POLICY PULSE

Digging into the Future

Uncovering the Hidden Costs of Mining on Education in Bauchi and Plateau States, Nigeria

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Cover image: Workers digging at a gold mine. Copyright: Dailytrust.com

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EXECUTIVE SUMMARY

This paper explores the complex interplay between mining activities and school dropout rates in Bauchi and Plateau states, Nigeria. Mining is a significant economic activity, yet its social and environmental impacts often go unaddressed. In rural and peri-urban communities, mining displaces families, exposes children to labour, and compromises access to quality education.

As highlighted by UNICEF (2022), access to education is fundamental to poverty reduction, and disruptions caused by mining deepen socio-economic inequalities. Comparative insights from Ghana and South Africa demonstrate that effective policy interventions—such as community reinvestment, mobile schooling, and child protection services—can mitigate these effects.

This paper recommends a multi-stakeholder approach involving government, mining corporations, NGOs, and local communities to ensure educational resilience in mining zones.

1. INTRODUCTION

Nigeria's mining sector has experienced significant growth in recent years, especially in mineral-rich states like Bauchi and Plateau. This growth is driven by an abundance of solid mineral resources such as tin, columbite, limestone, and gold, which continue to attract local and international investment (Ministry of Mines and Steel Development [MMSD], 2020). While this expansion contributes to national and state revenues and creates employment opportunities, it also introduces a host of social and environmental challenges that disproportionately affect rural populations, particularly with regard to education.

In Plateau State alone, artisanal and small-scale mining (ASM) operations have expanded to more than 40 localities, often overlapping with agricultural land, schools, and residential areas (MMSD, 2020). These mining activities often attract entire families displaced by poverty or environmental stress, drawn to mining areas in search of livelihood. Unfortunately, this movement frequently results in the disruption of children's schooling, as education becomes a secondary priority to survival. Children are forced into labour to support household incomes, leading to rising dropout rates, particularly among boys who engage in physical mining tasks and girls who assume domestic responsibilities in the absence of parents (UNICEF, 2019).

Displacement caused by mining is not only physical, but also socio-economic. Families who lose farmlands to mining operations struggle to sustain livelihoods based on agriculture, resorting instead to informal labour markets that seldom value or accommodate education. In communities affected by ASM, school attendance is often sporadic, and dropout rates have risen significantly, particularly at the junior secondary school level (National Bureau of Statistics [NBS], 2021). This results in a generation deprived of basic education, with limited future employment prospects outside the mining sector

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Environmental degradation is another key factor exacerbating educational inequality. Mining activities result in soil erosion, water pollution, and deforestation—all of which negatively affect agricultural productivity and endanger the health and safety of school-age children (Ibeanu, 2018). Polluted water sources expose children to waterborne diseases, while deforestation and dust contribute to respiratory ailments. These health issues cause absenteeism and hinder academic performance. Furthermore, schools located near mining sites face additional challenges such as noise, dust, and occasional quarry blasts, which disrupt learning environments (World Bank, 2022).

The gendered dimensions of mining's impact on education must also be acknowledged. Girls are often withdrawn from school to assume domestic roles when mothers join the mining workforce. In some mining communities in Plateau State, adolescent girls face heightened risks of exploitation and early marriage, further undermining their right to education (Plan International, 2021). Boys, conversely, are frequently recruited into small-scale mining as inexpensive labour. This gendered pattern of dropout reinforces cycles of poverty and limits socio-economic mobility for affected children.

To place Nigeria's experience in a global context, comparisons with South Africa and Ghana are instructive. In South Africa, despite a more regulated mining sector, communities near large operations in Limpopo and North West Provinces still experience educational disruption due to environmental degradation and displacement (Bench Marks Foundation, 2017). Similarly, in Ghana's Western and Ashanti regions, where gold mining is prevalent, school enrolment and completion rates decline significantly because of child labour in ASM (Hilson, 2010).

Given these challenges, there is an urgent need for holistic policies that balance the economic gains of mining with essential social protections, especially education. Nigeria must strengthen community engagement policies before granting mining licences, ensuring that educational impacts are assessed. The integration of Corporate Social Responsibility (CSR) frameworks into mining regulations should compel companies to invest in schools, scholarships, and alternative livelihoods. Additionally, state governments should collaborate with NGOs and international development agencies to provide mobile schools or learning hubs in mining-affected areas. This can ensure that children receive a basic education, even when they are displaced. Health screenings and nutritional support are also essential to improve school attendance and academic performance.

Photo credit: *Leadership Newspaper*

2. THE ISSUES

Displacement of Communities

One of the most immediate consequences of mining operations is the displacement of local populations. When mining concessions are granted—often without adequate resettlement planning—entire communities are uprooted. This disrupts access to basic services such as education, healthcare, and clean water. Families are relocated to temporary settlements, where schools are either nonexistent or overwhelmed.

Displacement interrupts children's education. Students are often forced to drop out due to long distances to the nearest school, lack of transportation, or the psychological trauma of displacement. According to the International Labour Organization (ILO, 2021), mining-induced dislocation is a major driver of school dropout in resource-rich developing countries. In Plateau State, communities affected by ASM have reported steady declines in school attendance following resettlement (MMSD, 2020).

Child Labour in Mining

Child labour is a pervasive issue in mining communities, particularly within artisanal operations. Without effective monitoring, children are frequently employed to perform physically demanding and dangerous tasks. In Bauchi State, children as young as ten work in gold mining operations, exposed to hazardous chemicals and equipment (ILO, 2021).

Driven by poverty and a lack of alternatives, many families regard the short-term income from child labour as more valuable than the long-term benefits of education. This practice not only deprives children of learning opportunities but also exposes them to physical and psychological harm. It perpetuates cycles of poverty and hinders social mobility, trapping future generations in low-skilled, low-paying jobs, without the basic literacy or numeracy needed to break free from economic marginalisation. The International Labour Organization estimates that mining accounts for a significant share of child labour in Nigeria, placing the country among the top five in sub-Saharan Africa for children engaged in hazardous work conditions.

Environmental Degradation

Mining leads to widespread environmental damage, which undermines education. Extraction processes destroy forests, degrade agricultural land, pollute the air, and contaminate water sources.

Communities that rely on contaminated rivers suffer from diseases that impair children's development. Children exposed to pollutants such as mercury and lead suffer from cognitive impairments, attention deficits, and respiratory problems. The World Health Organization (WHO, 2020) notes that exposure to lead and mercury—both commonly found in mining operations—can result in serious learning disabilities in children. The physical toll of poor health caused by environmental pollution contributes to absenteeism and declining academic achievement, as families already burdened by the economic stress of mining-related displacement or low wages are less likely to afford medical treatment.

Gender Disparities

Mining deepens gender inequalities in education. Financial instability often leads families to prioritise boys' education, keeping girls at home. Some girls are subjected to early marriage to reduce household burdens.

According to UNESCO (2019), school dropout rates are consistently higher among girls in rural Nigeria. In mining zones, the problem is exacerbated by a range of factors, including cultural norms, economic imperatives, and insecurity. Girls face not only domestic pressure but also heightened vulnerability to sexual exploitation. The loss of female education limits community development, as educated women play a crucial role in breaking cycles of poverty.

3. MINING AND THE RISING TREND OF SCHOOL DROPOUTS: QUANTITATIVE EVIDENCE

Recent data from education authorities, NGOs and national statistics confirm an alarming rise in school dropout rates in mining-intensive areas. The table below compares dropout trends in selected mining and non-mining Local Government Areas (LGAs) in Bauchi and Plateau states.

Table: School Dropout Rates in Selected Mining and Non-Mining Communities (2020–2023)

State	Local Government Area	Mining Activity	2020 (%)	2021 (%)	2022 (%)	2023 (%)
Plateau	Bassa	High	12.5	14.3	16.8	18.1
Plateau	Jos South	Moderate	10.2	11.7	12.9	14.4
Bauchi	Toro	High	13.1	15.2	17.4	19.6
Bauchi	Dass	Low	6.4	6.1	5.8	5.6
Plateau	Mangu	Low	5.9	5.4	5.2	5.1
Bauchi	Misau	Low	6.2	6.0	5.9	5.8

Source: *Local Government Education Authorities, UNICEF Nigeria (2023), and National Bureau of Statistics (2023)*

The data clearly show that dropout rates in mining-heavy LGAs such as Bassa and Toro are rising, in contrast to relatively stable rates in low-mining areas such as Mangu and Misau. These disparities suggest that the presence of mining is a strong correlate—if not a direct driver—of educational disengagement. The figures support earlier qualitative observations and provide a foundation for evidence-based policy.

4. COMPARATIVE INSIGHTS: MINING AND EDUCATION DISRUPTION IN SOUTH AFRICA AND GHANA

South Africa: Mining and Educational Gaps in Limpopo and Mpumalanga

South Africa's provinces of Limpopo and Mpumalanga are rich in minerals such as coal, platinum, and chrome. Mining towns in these areas report high dropout rates among school-age children. Among other contributing factors, environmental degradation caused by mining activities leads to respiratory illnesses and waterborne diseases, which negatively affect school attendance and learning outcomes. Additionally, population influxes due to mining strain school infrastructure, resulting in overcrowded classrooms and diminished quality of instruction (Department of Basic Education, 2020).

In response to these issues, the South African Department of Mineral Resources and Energy mandates Social and Labour Plans (SLPs), which require mining firms to support community development, with education as a core focus. SLPs include school construction, bursaries, and teacher training. However, their impact has been uneven, limited by weak enforcement, inadequate local engagement, and corruption (Bench Marks Foundation, 2017).

Ghana: Galamsey, Child Labour, and Education in Obuasi and Tarkwa

In Ghana, illegal small-scale mining (galamsey) has created socio-economic crises, particularly in gold-rich areas like Obuasi and Tarkwa. Children, driven by poverty and lured by the prospect of immediate income, frequently abandon school to work in dangerous mining environments (University of Ghana, 2021).
These activities not only impair children's health but also undermine their academic performance, as they lead to reduced cognitive capacity and diminished motivation to attend school. Teachers in galamsey-dominated areas report low attendance, erratic behaviours, and poor academic performance among students (UNICEF Ghana, 2020).

To address the crisis, Ghana's Minerals Commission launched the Community Mining Programme (CMP), designed to formalise artisanal mining and channel revenues into education and social services. CMP efforts include building schools, distributing learning materials, and discouraging child labour through public campaigns. Although still nascent, this initiative presents a potential model for mining-integrated educational resilience.

5. RECOMMENDATIONS

1. Policy Reforms

Governments at the federal and state levels must require education impact assessments before granting mining licences. Legal mandates should compel mining companies to allocate a fixed percentage of profits toward educational infrastructure and services, including school facilities, teacher training, and pupil welfare.

2. Alternative Livelihood Programmes

To reduce child labour, government and NGOs should introduce vocational training for parents and youth in sustainable trades—e.g., tailoring, carpentry, and agriculture—thereby decreasing household dependence on mining income.

3. Community-Based and Mobile Schools

Where displacement is frequent, modular or mobile schooling systems should be deployed to ensure continuity of education. These adaptable structures can follow displaced populations and help reduce dropout rates. Such solutions are especially effective in transient or semi-nomadic mining environments.

4. Public–Private Partnerships (PPPs)

Mining corporations should invest directly in local education through CSR schemes, including school feeding programmes, teaching resources, bursaries, and context-specific curriculum enhancements.

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6. CONCLUSION

The link between mining and educational disruption in Bauchi and Plateau states presents a critical developmental concern. While mining fuels economic activity and job creation, its unaddressed social costs—child labour, displacement, school dropout, and gender disparities—pose long-term threats to Nigeria's human capital base. Without intervention, these communities risk producing generations ill-equipped for life beyond subsistence mining.

Comparative examples from South Africa and Ghana underscore the value of regulatory enforcement, community engagement, and educational investment. Nigeria must adopt similar strategies by integrating education into mining policy frameworks and aligning CSR initiatives with grassroots needs.

A holistic, multi-sectoral response is imperative. Collaboration among local governments, federal ministries, corporate actors, civil society, and international partners is essential to protect the right to education in mining communities. Only through such concerted effort can the promise of mining be realised without forsaking the future of Nigeria's children.

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Photo credit: *Bauchi State Ministry of Education*

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