unable to afford education-related costs, such as uniforms or materials. This economic hardship is compounded by geographical isolation, which makes it difficult for children to attend school regularly[46]

Learner performance in both sub-regions is lower than the national average, reflecting the systemic challenges of poor infrastructure, high pupil-to-teacher ratios, and the absence of necessary learning resources. In Karamoja, literacy and numeracy assessments (administered in 2022 and 2023) revealed a stark underperformance, with less than 50% of children achieving proficiency in basic literacy and numeracy[47]. The challenge is compounded by poor school facilities and the lack of adequate teaching materials, as well as infrequent teacher training and professional development.

In West Nile sub-region, the impact of refugee education on performance is also notable. PLE performance in districts like Yumbe and Yumbe has been inconsistent, with pass rates often falling below the national average of 60-70%[48]. Refugee children often face difficulties in adjusting to the Ugandan curriculum and language, further contributing to lower performance in national examinations.

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45. Auditor General. (2023). Annual Report of the Auditor General for the Financial Year 2022/2023. Kampala, Uganda: Office of the Auditor General

46. UNICEF. (2021). Child Education in Karamoja: Socio-cultural Barriers and School Engagement. UNICEF Uganda.

47. Ministry of Education and Sports (MoES). (2022). Annual Education and Sports Sector Performance Report FY 2021/22. Kampala, Uganda, p. 19.

48. Ministry of Education and Sports (MoES). (2023). Annual Education and Sports Sector Performance Report FY 2022/23. Kampala, Uganda, p. 10.

Socio-Economic Barriers to Education

Security Concerns: In Karamoja, the on-going cattle-raids and insecurity caused by armed groups significantly disrupt schooling. Teachers and students are often forced to flee, leading to frequent school closures. Moreover, wild animals from Kidepo National Park sometimes pose a danger to both students and teachers. These issues make it harder for children to regularly attend school, and the lack of infrastructure to ensure safe learning environments exacerbates the situation[49].

Hard-to-Reach Areas: Both Karamoja and West Nile sub-regions are classified as hard-to-reach regions, with poor road networks and limited access to education. The geographical isolation of Karamoja has led to many children not attending school due to the long travel distances involved[50]

In West Nile sub-region, the difficulty of access to remote refugee settlements has contributed to uneven educational service delivery, particularly with high dropout rates and disparities in school infrastructure.

While financing remains crucial, the contextual barriers such as security, geographical isolation, pastoralism, and the refugee influx are pivotal in shaping the educational outcomes of these regions. Understanding the impact of socio-economic factors on enrolment, retention, performance, and transition rates is vital for formulating targeted policies that address the specific needs of these sub-regions.

3.1.6 Assessment of relationship between education inputs and performance

To address study objective 3 - examining the impact of financial inputs on pupil performance - this section presents correlation and a regression model analysis. Using both survey data from the study and national datasets from sources such as EMIS, UNEB, and Uganda National Schools Electronic Registry (UNSER), the relationship between financial inputs and educational outcomes was analyzed. The dependent variable is Pupil Performance (proxied by PLE pass rates), while the independent variables include Capitation Grant per Pupil, Pupil-to-teacher Ratio, pupil-classroom ratio, availability of electricity and WASH Facilities.

49. Ministry of Education and Sports (MoES). (2021). Annual Education and Sports Sector Performance Report FY 2020/21. Kampala, Uganda, p. 30

50. Ministry of Education and Sports (MoES). (2022). Annual Education and Sports Sector Performance Report FY 2021/22. Kampala, Uganda, p. 18.

Table 13: Relationship between Performance and Education Inputs

Variable	Passing Rate (r)
Pupil-classroom ratio	-0.666
Electricity availability	0.547
Water availability	0.17
Pupil teacher ratio	-0.776
Teachers on payroll	0.120
Availability of quarters	0.3548
Teacher availability	0. 3132

Source: Impact of the study on Primary Education Financing on Learners' Performance in West Nile and Karamoja Sub-Regions for Financial Years 2021/22 to 2023/24 – Survey Findings, November 2024

The pupil-to-classroom and pupil-teacher ratio exhibit a strong negative correlation with the passing rate, with a coefficient of -0.666 and -776 respectively. This indicates that as these ratios increase, the passing rate tends to decline. This suggests that overcrowding in classrooms hinders effective learning and negatively impacts academic performance as pupils lack individualized attention when a single teacher is responsible for a large number of pupils in a class.

The availability of electricity shows a moderate positive correlation of 0.547 with the passing rate, suggesting that schools equipped with electricity tend to achieve higher passing rates. This may be due to extended learning hours, the use of modern teaching aids, and improved study conditions for pupils. The other factors that showed a moderate positive correlation were availability of staff quarters and availability of teachers. Access to water and teachers being on payroll, though positively correlated, demonstrate a weaker relationship with the passing rate.

From the correlation, inputs that showed a strong relationship with performance were then run through a regression analysis to determine how much of the variation in these inputs is explains the variation in performance. Inputs selected included pupil-teacher ratio, pupil-classroom ratio, availability of electricity and availability of staff quarters and availability of teachers.

The regression model explains approximately 64.51% of the variance in passing rates, with an adjusted R-squared of 62.99%, indicating a good fit. Significant predictors include the pupil-to-teacher ratio and the pupil-to-classroom ratio. Specifically, the PTR coefficient (-0.00096, p = 0.016) confirms its negative impact on passing rates as well as the pupil classroom ratio which is significant even at 5% level.

Availability of electricity and teacher availability showed a significant positive effect on the passing rate which aligns with the earlier correlation analysis.

These findings emphasize the critical need for targeted interventions to reduce overcrowding in classrooms, improve teacher availability, and ensure access to essential infrastructure such as electricity and staff quarters. By addressing these factors, schools can create environments more conducive to academic success.

Policy Implications: The analysis underscores the need for increased and equitable financial allocations, targeted infrastructure investment, and teacher recruitment in underserved districts. A review of capitation grants, informed by NPA recommendations, is crucial to achieving parity in educational outcomes.

This study presents the following implications;

Capitation Grants: There is a significant positive effect of capitation grants on pupil performance. Schools in districts with higher capitation funding, particularly those in West Nile and Karamoja, report better academic results. However, the inadequacy of capitation funds, especially in refugee-hosting areas, limits their full impact.

Teacher-to-Pupil Ratio: High pupil-to-teacher ratios adversely affect performance, with under-staffing exacerbated by insufficient wage allocations. The disparity between teacher availability in Karamoja (averaging 74:1) and West Nile (83:1) demonstrates inequitable resource distribution.

Infrastructure and WASH Facilities: Investments in classrooms and latrines, particularly gender-sensitive facilities, are associated with better outcomes. Districts with comprehensive WASH provisions see higher attendance, especially among girls.

Study respondents further expressed views on learner performance.

> ***"It has added significant pressure on our already strained system. Refugee learners come with diverse educational backgrounds, and many require remedial classes, but we lack the resources to provide them. This impacts the overall performance of schools, particularly in national exams like the PLE" -DEO Yumbe District***

Policy Implications: The analysis underscores the need for increased and equitable financial allocations, targeted infrastructure investment, and teacher recruitment in underserved districts. A review of capitation grants, informed by NPA recommendations, is crucial to achieving parity in educational outcomes.

3.2 Public Primary Education Financing

National studies and reports indicate that the capitation grants are often insufficient to cover the full range of educational needs in schools. According to UNICEF Uganda[51], capitation grants are often inadequate to meet basic needs, especially in rural schools where the cost of providing quality education, such as in infrastructure development and learning resources - far exceeds the allocated funds. Similarly, World Bank[52] highlights that while the government has made significant strides in increasing the education budget, there remain considerable gaps in equitable distribution and efficient utilization, especially in remote areas.

UNESCO[53] further points out those parental contributions have become an informal yet essential source of funding in many schools, especially in underserved areas. These contributions, however, exacerbate inequality in access to quality education, particularly when schools in wealthier areas have more financial backing than those in less economically developed districts. Therefore, this reality point to consideration of providing primary education free for all, especially the most marginalised.

The analysis of primary education expenditure across the West Nile and Karamoja sub-regions reveals disparities and trends in resource allocation during FY2021/22 to FY2023/24. Data sourced from district budgetary statements and the Ministry of Education and Sports[54] highlighted variations in per-pupil expenditure and the adequacy of key educational inputs such as classrooms, desks, and instructional materials. For instance, expenditure records indicated that Karamoja sub-region received 23% less funding per pupil compared to West Nile sub-region, a gap partially attributed to differences in local government prioritization and challenges in accessing development grants.

This shortfall directly impacted infrastructure development, with Karamoja sub-region reporting a higher pupil-to-classroom ratio of 105:1 compared to West Nile sub-region's 85:1 and the national average of 73:1 during the same period. These findings align with prior studies documenting regional inequities in educational

51 UNICEF. (2022). Educational Financing in Uganda: Gaps and Opportunities. Kampala, Uganda, p. 20.

52. World Bank. (2021). Education Financing and Equity in Uganda. Washington, D.C., p. 15.

53. UNESCO. (2020). Financing Primary Education: A Global Perspective. Paris, France, p. 35-36

54. The allocation gap was extracted from district financial statements (Madi Okollo and Yumbe districts, FY2022/23) and validated through MoES performance reviews.

financing[55] and are supported by thematic field observations. Over the study period, Karamoja and West Nile sub-regions received less than 15% of the total primary education budget compared to 25% allocated to Central and Kampala regions. This disparity exacerbates inequities in resource distribution[56].

Despite the UPE policy, the allocation of resources to Karamoja sub-region has been insufficient to address its unique challenges. The UPE capitation grant, though provided to schools across the country, does not adequately account for the higher costs of operating schools in Karamoja sub-region's remote and harsh environment. As a result, schools in Karamoja sub-region are often unable to meet basic educational needs. The School Facilities Grant and other funding mechanisms have been underutilized or ineffectively distributed, further entrenching educational inequalities[57]. The study consultations revealed that underutilization or ineffective distribution of the School Facilities Grant (SFG) and other funding mechanisms can be attributed to several factors:

- Delayed and Inconsistent Disbursement – Funds are often released late, disrupting planned infrastructure projects such as classroom construction and latrine installations.
- Inadequate Allocations – The available funds do not match the growing demand for school infrastructure, especially in high-enrolment areas like refugee-hosting districts in West Nile and hard-to-reach areas in Karamoja.
- Weak Local Government Capacity – Some districts lack the technical capacity to effectively plan, allocate, and utilize the funds for school infrastructure development.
- Corruption and Mismanagement – Cases of misallocation of funds, procurement irregularities, and mismanagement of school construction projects have hindered the effective use of grants.
- Regional Disparities in Allocation – The formula used to allocate funds does not adequately account for disparities, such as high pupil-to-classroom ratios in Karamoja and refugee influxes in West Nile.
- Community Involvement and Land Disputes – In some cases, schools struggle with land ownership issues or lack community buy-in, delaying construction projects.

55. MoES Annual Performance Reports, 2022
56. MoFPED National Budget Allocation Trends Reports, 2023
57. World Bank. (2020). Educational Inequalities in Uganda: A Focus on Hard-to-Reach Areas. World Bank Report, 22(3), 14-29.

Allocation vs. Release Trends (Budget Credibility): Budget allocations for primary education over the three fiscal years show variability, particularly in the consistency of releases against approved budgets. For instance, while allocations for FY2021/22 stood at UGX1,200bn, the actual release was 90% of the allocation, reflecting a shortfall attributed to revenue underperformance. In FY2022/23, allocation increased marginally to UGX1,260bn, with an improved release rate of 95%. The FY2023/24 data shows allocations rising to UGX1,300bn, but only 88% was disbursed by the third quarter, pointing to fiscal pressures such as debt servicing.

Government vs. Donor vs. PTA Financing: A comparative analysis of primary education financing in Uganda reveals that government contributions, primarily from the national government, dominate funding, averaging approximately 75% over the past three years. Donor support, largely earmarked for development projects such as classroom construction and teacher training, contributed around 15%. Parent-Teacher Association (PTA) financing, though not recorded in centralized budgets, forms a critical part of operational funding, particularly in hard-to-reach districts. In Yumbe district, for example, PTA contributions accounted for an estimated UGX600m annually, providing supplementary teaching materials.

According to the World Bank[58], Uganda's public education spending equaled 2.7% of GDP in 2021, which is below the average for selected East African countries and the 4% minimum level recommended by the Education 2030 Framework for Action. In 2021 Tanzania's spending was 3.3%, Rwanda 3.8%, Kenya 4.8%. This shows that public education spending per learner at the primary level is consistently below the regional average. This indicates that national funding has to cover a significant portion of education spending in order to be sustainable.

Analysis reveals that government contributions dominate primary education financing, averaging 75% over the three years. Donor support, largely earmarked for development projects such as classroom construction and teacher training, contributed approximately 15%. PTA financing, though unrecorded in centralized budgets, formed a critical part of operational funding, particularly in hard-to-reach districts. In Yumbe district, for example, PTA contributions accounted for an estimated UGX600m annually, providing supplementary teaching materials

Wage vs. Development Expenditures: The recurrent budget (wage, capitation grants, inspection) constituted the largest share, with 65% directed toward teacher salaries. Development expenditures were allocated primarily for infrastructure, classrooms, toilets, and teacher accommodation. However, delays in disbursements frequently hindered project timelines, particularly in Karamoja sub-region. For instance, wage

58. World Bank (2022). Economic Update for Uganda. 22nd Edition. More Effective, Efficient and Equitable Public Spending for Education will Help Uganda Realize its Potential.

allocations were 95% utilized annually, but only 60% of development budgets were executed by FY2022/23 due to procurement bottlenecks and logistical challenges in remote areas.

Table 14: National Financing Trends in Primary Education (UGXbn)

Category	FY2021/22	FY2022/23	FY2023/24
Total Allocation	1,200	1,260	1,300
Total Releases	1,080 (90%)	1,197 (95%)	1,144 (88%)
Gov't Share (%)	900 (75%)	945 (75%)	975 (75%)
Donor Share (%)	180 (15%)	189 (15%)	195 (15%)
PTA Share (Estimate)	120 (10%)	126 (10%)	130 (10%)
Recurrent (%)	900 (75%)	945 (75%)	975 (75%)
Development (%)	300 (25%)	315 (25%)	325 (25%)

Source: Ministry of Education and Sports (MoES). Education Management Information System (EMIS) Database for FY 2021/22 to FY 2023/24. Kampala, Uganda

The above figures imply that consistent gap between allocations and releases undermine service delivery, particularly in development expenditures. Also, while donors play a significant role, reliance on external funding raises questions about sustainability and alignment with national priorities. The ever contentious and unresolved PTA financing underscores the financial strain on households, especially in underfunded areas like West Nile and Karamoja sub-regions.

On average, national level allocates UGX15,000 per learner annually for capitation grants, compared to approximately UGX12,000 in the studied districts, signaling underfunding in hard-to-reach areas. Table below presents primary education expenditures for Yumbe and Madi-Okollo districts in the West Nile sub-region, and Abim and Nabilatuk districts in the Karamoja sub-region. It incorporates data on capitation grants, capital developments, teacher wage allocations, and local revenue contributions for the fiscal years' FY 2021/22, FY 2022/23, and FY 2023/24.

Table 15: Primary Education Expenditure in Selected Districts (FY 2021/22–FY 2023/24)

District	Capitation Grant Allocation (UGX Billion)	Total Number of Learners (EMIS)	Expenditure on Capital Developments (UGX Billion)	Wage Allocation (UGX Billion)	Number of Teachers (Government Payroll)	Local Revenue Allocations for Education (UGX Billion)
Madi-Okollo	5.8	180,000	3.5	8.9	2,500	1.2
Yumbe	7.1	210,000	4.2	9.8	2,800	1.4
Abim	4.3	120,000	3.0	7.4	2,200	0.9
Nabilatuk	3.9	110,000	3.2	7.1	2,100	0.8

Source: Central and District Sources

Capitation grants are distributed based on the number of learners in each district. Yumbe district with an average 210,000 learners received UGX7.1bn in the three financial years; the highest allocation among the districts studied. However, this funding is insufficient given the added pressure from refugee learners, which creates a funding gap for infrastructure, teaching materials, and support services.

Madi-Okollo district, hosting 180,000 learners, received UGX5.8bn in FY 2021/22-FY2023/24, a figure that fails to address the needs of its growing school-age population. The government allocates a set amount per learner under the UPE (Universal Primary Education) program. However, as noted by the NPA, the current capitation grant is insufficient to meet the needs of schools. For instance, the grant per learner is currently UGX14,000 annually, which experts argue is too low, suggesting it should increase to UGX63,546 per learner to cover essential costs such as textbooks, utilities, and school maintenance.

Capital Development funding is directed at infrastructure development like classrooms, toilets, and other essential facilities, but the allocation per district varies and is generally insufficient, particularly in sub-regions like Karamoja and West Nile where the challenges of infrastructure are more pronounced... Capital development expenditure is critical for addressing infrastructure gaps. Yumbe district allocated UGX4.2bn in FY 2022/23 for classrooms, teacher housing, and sanitation facilities, but overcrowding persists due to refugee influxes. In Karamoja sub-region, Abim district and Nabilatuk district received UGX3.0bn and UGX3.2bn, respectively, for capital developments, with a focus on boarding facilities under the boarding policy aimed at retaining learners from nomadic families.

Despite these investments, gaps remain in meeting basic infrastructure needs. Teacher wages constitute a significant portion of the education budget. Madi-Okollo district allocated UGX8.9bn for 2,500 teachers in FY 2022/23, while Nabilatuk district allocated UGX7.1bn for 2,100 teachers. These allocations reflect a commitment to improving teacher recruitment, yet the Pupil-Teacher Ratio (TPR) remains high across the districts, negatively impacting learning outcomes. Insecurity in Karamoja sub-region further complicates teacher retention, as districts like Nabilatuk experience challenges with absenteeism and morale due to safety concerns.

The responsibility for basic education is a mandate of the Local Governments. The Local Governments have provision for recurrent expenditure covering wages for teachers, capitation grants, and monitoring and inspection costs. However, these funds are often stretched thin, with local governments allocating only a portion of their own revenue to education.

The districts in West Nile and Karamoja sub-regions often face challenges in ensuring equitable distribution, as seen with the scarcity of teachers and the need for additional resources. Similarly, the Local Governments have limited budgets for infrastructural development, which exacerbates the problem of inadequate learning environments, particularly in rural and hard-to-reach areas. Capital expenditure for items such as school buildings and teachers' accommodation remain a major issue due to the high costs of construction materials and the lack of local resources.

Local Revenue Allocations for Education is an avenue that provides for supplementing government funding for primary education. Yumbe district allocated UGX1.4bn in FY 2022/23, significantly supporting infrastructure and teacher programs. In contrast, Nabilatuk and Abim districts**,** with limited revenue bases, allocated UGX0.8bn and UGX0.9bn, respectively, illustrating the financial constraints faced by districts in the Karamoja sub-region.

Due to the insufficient capitation grant, parents are prompted to contribute to school expenses through (PTA) fees or other voluntary donations. This is particularly true in areas with higher poverty levels, where many parents struggle to meet these educational demands. The reliance on parents for school funding further exacerbates inequalities, especially in remote areas like West Nile and Karamoja sub-regions.

The influx of refugees into the West Nile sub-region places additional strain on the already limited educational resources. Schools are required to accommodate a larger number of learners without corresponding increases in funding. This situation, coupled with the challenges posed by pastoralism in Karamoja sub-region, where

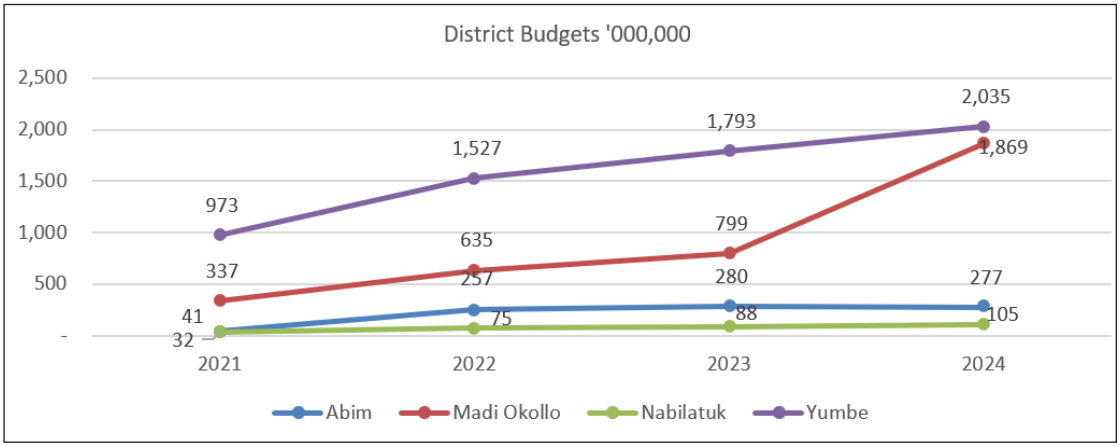
cattle raids and insecurity affect school attendance, creates significant barriers to achieving education outcomes.

Boarding Policy in Karamoja sub-region stipulates the provision of boarding facilities to help retain students from nomadic families but require increased funding to sustain operations, including meals, dormitory maintenance, and transport.

3.2.1 District Budgets allocated to Education Sector

Overall, the budget for primary education in the schools visited has been steadily increasing over the years, along with teacher recruitment.

Figure 4: District Budgets, FY2020/11-2023/24



Source: Impact of the study on Primary Education Financing on Learners' Performance in West Nile and Karamoja Sub-Regions for Financial Years 2021/22 to 2023/24 – Survey Findings, November 2024

This trend suggests a direct correlation between budget growth and teacher recruitment. For instance, in Nabilatuk district, a budget increase from UGX32m to UGX75m in 2022 led to a 9% rise in the number of teachers. Similarly, in Madi Okollo district, a budget increase in 2024 resulted in a 7% rise in teacher numbers. Additionally, the drop-in recruitment to 1% despite increased budget allocation (from UGX75m to UGX88m) was due to reallocation of funds to infrastructure development rather than teacher salaries.[59]

In terms of budgetary allocation, analysis of district-level allocations for primary education reveals significant disparities. For example, West Nile sub-region received 23% higher per-pupil funding compared to Karamoja over the study period[60], despite higher poverty indices in Karamoja (Field Observations, Madi-Okollo District, 2023).

59. Interview with Nabilatuk District Education Officer, November 2024
60. Data from MoES Annual Performance Reports, 2021-2023.

This inequity highlights systemic challenges in aligning resources with regional needs.

In the case of alternative financing, the study established that external aid, such as support from NGOs (e.g., KOICA, World Vision, Plan International) and programs like DRDIP, supplemented government allocations but was unevenly distributed. For instance, DRDIP funding prioritized refugee-hosting districts[61] in West Nile in their infrastructure priorities relatively more than in Karamoja sub-region schools.

In terms of funds absorption, utilization reports indicate inefficiencies in spending on infrastructure and learning materials, with over 15% of allocated funds unspent across both sub-regions during FY2022/23[62]. On primary education financing trends, the district-level budget allocations for primary education showed fluctuating trends, with a 5% decline in FY2021/22 during the COVID-19 period but a subsequent 8% increase in FY2023/24. However, this growth did not proportionally impact teacher recruitment or infrastructure development.

The study established a strong positive correlation (r=0.85) between district education budgets and pupil performance in West Nile sub-region, suggesting that higher funding improves student outcomes. Conversely, Karamoja sub-region showed a weaker correlation (r=0.45), highlighting the need for targeted interventions. Furthermore, regression results indicate that a UGX1m increase in primary education budgets contributes to a 2% improvement in pupil pass rates, controlling for teacher presence and infrastructure availability.

61. Interviews with local government officials in Yumbe and Madi Okollo Districts November 2024.
62. MoFPED Budget Execution Reports (2022).

Table below provides a summary of the comparison of primary education financing streams and their coverage in districts.

Table 16: Comparison of Primary Education Financing Streams and Their Coverage in Districts

Category	Capitation Grant Allocation	Expenditure on Capital Developments	Wage Allocation	Local Revenue Allocations for Education
What does it cover?	Covers basic operational costs, instructional materials, and other school running expenses.	Directed at infrastructure development like classrooms, toilets, and other essential facilities.	Pays salaries of government-employed teachers.	Supports additional education initiatives, maintenance, and school development.
How is it allocated?	Based on the number of learners in each district.	Allocated per district, based on planned infrastructure projects.	Determined by government payroll and the number of teachers per district.	Derived from local government revenue contributions.
Duty bearer	Central government (Ministry of Education & Sports).	Central government, district authorities, development partners.	Central government via the Ministry of Public Service and district local governments.	Local governments and community contributions.
Coverage (does the funding cover the need, or is it very insufficient?)	Insufficient, as increasing enrolment rates strain available funds.	Inadequate, leading to overcrowded classrooms and poor school facilities.	Below requirement, given high pupil-to-teacher ratios and demand for more teachers.	Very limited, often unable to meet the additional financial needs of schools.

3.2.2 Inadequacy of the Capitation Grant Allocation

This study has analyzed Uganda's public primary education financing with a focus on the disadvantaged sub-regions of West Nile and Karamoja. Furthermore, the study has established the Dakar Framework (2000) recommendations, the SDG-

4 (2015) commitments by Government of Uganda, the NPA recommendations on capitation grant.

This study reveals that in its current state, the Government capitation grant remains insufficient to address educational disparities in disadvantaged sub-regions.[63] Besides, the National Planning Authority (NPA) suggests UGX63,546 for urban schools and UGX59,503 for rural schools to bridge financing gaps (NPA, 2021).[64]

Meanwhile Refugee-Hosting districts face significant refugee enrolment (e.g., Yumbe, Madi Okollo, Terego, Lamwo, Kiryandongo, Isingiro, Kikuube, etc.) that exert increased pressure on resources and translates into a socio-economic burden. Additionally, geographical access which posits schools in hard-to-reach areas (i.e. West Nile and Karamoja sub-regions and others) face remote location challenges including access to electricity, poor road and river crossing networks, and limited safe water access; these compound the associated poor education outcomes in these sub-regions[65]. This is exacerbated by infrastructure deficits, reflecting the lack of electricity, accessible roads, river crossings, and WASH facilities at school premises, significantly impacts education outcomes by limiting access to schools, reducing study time, and compromising the learning environment's safety and quality[66].

The study acknowledges that while the current capitation grant allocation is anchored on enrolled pupil head-count per school, key drivers of education outcomes which the education financing should influence are not its integral part, i.e. geographical remoteness, barriers caused by conflicts[67], resource strains caused by refugee-hosting status[68], economic infrastructure access (especially electricity, piped water, accessible river-crossings and roadways).

This study proposes that there is a need to engage Government of Uganda in light of this inadequacy and backed by the NPA recommendations on a revised capitation grant. A revised capitation grant will promote better education outcomes while also allocating resources to more disadvantaged areas.

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63. Government Capitation Grant Current Rates. MoFPED, 2022/23, National Budget Framework Paper for FY 2022/23, Page 46. Justification: Reflects the current capitation grant allocation at UGX 20,000 per pupil per year.

64. National Planning Authority (NPA) Proposal for Capitation Grant Rates. NPA, 2021, National Development Report: Strategic Framework for Uganda's Development, pages 8–12. Justification: NPA recommends UGX 63,546 for urban schools and UGX 59,503 for rural schools to address funding gaps and improve educational quality.

65. Regional/Economic Remote Locations Consideration. Office of the Prime Minister (OPM), Refugee Statistics and Resource Needs. OPM, 2023, State of Uganda Refugee and Host Community Infrastructure, pages 15-18 for economic remoteness and hard-to-reach status in West Nile and Karamoja.

66. Estimating District GDP in Uganda. https://korbel.du.edu/sites/default/files/2022-04/Estimating%20District%20GDP%20in%20Uganda.pdf.

67. The drivers of poor attendance and performance in Karamoja sub-region including poor economic infrastructure to access public schools, unpredictable wild-life roaming into villages from Kidepo Valley and sporadic cross-border livestock raids.

68. Please note that not all schools in West Nile sub-region are refugee-hosting schools

3.3 Teacher Recruitment, Availability and Retention

SDG 4 is about provision of quality education. This goal ensures that all girls and boys complete free primary and secondary schooling by 2030. It also aims to provide equal access to affordable vocational training, to eliminate gender and wealth disparities, and achieve universal access to a quality higher education.[69] Equal access to education opportunities, the type or quality of schooling, resourcing/ financing learners' achievement in primary education plays a crucial role in obtaining further educational opportunities.

MOES guidelines recommend PTR of 1:53 for primary schools to promote effective teaching and learning, allowing teachers to provide adequate attention to each pupil. However, the average ratios in recent years assessed (2021–2024) were significantly higher as summarized in the table below. In Karamoja sub-region, the ratios were 1:74 (2021), 1:99 (2022), 1:101 (2023), and 1:108 (2024), while in West Nile sub-region they stood at 1:83 (2021), 1:74 (2022), 1:81 (2023), and 1:85 (2024).

Table 17: Pupil-to-Teacher Ratios (PTRs) in Karamoja and West Nile Compared to the National Standard

Year	National Standard (MoES)	Karamoja Sub-region	West Nile Sub-region
2021	1:53	1:74	1:83
2022	1:53	1:99	1:74
2023	1:53	1:101	1:81
2024	1:53	1:108	1:85

Source: Impact of the study on Primary Education Financing on Learners' Performance in West Nile and Karamoja Sub-Regions for Financial Years 2021/22 to 2023/24 – Survey Findings, November 2024

As can be observed, both Karamoja and West Nile sub-regions have consistently exceeded the recommended national PTR of 1:53, indicating significant teacher shortages. Karamoja's PTR has worsened over the years, reaching 1:108 in 2024, highlighting severe understaffing challenges. West Nile, while slightly better, still shows a consistently high ratio, peaking at 1:85 in 2024.

High PTRs negatively affect learning quality, as overcrowded classrooms limit individualized attention, increase teacher workload, and lead to lower learner engagement. This situation undermines efforts to improve literacy, numeracy, and overall primary school performance.

69. UN SDG, 2015

The current financing model is inadequate to address the rising pupil population in these sub-regions. Teacher recruitment and retention are hindered by limited wage allocations, low incentives for teachers in rural areas, and inadequate housing and school infrastructure. The capitation grant per pupil remains low, limiting schools' ability to recruit additional teachers outside the government payroll.

Addressing the PTR crisis requires increased teacher recruitment, better wage incentives, and targeted deployment strategies prioritizing hard-to-reach areas like Karamoja. Investment in teacher accommodation, professional development, and improved working conditions will also enhance retention and motivation.

3.3.1 District level Teacher-to-Pupil Ratios

The study assessed district-level Teacher-to-Pupil ratio in the districts targeted. As can be observed in figure below, the high ratios negatively impact the quality of education. Overcrowded classrooms create a noisy environment, making it difficult for teachers to communicate effectively and for pupils to concentrate. This also increases challenges in classroom management, ultimately affecting pupils' academic performance.

Table 18: Teacher-to-Pupil Ratios (PTR) per District, 2021–2024

Year	Madi-Okollo (West Nile)	Yumbe (West Nile)	Abim (Karamoja)	Nabilatuk (Karamoja)	National Standard (MoES)
2021	1:72	1:85	1:68	1:80	1:53
2022	1:78	1:70	1:95	1:102	1:53
2023	1:81	1:74	1:98	1:105	1:53
2024	1:85	1:79	1:102	1:110	1:53

Source: Impact of the study on Primary Education Financing on Learners' Performance in West Nile and Karamoja Sub-Regions for Financial Years 2021/22 to 2023/24 – Survey Findings, November 2024

Karamoja sub-region districts (Abim and Nabilatuk) have the highest PTRs, far exceed the national standard (1:53). Nabilatuk recorded a crisis-level ratio of 1:110 in 2024, while Abim stood at 1:102, indicating severe teacher shortages. West Nile sub-region districts (Madi-Okollo and Yumbe) posted slightly better but still exceed the recommended standard. Yumbe improved in 2022 (1:70) but worsened again to 1:79 in 2024, suggesting fluctuations in teacher recruitment or pupil enrolment surges.

The consistently high PTRs across all districts negatively impact learning effectiveness, teacher workload, and classroom management. Overcrowding makes it difficult for teachers to provide individualized attention, assess learners effectively, and maintain quality instruction. The emerging policy and financing gaps include; limited teacher recruitment and retention in hard-to-reach areas, especially in Karamoja; inadequate financing for teacher wages and recruitment efforts, causing slow deployment; and lack of teacher housing and incentives, discouraging teachers from working in remote districts.

As can be observed, there is generally an upward trend over the years in the pupil-teacher ratio across all four districts assessed. This indicates growing enrollment in schools, which is not being matched by a corresponding increase in teacher recruitment. Consequently, classrooms are becoming increasingly overcrowded each year which negatively influences learner performance. This is noted by the district reports on fluctuating trends in Abim and Yumbe districts, with Yumbe showing an increase from 1:90 in FY2021/22 to 1:85 in FY2023/24, while Abim district's ratio deteriorated to 1:120 in FY2023/24 due to reduced recruitment efforts[70] as attested by a study respondent.

"Refugee children are welcomed into schools, but this has increased the number of pupils too much. The classes are overcrowded, and the teachers cannot handle the numbers. This makes learning very difficult for our children" ***-Male Parent, Yumbe District***

"There are very few teachers, and they are overwhelmed. Some even leave their jobs because they cannot manage the workload. As a result, children don't get enough lessons, and their performance suffers" *-Female Parent, Yumbe District*

"Cattle rustling and elephants from Kidepo National Park roaming around are the most significant challenges here. Teachers are often reluctant to stay in schools located in these insecure areas, leading to frequent absenteeism. Parents, too, are hesitant to send their children to school when they fear for their safety. This disrupts the learning calendar and lowers pupils' performance. Additionally, resources meant for schools are sometimes redirected to address emergency needs arising from insecurity" *-DEO Abim District*

70. See District Education Statistical Abstracts, Yumbe and Abim (2023).

The Study reveals a weak correlation (r=0.45) between education financing and teacher-pupil ratios at the district level. For instance, districts with comparable budgets exhibited stark differences; Yumbe district, with a higher budget per capita, reported an average teacher-pupil ratio of 1:75 compared to Abim district's 1:60. These disparities point to inefficiencies in fund allocation and utilization. Table below presents teacher allocation and distribution challenges as reviewed from secondary literature.

Table 19: Summary of Teacher Allocation and Distribution Challenges in Selected Districts (2024)

District	Teacher Distribution Challenges	Key Issues	Citations/References
Madi-Okollo	High turnover rates, insufficient incentives for teachers.	Poor housing, limited professional development opportunities.	Aga Khan Foundation (2019). Teacher Deployment and Retention. Nairobi: Aga Khan Development Network.
Yumbe	Overcrowded classrooms due to refugee influx.	Difficulty managing large classes, inadequate housing for teachers.	UNICEF (2020). Education in Conflict Zones: Yumbe Case Study. Kampala: UNICEF.
Abim	Teacher shortage and high turnover due to remote locations.	Long travel distances to schools, limited CCT support for professional growth.	Uganda National Teachers Union (UNATU) (2021). Challenges of Teacher Deployment in Uganda. Kampala: UNATU.
Nabilatuk	Low retention rates, high percentage of unqualified teachers.	Geographical isolation, inadequate training, and professional support.	World Bank (2018). Teacher Retention and Professional Development. Washington, D.C.: World Bank.

Source: Impact of the study on Primary Education Financing on Learners' Performance in West Nile and Karamoja Sub-Regions for Financial Years 2021/22 to 2023/24 – Survey Findings, November 2024

3.3.2 Teacher Availability

The disparities in teacher deployment and availability across the selected districts, Yumbe, Madi-Okollo, Abim, and Nabilatuk districts as presented in table below, presents with it issues of availability, key challenges, and their implications for education quality in the West Nile and Karamoja sub-regions. These challenges affect both teacher retention and professional development, leading to variations in the quality of education provided in these sub-regions.

Table 20: Teacher Availability, Qualifications, and Professional Development by District (2024)[71]

District	Number of Teachers on Government Payroll (2024)	Teacher Qualifications	Professional Development Programs
Madi-Okollo	820	55% with Diplomas, 25% with Degrees, 20% with Certificates	Regular quarterly workshops organized by CCTs, with focus on inclusive teaching practices and assessment strategies.
Yumbe	1,240	50% with Diplomas, 30% with Degrees, 20% with Certificates	Peer mentorship and monthly CCT-led teacher enhancement programs emphasizing technology integration in classrooms.
Abim	510	60% with Certificates, 30% with Diplomas, 10% with Degrees	Irregular professional development due to logistical challenges; occasional district-level training sessions conducted.
Nabilatuk	400	70% with Certificates, 20% with Diplomas, 10% with Degrees	Limited access to professional development due to isolation; infrequent CCT visits exacerbate the situation.

Source: See footnote

The study districts show a significant variation in teacher numbers. Yumbe district reports the highest number of teachers (1,240), reflecting its larger student population and resource allocation. Conversely, Nabilatuk district has the fewest teachers (400), largely due to its remote location and challenges in teacher recruitment and retention.

The qualifications of teachers vary across districts. Yumbe and Madi-Okollo districts exhibit higher percentages of teachers with degrees and diplomas, correlating with better teacher quality. Abim and Nabilatuk district face challenges, with a majority holding certificates. Nabilatuk, in particular, has 70% of teachers with only

71. Ministry of Education and Sports (MoES). (2024). Education Management Information System (EMIS) Database for Teacher Statistics and Professional Development (2024). Kampala, Uganda and Respective District Headquarters, Uganda; Coordinating Centre Tutors (CCT) Reports. (2024).

certificates, limiting the quality of instruction. This aligns with UNESCO[72], which highlights that teacher qualifications significantly influence learner outcomes.

Regular teacher development programs are evident in Yumbe and Madi-Okollo districts due to active CCT involvement. Abim and Nabilatuk districts, however, suffer from inconsistent professional development opportunities, mainly due to logistical and infrastructural challenges. This is corroborated by Aga Khan Foundation[73], which emphasizes the difficulty of maintaining consistent teacher training in remote areas.

Teacher retention is a critical issue in Nabilatuk district, where poor working conditions and limited professional growth opportunities lead to high turnover rates. This finding aligns with UNATU[74], which identifies harsh living conditions as a primary deterrent for teachers in hard-to-reach districts.

The study established that COVID-19 had a disproportionate impact on teacher retention in hard-to-reach sub-regions. Factors contributing to this included:

- **Inadequate teacher support systems:** The lack of training and professional development programs during the school closures, particularly for teachers in rural areas, left many without the skills needed for online or hybrid teaching formats.[75]
- **Economic challenges:** Teachers in hard-to-reach areas, who were already poorly compensated, faced financial difficulties due to the pandemic's economic disruption. Many were unable to sustain their livelihoods, leading them to leave the profession or migrate elsewhere.[76]
- **Health and safety concerns:** Teachers in remote districts were particularly vulnerable due to poor healthcare infrastructure and high exposure risks, causing many to abandon their posts.[77]

The study sought to determine teacher availability at schools to fulfill their duties. Nabilatuk district recorded the lowest teacher attendance at 70%, followed by

72. UNESCO. (2020). Global Education Monitoring Report 2020: Inclusion and Education: All means all. United Nations Educational, Scientific and Cultural Organization, Paris, France.

73. Aga Khan Foundation. (2019). Education for All: Challenges and Solutions in Developing Regions. Aga Khan Foundation, Geneva, Switzerland

74. UNATU (Uganda National Teachers' Union). (2021). Teacher Welfare and the Impact on Education Quality in Uganda. Kampala, Uganda.

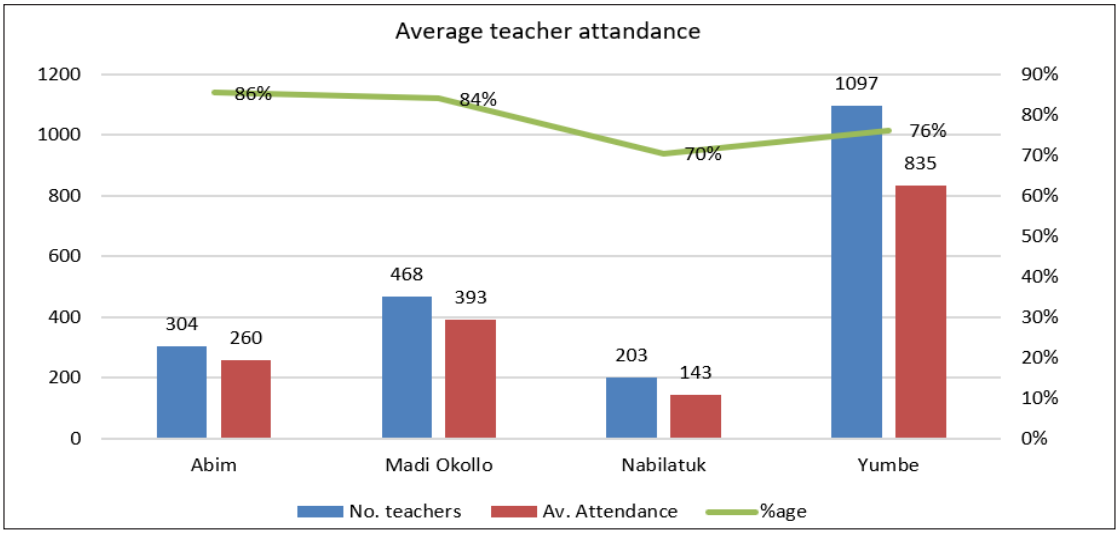
75. World Bank. (2020). Education in Sub-Saharan Africa: Challenges and Opportunities. Washington, D.C., p. 18.

76. Aga Khan Foundation. (2020). Education for Development: Innovations in Teacher Training and Capacity Building in Low-Resource Contexts. Aga Khan Foundation, Geneva, Switzerland, p. 21.

77. UNICEF. (2020). Education and Inclusion: Promoting Access to Quality Education for Vulnerable Children in Uganda. United Nations Children's Fund, Kampala, Uganda, p. 9.

Yumbe district (76%), Madi Okollo district (84%), and Abim district (86%). In Nabilatuk district, not only is the teacher-pupil ratio higher than in other districts, but many teachers are also unavailable to attend to learners.

Figure 5: Average teacher attendance



Source: Impact of the study on Primary Education Financing on Learners' Performance in West Nile and Karamoja Sub-Regions for Financial Years 2021/22 to 2023/24 – Survey Findings, November 2024

This presents a significant challenge to learner performance as was corroborated by over 90% of the learners in Nabilatuk district who confirmed that they have observed absence of a teacher or lack of a teacher for a certain subject as compared to 61% in Yumbe district, 47% in Abim district and 35% in Madi Okollo district.

"Teachers come and go very quickly. They don't stay long because the conditions here are hard, and they are not paid on time. Without enough teachers, the children are left idle or taught by unqualified substitutes, which affects their education" ***-Male Parent, Abim District***

"Teachers come late or don't show up at all because they live far from the school. When there is no teacher, the children just play or go home. This affects their performance because they are not learning enough" ***-Female Parent, Madi Okollo District***

The report distinguishes teacher availability (the number of teachers employed and posted in schools) from teacher presence (actual attendance of teachers at their workplaces). For instance, the study shows that across the study period, teacher

availability in Karamoja sub-region was consistently below the national target of a 1:50 teacher-pupil ratio, averaging 1:65 in FY2021/22 and FY2022/23.[78] This reflects recruitment challenges and retention issues in hard-to-reach areas.[79]

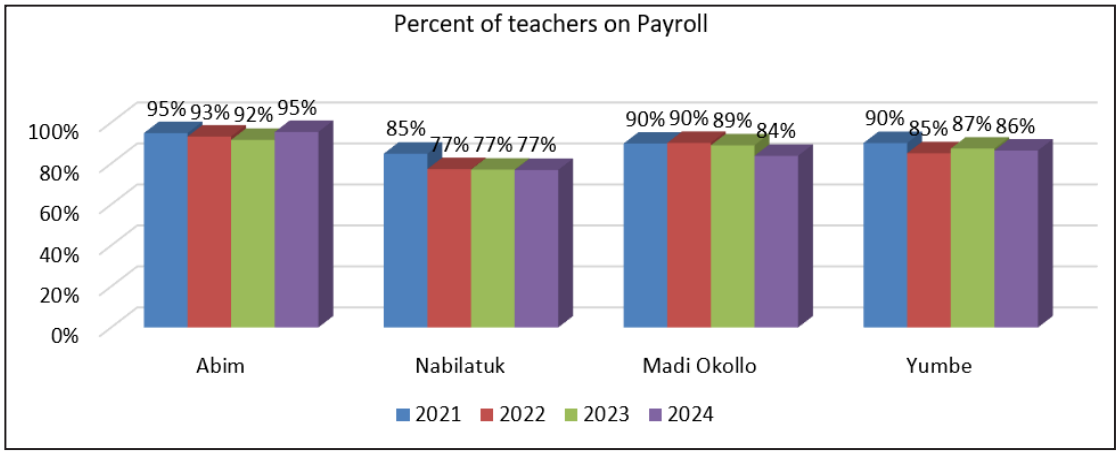
While it may assist in ameliorating this teacher – pupil deficit, the government's policy of establishing one primary school per parish has shown mixed progress, with some districts advancing in its implementation, while others face challenges such as insufficient infrastructure, and teacher shortages that impact access and enrollment.

In sub-regions with limited infrastructure, this policy has not yet resulted in a significant improvement in enrollment rates, as poor accessibility and lack of facilities continue to be significant barriers. For instance, Nabilatuk district, which had a relatively low budget allocation, still achieved a high rate of schools with changing rooms for girls. However, these facilities are not available in all schools, and the quality of infrastructure varies significantly.

3.3.3 Teachers on the Payroll

The Study established the linkage between payroll and teacher availability at school level. Following the challenges of teacher availability and high teacher pupil ratio in Nabilatuk district, the district also had the lowest percentage of teacher on the government payroll.

Figure 6: Teachers on the Payroll



Source: Impact of the study on Primary Education Financing on Learners' Performance in West Nile and Karamoja Sub-Regions for Financial Years 2021/22 to 2023/24 – Survey Findings, November 2024

78. Ministry of Education and Sports (MoES). (2023). Education Sector Performance and Progress Report for FY 2022/23. Kampala, Uganda.

79. Observation during school visits, 2024

The case of teachers' on-boarding onto the government payroll highlights a critical barrier to improving teacher availability and addressing high teacher-pupil ratios, particularly in Nabilatuk district. Having the lowest proportion of teachers on the payroll among the surveyed districts, Nabilatuk district faces significant challenges in attracting and retaining qualified educators. This payroll gap exacerbates existing issues, such as absenteeism and reliance on under qualified or unmotivated personnel, further straining the primary education system.

Moreover, the limited inclusion of teachers on the payroll has a cascading effect on performance, as it directly negatively impacts on teacher morale, stability, and long-term commitment to their roles. Comparatively, in 2024, 95% of teachers in Abim were on the government payroll compared to 84% in Yumbe and 88% in Madi Okollo, yet Abim reported higher teacher attrition rates due to financial reasons. Consultations revealed that financial challenges reported included late salary payments and lack of hardship allowances despite harsh working conditions, emphasizing the importance of addressing this gap to improve educational outcomes.

Study Consultations

- **Teacher Attrition:** Teachers cited delayed salary payments and lack of accommodation as primary reasons for leaving their posts, despite being on the payroll.
- **Budget Transparency:** Respondents in Nabilatuk District reported higher satisfaction with how funds were managed, linking NGO engagement to better outcomes.

3.3.4 Teachers' Recruitment

The Study established the level of teacher recruitment as per the stipulated standards. The education sector guidelines stipulate that teacher recruitment should align with set annual targets for each district. However, as can be observed in the table below, the recruitment rates vary significantly across the districts over the 2021-2024 periods. For instance, Abim district showed a gradual increase in recruitment from 0% in 2021 to 6% in 2024, while Madi Okollo district initially has a high recruitment rate of 16% in 2021, which then dropped to 7% by 2024. Nabilatuk and Yumbe districts also demonstrated fluctuating recruitment percentages, with Nabilatuk district peaking at 9% in 2022, while Yumbe district's recruitment rates decline over the period.

Table 21: Teacher Recruitment by districts, 2021-2024

District	New teachers recruited			
	2021	2022	2023	2024
Abim	0%	2%	4%	6%
Madi Okollo	16%	5%	6%	7%
Nabilatuk	2%	9%	1%	2%
Yumbe	2%	7%	6%	3%

Source: Impact of the study on Primary Education Financing on Learners' Performance in West Nile and Karamoja Sub-Regions for Financial Years 2021/22 to 2023/24 – Survey Findings, November 2024

On average, the total recruitment across all districts remained steady at 5% annually, indicating that while some districts are making progress, the overall recruitment rate remains below optimal levels, suggesting that more efforts may be needed to meet the prescribed recruitment standards.

The study further established that in FY2021/22, teacher recruitment improved marginally in West Nile sub-region with a 6% increase in teachers placed on payroll compared to FY2020/21. In Karamoja, however, the improvement was negligible, with only a 1% increase despite a higher budget allocation[80].

Summary of Key Informers' Consultations on Quality of Teachers

- **Qualifications:** 70% of newly recruited teachers in Karamoja lack formal teaching credentials, compared to 90% qualification rates nationally.[81]
- **Recruitment Process:** Teachers are primarily recruited by district service commissions, but delays in deployment were common, particularly in Nabilatuk, where vacancies remained unfilled for over 12 months.
- **Professional Development:** Professional development opportunities are minimal in both sub-regions, with only 10% of teachers attending refresher courses annually, compared to the recommended 40%.

Non-Payroll Teacher Costs: Schools in Karamoja reported spending up to 15% of their operational budgets on temporary teacher contracts, burdening already limited resources.

80. Ministry of Education and Sports (MoES). (2021–2022). Payroll Management Reports for the Education Sector in Uganda for FY 2021/22. Kampala, Uganda.

81. Ministry of Education and Sports (MoES). (2023). Teacher Management System: Annual Report on Teacher Availability, Deployment, and Professional Development. Kampala, Uganda.

The study established that schools in Karamoja sub-region are severely under-resourced, with many lacking basic facilities such as classrooms, desks, and toilets. Additionally, the sub-region faces chronic teacher shortages, with a large proportion of teachers unqualified or unable to commit long-term due to inadequate accommodation and poor living conditions[82]. The teacher-pupil ratio remains higher than the national average, and many schools operate in makeshift classrooms or open spaces. The issue of teacher retention is further exacerbated by the lack of incentives for teachers to work in remote areas, contributing to a high turnover rate[83].

Table 22: Teachers abdicating their positions

District	Teacher left for paid work	
	No	Yes
Abim	82%	18%
Madi Okollo	88%	12%
Nabilatuk	40%	60%
Yumbe	86%	14%

Source: Impact of the study on Primary Education Financing on Learners' Performance in West Nile and Karamoja Sub-Regions for Financial Years 2021/22 to 2023/24 – Survey Findings, November 2024

The findings indicate a positive correlation between teacher retention and being on the government payroll. In Nabilatuk district, 60% of schools; the highest among the four districts, reported losing a teacher in the past year to seek paid work elsewhere and as attested by a study respondent below.

82. Mugisha, A. (2019). Educational Challenges in Karamoja: A Regional Perspective. Kampala: Uganda National Education Review.

83. Kakuru, R. (2020). Teacher Retention and School Performance in Karamoja. Uganda Journal of Education Studies, 45(2), 45-62.

- "Insecurity discourages qualified teachers from accepting postings here. Even those recruited often leave shortly after deployment. For those who stay they are always in Mbale for their weekends. Without adequate housing and assurance of safety, retaining teachers in this area remains nearly impossible" DEO Nabilatuk District
- "When we hear about cattle raiders nearby, we don't let our children go to school. Sometimes, schools close early because of fear, and this disrupts their learning. My children are behind in their studies, and I worry they might drop out if things don't improve" Female Parent, Abim District

Relatedly, Nabilatuk district posted the lowest percentage of teachers on the government payroll, followed closely by Yumbe, Madi Okollo and Abim districts.

3.4 Educational Infrastructure and Learning Environment

3.4.1 Infrastructure at facility level

The Auditor General's 2023 value-for-money audit report[84] reveals a lack of adequate school infrastructure and learning environment to deliver an effective pupil learning experience. In this regard the Study sought and established the level and quality of the stock of infrastructure at the school facility level. The Uganda's own Ministry of Education and Sports recommends a classroom-pupil ratio of 1:53 for primary education. As is observed in table below, the total enrollment across the schools visited stood at 194,653 pupils, with Yumbe district having the highest enrollment figures. Yumbe district, with the highest enrollment figure has an average of 122 pupils per classroom. While Madi Okollo district which has the second highest enrolment stood at 179 pupils per classroom, followed by Abim district at 146 and Nabilatuk district at 115. However, all the districts are way above the recommended classroom to pupil ratio of 1:53.

Table 23: Infrastructure utilization at facility level

District	Enrolment	Classrooms	Pupils per Classroom	Functional Desks	Pupils per Desk
Abim	23,540	161	1:146	2,033	1:12
Madi Okollo	60,154	336	1:179	6,694	1:9
Nabilatuk	10,853	94	1:115	1,060	1:10
Yumbe	100,106	822	1:122	14,491	1:7

Source: Impact of the study on Primary Education Financing on Learners' Performance in West Nile and Karamoja Sub-Regions for Financial Years 2021/22 to 2023/24 – Survey Findings, November 2024

84. Auditor General (2023). Value for Money Audit Report on the Delivery of Universal Primary Education in Uganda

Relatedly, the December 2023 Auditor General Audit Report cites Southern / Western regions much as not "disadvantaged" showing average classroom-to-pupil ratio of 1:48, which was favourable when compared to the recommended national average of 1:53; with Central, Eastern, and Northern regions as well as West Nile sub-region posting ratios of 1:65, 1:76, and 1:107, respectively, moreover still above the recommended national average.

The study shows there is a clear disparity in the availability of libraries across districts. Nabilatuk district, despite a lower budget, has better library facilities thanks to partnerships with donors like UNICEF and Oxfam, whereas in Madi-Okollo district, which receives relatively higher capitation grants, libraries are often absent, limiting students' access to resources. Similarly, the availability of gender-segregated toilets is inconsistent.

The ratio of schools with functioning toilets is higher in West Nile sub-region than in Karamoja sub-region, particularly in Yumbe district, where 92% of schools have adequate toilets, compared to 70% in Nabilatuk district. This discrepancy can be attributed to regional disparities in fund allocation and external aid distribution.

The planning, budgeting, and implementation guidelines for Local governments, Education and Sports Sector FY2021/2022 require schools to have desks accommodating three pupils. The total number of functional desks across the schools visited was 24,278, which translates to an overall average of eight pupils per desk. This is much higher than the MoES recommended guideline of 1:3. In some schools, the study found pupils seated on the classroom floor which limits their ability to copy and write notes thus ultimately negatively affecting their performance.

Nabilatuk and Abim districts were found particularly disadvantaged, with ten and twelve pupils per desk, respectively, compared to Yumbe district's seven pupils per desk and Madi Okollo district's nine pupils per desk. These ratios indicate significant overcrowding, making it difficult for pupils to focus and for teachers to manage classrooms effectively. As a result, Nabilatuk district with its sixteen UPE schools for instance, had five of its schools i.e. Lorukumo[85] PS, Napongai PS, Domoye PS, Cucu PS, and Kosike PS, fail the national Local Government Performance Assessment (LGPA) in FY 2022/23 on account of failing the MoES minimum standards, i.e. adequate facilities such as classrooms, desks, text books, and adequate qualified teaching staff. These weaknesses are attested to by study respondents.

85. Local Government Performance Assessment (LGPA) Report for FY 2022/23

"The classrooms are overcrowded, and some don't even have roofs. During the rainy season, children are sent home because they can't study under such conditions. Also, there aren't enough desks. My daughter often sits on the floor with other children, which is not good for learning" ***-Female Parent, Abim District***

"The influx of refugees strains the already limited resources. Classrooms are overcrowded, with pupil-to-teacher ratios sometimes exceeding 1:100 in some schools. This makes effective teaching almost impossible. Additionally, the capitation grants are based on enrolment figures that often exclude refugees, leaving us underfunded" ***-DEO Madi Okollo District***

"Most schools here lack basic infrastructure. Classrooms are overcrowded, and many pupils study under trees. We do not meet the national standards for classrooms or desks. For example, the pupil-to-desk ratio is over 1:5 in some schools. This affects concentration and effective teaching. We urgently need more investments to create a safe and conducive learning environment" ***-DEO Abim District***

"The schools are overcrowded because there are so many refugee children. My son says it is hard to concentrate because there are too many children in one classroom. Teachers are overwhelmed, and my child gets little attention" ***-Female Parent, Madi Okollo District***

"The schools don't have enough classrooms, and some children study under trees. When it rains, classes stop. My child's school also doesn't have electricity, so they can't use any modern teaching tools" ***-Male Parent, Madi Okollo District***

The Auditor General 2023 Audit Report shows an overall average desk-to-pupil ratio of 1:4 in FY2020/21, 1:5 in FY 2021/2022, and 1:4 in 2022/2023. This simply reflects that there were "in excess" three learners for every 3-seater desk, implying the "excess learners" attended lessons in discomforting positions of either standing or directly seated on the classroom floor.

3.5.2 Assessment of Inclusive Infrastructure

Ensuring inclusive education infrastructure is critical, particularly for physically impaired learners who require specialized provisions. The World Health Organization (WHO)[86] also emphasizes the importance of inclusive infrastructure, noting that accessible toilets, libraries, and classrooms designed for students with disabilities are critical to ensuring that all children, regardless of their physical challenges, have equal access to quality education. In many regions, including some of those in Uganda, the lack of such infrastructures creates substantial barriers to educational attainment, particularly for children with physical disabilities.

In terms of accessible infrastructure, the study shows that in some districts, the lack of ramps, accessible classrooms, and toilets creates barriers for learners with disabilities. For example, Madi-Okollo and Yumbe districts have limited infrastructure to support special needs learners, with only 15% and 18% of schools having accessible classrooms, respectively. In contrast, districts with more inclusive designs, such as Abim district have ensured that 35% of their schools include these provisions.

In the case of alternative financing for Inclusivity, schools with larger funding allocations have slightly better infrastructure, but there are still gaps in meeting the needs of learners with disabilities. For instance, Nabilatuk district, despite lower funding levels, has secured alternative funding from NGOs like Handicap International, which has supported inclusive education infrastructures (e.g., ramps and accessible toilets). This finding challenges the assumption that larger budgets automatically lead to better inclusivity.

The correlation between funding levels and infrastructure quality remains crucial. Data shows a mixed trend where schools with higher capitation grants are generally better equipped, but external funding plays a pivotal role in providing facilities such as changing rooms for girls and teachers' accommodation. For instance, for classroom Infrastructure in districts with higher budgets, such as Abim and Yumbe, the desk-to-pupil ratio has improved, yet they still face challenges in ensuring equitable classroom availability, particularly in remote areas. For example, Abim district has the highest percentage of schools with adequate classrooms (82%) but still struggles with basic infrastructure such as toilets and libraries.

3.5.3 Changing Rooms for Adolescent Female Learners

The inclusion of changing rooms for adolescent female learners in primary schools plays a crucial role in promoting gender equality, improving school attendance,

86. WHO, 2022, 'Inclusion and Accessibility in Education: A Global Perspective' (p. 57).

and ultimately enhancing learning outcomes. For adolescent girls, access to separate changing facilities is critical not only for their physical comfort but also for addressing issues related to menstrual hygiene management. When schools fail to provide these facilities, it can lead to increased absenteeism, school dropouts, and lower performance, particularly during menstruation.

According to the National Education Sector Performance Report[87], 30% of public primary schools in Uganda have designated changing rooms for adolescent female learners. This figure is a critical indicator of how inclusive school environments are and their capacity to support gender-specific needs of female learners.

The report highlights that the lack of such facilities often leads to increased absenteeism during menstruation, contributing to lower attendance rates among adolescent girls, especially in rural areas. The report cites that schools with adequate sanitation and gender-segregated facilities have observed higher retention and improved performance among female learners, contributing to a reduction in the gender gap in education.

In the West Nile sub-region, only 25% of schools report having changing rooms for adolescent girls, with significant regional variation. Refugee-hosting districts such as Yumbe and Madi Okollo districts face additional challenges, including overcrowded classrooms and a high pupil-to-teacher ratio.

The scarcity of infrastructure, including changing rooms, exacerbates the challenges faced by female learners, leading to higher dropout rates, particularly among adolescent girls. The ***UNICEF Education Report*** notes that the refugee influx in these areas has compounded infrastructure challenges, limiting the ability of schools to provide adequate facilities for girls.

In Karamoja sub-region, the availability of changing rooms for adolescent girls is even more limited, with only 12% of schools providing this essential facility. The sub-region's vulnerability to conflict, poverty, and environmental factors significantly hampers education infrastructure development. According to the ***Karamoja Education Strategy (2022)***, the lack of separate facilities for girls is one of the major reasons for poor school attendance among adolescent females, especially during menstruation. Cultural practices like early marriages and the frequent displacement caused by cattle raiding and security concerns further contribute to the high dropout rates among girls.

87. National Education Sector Performance Report, 2023

In Yumbe district, only 20% of schools have dedicated changing rooms for girls. The district faces the combined challenge of a large refugee population and inadequate infrastructure. The ***UNHCR Education Report (2022)*** highlights that refugees in Uganda often face poor living conditions, and the education infrastructure in refugee-hosting districts like Yumbe is frequently overwhelmed, further exacerbating the issue of insufficient changing facilities for adolescent girls.

Madi Okollo district reports a slightly higher percentage, with 28% of schools providing changing rooms for female learners. However, even with this improvement, the figure remains far below what is necessary to ensure gender-inclusive education. The district's reliance on humanitarian aid for education infrastructure has resulted in slow progress in addressing these needs, as noted in the DRDIP Education Support Report[88].

In Abim district, less than 10% of schools have separate changing rooms for girls. According to the ***Karamoja Education and Development Strategy[89],*** Abim district is one of the districts where the lack of gender-sensitive facilities has been a major barrier to girls' retention and academic performance. Combined with the region's poverty levels and cultural barriers, this deficiency further isolates girls from accessing quality education.

Similar to Abim, only 12% of schools in Nabilatuk provide adequate changing rooms. The UNICEF Karamoja Report[90] highlights that infrastructure constraints are a major issue in Karamoja, particularly in terms of providing female-friendly spaces in schools. Nabilatuk, like other districts in Karamoja, faces numerous challenges, including remote locations, cultural norms, and poor educational outcomes for girls.

The data clearly demonstrates that there is a significant gap in the provision of changing rooms for adolescent female learners in the regions studied, with West Nile and Karamoja sub-regions falling well behind the national average. The national average of 30% of schools having changing rooms for girls is not being met in these sub-regions, with even lower availability in districts like Abim and Nabilatuk. This discrepancy suggests that infrastructure gaps in these areas contribute to poorer educational outcomes for girls, especially during menstruation. This weakness is further attested to by study respondents.

88. DRDIP Education Support Report (2023).

89. Karamoja Education and Development Strategy, 2022

90. UNICEF. (2023). Karamoja Education and Development Report: Addressing Challenges and Advancing Opportunities in the Region. Kampala, Uganda.

"We are struggling with providing basic facilities like changing rooms and sanitary supplies for girls. This is especially critical for female refugee learners, many of whom drop out due to lack of privacy and sanitation. Without these essential amenities, it is hard to keep them in school" ***-DEO Madi Okollo District***

"Girls in their adolescence face many challenges. Without private changing rooms or sanitary supplies, they miss school during their periods, and some drop out completely after failing to catch up in lessons missed" ***-Female Parent, Yumbe District***

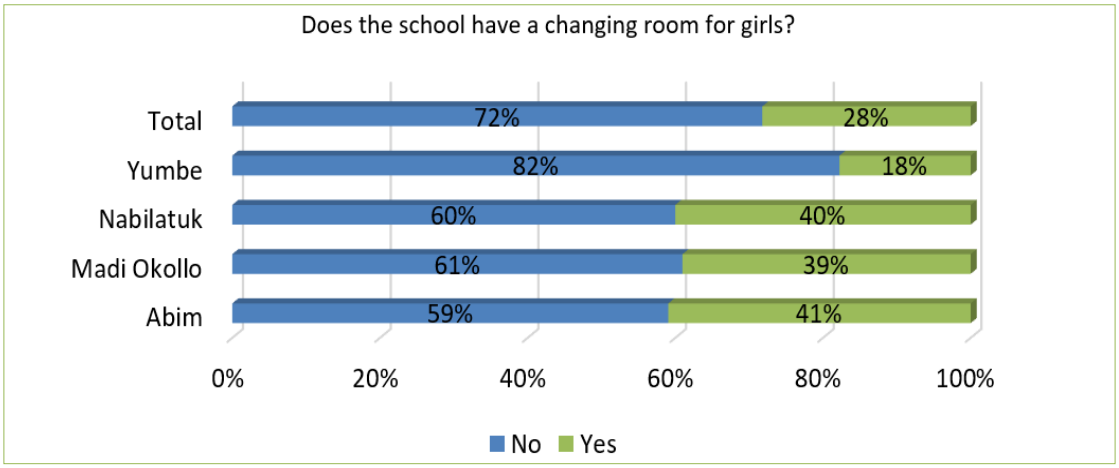
"There are no changing rooms or sanitary supplies for girls. Many parents complain that this is why their daughters drop out, especially during their teenage years" ***-Female Parent, Madi Okollo District***

"Many girls are dropping out. There are no changing rooms or proper sanitation, so when they start menstruating, they feel embarrassed and stop going to school" ***-Female Parent, Nabilatuk District***

To improve the situation and enhance the academic performance of girls, it is critical that the government and relevant stakeholders prioritize the provision of gender-responsive infrastructure, including changing rooms, as part of a broader effort to support girls' education. There is also a need for more targeted interventions to address the socio-economic barriers to education, such as early marriages and cultural practices that undermine the educational attainment of girls.

The Education sector guidelines stipulate the provision of at least one changing room for adolescent female learners as part of the minimum standards. In the schools surveyed, the study established that only 28% of the schools reported having functional changing rooms for female learners, with notable variations between districts. Yumbe district posted the lowest percentage, with only 18% of schools providing such facilities, while Abim district posted the highest, at 41%. This disparity underscores a critical gap in supporting the needs of adolescent girls in schools, as the lack of private and secure changing facilities may affect their comfort, participation in physical education, and overall school experience. The data as summarized in figure below suggests a need for targeted interventions to improve infrastructure and ensure that all schools provide adequate facilities for female learners.

Figure 7: Availability of functional Changing Rooms for Adolescent Female Learners



Source: Impact of the study on Primary Education Financing on Learners' Performance in West Nile and Karamoja Sub-Regions for Financial Years 2021/22 to 2023/24 – Survey Findings, November 2024

The study finding that Nabilatuk district, despite receiving the least budgets, had the second-highest proportion of schools with changing rooms for girls, underscores external funding and NGO interventions. Changing room construction was largely funded by international partners, notably, UNICEF and Save the Children, whose presence in Nabilatuk district is prominent.

3.5.4 Availability of Teachers' Accommodation

Across the districts, 78% of schools have staff quarters, while 22% lack such facilities. Abim district had the highest proportion of schools with staff quarters at 95%, indicating strong support for teacher accommodation. Madi Okollo and Nabilatuk districts followed closely, with 90% of schools providing staff quarters, while Yumbe district posted the lowest, at only 65%. This is summarized in figure below.

Table 24: Availability of Teachers' Accommodation

District	Percent with staff quarters		Resident teachers
	No	Yes	
Abim	5%	95%	54%
Madi Okollo	10%	90%	62%
Nabilatuk	10%	90%	59%
Yumbe	35%	65%	38%

Source: Impact of the study on Primary Education Financing on Learners' Performance in West Nile and Karamoja Sub-Regions for Financial Years 2021/22 to 2023/24 – Survey Findings, November 2024

Despite most schools having staff quarters, the proportion of teachers residing in these quarters is relatively low. For instance, in Abim district, where 95% of schools have staff quarters, only 54% of teachers are accommodated in them. This highlights a significant gap between the availability of housing and the number of teachers that can actually be accommodated in these quarters as was attested to by study respondent.

> *"The majority of teachers commute long distances to reach schools because there is no housing near school facilities. This not only causes delays but also discourages teachers from staying in their postings, especially in remote areas hosting refugees" DEO Yumbe District*

Madi Okollo district has the highest percentage of resident teachers at 62%, followed by Nabilatuk district at 59%, with Yumbe district having the lowest percentage, at 38%. The study consultations revealed that resident teachers tend to be more consistent in attendance and punctuality since they do not face long commutes. Abim and Madi Okollo districts, which posted higher proportion of schools with staff quarters also reported higher teacher attendance and availability. This is reflected in the attendance rates, with 86% of teachers in Abim district and 84% in Madi Okollo district.

3.5.5 Availability of Essential Utilities

The study established as shown in table below that Abim district has 64% of schools with electricity, which is the highest among the districts under this study. The availability of electricity is important for improving learning conditions, as it allows for better lighting, the use of electronic resources, and the potential for digital learning tools. Yumbe district, with only 10% of schools having electricity, is at a disadvantage in terms of technological learning aids, which negatively affect overall academic engagement and pupil performance. Madi Okollo district (15%) and Nabilatuk district (40%) also posted limited access to electricity, which negatively influences learning.

On access to alternative energy sources in schools without electricity, the survey data further reveals that schools without electricity often rely on alternative energy sources such as solar power, firewood, and kerosene lamps. This data highlights the energy disparity between urban and rural schools, where grid electricity is less reliable, and schools have to rely on local solutions. Secondary Data from Literature:

According to UNICEF Study[91], solar energy has become a viable alternative in rural schools across sub-Saharan Africa, including Uganda. Solar systems can provide schools with a more reliable, sustainable, and cost-effective source of energy. However, the lack of proper maintenance and the initial high costs of solar systems often limit their long-term effectiveness in some districts.

Table 25: Availability of Essential Utilities

District	Total	Access to Electricity		Access to Piped Water	
		No (%)	Yes (%)	No (%)	Yes (%)
Abim	22	8 (26)	14 (64)	10 (45)	12 (55)
Madi Okollo	41	35 (85)	6 (15)	24 (59)	17 (41)
Nabilatuk	10	6 (60)	4 (40)	4 (40)	6 (60)
Yumbe	79	71 (90)	8 (10)	56 (71)	23 (29)

Source: Impact of the study on Primary Education Financing on Learners' Performance in West Nile and Karamoja Sub-Regions for Financial Years 2021/22 to 2023/24 – Survey Findings, November 2024

Nabilatuk district stands out with 60% of schools having access to piped water, which is vital for maintaining health and hygiene in schools. Abim district has 55% of schools with piped water, while Madi Okollo district (41%) and Yumbe district (29%) posted lower access. Clean water reduces the risk of waterborne diseases, promoting better health and fewer school absences due to illness. Access to clean water is linked to better overall school performance, as healthier learners are more likely to attend school regularly. These sub-regions stand the risk of water scarcity which can lead to hygiene issues and frequent absenteeism due to waterborne illnesses. Nationally, 74% of schools had access to safe drinking water by FY2023/24. However, sub-regional disparities persist, with Karamoja performing significantly below the national average (58%), indicating infrastructural and resource allocation gaps. West Nile recorded slight improvements (70%), but refugee-hosting districts like Yumbe struggle with increased demand from transient populations. This aligns with data from UNHCR indicating that refugee settlements in Yumbe and Madi-Okollo exacerbate pressure on local water resources.

The Study observed that most of the water systems at study schools have been installed with external support including functional changing room benefitting 900 female learners like at Awach Primary School in Abim district built by World Vision, water system installed by Korea International Cooperation Agency (KOICA) at Nabilatuk Township Primary School and Umbella Organisation for Water and Sanitation

91. UNICEF. (2022). Education in Uganda: Progress, Challenges, and Opportunities. Kampala, Uganda.

in Karamoja (UWS-K) at Lolachat, Lorukumo, and Lorengewat Primary Schools in Nabilatuk district, Development Response to Displacement Impacts Projects (DRDIP) and Plan International at schools in Madi Okollo and Yumbe districts.

The study analysed the state of WASH infrastructure in public primary schools at the national, sub-regional (West Nile and Karamoja), and district levels (Yumbe, Madi-Okollo, Abim, and Nabilatuk) for FY2021/22, FY2022/23, and FY2023/24.[92] The survey data in table below indicates that while Madi-Okollo and Yumbe have a high proportion of schools with safe water access (approximately 80%); only 45% of these schools report a reliable supply.

The situation is slightly better in Abim, where 67% of schools with safe water report regular access, though reliability issues remain. This inconsistency can be attributed to inadequate maintenance of water infrastructure and erratic weather patterns, which affect water availability in rural districts like Nabilatuk district. This correlates with findings from Uganda's National Water and Sewerage Corporation (NWSC), which highlights challenges in maintaining rural water systems due to inadequate financing and infrastructure.[93].

Schools in districts with more consistent access to water and electricity, such as Madi-Okollo district and Yumbe, tend to perform better in terms of educational outcomes, possibly due to better learning environments and the ability to sustain longer school hours with electricity.

In contrast, schools in more remote districts like Nabilatuk district face more challenges with infrastructure reliability, which may impact both student retention and performance. The unreliability of basic utilities such as water and electricity directly affect the operational efficiency of schools, particularly in remote areas. Unstable electricity limits the ability of schools to integrate ICT into classrooms, thus hampering modern teaching methods and student engagement. Similarly, unreliable water supply poses risks to hygiene and health of students, particularly girls, who are more likely to suffer from lack of clean sanitation facilities.

The pupil-to-latrine stance ratio improved nationally from 1:67 in FY2021/22 to 1:55 in FY2023/24, still far from the recommended standard of 1:40. Karamoja (1:80) and West Nile (1:74) lag significantly. Districts like Nabilatuk (1:84) show acute shortages, further impacted by cultural challenges related to shared sanitation facilities and periodic damage caused by roaming wildlife from Kidepo National Park.

92. See Government of Uganda. (2021). National Micro Planning Handbook for WASH in Schools. Ministry of Education and Sports, Kampala, Uganda. and other relevant sources.

93. National Water and Sewerage Corporation (NWSC). (2022). Annual Report 2022: Delivering Sustainable Water and Sanitation Services in Uganda. Kampala, Uganda.

Functional handwashing facilities remain below 50% nationally, with Karamoja recording the lowest rates (35% by FY2023/24). Limited availability of soap and water, coupled with inadequate maintenance, hinders behaviour change and poses risks of disease outbreaks. UNICEF reports underline the correlation between poor WASH facilities and absenteeism due to waterborne diseases.

A significant gap exists in gender-sensitive WASH infrastructure, including separate latrines for girls and menstrual hygiene management (MHM) facilities. The lack of such facilities contributes to higher dropout rates for girls in upper primary, particularly in Karamoja, as noted in a 2022 UNICEF study.

Table 26: WASH Infrastructure in Public Primary Schools (FY2021/22–FY2023/24)

Indicator	National Average	Districts					
		West Nile	Karamoja	Yumbe	Madi-Okollo	Abim	Nabilatuk
Access to Safe Drinking Water	72% (2021/22)	68% (2021/22)	55% (2021/22)	63% (2021/22)	60% (2021/22)	54% (2021/22)	52% (2021/22)
	74% (2023/24)	70% (2023/24)	58% (2023/24)	66% (2023/24)	62% (2023/24)	56% (2023/24)	54% (2023/24)
Functional Latrine Stances per Pupil	1:67 (2021/22)	1:74 (2021/22)	1:80 (2021/22)	1:72 (2021/22)	1:70 (2021/22)	1:78 (2021/22)	1:84 (2021/22)
	1:55 (2023/24)	1:62 (2023/24)	1:76 (2023/24)	1:68 (2023/24)	1:65 (2023/24)	1:75 (2023/24)	1:80 (2023/24)
Handwashing Facilities (Functional)	45% (2021/22)	38% (2021/22)	30% (2021/22)	40% (2021/22)	36% (2021/22)	28% (2021/22)	25% (2021/22)
	50% (2023/24)	42% (2023/24)	35% (2023/24)	45% (2023/24)	41% (2023/24)	33% (2023/24)	30% (2023/24)

Source: National Micro Planning Handbook for WASH in Schools and other relevant sources and Impact of the study on Primary Education Financing on Learners' Performance in West Nile and Karamoja Sub-Regions for Financial Years 2021/22 to 2023/24 – Survey Findings, November 2024

3.5.6 Access to Learning Materials (Text Books)

Several studies highlight that while basic educational inputs such as textbooks and classrooms are crucial, their effectiveness is largely contingent on how they are managed and utilized within the school system. According to UNESCO[94], government

94. UNESCO, 2020, 'Education in Crisis: Overcoming Barriers to Education in Low-Income Countries' (p. 45).

inefficiencies—including delays in the delivery of educational materials and inadequate school management—significantly reduce the impact of investments in educational inputs. Additionally, World Bank[95] cites cultural factors, such as gender norms or attitudes towards inclusive education, can limit the effectiveness of educational inputs, particularly when it comes to the full participation of marginalized groups, including students with disabilities.

The study established ease of access to learning materials, particularly textbooks, across the surveyed districts. The data shows that only 25% of schools across all districts reported having textbooks that are both available and accessible to learners. The availability varies significantly by district, with Nabilatuk district having the highest percentage of schools with accessible textbooks at 40%, while Madi Okollo district has the lowest at just 12%. This suggests a regional disparity in the availability of learning materials, which undoubtedly negatively affects the quality of primary education and the ability of learners to engage fully with the curriculum.

The majority of schools, 63% overall, reported that textbooks are available but difficult to access by all learners, indicating that while some resources were present, they are not distributed equitably or are in inadequate supply. The data also revealed that 12% of schools across the districts reported that textbooks were neither available nor accessible, with Yumbe district facing the most significant challenge at 21%. This lack of access to textbooks poses a major barrier to effective learning, as learners may be forced to share limited resources, leading to disruptions in learning and unequal educational learning opportunities. The findings highlight the urgent need for improvements in the provision and distribution of textbooks to ensure that all learners have equal access to essential learning materials.

Table 27: Access to Learning Materials (Text Books)

Access to text books	Abim	Madi Okollo	Nabilatuk	Yumbe
Available and accessible	32%	12%	40%	28%
Few available and difficult to access by all	64%	85%	60%	52%
Not available and not accessible	5%	2%	0%	21%

Source: Impact of the study on Primary Education Financing on Learners' Performance in West Nile and Karamoja Sub-Regions for Financial Years 2021/22 to 2023/24 – Survey Findings, November 2024

The issue of availability and access to textbooks was further expressed by study respondents.

95. World Bank, 2021, 'Education and Inclusion in Sub-Saharan Africa: Challenges and Opportunities' (p. 23).

"Our schools rarely receive sufficient textbooks or other learning aids. In many cases, teachers resort to improvising, but this affects the quality of education. For instance, pupils in lower grades don't have adequate textbooks for numeracy or literacy, which widens the learning ***-DEO Nabilatuk District***

"The children don't have enough books or supplies. Refugee children also come without materials and the schools cannot provide for everyone" Female Parent, ***-Madi Okollo District***

"There are almost no learning aids for children with disabilities. My nephew, who is deaf, struggles in school because there is no one to assist him. Schools also lack basic materials like charts or visual aids" ***-Male Parent, Yumbe District***

Apart from access issues, a study conducted by Economic Policy Research Centre (EPRC)[96] reveals poor linkage between instructional materials, programme design and examinations issued to learners. The EPRC Study Report shows an inherent mismatch between instructional materials and learners' learning levels, as vocabulary used in some instructional materials appeared somewhat tricky for learners to interpret.

3.5.7 Access to Learning Materials (Non-Textbooks items)[97]

Figure 8: Sekale PS Library - Nabilatuk District

"The school shares one textbook among many pupils. My child tells me they sometimes rely on what the teacher writes on the blackboard, but it is not enough" ***-Male Parent, Abim District***

96. EPRC, 2023. Improving Education Systems in Uganda: Evidence from the Primary Education Sub-Sector

97. Materials that support but do not replace textbooks, including reference books, maps, posters, and digital aids. Definitions from the Ugandan National Curriculum Development Centre (NCDC), 2021.

The study established availability of non-textbook learning materials across the surveyed districts. The data revealed that 52% of schools overall reported having non-textbook learning materials that were both available and accessible to learners, with Abim district showing the highest availability at 91%. However, there is a significant variation in the accessibility of these materials across the districts. While Abim district stood out with nearly full accessibility, Yumbe district reported the lowest at only 37%.

In contrast, 38% of schools reported having few available non-textbook materials that were difficult to access, with Madi Okollo and Yumbe districts facing the highest challenges in this regard. The issue of non-availability is less common, with only 11% of schools reporting that these materials are completely inaccessible, particularly in Yumbe district, where 19% of the schools facing this challenge.

These findings indicate that while non-textbook materials are generally more available than textbooks, significant regional disparities exist, and many schools continue to struggle with limited or poorly accessible learning resources.

Table 28: Access to Learning Materials (Non-Textbooks items)

Access to other learning materials	Abim	Madi Okollo	Nabilatuk	Yumbe	Grand Total
Available and accessible	91%	54%	80%	37%	52%
Few available and difficult to access by all	5%	46%	20%	44%	38%
Not available and not accessible	0%	0%	0%	19%	11%
Grand Total	100%	100%	100%	100%	100%

Source: Impact of the study on Primary Education Financing on Learners' Performance in West Nile and Karamoja Sub-Regions for Financial Years 2021/22 to 2023/24 – Survey Findings, November 2024

3.5.8 Access to Other Learning Aids[98]

The study gathered data on the availability of basic teaching materials such as chalk, pens/markers, and Manilla paper, over the past week prior to the survey. These materials are crucial for effective teaching and directly impact the quality of education and learner performance. As shown in table below, in Nabilatuk district, no schools reported a shortage of chalk. However, shortages were reported in Yumbe district (20%), Abim district (18%), and Madi Okollo district (17%). The lack

98. Tools specifically designed to assist in lesson delivery, such as teacher's guides, demonstration kits, and subject-specific aids like calculators or lab equipment. Definitions from the Ugandan National Curriculum Development Centre (NCDC), 2021.

of chalk is a significant barrier to effective teaching, as it is essential for writing on blackboards and conducting classroom lessons.

Table 29: Access to Other Learning Aids

District	Chalk		Pens/Markers		Manilla paper	
	No	Yes	No	Yes	No	Yes
Abim	82%	18%	64%	36%	45%	55%
Madi Okollo	83%	17%	54%	46%	56%	44%
Nabilatuk	100%	0%	100%	0%	90%	10%
Yumbe	80%	20%	66%	34%	65%	35%

Source: Impact of the study on Primary Education Financing on Learners' Performance in West Nile and Karamoja Sub-Regions for Financial Years 2021/22 to 2023/24 – Survey Findings, November 2024

Regarding pens and markers, Madi Okollo district had a relatively balanced situation, with 54% of schools having pens/markers available, while 46% lack them. On the other hand, Abim district (36%) and Yumbe district (34%) reported a higher proportion of schools lacking pens/markers, which could negatively impact lesson delivery, especially for activities requiring written work.

When it comes to Manilla paper, Abim district stood out with 55% of schools lacking this essential resource, which is commonly used for educational displays, charts, and other visual aids. This shortage limits the ability to engage learners visually in their learning. Madi Okollo district (44%) and Yumbe district (35%) also reported significant gaps in access to Manilla paper, which further restricts the creation of interactive learning materials.

Research indicates that non-textbook items play a crucial role in enhancing learning outcomes by supporting different learning styles, especially in areas with resource constraints[99]. Schools in rural regions, such as those in West Nile and Karamoja, tend to rely heavily on these materials due to the limited availability of textbooks.

Survey responses from Yumbe and Madi-Okollo show that visual aids (like posters and charts) and reference books are perceived as critical for student engagement, especially in larger class settings where individual textbooks may be scarce. This is consistent with UNICEF Report[100] on the importance of non-textbook resources in providing a more interactive learning environment.

99. World Bank. (2020). Education in Sub-Saharan Africa: Learning to Realize Education's Promise. Washington, D.C.: World Bank Group

100. UNICEF. (2022). Non-textbook Resources in African Schools: Supporting Learning Environments. New York, NY: United Nations Children's Fund

4.0 CONCLUSION AND RECOMMENDATIONS

4.1 CONCLUSION

This study highlights significant disparities in education financing, resource allocation, and overall school completion rates across the West Nile and Karamoja sub-regions. Despite the implementation of the UPE program, persistent challenges such as inadequate teacher recruitment, overcrowded classrooms, and a lack of essential learning materials have hindered educational progress. The findings indicate that financial constraints and inefficiencies in fund allocation have limited the ability of schools to meet national education standards, particularly in underserved areas where infrastructure, including classrooms, sanitation facilities, and staff housing, remains inadequate. These structural deficiencies, coupled with high teacher attrition rates and gaps in payroll inclusion, contribute to low learner retention and completion rates in the sub-regions.

Furthermore, the study underscores that education system effectiveness is closely tied to the availability, equitable distribution, and timely disbursement of financial resources. The current capitation grant remains insufficient to meet the actual needs of schools, particularly in refugee-hosting districts where learner populations continue to grow. While local governments play a key role in financing primary education, their limited revenue base has resulted in stretched budgets, leading to significant gaps in teacher remuneration, infrastructure, and learning materials. Despite supplementary support from development partners, these funding shortfalls continue to constrain educational outcomes.

Addressing these challenges requires targeted interventions, including an increase in education budget allocations, a review of the capitation grant in line with recommendations from the NPA and CSBAG, and improved governance mechanisms to enhance efficiency in resource utilization. Strengthening teacher recruitment and retention policies, particularly in hard-to-reach areas, alongside investments in school infrastructure, will be critical in improving completion rates and ensuring equitable learning opportunities for all learners, especially in the most marginalized communities.

4.2 Key Recommendations

1. Strengthen Efforts to Reduce Child Marriages and Teenage Pregnancies

Child marriages and teenage pregnancies remain major barriers to primary education completion, particularly in Karamoja, where 36% of girls are married before the age

of 18, and 30% have experienced pregnancy. To address this, the government and development partners should strengthen community-based interventions and strictly enforce child protection laws. Additionally, adolescent-friendly reproductive health programs and mentorship initiatives should be expanded to support at-risk girls and encourage them to remain in school.

2. Increase Capitation Grants to Match School Needs

The current capitation grant of UGX17,000 per learner annually is insufficient to cover essential school costs such as textbooks, utilities, and maintenance. In FY2022/23, for instance, the UPE Capitation Grant disbursed stood at UGX148bn, translating to UGX17,000 per child. This is lower than the NPA's recommended budget per learner of UGX63,546 for urban schools and UGX59,503 for rural schools. To bridge this gap, the government should review and adjust the capitation grant in line with the increasing cost of education service delivery. Furthermore, an equity-based funding model should be introduced to address the additional financial burden faced by refugee-hosting and rural districts. This will ensure that schools can adequately cover essential costs such as instructional materials, utilities, and infrastructure maintenance, thereby improving education quality and learner retention especially in remote and disadvantaged sub-regions such as West Nile and Karamoja.

3. Enhance Local Government Education Financing

Local governments play a critical role in financing primary education through recurrent expenditure on teacher wages, capitation grants, and school monitoring. However, these funds remain stretched, limiting their impact on service delivery. To improve financing at the local level, district governments should be required to allocate a minimum percentage of local revenue specifically for education infrastructure, teacher recruitment, and learning materials. Additionally, coordination between national and local governments should be strengthened to ensure an equitable distribution of resources across all districts.

4. Improve Budget Credibility and Fund Utilization

Despite annual increases in budget allocations for primary education, actual disbursements often fall short due to revenue underperformance and fiscal pressures. This inconsistency undermines service delivery in schools. The government should ensure that approved education budgets are fully disbursed and in a timely manner to avoid funding gaps. Additionally, stronger accountability mechanisms should be put in place to improve the efficiency of education financing and reduce disparities in resource allocation between districts.

5. Strengthen Teacher Recruitment, Retention, and Payroll Inclusion

Teacher shortages and payroll inefficiencies contribute significantly to high pupil-to-teacher ratios and poor learning outcomes, particularly in hard-to-reach districts such as Nabilatuk. To address this, the government should expedite the recruitment and onboarding of qualified teachers onto the government payroll, ensuring all schools meet the national teacher-staffing standards. Additionally, hardship allowances and other incentives should be introduced for teachers working in remote and conflict-prone areas to improve retention and morale. Further, investments in teacher professional development (TEPD) should be prioritized to enhance instructional quality and support continuous learning.

6. Reduce High Pupil-to-Teacher Ratios

The national guideline recommends a pupil-to-teacher ratio of 1:53, yet many districts in Karamoja and West Nile report much higher ratios, exceeding 1:100 in some cases. To address this challenge, targeted recruitment of additional teachers should be undertaken, with a focus on districts experiencing the highest shortages. Additionally, teacher attendance monitoring systems should be strengthened to reduce absenteeism and ensure maximum classroom engagement, improving the overall quality of education.

7. Invest in School Infrastructure Development

Limited investment in education infrastructure has resulted in overcrowded classrooms and inadequate learning environments, particularly in rural and refugee-hosting districts. To mitigate this, the government should allocate dedicated funds for the construction of additional classrooms, teacher housing, and essential utilities such as electricity and water. Furthermore, the implementation of the School Facilities Grant should be improved to ensure equitable infrastructure development across all sub-regions, prioritizing districts with severe infrastructure deficits.

8. Improve Monitoring and Accountability in Education Financing

Weak accountability mechanisms in education financing have led to inefficiencies and inequities in fund allocation. To enhance transparency, stronger oversight should be instituted to track education expenditure and minimize financial leakages. Additionally, school management committees and PTAs should be empowered to play a more active role in monitoring resource allocation and decision-making at the school level.

These recommendations, if effectively implemented, will contribute to improving education financing, increasing primary school completion rates, and ensuring equitable access to quality education in the West Nile and Karamoja sub-regions.

ANNEXES:

Annex 1: Technical Approach and Methodology

1.1 Scope of the Study Assignment

This study entailed assessing the impact of primary education financing on learner performance in the West Nile and Karamoja sub-regions. It explored the interplay between financial investments, educational inputs, and learner outcomes to identifying disparities and gaps in education service delivery. The scope of the study included the following dimensions:

- **Geographical Coverage:** The study concentrated on the West Nile and Karamoja sub-regions, two areas characterized by socio-economic challenges and disparities in education access and quality. It examined education financing at national, regional, district, and school levels within these sub-regions.

- **Temporal Coverage:** The analysis spanned three financial years, from FY2021/22 to FY2023/24, capturing trends in allocation, disbursement, and utilization of funds within the period.

This study focused on the following areas:

- **Education Financing:** Assessment of budgetary allocations, sources of funding, and expenditure patterns specific to primary education in West Nile and Karamoja sub-regions.

- **Educational Inputs:** Evaluation of teacher availability, infrastructure quality, access to learning materials, and inclusion resources to understand their adequacy and alignment with financing.

- **Learner Performance:** Analysis of performance metrics such as PLE results, enrollment, retention, transition rates, and factors influencing disparities in outcomes across schools and districts.

- **Stakeholder Engagement:** The study involved consultations with key stakeholders, including national and district education officials, teachers, civil society actors, and community representatives, to gather qualitative insights and validate findings.

- Comparative Analysis: A comparative perspective was adopted to evaluate the financing and performance in West Nile and Karamoja sub-regions relative to national average and standards, highlighting equity gaps and areas requiring targeted intervention.

1.2 The Study Design

This study employed a mixed-methods approach to comprehensively analyze the impact of primary education financing on student performance in West Nile and Karamoja sub-regions. The methodological framework ensured a robust exploration of both qualitative and quantitative data. The study utilized a cross-sectional design, incorporating diverse data sources to capture a snapshot of trends and dynamics within the specified financial years.

Both primary and secondary data were included, enabling triangulation to enhance reliability and validity. The major focus in using the combination of approaches was to ensure generation of holistic assessment of the relationship between education financing to performance as a key primary education outcome, and contextual factors such as socio-economic conditions, gender disparities, and infrastructural gaps, while triangulating findings to enhance reliability and depth.

1.3 Study Area and Population

The research targeted districts in West Nile and Karamoja sub-regions, with specific focus on refugee-hosting districts, i.e. Madi-Okollo and Yumbe on one hand and areas faced with sporadic cattle-raiding and wildlife-human conflicts, i.e. Abim and Nabilatuk on the other. This geographic scope provided insights into sub-regional contexts in education financing and outcomes.

1.4 Rationale for the choice of West Nile and Karamoja Sub-Regions

The selection of West Nile and Karamoja sub-regions for this study was influenced by unique socio-economic and geopolitical factors that have persistently hindered primary education outcomes. This section provides a contextual analysis, drawing from national and international reports to justify their inclusion. Addressing their unique issues through equitable financing and targeted interventions is critical to achieving SDG 4 and ensuring inclusive and quality education for all.

West Nile sub-region, located in north-western Uganda, hosts the largest number of refugees in the country, with over 1.3 million refugees, accounting for 65% of Uganda's total refugee population (UNHCR. 2023. Uganda: Refugee Education Response Plan Annual Report, p. 10). This influx has placed immense strain on the region's already limited education infrastructure. Refugee settlements like Bidibidi in Yumbe District and Rhino Camp in Madi-Okollo District have resulted in overcrowded schools, with pupil-to-classroom ratios reaching 1:150 in some areas (UNHCR. 2023. Uganda: Refugee Education Response Plan Annual Report, p. 12). The high poverty rate, estimated at 45.6%, exacerbates education challenges in West Nile. Many households struggle to afford even basic school supplies, undermining

the effectiveness of the UPE policy.

According to the World Food Programme (WFP), food insecurity remains a pressing issue, with 42% of households facing moderate to severe hunger. This has a direct impact on learner retention, as hunger reduces attendance and participation in schools (WFP Uganda Annual Report 2023: Enhancing Food Security and Education Outcomes, p. 25). The region also grapples with unique socio-cultural barriers. Child labor, often linked to agricultural activities, is widespread, while teenage pregnancies and early marriages contribute significantly to high dropout rates. Completion rates for primary education in West Nile stand at 38%, well below the national average of 61% (MoES. 2023. Education Management Information System (EMIS) Annual Data Report, p. 47).

Karamoja is one of Uganda's most marginalized sub-regions, characterized by extreme poverty, insecurity, and cultural practices that undermine education. According to Uganda's MoES, Karamoja sub-region has consistently recorded the lowest literacy rates in the country, with only 11% of its population considered literate as of 2022 (Ministry of Education and Sports Annual Performance Report for the Financial Year 2022/2023, 2023, p. 37).

Poverty levels in the region remain staggering, with 66% of households living below the poverty line, far above the national average of 20.3% (UNICEF Uganda Annual Report 2022: Advancing Children's Rights and Well-being, p. 15). Episodes of cattle raids, perpetuated by inter-ethnic conflicts and the proliferation of illegal firearms, continue to disrupt normal life and school attendance. Reports from the UN Office for the Coordination of Humanitarian Affairs (UNOCHA) reveal that over 40 schools in the region were temporarily closed due to insecurity in 2022 alone, affecting over 12,000 learners (UNOCHA Uganda Humanitarian Brief 2023: Key Developments and Response Efforts, 2023, p. 8). Wildlife incursions, particularly from Kidepo National Park, have added to the region's challenges, creating unsafe conditions for learners and teachers traveling to schools (Development Initiative for Northern Uganda (DINU) Report 2023: Progress and Impact on Education and Livelihoods. p. 19).

In addition to insecurity, child marriages and teenage pregnancies are prevalent. UNICEF's 2022 report notes that 36% of girls in Karamoja sub-region are married before the age of 18, one of the highest rates in the country, and 30% of adolescent girls have experienced pregnancy (UNICEF Uganda (2022). Advancing Children's Rights in Uganda: Key Achievements and Challenges, p. 18–20). Such practices contribute significantly to the region's high dropout rates, with completion rates for primary education in the sub-region standing at a dismal 18% in FY2022/23 compared to the national average of 61% (Ministry of Education and Sports (MoES). Education Management Information System (EMIS) Data Reports for FY 2021/22 to FY 2023/24. Kampala, Uganda. 2023, p. 45).

1.5 Sampling Strategy

Random selection was a key feature at all levels within the various target groups and thereby guaranteeing a representative sample of target groups. For quantitative data components, such as the schools and pupils (girls and boys) were selected randomly (simple random sampling). In contrast, respondents for qualitative data components such as key informant interviews were purposively selected because of their depth in knowledge about the topic.

1.5.1 Sample Size Determination

To establish a comprehensive and representative sample for this exercise, the study employed a combination of probability and non-probability sampling designs, outlined as follows.

1.5.2 Random Probability Sampling

The Study applied the sampling formula authored by Krejcie & Morgan (Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. Educational and Psychological Measurement, 30(3), 607-610) to determine the sample size for number of schools to participate in the study. The sampling technique was chosen for this study because it provides a scientifically validated and widely recognized approach to determining sample sizes based on population sizes. This method ensures representativeness by considering the precision level, confidence level, and variability inherent in the population, making it suitable for large-scale, statistically robust studies.

In the context of this study, where quantitative insights were required to reflect regional trends in educational financing and performance, the formula was ideal as it allowed for systematic random sampling while ensuring adequacy in sample representation, especially across diverse districts. This formula was applied based on the total number of schools in the selected four districts (See the Uganda National Schools Electronic Registry (UNSER) at https://unser.co.ug/schools/2/?dist=28#). Probability Proportional to Size (PPS) was applied to determine the number of schools that were visited in each district. The sample size, ***n*** was obtained as;

$$n = \frac{x^2 NP(1-P)}{d^2(N-1) + x^2 P(1-P)}$$

Where:

n=Required sample size.

x=Z value (1.96 for 95% confidence level).

N=Population size i.e. target number of project participants for each category.

P=Population proportion (expressed as a decimal) assumed to be 0.5 (50%) i.e., probability of success.

d=Degree of accuracy (5%), expressed as a proportion (0.05); margin of error or permissible error.

Using the formula above, an independent sample for each of the districts was calculated (using a 95% confidence level and a 5% margin of error). PPS was then used to distribute the sample sizes across the districts. To assess learning outcomes, six pupils - two from each of P4, P5, and P6 – were purposively selected to participate in a reading and numeracy assessment. From each class, one male and one female learner was chosen at random. The table below shows the targeted sample size achieved using the above formula.

Table 30: Table on Sample size achieved

District	Schools targeted	Schools achieved	%age	Pupils targeted	Pupils interviewed	%age
Abim	22	22	100%	132	127	96%
Madi Okollo	44	41	93%	264	170	64%
Nabilatuk	10	10	100%	60	76	127%
Yumbe	82	79	96%	492	464	94%
Grand Total	158	152	96%	948	837	88%

Source: Impact of the study on Primary Education Financing on Learners' Performance in West Nile and Karamoja Sub-Regions for Financial Years 2021/22 to 2023/24 – Survey Findings, November 2024

The assessment targeted a total of 158 schools across the West Nile and Karamoja sub-regions, with the Study successfully reaching 96% of these sampled schools. Challenges encountered included difficulty accessing school administrators, as many were occupied with end-of-term exams, while in some areas, particularly Yumbe and Madi Okollo districts, administrators were unavailable. Despite these obstacles, the Study replaced the sampled schools with others whose administrators were available and willing to participate in the study.

Regarding the pupils, 88% of the target sample was attained. The low attendance was primarily due to decreased school attendance following the completion of end-of-term exams. Additionally, pupils in Primary Seven were not assessed, as they had already completed their Primary Leaving Examinations.

1.5.3 Non-Probabilistic sampling technique

This technique was employed to identify suitable participants for Key Informant Interviews based on their expertise aligned with the study objectives (Khan, M. A., & Manderson, L. (1992). The Role of Education in Primary Health Care in Rural Areas of Pakistan. Social Science & Medicine, 34(3), 235-245).

1.5.4 Key Informant Interviews (KIIs)

The CAOs and DEOs were consulted guided by the interview checklist to gain insights into the dynamics of the district and district performance.

Table 31: Table on Sampled Key Informant Interviewees consulted

Description	Category	Number (#)
District Staff/Division	Chief Administrative Officer (CAO)	04
Education Department	District/Division Education Officers	04
Community	Parents of a school-going learner	40
Pupils	The same pupils on whom quantitative tool was administered also participated in the *reading, writing and arithmetic exercise*	837
Total		**885**

Source: Impact of the study on Primary Education Financing on Learners' Performance in West Nile and Karamoja Sub-Regions for Financial Years 2021/22 to 2023/24 – Survey Findings, November 2024

1.6 Data Collection Tools

For quantitative component, the study used structured questionnaires and data sheets sourced from school records and government reports such as the MoES, UNEB, National Service Delivery Standards, the Auditor General Reports, NCDC, Local Government Performance Assessments (LGPAs), and UBOS, from which detailed information on primary education service delivery standards, annual education budgets, regional funding allocations, and learner and school performance data were accessed.

Additionally, expenditure data was sourced from district education offices, offering insights into actual spending on key educational inputs; teacher and learners' numbers, infrastructure, and learning materials. These data sets allowed for statistical analysis of financing trends, disparities, and their resulting influence on educational outcomes.

For qualitative component, the study employed Key Informant Interviews (KIIs) and Observations as primary data collection methods. KIIs were conducted with policy-makers, education officials, and leaders from civil society organizations at the national and district levels, as well as Head Teachers, parents and local community representatives.

These interviews sought to gather in-depth insights on the challenges and strategies around financing, teacher availability, infrastructure availability, and gender and inclusion efforts in the target sub-regions. These consultations were organized to understand local perceptions of the effectiveness of education financing and the specific needs of learners, particularly in the two underserved sub-regions of West Nile and Karamoja.

Field observations were also carried out in the study schools within the sub-regions, providing firsthand information about the quality of the stock of school infrastructure, the availability of learning materials, and the general learning environment. This included observation of classroom conditions, sanitation facilities, and the teacher-to-pupil ratios.

Data from these field visits were used to supplement and contextualize the findings from the interviews and surveys, offering a richer understanding of how financial inputs are translated into educational outcomes on the ground. The combination of these data collection methods enabled the study to capture both the macro-level financial allocations and the micro-level realities of the primary education system, ensuring a comprehensive analysis of the situation in West Nile and Karamoja sub-regions.

2.5 Data Analysis Approach

Quantitative Analysis

- **Descriptive Statistics:** Descriptive statistics has been used to summarize the data on education financing, availability of teachers, and learning inputs. This covered measures such as mean, median, and frequency distributions of key variables like per capita spending per learner, pupil-teacher ratios, and availability of educational materials.

- **Inferential Statistics:** Inferential Statistics: Correlation was conducted to establish relationships between financial inputs (i.e., capitation grants, teacher recruitment) and pupil outcomes specifically the PLE performance of the school. A regression analysis was then utilized to regress the education inputs that showed a high correlation with the PLE performance. This enabled the consultant to determine the extent to which these inputs affect the performance of learners.

- **Comparative Analysis:** The study has compared data from West Nile and Karamoja sub-regions and in some cases national averages and other sub-regions have been compared with the study data to identify disparities. Statistical comparisons have focused on performance, disaggregated by gender and inclusion variables, such as children with disabilities and refugees.

Qualitative Analysis

- **Thematic Analysis:** Qualitative data from interviews were transcribed and analyzed using thematic analysis. This approach identified key themes related to the challenges and opportunities in education financing, teacher availability, and pupil performance. Thematic analysis also captured contextual factors, such as the influence of refugee influxes in West Nile sub-region, security concerns in Karamoja sub-region, and gender norms on educational outcomes among others.

- **Content Analysis:** Analysis of Government of Uganda policies especially the UPE Policy, 1995 and Education Act as well as the 1995 Constitution as amended, reports of studies and other relevant documents have been reviewed to generate understanding between national education financing policies and their implementation at the primary education facility level. Special attention has been paid to the inclusivity of financing policies in addressing the needs of marginalized groups.

Annex 2: The Regression Model Specification

As per the ToR, the regression model specification provided a quantitative framework for analysing the relationship between key education inputs and PLE pass rates in the West Nile and Karamoja sub-regions. By incorporating key variables: pupil-to-teacher ratios, pupil-to-classroom ratios, and the availability of essential infrastructure, the model assessed how variations in these factors influence academic outcomes, offering valuable insights for policy interventions.

The regression model used specified as follows:

PLE Pass Rate $(Y)=\beta_0+\beta_1X_1+\beta_2X_2+\beta_3X_3+\beta_4X_4+\beta_5X_5$

Where:

- B_0-Coeffiecient
- $\beta_1, \beta_2, \beta_3, \beta_4, \beta_5$: measure the magnitude of a unit increase in the education input
- X_1-Pupil-classroom ratio
- X_2-Pupil-teacher ratio
- X_3-Avialability of teachers
- X_4.-Availability of electricity
- X_5-Availability of staff quarters

Regression Model Results

```
. reg passing PTR PCR teachers i.electricity1 i.staff_quarters1, level(90)
```

Source	SS	df	MS		
Model	4.91192949	5	.982385899	Number of obs	= 123
Residual	2.70220062	117	.023095732	F(5, 117)	= 42.54
				Prob > F	= 0.0000
				R-squared	= 0.6451
				Adj R-squared	= 0.6299
Total	7.61413011	122	.062410903	Root MSE	= .15197

passing	Coef.	Std. Err.	t	P>|t|	[90% Conf.	Interval]
PTR	-.0009604	.0003944	-2.44	0.016	-.0016143	-.0003066
PCR	-.0020785	.0003247	-6.40	0.000	-.0026169	-.0015401
teachers	.0035219	.0021222	1.66	0.100	3.22e-06	.0070405
electricity1						
Yes	.1325997	.0325855	4.07	0.000	.0785734	.1866259
staff_quarters1						
Yes	.0485588	.0322163	1.51	0.134	-.0048552	.1019728
_cons	.8492084	.0656704	12.93	0.000	.740328	.9580888

Source: Impact of the study on Primary Education Financing on Learners' Performance in West Nile and Karamoja Sub-Regions for Financial Years 2021/22 to 2023/24 – Survey Findings, November 2024

Annex 3: List of Stakeholders and Institutions Consulted

3.1 Study Primary Schools

Yumbe District				Madi Okollo District
1.	Omba Primary School	42.	Kuru Primary School	1. Ayavu Primary School
2.	Logoa Primary School	43.	Lobe Primary School	2. Alijoda Primary School
3.	Fataha Primary School	44.	Kanabu Hill Primary School	3. Odraka Primary School
4.	Eleke Primary School	45.	Urungu Primary School	4. Pawor Primary School
5.	Banika Primary Schook	46.	Lodonga Black Primary School	5. Emvenga Primary School
6.	Omgbokolo Primary School	47.	Lodonga Demonstration Primary School	6. Tika Primary School
7.	Galaba Primary School	48.	Lomorojo Primary School	7. Eden Primary School
8.	Dramba Primary School	49.	Nyori Primary School	8. Wanyange Primary School
9.	Adranga Primary School	50.	Paduru Primary School	9. Matangacia Primary School
10.	Tuliki Primary School	51.	Yiiba Primary School	10. Walope Primary School
11.	Jalata Primary School	52.	Kenyanga Primary School	11. Fundo Primary School
12.	Matuma Primary School	53.	Lodonga Girls Primary School	12. Alukperenga Primary School
13.	Kechuru Primary School	54.	Rembeta Primary School	13. Kaligo Primary School
14.	Ofonze Primary School	55.	Alaba Primary School	14. Lionga Primary School
15.	Obero Primary School	56.	Kena Valley Primary School	15. Rigbo Primary School
16.	East Alipi Primary School	57.	Manibe Islamic Primary School	16. Olujobu Primary School
17.	Barakala Primary School	58.	Okoi Primary School	17. Agomvususu Primary School
18.	Aliba Primary School	59.	Lokopio Primary School	18. Ocea Primary School
19.	Govule Primary School	60.	Limidia Primary School	19. Oduobu Primary School
20.	Lomunga Primary School	61.	Kumuna Primary School	20. Manago Primary School
21.	Ojinga Primary School	62.	Moli Primary School	21. Drabi Primary School
22.	Geya Primary School	63.	Alaba Primary School	22. Balala Primary School
23.	Aliapi Primary School	64.	Abiriamajo Primary School	23. Bandili Primary School
24.	Kei Primary School	65.	Rimbe Primary School	24. Marize Primary School
25.	Kubali Primary School	66.	Kulinga Primary School	25. Emvea Primary School
26.	Lamgba Primary School	67.	Wolo Primary School	26. Palayi Cope Primary School
27.	Awoba Primary School	68.	Kado Primary School	27. Ajagoro Primary School
28.	Kulikulinga Primary School	69.	Nyoko Primary School	28. Rhino Camp Primary School
29.	Luzira Bright View Primary School	70.	Oluba Primary School	29. Pamvara Primary School
30.	Ambia Primary School	71.	Odravu Primary School	30. Ogoko Primary School
31.	Yoyo Central Primary School	72.	Wetikoro Primary School	31. Payawe Primary School
32.	Dradranga Primary School	73.	Locomgbo Primary School	32. Ullepi Primary School
33.	Mengo Primary School	74.	Obero Primary School	33. Barizi Primary School
34.	Kululu Primary School	75.	Twajiji Primary School	34. Ambaru Primary School
35.	Komgbe Primary School	76.	Legu Primary School	35. Katiyi Primary School
36.	Hope Primary School	77.	Kurunga Primary School	36. Chanya Baiya Primary School
37.	Yoyo Primary School	78.	Iyete Primary School	37. Baribu Primary School
38.	Gojuru Primary School	79.	Lukutua Primary School	38. Zabu Primary School
39.	Aringa Primary School	80.	Odropi Primary School	39. Okollo Primary School
40.	Inia Primary School	81.	Takwa Primary School	40. Jojoyi Primary School
41.	Kuru Islamic Primary School	82.	Yumbe Primary School	41. Oribu Primary School
				42. Adraa Primary School
				43. Adibu Primary School
				44. Alibawiria Primary School

Abim District		Nabilatuk District
1. Loyoroit Primary School	12. Koya Primary School	1. Nabilatuk township Primary School
2. Alerek Primary School	13. Wilela Primary School	2. Lokaala Primary School
3. Otalabar Primary School	14. Awach Primary School	3. Cucu Primary School
4. Oryotyene Primary School	15. Gotapwou Primary School	4. Acegertolim Primary School
5. Abim Primary School	16. Orwamuge Primary School	5. Natapararengan Primary School
6. Ating Primary School	17. Gangming Primary School	6. Lolachat Primary School
7. Aninata Primary School	18. Lotuke Primary School	7. Nstirae Primary School
8. Kanu Primary School	19. Aridai Primary School	8. Sakale Primary School
9. Arembwola Primary School	20. Rackoko Primary School	9. Domoye Primary School
10. Amita Primary School	21. Akwangwel Primary School	10. Kosike Primary School
11. Kiru Primary School	22. Bar Otuke Primary School	

3.2 State and Non-State Actors

S/N	Names	Position	Institution
1	Rasul Luriga	DEO	Yumbe District
2	George Butele Ayiba	DEO	Madi Okollo District
3	Isa Kigaye	DEO	Abim District
4	Raymond Korobe	DEO	Nabilatuk District
5	Samuel Kaliisa Bugirwa	CAO	Abim District
6	Bruno Nawoya	CAO	Madi Okollo District
7	Chuna Moses Kapolon	CAO	Yumbe District

1.1 Parents

S/N	Names	S/N	Names
	Madi Okollo District		**Madi Okollo District**
1	Peter Okech	1	Nyakuru Anna
2	Mandela Nelson	2	Edrako Sabina
3	Afidra Benson	3	Chol Kak
4	Eyoa Joseph	4	Tahas Betty Joseph
5	Asikuru viola	5	Atandu John
S/N	**Yumbe District**	**S/N**	**Yumbe District**
1	Afisa Dawa	1	Asiku Ronald
2	Amina Hussain	2	Azangi J. Ssebi
3	Maliko Jamila	3	Zaitun Kubura
4	Sauda Adrike	4	Afisa Zubeda
5	Taban Rasul	5	Olema Suntus

S/N	Abim District	6	Chandiru Rukia
1	Awor Santina	7	Agua Ayisa
2	Ochen Boniface	8	Sijal Zabib
3	Akidi Margaret	9	Mafu Ashiraf
4	Otim Godfrey	10	Gule Adam
5	Odunge Biola		
6	Okello Christopher	S/N	Nabilatuk District
7	Awilli Everline	1	Lomokol Peter
8	Ajwang Filder	2	Aguma Leah
9	Ayen Thomas	3	Chegem Ritah
10	Auma Agnes	4	Lesse Peter
		5	Longoli Francis

Annex 4: References Used

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Annex 5: The Study Tools

5.1 Quantitative Tool

5.1.1 District Questionnaire

Section A: General district information

1. **Name of district:**
2. Total number of primary schools:
3. Total number of government aided schools:
4. Number of schools with access to electricity:
5. Pupil enrollment disaggregated

Indicator	2021	2022	2023	2024
Male				
Female				
Learner with disability				
Teachers				
Teachers on government payroll				
Teachers recruited this year				
Total number of pupils who sat PLE				
Total number of learners who qualified to join secondary school				
Total district budget in UGX				
Total budget allocated to primary education in UGX				

6. What does the district use to guide allocation of finances for primary education?
7. In the last four years, have you been able to access finances for primary education on time?
8. If not, why? And which year/s did you not promptly receive financing transfers?
9. What 3 key challenges do you encounter in accessing or utilizing allocated funds for primary education?
10. Is the allocated financing enough to run school and district activities in a financial year?
    a. Please explain

Section B: Education Financing and Performance

11. In what ways does primary school financing affect the performance of schools?
12. Have you observed a difference in performance of schools based on the financing amount they receive? Give 3 examples using schools in your districts
13. Are there structures and guidelines on how to utilize finances? If Yes, please state the structures here.
14. What education inputs are the most affected when financing are not adequate to support your school annual work plan?
15. Are there existing initiatives to improve school infrastructure or provide resources to attract more teachers to underserved schools?

Section C: Educational Inputs: Teacher Availability and Infrastructure

16. How would you describe the condition of school infrastructure, including classrooms, desks, sanitation for boys, girls, teachers, changing rooms for adolescent girls, and facilities for special needs pupils like rams?
17. How does the district address gender disparities in primary education, particularly in ensuring retention and performance?
18. Are there support mechanisms in place for learners with disabilities, and how are their needs addressed in the education sector district planning?

5.1.2 School Facility Questionnaire

Schools questionnaire: Education Financing and Inputs Assessment Tool

My name is .....

I'm working with Dr. PASCAL WATHUM ODOCH who is a consultant on behalf of CSBAG and we are conducting an assessment on "The Impact of Primary Education Financing on LearnerPerformance in Uganda's West Nile and Karamoja Sub-Regions"

Your school has been selected for this survey and I would like to ask you questions regardingthis study. Taking part in the survey is voluntary and feel free to withdraw at any point in thesurvey.

Do you agree to participate in this survey?

- Yes
- No

Section A: General School Information

1. **School Name:**
2. **District:**
3. **Sub-region:**

4. **School Type**
    - Public
    - Private
5. Does the school have access to national grid of hydroelectricity?
    - Yes
    - No
6. If not, what source of energy is used?
    - Solar
    - Biogas
    - Lamp/Candle
7. Does the school have access to piped water?
    - Yes
    - No
8. If no, what water sources do they use?
    - Rain water
    - Borehole
    - Swamp/Dam
9. **Annual Enrollment Data**: (2021-2024)

Indicator	2021	2022	2023	2024
Number of girls:				
Number of boys:				
Number of class rooms				
Number of refugees (both girls & boys combined)				
Number of functional desks				

Section B: Financing and Budget Allocation

10. Total funding received per year(UGX):

Indicator	2021	2022	2023	2024
Government				
NGO				
Local community/PTA				

11. Has the school received a capitation grant in the past three years?
    - Yes
    - No

12. If yes, state amount of capitation grant received (UGX):

Indicator	2021	2022	2023	2024
Capitalization grant				

13. Do you think the amount is sufficient?
    - Yes
    - No
14. If No, which areas of financing gaps does it leave the school with?
15. Availability of Teachers

Indicator	2021	2022	2023	2024
Total number of teachers				
Number of female teachers				
Number of new teachers recruited				
Total number of teachers currently ON payroll				
Total number of teachers currently NOT on payroll				

16. In the last one year, has any teacher left the school to take on paid jobs elsewhere?
    - Yes
    - No
17. If yes, what were the reason for leaving?
18. How many teachers are present today? _____
19. On average, how many teachers do you have present at school every day? _____

Section C: Educational Inputs and Infrastructure

20. How is it for your pupils to access **essential learning materials** like textbooks?
    - Available and accessible
    - Few available and difficult to access by all
    - Not available and not accessible
21. How is it for your school to access **essential teaching materials** like chalk, and otherteaching aids?
    - Available and accessible
    - Few available and difficult to access by all
    - Not available and not accessible
22. In the last one month, has your school run out of any of the following?
    - Chalk
        1. Yes
        2. No

- Pens/Mark pens
    1. Yes
    2. No
- Manilla paper
    1. Yes
    2. No

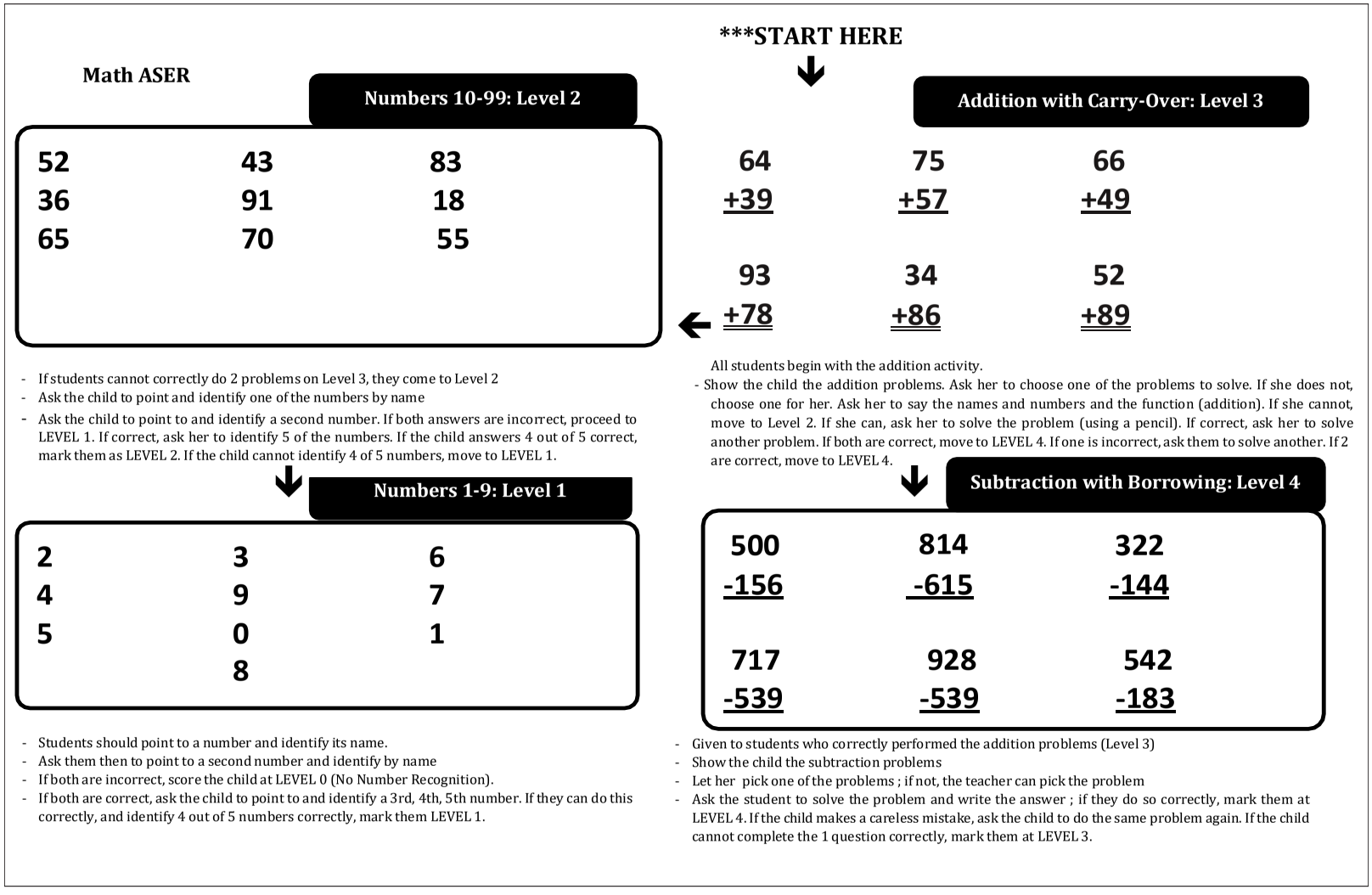
23. Does the school have toilets for both males and females?
    - Yes
    - No
24. Does the school have changing rooms for adolescent girls?
    - Yes
    - No
25. Does the school have a separate toilet for teachers?
    - Yes
    - No
26. Does the school have staff quarters?
    - Yes
    - No
27. If yes, how many teachers are currently being accommodated in the staff quarters?

Section D: Pupil Performance Data

28. **PLE Performance:**

Indicator	2021	2022	2023	2024
Number of pupils who completed P7				
Number of pupils who attained the minimum grade to join secondary school (Grade 4)				

5.1.3 Learner ASER Questionnaire: Numeracy Assessment Tool



- If students cannot correctly do 2 problems on Level 3, they come to Level 2
- Ask the child to point and identify one of the numbers by name
- Ask the child to point to and identify a second number. If both answers are incorrect, proceed to LEVEL 1. If correct, ask her to identify 5 of the numbers. If the child answers 4 out of 5 correct, mark them as LEVEL 2. If the child cannot identify 4 of 5 numbers, move to LEVEL 1.

- Students should point to a number and identify its name.
- Ask them then to point to a second number and identify by name
- If both are incorrect, score the child at LEVEL 0 (No Number Recognition).
- If both are correct, ask the child to point to and identify a 3rd, 4th, 5th number. If they can do this correctly, and identify 4 out of 5 numbers correctly, mark them LEVEL 1.

All students begin with the addition activity.

- Show the child the addition problems. Ask her to choose one of the problems to solve. If she does not, choose one for her. Ask her to say the names and numbers and the function (addition). If she cannot, move to Level 2. If she can, ask her to solve the problem (using a pencil). If correct, ask her to solve another problem. If both are correct, move to LEVEL 4. If one is incorrect, ask them to solve another. If 2 are correct, move to LEVEL 4.

- Given to students who correctly performed the addition problems (Level 3)
- Show the child the subtraction problems
- Let her pick one of the problems ; if not, the teacher can pick the problem
- Ask the student to solve the problem and write the answer ; if they do so correctly, mark them at LEVEL 4. If the child makes a careless mistake, ask the child to do the same problem again. If the child cannot complete the 1 question correctly, mark them at LEVEL 3.

3.1.4 Learner ASER Questionnaire: Literacy Assessment Tool

ASER LITERACY

ASER Reading – English

START HERE!

LEVEL 3: PARAGRAPH

Today is the party.

People play games.

They dance and sing.

People say, "What a nice day!"

- Ask the learner to read the paragraph.
- If the learner hesitates or pauses a lot before saying words and makes **more than 3 mistakes, go to LEVEL 2.**
- If the learner reads the text with fluidity and ease with **3 mistakes or less**, go to **LEVEL 4.**

LEVEL 2: WORDS

food	friend
book	make
water	sell
boy	girl
wash	help

- Ask the learner who could not read the paragraph to read 5 words.
- If he or she reads **4 of the 5 words**, he/she is **Level 2.**
- If the learner could NOT correctly read 4 of the 5 words, move on to LEVEL 1.

LEVEL 1: LETTERS

m a s d t

n h I c g

- Ask the learner to read 10 letters from the list.
- If he or she correctly reads **4 letters or more**, he or she is **LEVEL 1.**
- If he or she reads **less than 4 letters**, he/she is **LEVEL 0.**

LEVEL 4: STORY

Every day is the same. The sunrise is in the east. The day begins. We go to school. We go to play. The sunset is in the west. The day ends.

- Ask the learner who read the paragraph to read the story.
- If the learner is NOT capable of reading the story with fluency, he or she is **LEVEL 3.**
- If he or she reads the story with fluency with **3 mistakes or less**, he or she is **LEVEL 4.** Proceed to ask the comprehension questions.
- Ask the learner the comprehension questions. If the learner gets **1 or both questions correct**, they are **LEVEL 5**.

LEVEL 5: COMPREHENSION QUESTIONS

1. Where is the sunrise? (**The sunrise is in the east.**)
2. What do we do when the day begins? (**We go to school. We go to play.**)

5.1.5 Checklist for Learners

Checklist for Learners: Understanding Education, Financing, and Performance (to be conducted on the same 6 learners who did the Literacy and Numeracy Performance Assessment

1. Recognize Available Resources

- **Do you** have enough textbooks, exercise books, and other materials needed for each subject? Yes/ No
- Do you make use of school facilities like libraries, computer labs, and any science equipment available? Yes/ No

2. Engage with Teachers

- **Do you** ask questions in class or after school if you don't understand something? Yes/ No
- **Do you seek extra help if needed if you are** struggling with a particular subject? Yes/ No
- Do you take note of regular teacher presence and inform school staff or caregivers if there's a lack of teachers for certain subjects? Yes / No

3. Monitor Classroom Conditions

- Do you make sure your classroom is safe, with enough desks, good lighting, and ventilation for comfortable studying? Yes/ No
- Do you let your teacher or school staff know if classroom conditions aren't adequate, like damaged desks or broken windows, as this can affect your ability to learn? Yes/ No

4. Focus on Attendance and Retention

- Do you attend school daily, as missing lessons can impact your performance, and if there are challenges, talk to a trusted adult? Yes/ No
- Are you determined to finishing your primary education and, if possible, setting goals for higher education? Yes/ No

5. Track Personal Performance

- **Do you r**eview your grades in each subject and track any improvement or challenges over time? Yes/ No.
- Do you take note of subjects you excel in and those you find challenging and ask for extra help or practice in weak areas? Yes/ No
- Do you p**repare** consistently and in advance for tests like the end of year exams to ensure you're performing your best? Yes/ No

6. Seek Inclusive Learning Opportunities

- Do you encourage inclusion by supporting fellow classmates with disabilities, language barriers, or other learning needs? Yes/ No
- Do you respect and promote equality to classmates of all genders, recognizing that everyone has a right to quality education? Yes/ No

1.1.6 Parents Questionnaire

1. School Funding Awareness

- Are you aware of how schools are funded with main sources of school funding, including government support, capitation grants, and parental contributions? Yes/ No
- Are you aware capitation grants which your child's school receives and how these funds are used (e.g., classroom materials, teacher support)? Yes/ No
- Have you ever requested for regular financial updates from the school administration on how funds are allocated and spent? Yes/ No

2. Teacher Availability and Quality

- Does your child's class size meet recommended standards, which are essential for effective learning? Yes/ No
- Does your child have enough qualified teachers and whether they receive ongoing professional development to stay updated on best practices? Yes/ No
- Does your child report teacher presence in the class? Yes/ No

3. School Infrastructure and Resources

- Is your child's classroom condition adequate, safe, and conducive to learning, with enough desks, ventilation, and lighting? Yes/ No
- Is your child's school having essential amenities, such as clean water, sanitation facilities, and a library or reading materials? Yes/ No
- Does your child's school have enough textbooks, workbooks, and other learning materials, and that they are accessible to all learners? Yes/ No

5. Pupil Performance and Outcomes

- Do you regularly check your child's test scores and any available national exam results (like PLE) to track academic progress? Yes/ No
- Do your seek feedback on learning gaps from teachers on any areas where your child may need additional support, including challenges with specific subjects? Yes/ No
- Do you regularly participate in school meetings such as PTAs to discuss performance trends and improvement plans? Yes/ No

6. Inclusion and Equity

- Do you see children with disabilities, girls, and refugee children in your community have equal access to education resources? Yes/ No
- Do you see your child school supporting programs or facilities that support the education of both boys and girls, and make sure gender disparities are addressed? Yes/ No

7. Community Involvement and Advocacy

- Are you a member of any local education committee?
- Do you work with other parents, school staff, and local leaders to address funding and resource challenges? Yes/ No
- Have you ever supported initiatives that push for increased and fair funding to improve education quality in underserved areas? Yes/ No

8. Encourage Parental Contributions

- Have you ever contributed to school improvement funds or volunteered to assist in classroom activities or facility maintenance? Yes/ No
- Have you ever participated in school fundraising for essential resources if government or school funding is insufficient? Yes/ No

9. Promote Education Value at Home

- Do you support your child's study time, encourage regular attendance, and instill a positive attitude toward school? Yes/ No

5.2 Qualitative Tool (KII Checklist)

5.2.1 Key Informant Interview (KII) Checklist

5.2.1.1 For National-Level Interviewees (Ministries and National-Level Civil Society Organization Leaders/Officials)

1. **Primary Education Financing**
    - Key challenges in allocating and disbursing funds to underserved sub-regions like West Nile and Karamoja
2. **Correlation between Financing, Inputs, and Performance**
    - How education financing directly impacts key inputs like teacher recruitment, infrastructure, and learning materials in West Nile and Karamoja
    - The perceived impacts of the current funding levels on pupil performance in underserved sub-regions

3. **Educational Inputs: Teacher Availability and Infrastructure**
    - How funds for educational inputs, such as teacher salaries, training, and school infrastructure are allocated at the national level
    - Any specific policies or initiatives targeting teacher recruitment and retention in underserved sub-regions
    - The state of school infrastructure in West Nile and Karamoja; any national programs aimed at improving these conditions
4. **Disaggregated Data on Gender and Inclusion**
    - Gender and inclusion prioritization in the national education financing structure
    - What data is currently available on gender and inclusion in primary education in West Nile and Karamoja, and how this data is used in planning and budgeting
    - Any current programs addressing the educational needs of marginalized groups, such as children with disabilities and refugee pupils

5.2.1.2 District-Level Interviewees (CAO, DEO, DIS, and Head Teachers)

1. **Primary Education Financing**
    - How primary education financing is allocated and managed at the district level
    - What challenges are encountered in accessing or utilizing allocated funds for primary education
    - How the district prioritize spending for schools in West Nile/Karamoja, especially in underserved areas
2. **Correlation between Financing, Inputs, and Performance**
    - The link between education funding levels and performance outcomes in primary schools
    - Ways financing has affected critical inputs such as teacher recruitment, school infrastructure, and learning materials in this district?
    - Any performance differences in schools with higher funding or resources compared to those with limited support

3. **Educational Inputs: Teacher Availability and Infrastructure**
    - Current teacher-to-pupil ratio in primary schools within the district, and how does it vary across schools
    - Condition of school infrastructure, including classrooms, sanitation, and facilities for special needs pupils
    - Any initiatives to improve infrastructure or provide resources to attract more teachers to underserved schools

4. **Gender disparities**
    - How district addresses gender disparities in primary education, particularly in retention and performance
    - Any support mechanisms in place for children with disabilities, and how are their needs addressed in district planning

5.3 Quantiative Data Mining Checklist)

5.3.1 A comprehensive analysis of primary education financing in Uganda's West Nile and Karamoja sub-regions:

1. Budget and Funding Allocation Data

- **Annual Education Budget**: Breakdown of Uganda's national education budget during FY2021/22 to FY2023/24 with specific allocation to primary education.
- **Regional Budget Allocations**: Detailed budget allocations for primary education specifically in West Nile and Karamoja, including regional and district-level breakdowns if available.
- **Capitation Grants**: Amounts allocated per pupil or per school in the 2 sub-regions, ideally broken down by school level (urban, rural) and type (government, community-based, or private schools).
- **External Financing**: Contributions from donors, NGOs, and international organizations specifically earmarked for primary education in West Nile and Karamoja.

2. Spending and Expenditure Data

- **Actual Expenditures**: Data on actual disbursement and utilization of funds at the regional level, including any discrepancies between allocated and spent amounts.

- **Breakdown by Expenditure Category**: Analysis of funds spent on critical inputs like teacher salaries, infrastructure (school buildings, classrooms), teaching materials, and capitation grants.
- **Efficiency of Expenditure**: Administrative costs and leakages; any discrepancies in fund allocation and utilization at district levels, ideally with reasons for under spending or inefficiencies.

3. Infrastructure and Resource Availability

- **School Infrastructure**: Availability and quality of classrooms, sanitation facilities, and learning spaces; data on schools that need infrastructure development.
- **Teaching and Learning Materials**: Access to textbooks, learning aids, and other materials funded through education financing and their adequacy per school or per pupil.
- **Technology and Equipment**: Availability of resources like computers, internet access, and digital learning aids, if applicable.

4. Human Resources (Teachers and Support Staff)

- **Teacher Recruitment and Salaries**: Numbers of teachers hired, salaries, and other benefits covered by public / non-public financing in the sub-regions.
- **Teacher-to-Pupil Ratios**: Data on the ratio of teachers to pupils in the sub-regions to assess the sufficiency of funding for teacher recruitment.
- **Teacher Training and Professional Development**: Budget or spending on teacher capacity-building initiatives specific to these sub-regions.

5. Performance and Outcome Data

- **Pupil Enrollment and Retention**: Annual enrollment and retention rates across grades to track trends and assess if financing correlates with improved retention.
- **Exam Performance (PLE Results)**: PLE pass rates and average scores to measure performance and improvement in outcomes linked to financing.
- **Transition Rates**: Data on the transition from primary to secondary education, showing whether investment in primary education aligns with progression goals.

6. Socio-economic and Contextual Factors

- **Demographic Data**: Population and age distribution in West Nile and Karamoja to contextualize education financing needs.
- **Refugee and Vulnerable Populations**: Statistics on refugee populations and marginalized groups like children with disabilities, as their needs may require additional financing.
- **Economic Context**: Local economic indicators, including poverty levels, as they often influence the adequacy of local government or family contributions to education funding.

7. Policy and Compliance Data

- **Government and Policy Compliance Reports**: Reports on compliance with education financing policies and guidelines, especially in line with national and international standards.
- **Public Expenditure Tracking Survey (PETS)**: If available, PETS can offer insights into how education funds are distributed, received, and spent at the regional level.

8. Comparative Data (for Benchmarking)

- **National vs. Regional Comparison**: Comparative data on national averages versus regional financing in West Nile and Karamoja to highlight disparities.
- **Urban vs. Rural Education Financing**: Comparison of primary education financing in urban vs. rural schools within the sub-regions to assess funding equity.

5.3.2 On the correlation between financing, inputs, and performance

1. Financing Data

- **Total Education Budget**: Annual allocations for primary education over a period of FY2021/22 to FY2023/24) in West Nile and Karamoja.
- **Breakdown by Spending Category**: Detailed expenditure data showing amounts spent on different inputs, such as:
    - Teacher salaries and recruitment costs
    - Infrastructure development (buildings, classrooms, sanitation facilities)
    - Learning materials (textbooks, digital tools, equipment)

- Operational expenses (maintenance, administrative costs)

- **Per-Pupil Spending**: Amount spent per pupil or per school, which can help normalize data across schools of different sizes.

2. Educational Inputs Data

- **Teacher-to-Pupil Ratios**: Number of teachers relative to Pupil enrollment in each school or district.
- **Availability of Learning Materials**: Access to textbooks, learning aids, and technology (if available) per pupil or per classroom.
- **Infrastructure Quality**: Information on the availability and adequacy of school infrastructure (classrooms, sanitation, libraries, etc.).
- **Support Services**: Access to special education resources or support for marginalized groups (such as children with disabilities or refugee children).

3. Pupil Performance Data

- **Academic Outcomes**: PLE pass rates, literacy and numeracy competence for upper primary, and rates of progression to secondary education.
- **Enrollment and Retention Rates**: Annual data showing the number of pupils enrolled, retention through each grade level, and dropout rates.
- **Attendance Rates**: Regular attendance data can serve as a secondary indicator of school effectiveness and resource adequacy.

5.3.3 On key educational inputs, including teacher availability and infrastructure for primary education in West Nile and Karamoja:

1. **Government Agencies**: MoES, UBOS and local District Education Offices are primary sources for educational data.
2. **School-Level Data**: Engagement with schools directly in West Nile and Karamoja for detailed information on teacher numbers, infrastructure quality, and availability of materials.
3. **International Organisations and NGOs**: Organisations such as UNICEF, UNESCO, and the World Bank often publish data and reports on educational infrastructure and resources, especially for underserved sub-regions.

4. **Public Records and Reports**:

a) Teacher Availability:

- Total number of teachers per school or district.
- Teacher-to-Pupil ratios, broken down by grade level if available.
- Data on teacher recruitment, turnover, and absenteeism.
- Training levels and qualifications of teachers.

b) Infrastructure Quality and Availability:

- Number and condition of classrooms (adequate space, ventilation, and lighting).
- Access to sanitation facilities (separate toilets for boys and girls, hand-washing facilities).
- Availability of electricity and water facilities.
- Presence of libraries, laboratories, or other learning support infrastructure.

c) Learning Materials:

- Access to textbooks and learning materials, ideally on a per-pupil basis.
- Availability of digital resources (computers, internet access) if applicable.
- Other learning aids like chalkboards, desks, and chairs.

5.3.4 Disaggregated data on gender and inclusion

- **Ministry of Education and Sports (MoES)**: The MoES data sets on school enrollment, retention, and performance disaggregated by gender and sometimes by disability.
- **Uganda Bureau of Statistics (UBOS)**: UBOS to provide demographic data that includes age, gender, and disability statistics, as well as specific regional breakdowns.
- **District Education Offices**: Regional and district-level offices will provide gender-disaggregated data and information on inclusion for schools in West Nile and Karamoja.

FOR MORE INFORMATION, PLEASE CONTACT

OXFAM

Plot No.3459, Tank Hill Road, Muyenga
P.O. Box 6228, Kampala, Uganda
+256-414 265 383 | +256 31 22 65 384
kampalaoffice@oxfam.org
uganda.oxfam.org
Oxfam in Uganda

CSBAG
Civil Society Budget Advocacy Group

P.O BOX 660, Ntinda
Plot 11 Vubyabirenge Close, Ntinda Nakawa.
Email: csbag@csbag.org
Web: www.csbag.org
@CSBAGUGANDA