

PRIMARY SCHOOL EDUCATION IN MADAGASCAR UNDER CONDITIONS OF POVERTY AND RURAL INEQUALITY

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Abstract: *This study aims to examine primary school education in Madagascar under conditions of poverty and rural inequality, with particular attention to how structural deprivation shapes educational access, learning readiness, and school quality at the primary level. The research explores the interconnected roles of household economic conditions, school infrastructure, teacher capacity, community engagement, and institutional management in shaping educational experiences in rural settings. Qualitative research design was employed to capture the perspectives and lived experiences of key educational stakeholders. Data were collected in the Atsimo Andrefana Region of Madagascar, specifically within the CISO of Toliara II, Sakaraha, and Morombe, areas characterized by limited resources and predominantly rural populations. Primary data consisted of semi-structured interviews with 35 key*

informants, focus group discussions, and document analysis involving teachers, school principals, parents, community members, and local education officials. The findings reveal that poverty-related challenges, including malnutrition, livelihood insecurity, inadequate school infrastructure, and uneven professional support for teachers, significantly undermine learning readiness and instructional quality. Educational inequality is further reinforced by weak school management capacity and limited access to technological and administrative resources. Community involvement and culturally responsive teaching practices were found to partially mitigate these constraints by enhancing student engagement and school resilience. The study concludes that improving primary education in rural Madagascar requires integrated and context-sensitive strategies linking education policy with social protection, targeted investment in rural schools, continuous teacher professional development, and strengthened community-school partnerships to promote more equitable educational outcomes.

INTRODUCTION

Primary school education in Madagascar is embedded within a national context marked by chronic poverty, structural inequality, and uneven development between urban and rural regions (Emynorane et al., 2024). As one of the least developed countries globally, Madagascar continues to face systemic socio-economic constraints that directly influence the accessibility and quality of basic education (Granić & Marangunić, 2019). Large proportions of the population depend on subsistence agriculture, informal labor, and unstable incomes, conditions that significantly shape children's schooling trajectories

from an early age (Tesolin et al., 2018). Education is widely acknowledged as a strategic pathway for human capital development and poverty reduction, yet the Malagasy case illustrates how persistent deprivation limits the realization of these goals at the primary level (Ferguson et al., 2007). National analyses of social spending further demonstrate that limited fiscal capacity restricts the state's ability to equitably finance education across regions (Mazraani, 2023). Comparative studies on rural education inequality emphasize that such structural constraints tend to concentrate on educational disadvantages in geographically isolated communities (Shi & Sercombe, 2020).

Rural inequality constitutes a central feature of Madagascar's primary education system. Schools located in remote areas often operate under conditions of isolation, inadequate infrastructure, and weak institutional oversight. Physical distance from administrative centers affects the delivery of learning materials, teacher supervision, and access to pedagogical support. Study on community contexts in rural Madagascar indicates that caregivers' expectations of schooling are shaped by livelihood insecurity and immediate economic needs, which influence enrollment, attendance, and persistence in primary education (Chung et al., 2019). Studies focusing on community involvement show that rural schools rely heavily on local participation to compensate for limited state support, creating uneven educational experiences across regions. Broader analyses of educational traditions and local values further reveal how rural inequality intersects with cultural norms to shape schooling practices (Bien-Aimé et al., 2025).

Household poverty remains a dominant factor affecting children's readiness to learn and sustain participation in primary education. Economic hardship influences access to adequate nutrition, healthcare, school supplies, and transportation, all of which are essential for effective learning. Empirical evidence from rural Madagascar demonstrates a significant association between malnutrition and lower academic performance among primary schoolchildren, particularly in foundational skills such as reading and mathematics (Aiga et al., 2021). International study consistently confirms that poverty-related deprivation undermines cognitive development and educational outcomes during early schooling years (Ferguson et al., 2007). Recent critical assessments of disadvantaged rural students further highlight how persistent poverty translates into long-term literacy gaps that are difficult to reverse without targeted intervention (Kızıлтаş & Kultas, 2025).

Educational inequality in Madagascar is also reinforced by disparities in school infrastructure and learning environments. Many rural primary schools lack sufficient classrooms, furniture, sanitation facilities, and teaching materials, conditions that negatively affect both teaching and learning processes. Analyses of public spending reveal that investments in education infrastructure are often unevenly distributed, favoring urban centers over rural districts (Mazraani, 2023). Governance-focused studies explain that institutional capacity constraints and accountability challenges limit the effectiveness of resource allocation in low-income contexts (Haidir & Setya, 2023). Study on school resource management in Malagasy public elementary schools further illustrates how infrastructural limitations hinder the delivery of quality education in rural areas.

Teacher-related factors play a critical role in shaping primary education quality under conditions of poverty and rural inequality. Rural schools frequently experience shortages of qualified teachers, limited access to professional development, and high workloads resulting from multigrade teaching arrangements. Studies on teacher training in Madagascar demonstrate that targeted professional development can significantly improve instructional quality and student outcomes (Eklou et al., 2025). Study on teachers' procedural knowledge emphasizes the importance of pedagogical competence for addressing contextual challenges in primary classrooms. Broader international evidence suggests that sustained teacher support is essential for mitigating the negative effects of socio-economic disadvantages on learning (Shi et al., 2025).

The socio-cultural context of primary education further shapes learning experiences in rural Madagascar. Classrooms often include students whose home languages, cultural practices, and local knowledge systems differ from those embedded in standardized curricula. Educational research highlights that when teaching approaches fail to align with learners' cultural realities, student engagement and comprehension may decline. Comparative studies on intercultural teaching involving Malagasy learners indicate that culturally responsive pedagogy enhances participation and understanding at the primary level (Augustin & Emynorane, 2024). Analyses of education and tradition in rural regions of Madagascar show that tensions between formal schooling and local values influence parental attitudes toward education (Bien-Aimé et al., 2025). Study on community-school relations further demonstrates that cultural alignment strengthens educational relevance and sustainability (Léa et al., 2025).

Institutional governance and policy implementation represent additional layers influencing primary education outcomes. Weak administrative capacity, limited monitoring, and fragmented coordination between national and local authorities affect school performance, particularly in rural areas. Studies on governance in development institutions provide insight into how structural and organizational constraints shape policy effectiveness in low-income settings (Kaja & Werker, 2010). National-level analyses of education financing reveal persistent gaps between policy commitments and on-the-ground realities in Madagascar (Mazraani, 2023). Empirical study on school management practices underscores the importance of effective governance for ensuring equitable access to educational resources (Emynorane et al., 2025).

The growing discourse on technology in education introduces both opportunities and challenges for rural primary schools in Madagascar. Digital tools are increasingly viewed as mechanisms for improving administration, communication, and instructional practices. Study on technology acceptance in educational contexts emphasizes that successful integration depends on teacher beliefs, institutional support, and infrastructural readiness (Granić & Marangunić, 2019). Studies on pedagogical beliefs and technology highlight that without adequate training and resources, technology may reinforce rather than reduce inequality (Tondeur et al., 2017). Evidence from Malagasy elementary schools indicates that technological initiatives remain uneven due to infrastructural limitations in rural areas (Eric et al., 2025).

Existing scholarship on primary education in Madagascar provides valuable insights into specific dimensions such as nutrition, teacher training, community engagement, and resource management. Many studies adopt quantitative approaches to measure correlations between socio-economic variables and educational outcomes. Study on malnutrition and academic performance offers strong empirical evidence of poverty's impact on learning (Aiga et al., 2021). Studies on caregiver perceptions contribute to understanding family-level influences on education (Chung et al., 2019). Investigations into teacher development and school management further enrich the literature (Eklou et al., 2025). These contributions form an important foundation for understanding educational challenges in the country.

A significant research gap remains in the limited integration of these dimensions through qualitative inquiry focused specifically on rural primary education. Few studies

examine how poverty, inequality, institutional capacity, and cultural context interact within everyday school practices. Comparative study from other rural contexts demonstrates the value of qualitative approaches for capturing lived experiences and structural constraints that quantitative data may overlook (Shi & Sercombe, 2020). Analyses of rural–urban convergence in education highlight the importance of contextualized research for addressing inequality (Zhang et al., 2025). Critical assessments of disadvantaged learners further call for deeper exploration of localized educational processes (Kızıltaş & Kultas, 2025).

This study responds to these gaps by focusing on primary school education in Madagascar under conditions of poverty and rural inequality through a qualitative lens. It seeks to examine how teachers, school leaders, parents, and community members perceive and navigate educational challenges in resource-constrained rural settings. The study is limited to selected rural regions and does not claim national representativeness. Constraints related to access, time, and the availability of informants influence the scope of data collection. These limitations are acknowledged to ensure analytical transparency and to position the findings as context-specific contributions to the broader discourse on educational inequality in Madagascar.

METHODOLOGY

This study uses a qualitative research design to examine primary school education in contexts of poverty and rural inequality in Madagascar. A qualitative approach is appropriate because it enables an in-depth understanding of how educational challenges are perceived and experienced by those directly involved in schooling processes. In rural and marginalized settings, education is shaped by social, cultural, and institutional dynamics that extend beyond measurable indicators. This approach therefore allows the study to capture how poverty and inequality influence daily practices, interactions, and decision-making within schools and communities.

Data were collected in the Region Atsimo Andrefana of Madagascar, specifically within the CISO of Toliara II, Sakaraha, and Morombe, areas characterized by limited resources and predominantly rural populations. Primary data consisted of semi-structured interviews with 35 key informants, focus group discussions, and document analysis. The interviews involved primary school teachers, school principals, parents, and local education officials to obtain varied perspectives on educational constraints, institutional

responses, and coping mechanisms. Focus group discussions with parents and community members offered insights into shared experiences and collective expectations regarding primary education, while policy documents and school reports were examined to contextualize the empirical findings.

Key informants were selected through purposive sampling to ensure representation of major stakeholder groups in primary education. The profile and distribution of the 35 informants are presented in Table 1. Data analysis followed a thematic approach, involving transcription, coding, and synthesis of themes related to poverty, access to education, teaching conditions, and community involvement. Cross-group comparisons were conducted to identify convergent and divergent perspectives, and triangulation across data sources was used to enhance the data credibility.

Table 1: Profile of Key Informants

Informant Category	Number	Key Characteristics
Primary school teachers	12	Public school teachers, varied teaching experience
School principals	05	Administrative responsibility in public schools
Parents	15	Low-income households, rural villages
Local education officials	03	District-level education management

RESULTS AND DISCUSSION

Poverty, Nutrition, and Learning Readiness

Poverty functions as a foundational condition shaping pupils’ learning readiness in rural primary schools, influencing physical health, emotional stability, and cognitive engagement. Evidence from teacher and school leader interviews indicates that many pupils attend school without sufficient food intake, resulting in fatigue, low concentration, and limited participation in classroom activities. These observations are consistent with empirical findings from rural Madagascar demonstrating a strong association between malnutrition and weaker academic performance among primary schoolchildren, particularly in early literacy and numeracy development (Aiga et al., 2021). Broader educational research has long established that poverty-related deprivation negatively affects children’s capacity to benefit from schooling during formative years (Ferguson et al., 2007). Recent critical assessments of disadvantaged rural learners further highlight that nutritional insecurity contributes to persistent learning gaps that emerge at the primary level and intensify over time (Kızıldaş & Kultas, 2025).

Household economic conditions further shape learning readiness through their influence on school attendance and continuity. Insights from parents and community members reveal that food insecurity, seasonal labor demands, and unstable incomes frequently disrupt regular school participation. During agricultural cycles, children are often required to support household livelihoods, leading to absenteeism and interrupted learning routines. These findings align with research on caregiver perceptions in rural Madagascar, which emphasizes that educational participation is negotiated within contexts of survival-oriented decision-making (Chung et al., 2019). Studies on community involvement in education suggest that families value schooling but remain constrained by structural poverty, relying on schools to accommodate local realities (Léa et al., 2025). Comparative analyses of rural education inequality similarly demonstrate that socio-economic pressures outside the school environment play a decisive role in shaping early learning readiness (Shi & Sercombe, 2020).

Within classrooms, teachers reported implementing adaptive practices to respond to learners affected by hunger and poverty-related stress. These strategies included slowing lesson progression, providing additional encouragement, and prioritizing basic comprehension over curriculum coverage. Such responses reflect the broader challenge of delivering effective instruction in low-resource contexts where students' basic needs remain unmet. Research on teachers' procedural knowledge underscores the importance of contextual sensitivity when addressing learning barriers in primary education (Niens et al., 2021). Evidence from studies on teacher training in Madagascar suggests that enhanced pedagogical competence can partially mitigate the effects of poverty on learning readiness, though structural constraints persist (Eklou et al., 2025). These findings reinforce the central research objective of understanding how poverty shapes everyday educational experiences in rural primary schools.

Rural Inequality and School Infrastructure

Rural inequality is strongly reflected in the condition and availability of school infrastructure, shaping the learning environment in fundamental ways. Findings from school principals and teachers indicate that many rural primary schools operate with insufficient classrooms, overcrowded learning spaces, and deteriorating facilities. Limited access to desks, textbooks, and basic sanitation was frequently reported, directly affecting instructional delivery and student well-being. National analyses of education

financing reveal that infrastructural investment remains uneven, with rural districts receiving disproportionately fewer resources than urban areas (Mazraani, 2023). Governance-oriented studies further explain that institutional capacity constraints and weak accountability mechanisms contribute to persistent disparities in public service provision (Kaja & Werker, 2010).

The consequences of infrastructural inequality extend beyond physical conditions to influence pedagogical practices and student engagement. Teachers described relying on improvised teaching materials and shared resources, which constrained lesson variety and reduced opportunities for interactive learning. Research on school resource management in Malagasy public elementary schools similarly demonstrates that limited infrastructure restricts effective teaching and administrative efficiency (Eric et al., 2025). Comparative studies on rural education inequality emphasize that inadequate learning environments reinforce achievement gaps by limiting exposure to quality instructional inputs (Shi & Sercombe, 2020). Long-term analyses of rural–urban educational development further show that such disparities tend to persist without targeted intervention (Zhang et al., 2025).

School leaders also highlighted challenges related to maintenance, supervision, and external support, noting delays in government assistance and limited monitoring visits. These institutional gaps intensified feelings of marginalization among rural educators and contributed to uneven implementation of national education policies. Research on governance in education systems underscores the importance of effective institutional support for sustaining school quality in disadvantaged areas (Haidir & Setya, 2023). Studies focusing on education quality improvement in Madagascar indicate that infrastructure and management conditions significantly shape learning outcomes at the primary level (Eklou et al., 2025). Together, these findings illustrate how rural inequality operates structurally through school infrastructure, reinforcing educational disadvantage under conditions of poverty.

Teacher Capacity and Professional Support

Teacher capacity represents a critical dimension of primary education quality in rural Madagascar, particularly within contexts marked by poverty and inequality. Evidence from teachers and school leaders indicates that many rural educators begin their careers with limited formal preparation and insufficient exposure to continuous

professional development. These constraints are compounded by multigrade classrooms, large pupil–teacher ratios, and shortages of basic instructional materials, all of which intensify teaching demands and reduce instructional effectiveness. Empirical research on teacher training in Madagascar demonstrates that structured professional development programs generate positive returns in terms of pedagogical quality and student learning outcomes, yet such opportunities remain unevenly distributed and less accessible to rural teachers (Eklou et al., 2025). Studies on teachers’ procedural knowledge further emphasize that pedagogical competence is essential for managing diverse learning needs in low-resource primary classrooms (Niens et al., 2021). Broader international research confirms that inadequate teacher preparation disproportionately affects students in disadvantaged rural settings, reinforcing educational inequality at early stages of schooling (Shi et al., 2025).

Professional support mechanisms were reported as irregular and insufficient, contributing to professional isolation among rural teachers. Participants described limited mentoring, infrequent supervisory visits, and minimal opportunities for collaborative learning with peers. These conditions constrained reflective practice and reduced teachers’ capacity to innovate or adapt instruction to learners facing poverty-related challenges. Research on teachers’ attitudes toward change and work-related stress indicates that weak institutional support increases the risk of burnout, particularly in demanding teaching environments (Sokal et al., 2020). Studies examining pedagogical beliefs and classroom practices highlight that sustained professional guidance is crucial for aligning instructional strategies with learners’ needs (Tondeur et al., 2017). Evidence from Madagascar further suggests that disparities in professional support contribute to persistent gaps between rural and urban schools (Eklou et al., 2025).

Despite these structural constraints, teachers demonstrated adaptive practices aimed at maintaining instructional continuity and learner engagement. Educators reported modifying lesson pacing, prioritizing foundational skills, and relying on informal peer support to compensate for limited training and resources. These practices reflect patterns identified in research on teacher resilience in marginalized contexts, where professional commitment often substitutes for institutional backing (Niens et al., 2021). Studies on education quality improvement in Madagascar underscore that teacher effectiveness depends on both individual competence and systemic support structures (Eklou et al.,

2025). Broader analyses of educational inequality emphasize that strengthening teacher capacity in rural areas requires coordinated investment in training, mentoring, and working conditions to counteract the structural effects of poverty on primary education outcomes (Shi et al., 2025).

Cultural Context and Community Engagement

The cultural context within which rural primary schools operate plays a significant role in shaping educational participation and learning experiences in Madagascar. Schools are embedded in communities where local traditions, belief systems, and livelihood practices influence perceptions of formal education. Parents and community members emphasized the value of schooling while simultaneously expressing concerns about its relevance to immediate economic survival. Study on education and tradition in rural Madagascar highlights how tensions between formal curricula and local cultural norms shape parental engagement and student motivation (Bien-Aimé et al., 2025). Studies on caregiver perceptions further indicate that expectations of schooling are closely linked to community-defined notions of child development and responsibility (Chung et al., 2019). Analyses of community involvement demonstrate that cultural alignment strengthens local support for schools, particularly in resource-constrained settings (Léa et al., 2025).

Community engagement emerged as a key factor mediating the effects of poverty on primary education. Parents and local leaders often contributed labor, materials, and informal supervision to support school functioning, compensating for limited state provision. These forms of participation enhanced school stability and reinforced social accountability, though they also varied significantly across communities depending on economic capacity. Research on community involvement in Malagasy schools confirms that local participation positively influences school success when aligned with institutional goals (Léa et al., 2025). Comparative studies on rural education inequality suggest that community engagement can mitigate, though not eliminate, the effects of structural disadvantage on learning outcomes (Shi & Sercombe, 2020). Broader analyses emphasize that effective community–school partnerships require recognition of local knowledge and socio-cultural realities (Bien-Aimé et al., 2025).

Teachers reported that incorporating culturally relevant examples and local knowledge into lessons improved student engagement and comprehension. Such practices helped bridge the gap between formal curricula and students' lived experiences, fostering

a sense of relevance and belonging. Research on intercultural teaching involving Malagasy learners demonstrates that culturally responsive pedagogy enhances participation and understanding at the primary level (Augustin & Emynorane, 2024). Studies on teachers' procedural knowledge further highlight the importance of contextual sensitivity in instructional design (Niens et al., 2021). These findings suggest that cultural context and community engagement are integral to addressing educational inequality, reinforcing the need for pedagogical approaches that align schooling with local realities.

Technology, Management, and Educational Equity

Technology and school management increasingly influence discussions of educational equity in rural primary schools in Madagascar, although their practical impact remains uneven and highly context-dependent. School leaders and teachers described basic technologies, such as digital record-keeping, mobile communication, and simple data management tools, as potentially useful for improving coordination with district education offices and monitoring student attendance. These perceptions are consistent with research on technology acceptance in educational contexts, which emphasizes that perceived usefulness and contextual relevance strongly shape adoption in schools (Granić & Marangunić, 2019). Studies on teachers' pedagogical beliefs further indicate that engagement with technology is influenced not only by access but also by institutional culture and professional confidence (Tondeur et al., 2017). Evidence from public elementary schools in Madagascar suggests that technological initiatives tend to support administrative and managerial tasks more than classroom instruction, particularly in rural environments where infrastructure remains limited (Eric et al., 2025).

School management capacity plays a decisive role in determining whether technology and other resources contribute to educational equity or reinforce existing disparities. Principals reported persistent challenges related to delayed funding, restricted decision-making authority, and limited training in school leadership and administration. These constraints weakened strategic planning, facility maintenance, and teacher support, thereby reducing schools' ability to respond effectively to poverty-related challenges. Research on governance in development contexts highlights that weak institutional capacity undermines the implementation of public services, including education, in low-income settings (Kaja & Werker, 2010). National analyses of social spending in Madagascar further demonstrate that administrative inefficiencies and fiscal constraints

disproportionately affect rural schools, widening gaps between policy commitments and actual educational provision (Mazraani, 2023). Studies on education quality improvement reinforce that effective management structures are essential for translating resources and reforms into improved learning conditions at the primary level (Eklou et al., 2025).

Teachers expressed cautious optimism regarding the potential of technology to support greater equity, particularly through improved communication, access to teaching materials, and administrative efficiency. These expectations were tempered by persistent barriers, including unreliable electricity, limited internet connectivity, and insufficient training opportunities. Research on digital citizenship and inclusive education emphasizes that technology must be implemented in context-sensitive ways to avoid exacerbating inequalities among schools and learners (Tadlaoui-Brahmi et al., 2022). Studies on inclusive and distance education further suggest that technological tools can support equity only when accompanied by sustained infrastructure development and capacity building (Tesolin et al., 2018). Taken together, these findings indicate that technology and management reforms alone cannot resolve educational inequality in rural Madagascar, yet strategic investments aligned with local realities may contribute to more equitable primary education outcomes.

CONCLUSION

This study examined primary school education in Madagascar through the lens of poverty and rural inequality, revealing how structural deprivation shapes learning readiness, school conditions, teacher capacity, community engagement, and educational management. The findings demonstrate that poverty-related factors such as malnutrition, weak infrastructure, limited professional support for teachers, and uneven institutional capacity interact to constrain educational quality in rural primary schools. At the same time, the study highlights the adaptive efforts of teachers and communities who strive to sustain learning under challenging conditions, underscoring the importance of contextual responsiveness in education. Based on these insights, the study recommends integrated policy approaches that link primary education with nutrition and social protection programs, targeted investment in rural school infrastructure, sustained teacher professional development, and strengthened school leadership and management capacity. Greater recognition of community participation and culturally responsive pedagogy is also essential for enhancing educational relevance and equity. Future research should

expand the geographical scope of qualitative inquiry to include diverse rural regions, adopt longitudinal designs to assess the long-term impact of educational interventions, and explore the intersection between educational policy, local governance, and household livelihoods to deepen understanding of how rural inequality in Madagascar can be effectively addressed.

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