

An Assessment of the Level of Attainment of Sustainable Development Goals (SDGs) of Health, Education and Portable Water in Bui Division, North West Region, Cameroon

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Abstract

This study assesses the level of attainment of SDGs 3 (Health), SDG 4 (Education), and SDG 6 (Clean Water and Sanitation) in Bui Division, North West Region of Cameroon. To attain the study objective and obtain meaningful results, a convenient methodology was used. The methodology involved a mixed-methods approach where data was collected through field surveys, stakeholder interviews, observations and analysis of secondary sources. Findings indicate that health services are constrained by inadequate health infrastructure and facilities, limited medical personnel, and insufficient access to essential medicines, resulting in suboptimal health outcomes. The education sector faces challenges including insufficient educational facilities, depreciated and destroyed school infrastructures, inadequate teaching materials and qualified teachers, insecurity and disparities in access, particularly in rural communities. Access to safe and potable water remains limited, with many populations relying on unimproved sources, increasing vulnerability to waterborne diseases. Despite these challenges, communities have implemented adaptive strategies such as local health initiatives, informal educational support, and community-based water management. These efforts demonstrate resilience and highlight the critical role of community participation in advancing development goals. The study concludes by recommending that achieving SDGs 3, 4, and 6 in Bui Division requires a multi-faceted approach that combines increased government investment, infrastructural development, capacity building, safe environment and community engagement. Leveraging local adaptation strategies alongside systemic interventions by stakeholders is essential to improving health, education, and water access, thereby enhancing overall quality of life. These findings provide valuable insights for policymakers, development practitioners, and researchers working in similar sub-national contexts.

Keywords: SDGs, Health, Education, Potable Water, Bui Division.

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INTRODUCTION

The Sustainable Development Goals (SDGs), adopted by the United Nations in 2015, provide a comprehensive global framework aimed at eradicating poverty, protecting the environment, and ensuring inclusive prosperity by 2030 (United Nations, 2015). Among the seventeen goals, those related to health (SDG 3: Good Health and Well-Being), education (SDG 4: quality education), and water (SDG 6: clean water and sanitation) are widely recognized as foundational to sustainable human development. These sectors are interdependent and mutually reinforcing: improved health outcomes enhance learning capacities, education fosters better hygiene and health practices, and access to clean water supports both health and educational achievement (World Health Organization (WHO), 2022; UNESCO, 2021).

In sub-Saharan Africa, Cameroon inclusive, achieving the SDGs remains a formidable challenge due to structural inequalities, economic constraints, and governance issues (World Bank, 2023). Despite substantial policy commitments, including the integration of SDGs into Cameroon's National Development Strategy 2020–2030 (SND30), disparities persist across regions and social groups (Ministry of Economy, Planning and Regional Development (MINEPAT), 2020). The North West Region, Bui Division inclusive, faces compounded challenges arising from socio-political instability, limited infrastructure, and restricted access to essential social services such as healthcare, potable water, and education (UNDP, 2022). These factors collectively hinder progress toward achieving SDG targets at the grassroots level.

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Empirical evidence and reviews suggest that localized assessment of SDG implementation is crucial for understanding ground realities and designing context-specific interventions (Sachs *et al.*, 2022). However, in Cameroon, most available studies have been conducted at national or regional scales, leaving a gap in knowledge about district-level performance (Tchindjang, 2020). Given that Bui Division represents largely a rural and conflict-affected area, evaluating its progress toward SDGs 3, 4, and 6 is essential for informing equitable development planning and resource allocation. This study therefore seeks to analyse progress indicators, identify major challenges hindering SDG realization, and propose actionable strategies to accelerate sustainable development. Findings from this study are expected to provide valuable insights for policymakers, development partners, and local authorities committed to improving living standards and achieving the 2030 Agenda for Sustainable Development at the grassroots level.

Location of the study

Located in the western highlands of Cameroon, Bui Division is one of the seven administrative Divisions of the North West Region. The Division totals a population of 321,969 on a surface area of 2,297km² with a population density of 140.17 hbt/km² (BUCREP, 2005). Geographically, it is located between Longitudes 10°30" to 10° 60" east of the Greenwich Meridian and Latitudes 6°00" to 6°20" north of the Equator. Bui Division is further divided into six Sub-divisions among which are; Kumbo (630km²), Jakiri (765km²), Nkum (705.63km²), Mbven (575km²), Noni (307.7km²), Oku (232km²). The capital of Bui Division is Kumbo – Sub division and the Division is bordered to the north by Donga Mantung Division, to the North east by Boyo Division, to the south west by Ngoketunjia Division and to the South and South East by Noun Division. The Division is made up of both urban and rural areas (Figure 1).

METHODS AND TOOLS

For better insights into the assessment of the level of attainment of SDGs in Bui Division North West region of Cameroon, a scoping study was conducted in

the study area based on the three SDGs as earlier underpinned in the study area. The study was based on both quantitative and qualitative data sourcing. Qualitative data sourcing was gleaned through review of related literature on the evaluation of the level of attainment of SDGs, challenges and prospects for the level of attainment. Semi-structured and unstructured interviews were granted to some stakeholders, divisional delegates and municipal authorities concerned. NGOs, and revilement resource persons were also contacted in the field such as household heads and local project coordinators.

Primary qualitative and quantitative data for the study were collected at different households in the various Sub – divisions in Bui Division. The intension of the inquiries was to investigate the extent to which SDG objectives have been attained at the study area and how stakeholders contribute to the enhancement of related projects. Focus was also laid on annual reports on the growth and evolution of the related projects. A random sampling technique was used to administer 399 copies of questionnaires in the local communities using a convenient sampling technique and size. Observations effectuated were both participants and on-the-spot with some health, education and water authorities and key informants. Using a GPS, relevant water points education and health infrastructures were collected which were latter spatialised on the shape file maps for analysis. The realised figures from statistics collected from field surveys were input into cartographic software for spatialisation.

Qualitative data was processed using *in vivo* data coding approach whereby categories of responses were identified, classified and then recorded on a prepared sheet as per research objectives. The themes were drawn from the different categories of codes identified which is an approach commonly used in qualitative data analysis (Strauss, 1987, Gilbert, 1998 and Cope, 2003). As concerns quantitative data, the Statistical Package for Social Sciences (SPSS) and Excel software were used for data processing. From the processed data, tables containing mean scores, frequencies and percentages were generated for analysis.

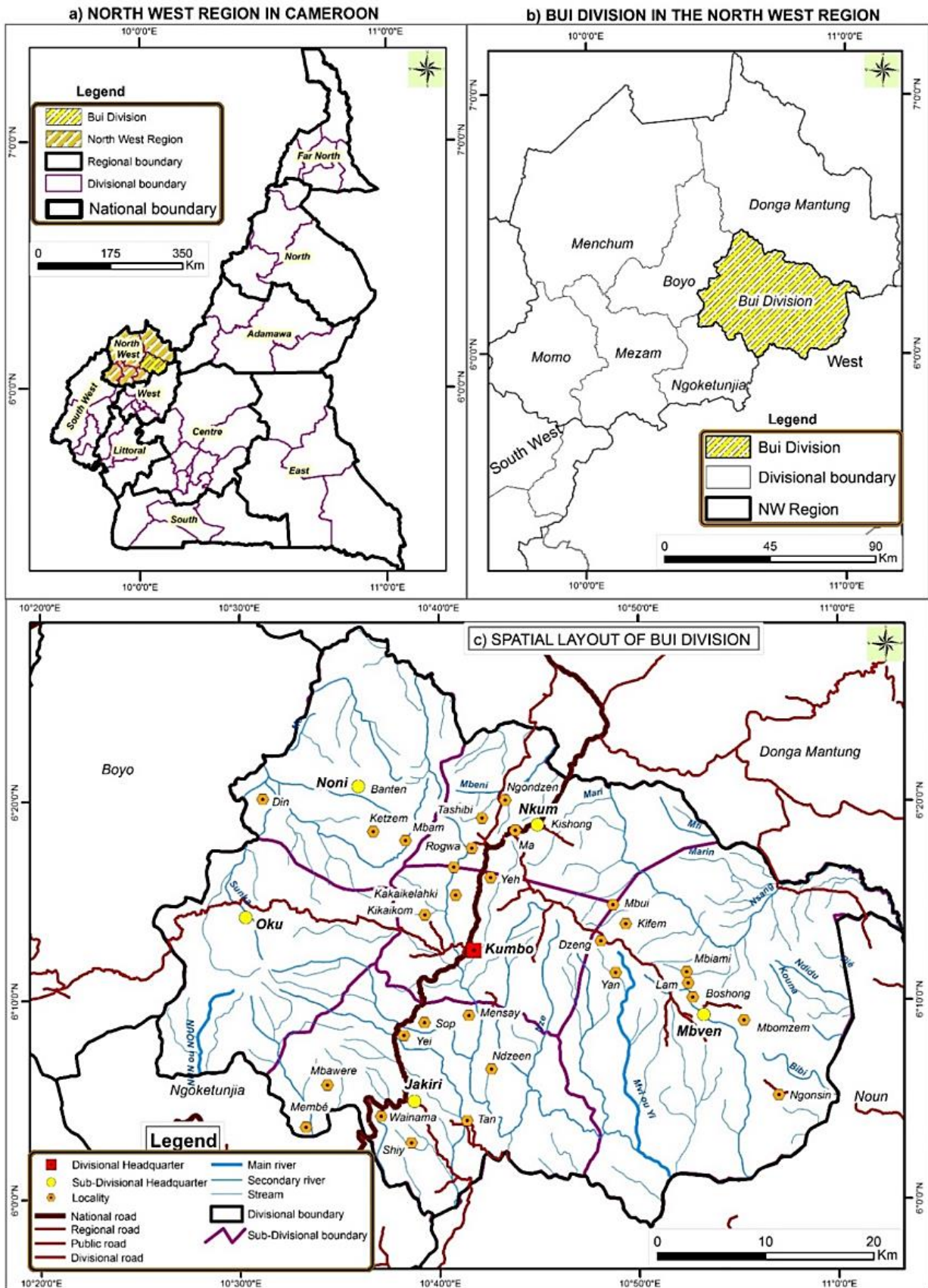


Figure 1: Location of Bui Division, North West Region of Cameroon
 Source: National Institute of Cartography, (2024)

RESULTS AND DISCUSSIONS

An overview assessment of SDGs attainment levels

The findings obtained from field surveys through the deployment of various techniques, it revealed that a general overview of the level of attainment of the SDGs is still very low spirited as concerns education, health and potable water provision. The overall data indicated that the overall attainment of

the selected SDGs of health (SDG 3), education (SDG 4) and potable water (SDG 6) remains quite low when compared to the time left for full accomplishment by 2030. However, this can only be somehow attributed to the ongoing socio-political instability in the study area which have brought about infrastructural decay, abandonment of projects, displacement of resource persons and inadequate financial resources.

Table 1: An overall attainment of SDGs 3, 4 and 6

SDG Area	Key Indicators	Estimated Attainment (%)	Remarks
Health (SDG 3)	Access to healthcare, maternal and child health, disease control	60%	Poor health infrastructures, limited health equipment and medical personnel in most health centres, financial constrain,
Education (SDG 4)	School enrolment, educational facilities, literacy rates, learning conditions	55%	Moderate progress despite school closures and insecurity
Potable Water (SDG 6)	Access to clean water and sanitation	45%	Many rural communities depend on unsafe sources of water such as streams, rainwater and wells

Source: Field surveys, and interviews 2024

The table shows the assessment of SDGs in Bui Division which reveals varied levels of attainment across the sectors of health, education and potable water. The results indicate that health (SDG 3) has achieved the highest level of progress with an estimated attainment of 60%. A key sector like education (SDG 4) in Bui Division shows some level of progress with 55%. This suggests moderate improvement in school enrolment and literacy rates, despite disruptions caused by insecurity and the temporary closure of schools in some areas. Community initiatives and government programs promoting education have contributed positively, though learning conditions remain suboptimal due to inadequate infrastructure and teaching materials (UNESCO, 2022;

MINEDUB, 2021). During field surveys, informants hinted the study that a number of schools especially government schools have been closed down in the study area since 2017 due the socio-political crises. Interview with the Head teacher of GS Bamngam in Kumbo underlined that though the schools have not been totally shot down since 2018, the rate of enrolment especially in government schools which were on a rise before the crisis have been very low because of fear and insecurity. It was even alluded that most parents have sent their children out of the region making it very difficult to assess the level of scholarisation in the study area (Figure 2).

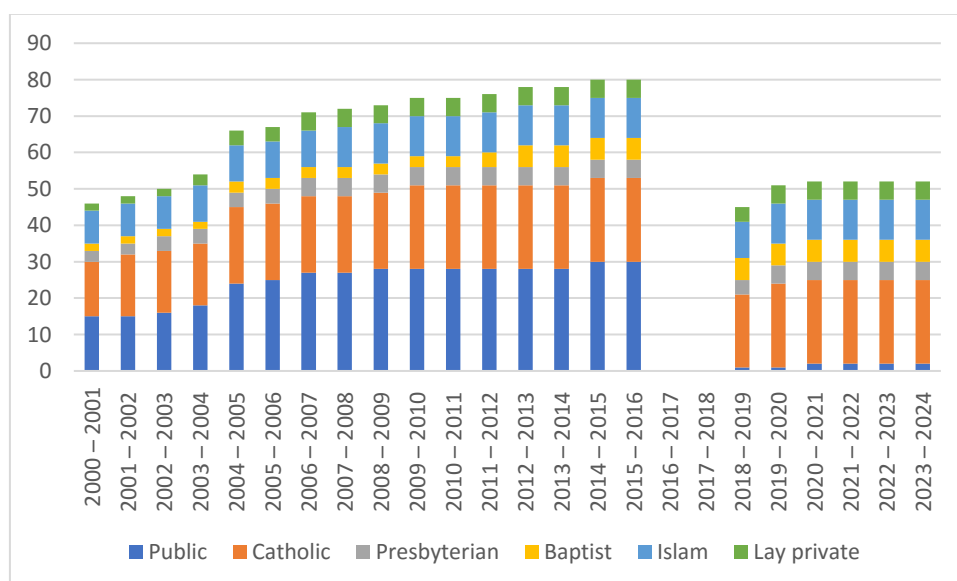


Figure 2: Evolution of functional primary schools in Kumbo Sub – division, 2000 – 2024

Source: Compiled from Divisional Delegation MINEDUB and field survey, (2024)

Figure 2 pictures a case study in Bui Division of the evolution of functional primary schools within 2000-2024 in Kumbo Sub - division. It actually shows that from 2016; there has been a drastic drop and things have never been the same again till 2023. This cuts across all denominational schools in both nursery, primary and secondary education in Bui Division. During field surveys, informants hinted the study that a number of schools have been closed down in the study area since 2016 due the socio-political crises. Interviews

with the head teacher of GS Bamngam underlined that though the schools have not been totally shot down since 2017, the rate of school enrolment have been very low out of fear and insecurity. It was even alluded that most parents have sent their children out of the region making it very difficult to assess the level of scholarisation in the region. This did not only apply to functional nursery, primary and secondary schools but also to the level of enrolment and gender parity. (Figure 3).

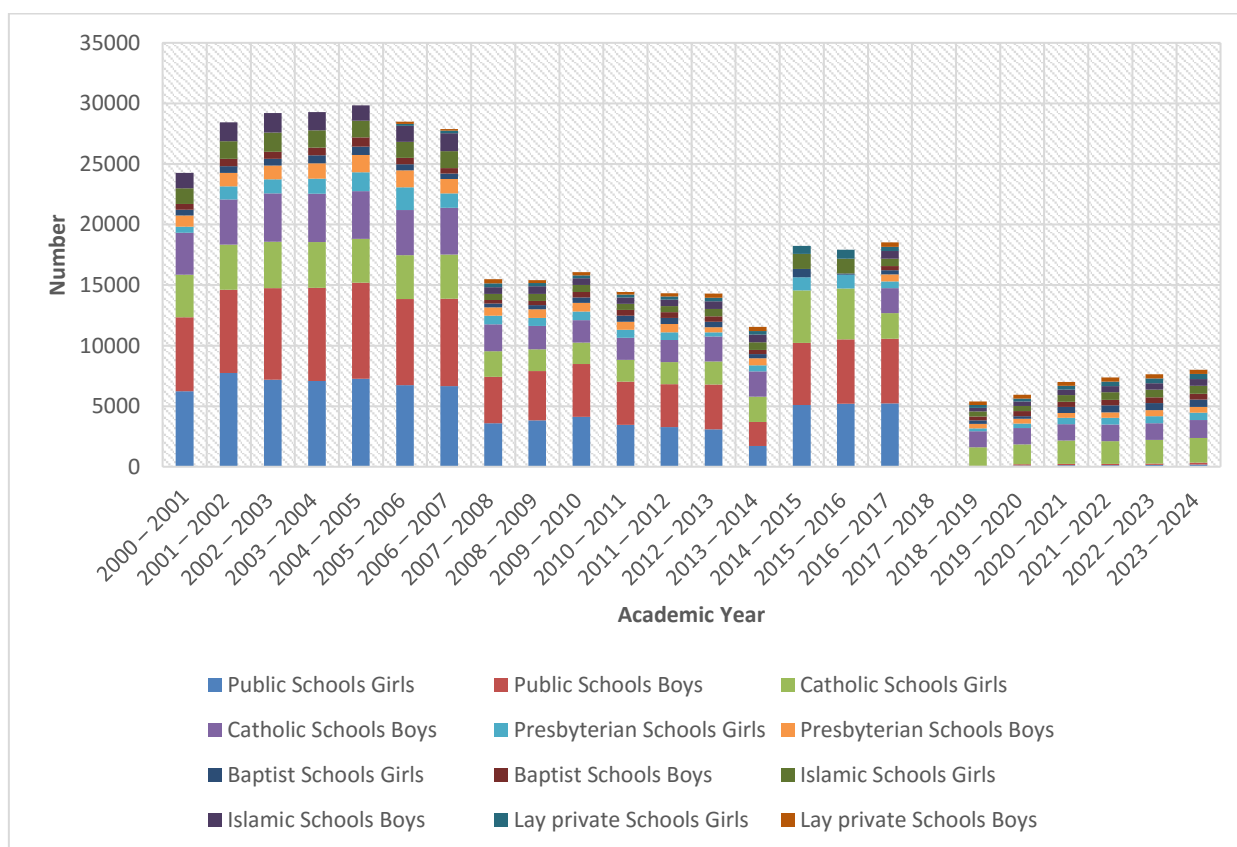


Figure 3: No of pupils enrolled in primary schools, case study of Kumbo Sub - division 2000 – 2024 in Bui Division
 Source: Compiled from Divisional Delegation MINEDUB and field survey, (2024)

Figure 3 shows the analysis of enrolment and gender trends from 2000 to 2024 revealing a general increase in school participation across all denominations especially between 2000 - 2006, and notable fluctuations over time from 2008 - 2023. Enrolment rose steadily between 2000 and 2006, experienced slight variations up to 2013, and then stabilized towards 2016. Overall, boys consistently outnumbered girls, particularly in public and Catholic schools, although girls' enrolment showed gradual improvement over the years, indicating progress toward gender parity and education of the girl child. Catholic and public schools recorded the highest enrolment figures before the crisis, reflecting their strong institutional presence and community preference, while Presbyterian, Baptist, Islamic, and lay private schools maintained lower but relatively stable enrolment levels. The peaks observed around 2005 and 2012 may be linked to education policy reforms or community efforts to

boost schooling, while subsequent declines could reflect insecurity and economic difficulties. Generally, the data suggest positive but uneven growth in educational participation, with continued disparities between genders and school types.

In the area of health (SDG 3), the estimated attainment stands at 60% though persistent challenges still exist such as poor health infrastructure, shortage of essential drugs, health equipment and limited medical personnel. Many health centres are either under-equipped or inaccessible, especially in rural zones, which affects maternal and child health outcomes as well as disease control efforts (WHO, 2023; Cameroon Ministry of Public Health (MINSANTE), 2022). This situation calls for targeted investments in healthcare delivery, staff training, and supply chain management to improve service delivery and access to quality healthcare

(UNDP, 2023). Observations in some of the district hospitals and health centers actually revealed the depravity in infrastructure to cater for patients. From essential drugs, syringes, vaccines to support staffs and even enough space to accommodate patients. In most cases, patients are simply transferred to the Shisong Catholic General Hospital or Banso Baptist Hospital in

Kumbo or the Bamenda regional hospital for attention. The study also noticed the rate of infant mortality has not been completely curbed in most rural areas of Bui Division. Data compiled from some confessional and district hospitals and other denominational health centres revealed that infant mortality and the lack of health facilities has not been completely curbed (Figure 4).

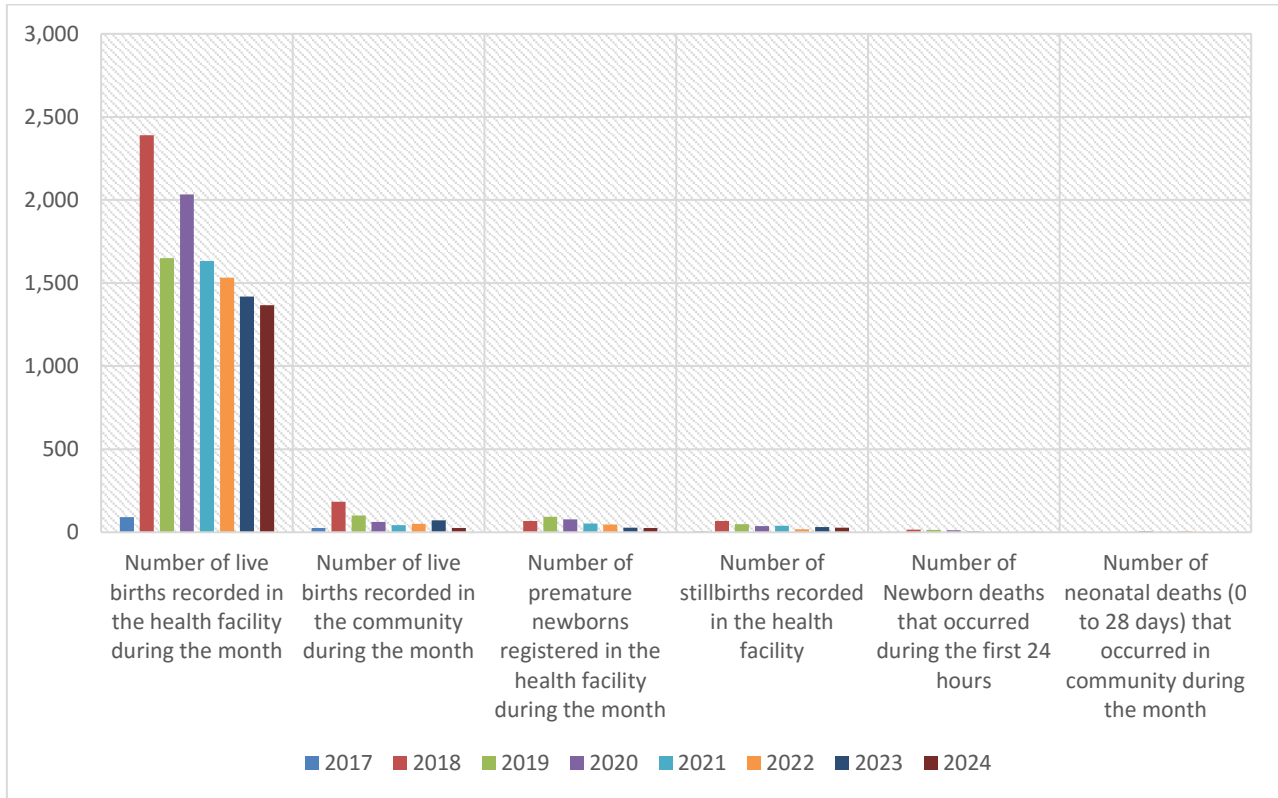


Figure 4: Infant births and mortality

Source: Compiled from Kumbo West health district in Bui Division (2024)

Figure 4 compares key maternal and child health indicators in Nkum and Kumbo Sub - divisions which embodies Kumbo West Health District from 2017 to 2024. The variables include live births in recorded health facilities, community live births, premature newborns, stillbirths, infant mortality (within 24 hours) and neonatal deaths (0 to 28 days) in health facilities across the various Sub.

From the chart, it is clear that live births in health centres consistently represent the highest numbers across all years, showing a general upward trend, especially peaking in 2018, which suggests improved access to health facilities or preference for institutional deliveries. This high increase in the number of deliveries as well is equally attributed to the consequences of the anglophone crisis as highlighted by the District Medical

Officer (DMO) of Kumbo West Health District in the course of an interview. The closure of schools during this period saw a rapid increase in the number of adolescent pregnancy and deliveries among youths because of idleness in homes and it is a representation of the reality in all the health districts in Bui Division. Community live births remain relatively low, indicating a gradual shift toward health facility deliveries. In contrast, the indicators for infant and neonatal mortality, stillbirths, and premature new-borns are quite minimal and stable over the years, reflecting modest improvements in maternal and neonatal health services. It was also surveyed that common diseases such as cholera, diarrhoea, typhoid fever, malaria, small pox etc are still prevalent in the study area but at a low and controllable state according the SDGs (Figure 5).

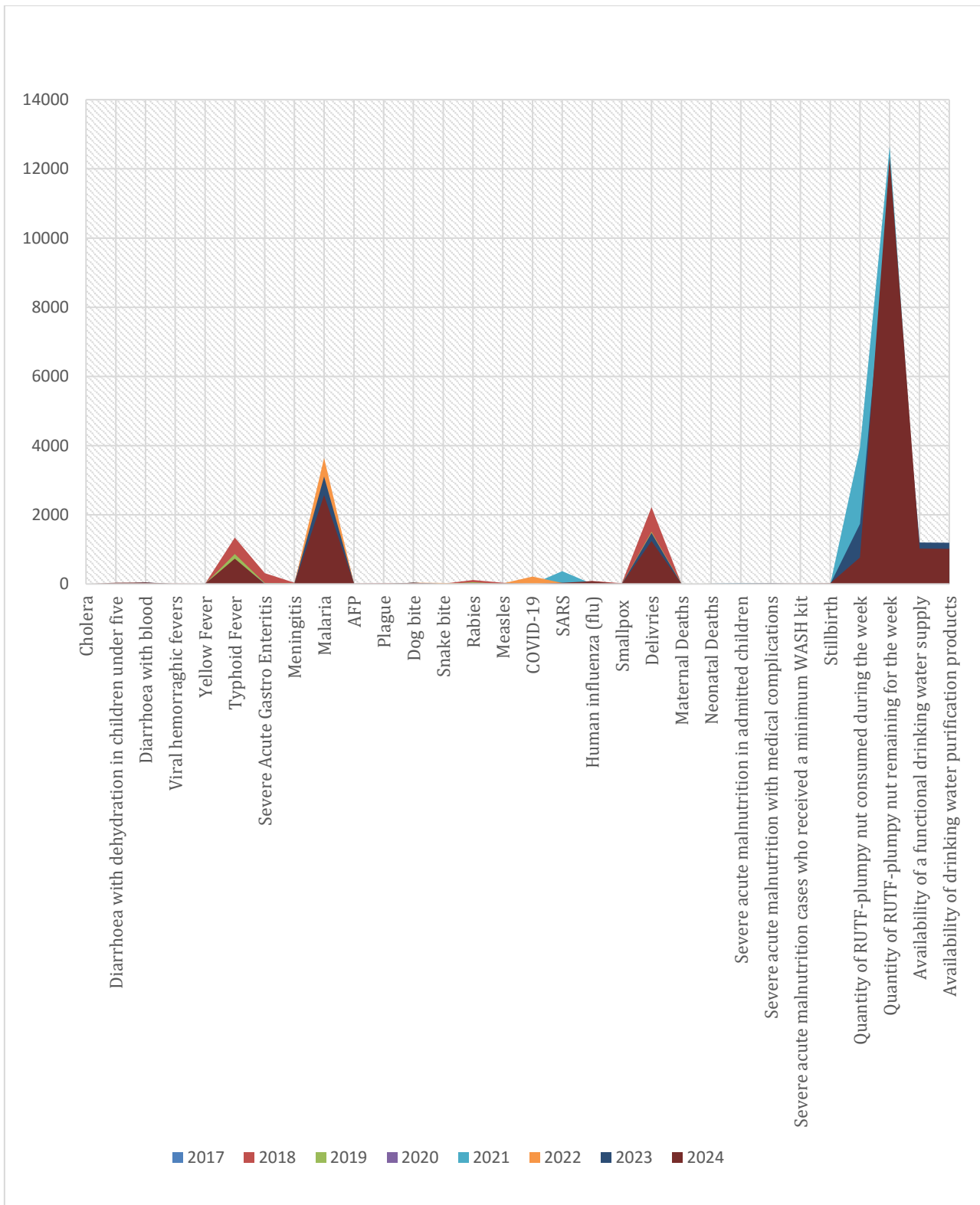


Figure 5: Surveillance of epidemic prone diseases and other health events in Kumbo West Health District
 Source: Compiled from Kumbo West Health District database in Bui (2024)

Figure 5 compares the reported cases of various epidemic-prone diseases for the years 2017 to 2024. It is clear that Malaria and Typhoid Fever had by far the highest number of reported cases in the recorded years. Malaria (3,390 cases in 2018, 2,929 cases in 2020, 3, 644

cases in 2022 and 2,570 cases in 2024). Typhoid fever cases were 1,342 in 2018 and a decrease to 735 cases in 2024. This suggests that Malaria and typhoid fever is still very much prevalent in the study area indicating possible causes such as mosquito bites, inadequate sanitation,

unsafe water, or poor hygiene practices. Other diseases reported included, Diarrhoea with blood (16 cases in 2018, 31 cases in 2022 and 43 in 2024), Dog bites (28 cases in 2018, 35 in 2022 and 39 in 2024), severe acute malnutrition in admitted children (22 cases in 2021, 13 in 2023, 11 in 2024). Cholera, meningitis, yellow fever, measles, covid, human influenza (flu), snake bite etc are in minimal numbers. There is equally an indication of availability of a good number of functional drinking water supply in the study area and drinking water purification products which help curb the prevalence of water borne diseases.

Although these numbers are significantly lower than those of Malaria and typhoid fever, they still indicate persistent but controlled levels of occurrence. Diseases such as Plague, Smallpox etc showed little reported cases, reflecting either their eradication or successful control measures in place. Overall, the data reveal that Malaria and Typhoid Fever continue to dominate disease incidence, followed distantly by severe acute respiratory syndrome (SARS), yellow fever, severe acute malnutrition in admitted children and those with medical complications, snake bites, Cholera, and Diarrhoea with blood. The general trend between 2017

to 2024 shows a slight decrease in most diseases, suggesting a need for stronger disease surveillance, improved vaccination campaigns, sanitation, and public health education to prevent further spread. It should be noted that some of these diseases are linked to the quality of water the population uses.

Assessment of water quality (potable water)

Potable water (SDG 6) recorded the lowest attainment level at 45%. Access to clean and safe water remains a serious concern, with many communities depending on unsafe sources such as streams and unprotected wells. The lack of sanitation facilities further exacerbates water-borne diseases and environmental health risks in Bui Division. Efforts to improve water infrastructure, promote hygiene education, and implement sustainable community water projects are therefore crucial to improving this sector which are still very limited in the study area. Field surveys revealed in most places indicates most of the population drink water from unsafe sources and most of the water projects have been abandoned for years now (Plate 1). However, this can be linked to the socio-political crises but the population still needs at least access to clean water.



Plate 1: Some water sources observed during field surveys

Photo 1: An open water source in Tsemkan Nkar; Jakiri Sub – division showing someone drinking water with a cocoyam leaf

Source: Ghansiyi A., 12/09/2024

Photo 2: An open water spring in Ntunir Vekovi; Jakiri Sub – division

Source: Ghansiyi A., 21/08/2025

Photo 3: A water project site in the catchment and overflow of Kov Nsah Tatum that was not fully completed in Nkum Sub - division

Source: Ghansiyi A., 12/09/2024

Surface water sources such as streams, rivers, and natural springs are particularly common in rural areas in Bui Division where the climate and nature of the terrain favour the collection rainfall and runoff from Bui Plateau watersheds. In contrast, areas such as Kumbo, Jakiri and Nkum rely heavily on water obtained from community-managed water schemes. In some rural communities, especially in Mbven, Noni and Oku Sub-divisions, rainwater harvesting is highly practiced during the rainy season to supplement domestic water needs. Many of the community water systems suffer from

inadequate maintenance and aging infrastructure, leading to irregular supply and leakage losses. Overall, potable water in Bui Division remains largely community-based, seasonal, and vulnerable to contamination. While the Division has a rich network of natural and artificial water sources, only a few meet the standards for safe drinking water without treatment. Improving access to potable water in Bui will require better protection of catchments, regular maintenance of boreholes, investment in water treatment facilities, and

continuous community education on hygiene and safe water handling practices.

The overall view assessment of these facilities highlights the need for coordinated policy interventions and community-based strategies to accelerate progress toward achieving the SDGs in Bui Division by 2030 if not it will remain a night mare. Greater government support, security measures, improved infrastructure, and stronger stakeholder collaboration are essential to bridge the current gaps and ensure inclusive and sustainable development.

Stakeholders and their key roles

The Sustainable Development Goals (SDGs) 3, 4, and 6 focuses respectively on Good Health and Well-being, Quality Education and Clean Water and Sanitation are interlinked sectors that directly affect the social and economic development of communities in Cameroon, Bui Division inclusive. Achieving these goals requires collaboration among multiple stakeholders at the national, regional, and local levels. However, several persistent challenges continue to hinder progress in their implementation.

Stakeholders involved SDGs 3, 4, and 6

❖ State Institutions

The Government plays a significant role through its different ministerial departments and decentralized structures in the provisions of the above-mentioned SDGs:

- The Ministry of Public Health (MINSANTE) leads the implementation of SDG 3 through health policies, hospitals, vaccination campaigns, and disease control programs.
- The Ministry of Basic Education (MINEDUB) and the Ministry of Secondary Education (MINESEC) oversee SDG 4 by developing curricula, training teachers, and expanding access to schools.
- The Ministry of Water and Energy (MINEE) and the Ministry of Environment, Nature Protection, and Sustainable Development

(MINEPDED) implement SDG 6 through rural water supply projects, borehole construction, and sanitation programs.

❖ Local Councils and Decentralized Bodies

Local governments such as the Kumbo, Jakiri, Oku, Noni, Mbven and Nkum Councils play vital roles in the planning and management of local health centres, schools, and water supply systems. They collaborate with traditional authorities, local NGOs, and community-based organizations to extend services to rural areas.

❖ International and Non-Governmental Organizations

Organizations such as the World Health Organization (WHO), UNICEF, UNDP, UNESCO, World Bank, WaterAid, Helvetas, and Plan International support Cameroon through technical assistance, funding, and capacity building. For example, UNESCO and UNICEF supports education programs, UNICEF supports vaccination and water programs, while Helvetas has implemented rural water supply and sanitation projects in Bui Division.

❖ Civil Society and Community-Based Organizations (CBOs)

Local NGOs, faith-based institutions, and community groups in Bui (e.g., SHUMAS, CARITAS KUMBO, Catholic Health Services, Cameroonian Baptist Convention Health Services (CBCHS), and community development associations) help manage health centres, schools, and water projects. These grassroots organizations are often the link between government programs and the local population.

❖ Private Sector and Donors

Private health practitioners, private schools, and small-scale water vendors also contribute to service delivery. In addition, international donors such as the European Union, USAID, and GIZ provide funding and technical assistance to improve infrastructure and governance in these sectors. Figure 6, shows a flow diagram of SDGs stakeholders and key roles.

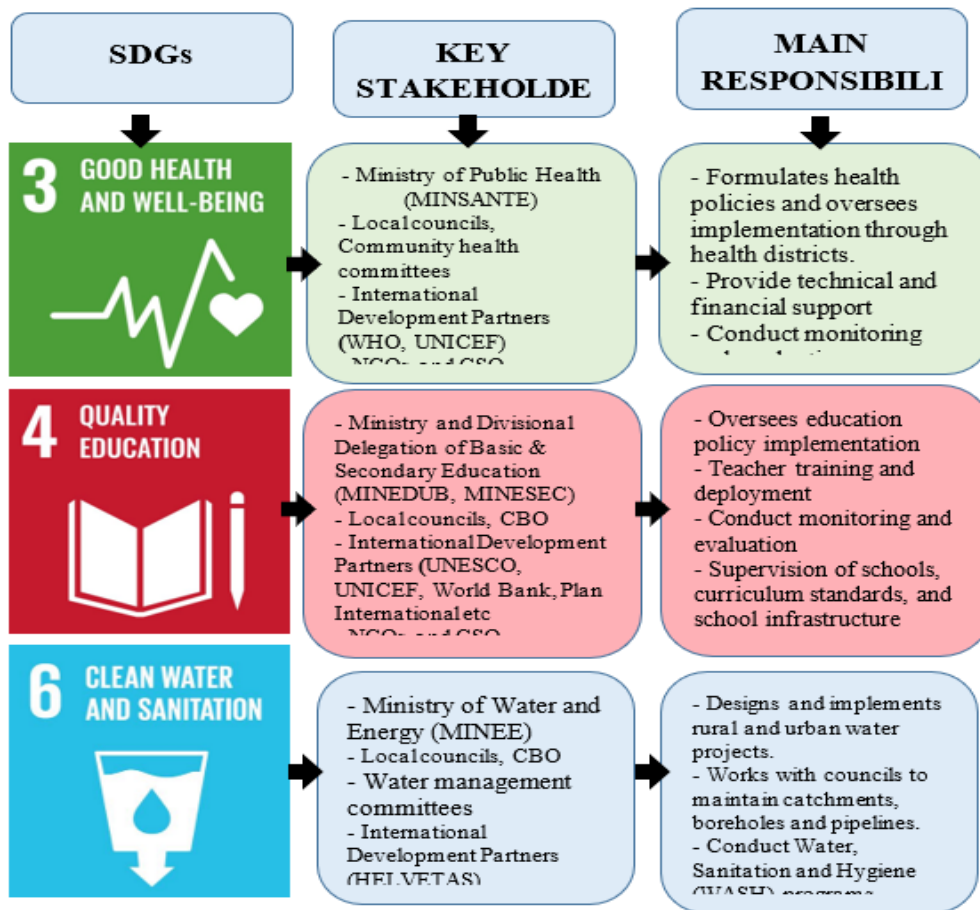


Figure 6: SDGs, Stakeholders and their key responsibilities

Source: Computed by the author (2024)

Challenges in Achieving SDGs 3, 4, and 6

Despite national and international efforts to improve access to healthcare, education, and safe water, many communities continue to experience inadequate infrastructure, limited funding, and weak governance systems. The ongoing socio-political crisis in the region

has further disrupted schools, health centres, and water projects, worsening inequalities in access to essential services. In addition, rapid population growth, poverty, and environmental degradation have placed extra pressure on already limited resources (Figure 7).



Figure 7: Key challenges faced by the development stakeholders

Source: Computed by the author (2024)

As shown by figure 7, understanding the challenges that hinder the realization of SDGs 3, 4, and 6 is therefore crucial for designing effective strategies and policies that promote inclusive and sustainable

development. The following section highlights the major obstacles affecting the attainment of these goals in Cameroon, with emphasis on local realities in Bui Division.

Table 1: Stakeholders challenges and impacts

Category of Challenge	Description	Estimated Impact (%)	Impacts / Remarks
Political and Security Challenges	Ongoing conflict and insecurity disrupting health, education, and water services	25%	School closures, destruction of facilities, displacement of teachers, health workers, and communities
Institutional and Governance Weaknesses	Poor coordination, corruption, and limited decentralization in service delivery	15%	Mismanagement of development projects, poor monitoring and evaluation, low accountability
Infrastructure and Resource Limitations	Lack of physical facilities, financial constraints, and limited skilled personnel	30%	Inadequate hospitals, classrooms, boreholes; shortage of teachers, health personnel, and maintenance funds
Environmental and Climatic Challenges	Deforestation, pollution, and seasonal water shortages affecting sustainability	10%	Dry season scarcity, contamination of water sources, poor waste disposal practices
Socio-economic Constraints	Poverty, inequality, and low community participation reducing access to services	15%	Inability to afford medical care or school materials; gender disparities in education
Cultural and Behavioral Factors	Traditional beliefs and low awareness affecting attitudes toward modern services	5%	Preference for traditional medicine, poor sanitation habits, resistance to vaccination campaigns

Source: Field surveys in Bui Division, 2024

Table 1 shows that infrastructure and resource limitations (30%) and political insecurity (25%) are the most significant obstacles, followed by governance weaknesses (15%), socio-economic constraints (15%), environmental factors (10%), and cultural barriers (5%). These combined challenges slow down progress toward achieving SDGs 3, 4, and 6, especially in conflict-affected rural settings like Bui Division.

The socio-political crisis in the North West Region has disrupted education and health services. Schools have been closed, teachers displaced, and health workers threatened, reducing access to essential services. Health centres and schools in Bui Division are often poorly equipped and understaffed. Many rural areas lack functional boreholes, clean toilets, or medical facilities, leading to inequitable access to basic services. Government funding for local development projects is often insufficient or delayed, while community facilities such as boreholes, classrooms, and health posts suffer from neglect and poor maintenance.

The socio-political crisis in the North West Region has disrupted education and health services. Schools have been closed, teachers displaced, and health workers threatened, reducing access to essential services. Traditional beliefs and limited awareness about hygiene, disease prevention, and the importance of education sometimes slow adoption of modern practices, especially in rural communities. Overlapping mandates among ministries, poor monitoring systems, and weak

coordination between government and NGOs result in inefficiencies. In some cases, corruption or mismanagement diverts resources away from intended beneficiaries. High poverty levels make it difficult for households to afford health services, school materials, or clean water. This perpetuates poor health, low school attendance, and unsafe water consumption.

In Bui Division and Cameroon as a whole, the realization of SDGs 3, 4, and 6 depends on collaboration among government bodies, NGOs, community groups, and international partners. However, persistent challenges such as insecurity, poor infrastructure, limited funding, and weak governance hinder effective progress. Addressing these issues will require sustained investment in rural infrastructure, strengthening local governance, promoting justice and peace, and enhancing community participation to ensure inclusive and sustainable development.

Adaptation Strategies by the Local Population in Response to Challenges Affecting SDGs 3, 4, and 6

Despite the numerous obstacles that hinder the achievement of Sustainable Development Goals (SDGs) 3, 4, and 6, the local population in Bui Division has adopted several innovative and community-based strategies to cope with limited access to health services, education, and clean water. These adaptation measures reflect the resilience, creativity, and solidarity of communities in the face of socio-economic and environmental hardship (Table 2).

Table 2: Adaptation strategies by the local population to the challenges

SDGs	Major Challenges	Local Adaptation Strategies by the Population
SDG 3: Good Health and Well-being	<ul style="list-style-type: none"> - Limited access to hospitals, health centres and clinics due to insecurity and poor infrastructure - Limited health facilities - Shortage of medical personnel and essential drugs - Poor sanitation and hygiene practices 	<ul style="list-style-type: none"> - Training and use of community health workers and traditional birth attendants - Mobile and home-based health services supported by NGOs and churches - Increased reliance on traditional medicine using local herbs - Community sanitation campaigns and hygiene education
SDG 4: Quality Education	<ul style="list-style-type: none"> - Closure of schools due to insecurity - Lack of qualified teachers and learning materials - Poverty limiting access to education - Displacement of pupils and teachers 	<ul style="list-style-type: none"> - Creation of community and church-based learning schools - Use of volunteer teachers and retired educators - Home-based and mobile tutoring systems for displaced children - Adoption of radio and mobile learning where possible - Rotational schooling to minimize risk and maintain continuity
SDG 6: Clean Water and Sanitation	<ul style="list-style-type: none"> - Water scarcity during dry seasons - Contamination of surface water sources - Poor sanitation and open defecation - Inadequate maintenance of boreholes and catchment areas 	<ul style="list-style-type: none"> - Rainwater harvesting and household storage systems - Establishment of community water management committees - Protection and reforestation of spring and catchment areas - Use of boiling, filtering, and purification tablets for drinking water - Construction of pit latrines and promotion of sanitation awareness

This table provides a comprehensive yet straightforward overview that connects the key challenges to the grassroots adaptation responses, showing how local resilience and cooperation play a vital role in sustaining development progress in Bui Division.

CONCLUSION

The assessment of the attainment levels of SDG 3, SDG 4, and SDG 6 in Bui Division, North West Region of Cameroon, reveals significant gaps between national policy objectives and local realities. Health services remain constrained by inadequate infrastructure, shortages of medical personnel, and limited access to essential medicines, contributing to sub-optimal health outcomes (UNICEF, 2021; SDSN, 2021). Similarly, the education sector faces challenges such as insufficient facilities, inadequate teaching materials, and disparities in access, limiting progress toward quality education for all (United Nations, 2022; National Institute of Statistics (INS), 2021). Access to safe and potable water remains limited, with many communities still relying on unimproved sources, heightening vulnerability to waterborne diseases (UNICEF, 2021; Global Water Partnership, 2020).

Despite these challenges, local populations have adopted various adaptive strategies, including community health initiatives, local water purification methods, and informal educational support systems. These grassroots responses demonstrate resilience and highlight the importance of integrating local knowledge and community participation into planning and implementation.

Overall, achieving the SDGs in Bui Division requires a multifaceted approach combining increased government investment, enhanced infrastructural development, capacity building, and active community engagement. Addressing systemic constraints while leveraging local adaptation strategies can foster sustainable progress toward health, education, and clean water access, ultimately improving the overall well-being and quality of life for the population.

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