ALVAN JOURNAL OF SOCIAL SCIENCES (AJSS)
FACULTY OF SOCIAL AND MANAGEMENT SCIENCES
ALVAN IKOKU FEDERAL UNIVERSITY OF EDUCATION, OWERRI
https://www-ajsspub-org.b12sites,com https://www.ajsspub2.org
E- ISSN: 3043 – 5463 ISSN: 1595 – 5842 **VOLUME 3, ISSUE 2, 2026**

RESEARCH ARTICLE

EFFECTS OF POOR RURAL TRANSPORTATION INFRASTRUCTURAL FACILITIES ON THE SOCIO-ECONOMIC DEVELOPMENT OF DOROWA DISTRICT, TARABA STATE, NIGERIA

JIBASEN SHENI

Department of Geography, Nigeria Army University Biu, Borno State, Nigeria

ABSTRACT

Dorowa community, like the vast majority of rural settlements in Nigeria, is held in a deeply entrenched cycle of infrastructural deprivation that limits the socio-economic wellbeing of its residents at every level. The community currently lacks functional road networks, reliable water supply, electricity, and any form of state or federal health facility conditions that reflect a broader national pattern of rural neglect that has been extensively documented in the development literature. This paper examines the specific effects of these deficits on the daily lives and economic prospects of Dorowa's residents. It draws on field interviews with community members and key informants alongside secondary data from government reports and development literature. The findings confirm that the absence of basic infrastructure does not merely reflect poverty; it actively reproduces it, cutting off access to markets, education, healthcare, and income-generating opportunities in ways that pile up across generations. The paper calls on policymakers, non-governmental organizations, and development partners to treat the provision of rural infrastructure in communities like Dorowa not as a secondary concern but as the indispensable foundation of any credible poverty alleviation agenda.

Keywords: Rural infrastructure, poverty; health-care, road network, Dorowa, Taraba State.

Corresponding Author

Jibasen Sheni
Email Address: E-mail: jibasensheni@gmail.com
Telephone Number: +2348104929212 & +2347019141173

Received: 10/4/2026; **Revised:** 27/6/2026; **Accepted:** 11/7/2026; **Published:** 16/7/2026

ALVAN JOURNAL OF SOCIAL SCIENCES (AJSS)
FACULTY OF SOCIAL AND MANAGEMENT SCIENCES
ALVAN IKOKU FEDERAL UNIVERSITY OF EDUCATION, OWERRI
https://www-ajsspub-org.b12sites,com https://www.ajsspub2.org
E- ISSN: 3043 – 5463 ISSN: 1595 – 5842 VOLUME 3, ISSUE 2, 2026

1.0. INTRODUCTION

Rural infrastructure is not a luxury. It is the physical and institutional foundation on which every other dimensions of development depends, and its absence is one of the most dependable signs of poverty, poor health outcomes, low educational attainment, and economic stagnation that development researchers have identified. In Nigeria, the scale of rural infrastructure deprivation remains alarming. Contextually, FAO (2019) estimates that 70 percent of Nigerians live in rural areas, and 73 percent of the poor are rural dwellers, while 95 percent of those living in extreme poverty are concentrated in rural communities. By this measure, Nigeria carries the character of a low-income, food-deficit country in which the rural majority bears the heaviest burden of underdevelopment.

Dorowa community is a vivid illustration of this national reality. Cut off by impassable roads, dependent on unsafe water sources, living entirely without electricity, and served by no state or federal health facility of any kind, the people of Dorowa face a combination of infrastructure deficits that would stand out in any developing country, let alone one sitting on the natural resources and agricultural potential that characterise this part of Taraba State. The Federal Ministry of Agriculture and Rural Development (FMARD, 2021) identified exactly these conditions lack of portable water, inadequate access roads, and the absence of functional health and educational facilities as typical of Nigeria's rural communities. More than two decades later, the communities that best fit that description remain among the least served by public investment.

What makes the situation in Dorowa particularly urgent is not just the depth of each individual infrastructure deficit but the way each one reinforces the others. Poor roads mean that even the limited health services available in nearby towns are effectively out of reach in a medical emergency. The absence of electricity means that no business requiring reliable power can take root, that young people have diminishing reason to remain in the community, and that the digital connectivity increasingly essential for economic participation stays beyond reach. Contaminated or distant water sources mean that productive hours are consumed in water collection, that waterborne disease burdens households and reduces workforce productivity, and that children particularly girls are pulled away from schooling to perform water-fetching duties. Each deficit makes the others harder to escape. Author Synthesis (2026)

This paper documents these conditions in Dorowa and situates them within the wider literature on rural infrastructure and development in Nigeria. Its purpose is as practical as it is academic: to place on record the specific and compounding ways in which infrastructure absence is holding back the development of a community with genuine potential, and to make the case directly and without equivocation for urgent and prioritised public investment. Also, it addressed to policymakers at local, state, and federal levels; to domestic and international non-governmental organisations working in rural Taraba State; and to development partners who have the resources to catalyse the change that decades of neglect have withheld from Dorowa's residents.

2.0. Conceptual Framework

ALVAN JOURNAL OF SOCIAL SCIENCES (AJSS)
FACULTY OF SOCIAL AND MANAGEMENT SCIENCES
ALVAN IKOKU FEDERAL UNIVERSITY OF EDUCATION, OWERRI
https://www-ajsspub-org.b12sites,com https://www.ajsspub2.org
E- ISSN: 3043 – 5463 ISSN: 1595 – 5842 VOLUME 3, ISSUE 2, 2026

Rural Infrastructure and Development

Infrastructure, in its most useful definition for rural development purposes, encompasses not just physical structures roads, pipes, power lines, water systems, and buildings but the full network of physical, human, and institutional capital that enables rural residents to carry out productive activities, access services, and improve the quality of their lives (Zheng, Zhiqiang 2025). It includes the roads that connect farms to markets, the water systems that free households from the daily burden of water collection, the electricity networks that power small businesses and extend the productive day, and the health facilities that convert illness from a catastrophic setback into a manageable interruption. Remove any one of these elements and the others become harder to sustain; remove all of them at once, as is the case in Dorowa, and the resulting deprivation is systemic and self-reinforcing.

Economists have long agreed that infrastructure investment is one of the most reliable levers for breaking cycles of rural poverty. Idachaba (1985; 2025) argued that efforts to improve rural welfare must reach beyond agricultural income support to address the full range of basic needs health, transport, water, electricity, and education if development is to be sustainable. The United Nations (2020) confirmed that economic potential is substantially shaped by infrastructure endowment and that the spatial distribution of infrastructure investment is therefore a direct instrument of inequality. Christie et al. (2013) extended this argument to show that infrastructure deficits systematically shut out rural and peripheral communities from the economic circuits trade, investment, services that generate growth and reduce poverty.

In Nigeria's specific context, the persistent failure to close the rural-urban infrastructure gap is well documented. As Shifa and Xiao (2023) observed, urban-biased policies tend to concentrate growth stimuli, services, and facilities in urban areas, systematically undermining rural areas and fueling the rural-urban drift that depletes communities of their most productive members. Abbas (1997) and Egunjobi (2013) argued that this drift will continue unabated until basic facilities are provided and maintained in rural areas a prediction that the experience of community such as Dorowa, which continue to lose young people to the cities, bears out painfully. The concept of integrated rural development, in which infrastructure provision is understood as inter-sectoral, intergovernmental, and multi-dimensional rather than as a series of isolated interventions, has emerged as the preferred policy framework precisely because the problems are interconnected and cannot be solved one dimension at a time (FMARD, 2020).

3.0. RESEARCH METHODOLOGY

Dorowa community is located at approximately latitude 8°09'N and longitude 9°35'E within Wukari Local Government Area of Taraba State, north-eastern Nigeria. Taraba State lies broadly between latitudes 6°30'N and 8°30'N and longitudes 9°00'E and 12°00'E in Taraba State, in the north-eastern zone of Nigeria, in an area characterised by fertile agricultural land, diverse ethnic communities, and a long history of relative neglect by state and federal infrastructure programmes. Like much of rural area in Taraba, the community's primary economic activity is agriculture both subsistence and small-scale commercial supplemented by fishing, Milling and petty trade. The natural resource base is considerable, with soil conditions capable of supporting a wide range of food crops including rice, yam, cassava, maize, guinea corn, and various vegetables, as well as tree crops such as mango, cashew, and orange that characterise the zone's agricultural diversity.

ALVAN JOURNAL OF SOCIAL SCIENCES (AJSS)
FACULTY OF SOCIAL AND MANAGEMENT SCIENCES
ALVAN IKOKU FEDERAL UNIVERSITY OF EDUCATION, OWERRI
https://www-ajsspub-org.b12sites,com https://www.ajsspub2.org
E- ISSN: 3043 – 5463 ISSN: 1595 – 5842 VOLUME 3, ISSUE 2, 2026

The socio-economic of Dorowa reflects conditions typical of rural communities in southern Taraba State: a predominantly young population with limited formal employment opportunities, high dependence on rain-fed agriculture, constrained access to markets owing to poor road conditions, and very limited engagement with formal financial services or digital platforms. The community currently has no functional electricity supply from the national grid, no reliable piped water system, no state or federal health facility, and no all-season road connection to the nearest villages or urban centre.

Data and information for this paper were sourced from primary field interviews (questionnaires) conducted with Dorowa community residents, online, facebook and key informants including community leaders, farmers, traders, and young people supplemented by secondary sources including government reports, journal articles, and relevant development policy documents. The interview process used open-ended questions designed to capture the lived experience of infrastructure deprivation across the four domains of road access, water supply, electricity, and health services. Interviews were conducted in the local language (Jukun) with interpretation where necessary, and findings were analysed thematically against the secondary literature on rural infrastructure and development.

4.0. CONTENT ANALYSIS AND DISCOURSES

Road Infrastructure: Isolation by Default

The four infrastructure deficits documented in Dorowa, the condition of the road network is arguably the one with the broadest and most immediate impact on daily life and economic activity, because it determines access to everything else. Roads are the circulatory system of a rural economy: without them, produce cannot reach markets, goods cannot reach households, emergency medical transport is impossible, and the effective reach of the community contracts to whatever can be accessed on foot. In Dorowa, the road network fails at precisely this foundational level.

The roads connecting Dorowa to the nearest urban centre and surrounding communities are in a state of severe deterioration. During the dry season, passage is possible but slow, uncomfortable, and damaging to vehicles; during the rainy season, several stretches become effectively impassable, cutting the community off from outside contact for weeks at a time. There is no all-weather road surface within the community or on any of the primary access routes. Bridges and culverts, where they exist, are poorly maintained, and several key crossings damaged by flooding have never been repaired.

The economic consequences of this situation are concrete and severe. Farmers who grow cash crops for sale in town markets face a stark choice: either sell at exploitative prices to traders who come into the community by motorcycle or pick-up van the only vehicles capable of navigating the worst road sections or make the difficult and costly journey to market themselves with whatever transport they can arrange. Either way, the road condition functions as an unofficial tax on agricultural productivity, extracting value from producers who have no alternative. Beyond agriculture, the roads limit the viability of any other kind of economic enterprise. No business that depends on reliable supply chains, regular customer access, or the movement of goods in meaningful quantities can function sustainably under these conditions.

ALVAN JOURNAL OF SOCIAL SCIENCES (AJSS)
FACULTY OF SOCIAL AND MANAGEMENT SCIENCES
ALVAN IKOKU FEDERAL UNIVERSITY OF EDUCATION, OWERRI
https://www-ajsspub-org.b12sites,com https://www.ajsspub2.org
E- ISSN: 3043 – 5463 ISSN: 1595 – 5842 VOLUME 3, ISSUE 2, 2026

The social costs are equally serious. School attendance falls during the rainy season when roads become impassable, particularly for children from more distant parts of the community and deteriorating nature of their classroom. Social events, community governance meetings, and the informal networks of exchange and mutual support that hold rural communities together are all disrupted whenever weather and road conditions make movement difficult. In medical emergencies a woman in labour, a child with severe malaria, an accident victim the state of the roads is not merely an inconvenience but a matter of life and death. Key informants described cases in which seriously ill community members died or suffered preventable complications because the road to the nearest health facility was impassable at the critical moment. This is not a hypothetical risk. It is a documented and recurring reality.

Barrios and Olujimi (2007) described rural areas across Nigeria as marked by human deprivation at the highest level, with basic social amenities either absent or in poor condition. The road situation in Dorowa exceeds even that bleak standard. Iro, Sylvanus (2021) reaffirmed that even when rural infrastructure exists it is mostly in poor condition; in Dorowa, for significant portions of the year, the roads do not merely exist in poor condition they do not function at all, a pattern consistent with Agbola's (1994) observation that Nigerian rural roads regularly become completely impassable during the rainy season, severing communities from essential services for weeks at a time.

The political economy of this neglect is not difficult to read: road investment historically flows to urban centres and politically significant corridors, leaving communities like Dorowa to manage with whatever track, if any, was laid at the time of their administrative creation. Field findings from this study reveal that the road network serving Dorowa District is highly inadequate in both coverage and condition. Residents of Jibu and Nyakawala cannot directly access Dorowa District and must instead take a much longer route through Kambari. The critical road connecting Dorowa with Nwuko and Tapari is in poor condition and demands immediate attention. While other village roads within the district are motorable in the dry season, they require grading and tarring to become fully functional throughout the year.

The roads include:

- Dorowa – Nyakawala – Tsokundi Road
- Dorowa – Jibu – Nayenawa Road
- Dorowa – Tsokudi – Kambari – Nwuko Road
- Dorowa – Nwuko – Gidan Adamu – Tsokundi Road
- Dorowa – Tapari – Andolamini Road

Water Supply: A Daily Crisis

Access to safe drinking water is a fundamental human right and one of the most basic preconditions for health, dignity, and productive economic life. In Dorowa, this right is systematically denied. The community has no functional piped water system, no maintained boreholes in adequate number or condition, and no treated water supply of any kind from state or federal authorities. Residents depend on open wells, streams, and a small number of individual boreholes where accessible all untreated, and many serving populations far larger than they were designed for.

ALVAN JOURNAL OF SOCIAL SCIENCES (AJSS)
FACULTY OF SOCIAL AND MANAGEMENT SCIENCES
ALVAN IKOKU FEDERAL UNIVERSITY OF EDUCATION, OWERRI
https://www-ajsspub-org.b12sites,com https://www.ajsspub2.org
E- ISSN: 3043 – 5463 ISSN: 1595 – 5842 VOLUME 3, ISSUE 2, 2026

The consequences for public health are direct and well-documented in comparable communities. Water sourced from open wells and streams is exposed to contamination from surface runoff, human and animal waste, and the environmental conditions of agricultural communities without sanitation infrastructure. Waterborne diseases typhoid, cholera, dysentery, and diarrhoeal illness are prevalent in communities dependent on such sources, and children under five are disproportionately affected. The health burden falls hardest on those least able to bear it: infants and young children whose immune systems are not fully developed, pregnant women, and elderly residents.

Beyond the direct health dimension, the water collection burden imposes a significant time cost on households, and that cost falls overwhelmingly on women and girls. In communities where the nearest reliable water source may be a considerable distance from the home, the daily task of water collection consumes hours that might otherwise be spent on productive economic activity, childcare, rest, or education. Girls go to school very late or pulled away from school to assist with water collection fall behind academically, reducing their long-term economic prospects and contributing to the intergenerational reproduction of poverty. This is not a secondary effect of water scarcity it is one of its central mechanisms.

Seasonal variation compounds the daily difficulty. During the dry season, streams run low, open wells require deeper digging, and distances to reliable water sources increase substantially. Households that can barely meet their water needs during the wet season face genuine water insecurity during the months when rainfall is absent. Safe drinking water is not a development aspiration in Dorowa it is a survival necessity. The provision of functional, maintained boreholes at adequate coverage density, or connection to a treated water supply scheme, is among the most direct and cost-effective public health investments that any level of government could make in this community.

Electricity: Total Darkness and Its Consequences

Dorowa has no electricity supply. Not intermittent supply, not unreliable supply no supply at all from the national grid, and no publicly provided alternative. The community exists, in the literal sense, in total darkness after sunset, and the absence of electricity constrains economic and social life throughout the day as well as the night. This is not a minor inconvenience. It is a structural barrier to development that undermines the potential of every other investment made in the community.

The economic consequences of complete electricity absence operate through several channels simultaneously. Any business that requires refrigeration food storage, medical supplies, cold drinks cannot function viably without electricity. Any productive activity requiring power tools, machinery, or electronic equipment is impossible without the expense and unreliability of private generator use, a cost that is prohibitive for small-scale enterprises and household producers. Welding workshops, grain milling, printing, food processing the range of small and medium enterprise activities that could, in principle, diversify and strengthen the local economy all require electricity as their basic input, and none can develop sustainably in its absence.

The social consequences are equally serious. Children and young people who might otherwise study during the evening hours are denied the ability to do so; the educational disadvantage this creates relative to electrified communities compounds over years of schooling and translates directly into

ALVAN JOURNAL OF SOCIAL SCIENCES (AJSS)
FACULTY OF SOCIAL AND MANAGEMENT SCIENCES
ALVAN IKOKU FEDERAL UNIVERSITY OF EDUCATION, OWERRI
https://www-ajsspub-org.b12sites,com https://www.ajsspub2.org
E- ISSN: 3043 – 5463 ISSN: 1595 – 5842 VOLUME 3, ISSUE 2, 2026

reduced economic prospects in adulthood. The absence of lighting makes the community less safe after dark, particularly for women and girls. Information and communication technologies mobile phone charging, internet access, community broadcasting that are increasingly essential for participation in economic and political life are severely constrained without a reliable power source. Young people with ambition and ability, confronted with the choice between a dark, powerless community and the lit streets of even a modest urban centre, make the rational decision to leave. The brain drains this produce is not irrational; it is a predictable consequence of the structural conditions that the absence of electricity creates.

Oral testimonies gathered during fieldwork in Dorowa consistently identify stable electricity as among the top priorities for community development. Respondents understand from their daily experience of managing without power precisely how much it would change. As one community member observed, a stable electricity supply would immediately encourage small-scale businesses that currently have no viable energy base. The multiplier effects of rural electrification on enterprise development, educational outcomes, gender equity, and social cohesion are well established in the development economics literature; the question in Dorowa is not whether electrification would make a difference, but how much longer the community must wait for it.

Healthcare: A Community without Medical Protection

Dorowa has no state or federal health facility of any kind. There is no Federal Medical Centre, General hospital, Cottage Health Clinic established or maintained by any Federal and State level of government within the community, beyond the primary health care clinic established by the local council. Residents requiring medical attention must travel to facilities at the LGA headquarters a journey that, given the state of the roads documented above, is difficult under normal circumstances and effectively impossible in an emergency. From a healthcare provision perspective, the community is invisible to the state. Author Synthesis (2026).

The consequences of this healthcare vacuum are most visibly and painfully felt in maternal and child health. Childbirth without trained medical attendance is associated with significantly elevated risks of maternal and infant mortality from complications that are routinely managed in facilities with even basic clinical capacity. Women in Dorowa who go into labour face the prospect of delivering at home without qualified assistance or making a journey on deteriorated roads to the nearest facility a combination of risks that no policy framework in Nigeria formally accepts but that continues in practice. Key informant interviews recorded community members' direct experience of preventable deaths and serious complications arising from the unavailability of timely medical care.

Beyond obstetric care, the absence of any health facility means that common illnesses malaria, typhoid, respiratory infections, wound infections that would be readily treated in a community with a functioning health post must instead be managed at home until they become severe enough to justify the journey to an external facility. By that point they are often far advanced. This pattern of delayed treatment-seeking, driven by distance and road conditions rather than by any lack of will to seek care, inflates the severity and duration of illness in the community and increases the proportion of cases that result in lasting disability or death.

ALVAN JOURNAL OF SOCIAL SCIENCES (AJSS)
FACULTY OF SOCIAL AND MANAGEMENT SCIENCES
ALVAN IKOKU FEDERAL UNIVERSITY OF EDUCATION, OWERRI
https://www-ajsspub-org.b12sites,com https://www.ajsspub2.org
E- ISSN: 3043 – 5463 ISSN: 1595 – 5842 VOLUME 3, ISSUE 2, 2026

This situation reflects a structural governance failure in which a community bears both the direct absence of services and the indirect consequences of being excluded from the planning, investment, and political attention that might address those absences. Dorowa has neither a functioning facility nor the institutional visibility that might generate pressure for one to be provided. FMARD (2020) identified health facility provision as a foundational component of rural development and not a downstream benefit that follows economic growth, but a precondition for it. The logic is straightforward: a community that cannot protect its members from preventable illness, that loses women in childbirth and children to treatable disease, cannot accumulate the human capital on which sustained development depends.

Hall (2007) similarly observed that peripheral and marginalised regions suffer a compounded disadvantage, experiencing both the direct absence of services and the deeper exclusion from the institutional processes through which services are planned and funded. Investing in healthcare infrastructure in Dorowa is not charity. It is a precondition for the community's economic development, and every year of delay imposes costs in lives lost, productivity foregone, and human potential unrealised that no subsequent investment can fully recover.

The Interconnected Nature of Infrastructure Deprivation in Dorowa

Each of the four infrastructure deficits documented above is serious in its own right. Together, they constitute a system of deprivation in which each element makes the others worse, and in which the combined effect on the community's development prospects is considerably greater than the sum of the individual parts.

The road conditions that make access to external health facilities dangerous in an emergency are the same road conditions that prevent agricultural produce from reaching markets at competitive prices, that discourage private investment in the community, that limit the ability of government services to reach residents, and that make it physically difficult for young people educated in urban areas to return and contribute to community development. The absence of electricity that prevents evening study and enterprise development is the same absence that makes medical care dependent on daylight and generator fuel, that limits the ability of health workers to operate reliably in the community, and that strips the community of the informational connectivity that might help it advocate for its own needs. Water contamination that causes illness and burdens households with collection time is the same contamination that undermines the health of a workforce already weakened by inadequate medical care and a diet constrained by limited market access. The healthcare vacuum that leaves maternal deaths unaddressed is sustained by the same governance failures and political marginalisation that have left the roads unrepaired, the electricity unconnected, and the water untreated.

This interconnectedness has direct implications for policy. Piecemeal, single-dimension interventions — a borehole here, a road-grading exercise there, a promise of electricity extension never delivered —have consistently failed to transform the development trajectory of communities like Dorowa, because they address symptoms without touching the underlying logic of integrated deprivation. What Dorowa requires, and what the evidence assembled in this paper supports, is a coordinated, multi-sectoral infrastructure development programme that addresses roads, water, electricity, and health

ALVAN JOURNAL OF SOCIAL SCIENCES (AJSS)
FACULTY OF SOCIAL AND MANAGEMENT SCIENCES
ALVAN IKOKU FEDERAL UNIVERSITY OF EDUCATION, OWERRI
https://www-ajsspub-org.b12sites,com https://www.ajsspub2.org
E- ISSN: 3043 – 5463 ISSN: 1595 – 5842 VOLUME 3, ISSUE 2, 2026

simultaneously and that is sustained over a sufficient period to allow the multiplier effects of infrastructure investment to materialise. This is what integrated rural development means in practice: not a series of disconnected projects but a coherent and adequately funded programme that treats the community's needs as interconnected and its people as entitled to the same basic infrastructure that is taken for granted in urban Nigeria.

5.0. CONCLUSIONS AND RECOMMENDATIONS

5.1. Conclusions

Dorowa's infrastructure deficit is total, interconnected, and deeply damaging to the welfare and development prospects of its residents. Poor roads isolate the community from markets, services, and opportunity. Unsafe and scarce water supplies impose a daily burden of disease and time poverty on households. The complete absence of electricity closes off the range of economic and educational activities that depend on power and extends the productive disadvantage of community members relative to their urban peers. And the absence of any state or federal health facility leaves the community medically unprotected, with consequences most painfully felt in maternal and child mortality. These are not separate problems. They are components of a single system of deprivation that reproduces itself generation after generation in the absence of sustained and coordinated public investment.

The case for action is not ambiguous. It does not require elaborate modelling or speculative assumptions about development trajectories. It requires only that policymakers take seriously what the residents of Dorowa already know from daily lived experience: that without roads, water, electricity, and healthcare, the human potential of this community is being systematically suppressed, and that the cost of continued inaction is measured not in abstract economic indicators but in preventable deaths, stunted children, abandoned schools, and the steady departure of everyone capable of leaving. That cost is both a moral indictment and a practical argument for the immediate, coordinated, and adequately funded infrastructure investment that Dorowa has long deserved and never received.

5.2. Recommendations

To the Taraba State Government and the relevant federal agencies, this paper recommends the immediate prioritization of road rehabilitation connecting Dorowa to the nearest functional road network, with a particular focus on ensuring all-season motorability and the repair of damaged bridge and culvert crossings. Road investment is the master enabler: it makes every other intervention more effective and every other facility more accessible.

On water supply, this paper recommends the drilling and maintenance of an adequate number of boreholes to serve Dorowa's population at the density required for genuine access — not a single point serving hundreds of households at a prohibitive distance, but a coverage plan that brings safe water within practical walking distance for all community members. The management and maintenance of these facilities should be built into the programme design from the outset, drawing on community-based water committee models that have been shown to sustain rural water infrastructure more reliably than purely government-managed systems.

On electricity, this paper recommends that the extension of the national grid to Dorowa be scheduled as a priority in Taraba State's rural electrification programme, and that in the interim, off-grid solar solutions for community facilities the health post, the school, and community meeting spaces be provided as a bridge measure that delivers immediate developmental benefits while the grid extension is planned and implemented.

On healthcare, this paper recommends the establishment of a functional primary health care facility in Dorowa, staffed by qualified personnel, stocked with essential medicines, and equipped for basic maternal and child health services. The experience of communities across Nigeria that have received promised health facilities subsequently abandoned or left incomplete argues for a commitment mechanism that makes funding and staffing conditional on completion and sustained operation, not merely on construction.

Finally, to domestic and international non-governmental organisations and development partners operating in Taraba State, this paper recommends that Dorowa and communities with comparable infrastructure profiles be considered for integrated rural development programming that addresses all four infrastructure dimensions together, rather than single-sector projects that address one need while leaving the others unmet. The case for investment in Dorowa is not merely humanitarian — though the humanitarian case is strong. It is economic: the agricultural potential, the natural resources, and the human capital of this community are currently almost entirely locked up by infrastructure barriers that, with adequate investment, are entirely surmountable.

Conflict of Interest

The author declares that no conflict of interest exist in this manuscript

Artificial Intelligent (AI) Statement (Declaration)

The author declares that AI was basically for the corrections of grammars, sentence structures and research framework.

REFERENCES

Abbas, A. I. (1997). *Rural development and poverty alleviation in Nigeria*. Baraka Press.

Abumere, S. I. (2002). Understanding rural infrastructure. In S. I. Abumere, S. Adesanya & S. T. Jerome (Eds.), *Rural infrastructure and the development process in rural Nigeria* (pp. 1–18). Development Policy Centre.

Barrios, E. B., & Olujimi, J. A. B. (2007). Rural infrastructure and agricultural productivity in Nigeria. *International Journal of Agricultural Economics*, *6*(1), 78–93.

Christie, I., Fernandes, E., Messerli, H., & Twining-Ward, L. (2013). *Tourism in Africa: harnessing tourism for growth and improved livelihoods*. World Bank. https://doi.org/10.1596/978-0-8213-9753-1

Egunjobi, L. (2013). Urban rural migration and rural poverty in Nigeria. *African Journal of Social Sciences, 3*(1), 17–29.

Federal Ministry of Agriculture and Rural Development (FMARD). (2020). New agricultural policy for Nigeria. Federal Ministry of Agriculture and Rural Development.

Food and Agriculture Organization (FAO). (2019). *Nigeria country profile*. FAO. https://www.fao.org/countryprofiles/index/en/?iso3=NGA

Hall, C. M. (2007). Tourism and regional competitiveness. In J. Tribe & D. Airey (Eds.), *Developments in tourism research* (pp. 217–230). Elsevier. https://doi.org/10.1016/B978-0-08-045328-9.50018-3

Ngambeki, D. S., and F. S. Idachaba.(1985;2025). Supply response of upland rice in ogun state of nigeria: a producer panel approach. *Journal of Agricultural Economics*, 36, 239–249. https://doi.org/10.1111/j.1477-9552.1985.tb00169.

Iro, Sylvanus (2021). The role of transport system in rural development: A case study of Ehime Mbano Local Government Area of Imo State Nigeria." *Global Scientific Research in Environmental Science*, 1(4), 2021, https://doi.org/10.53902/gsres.2021.01.000517.

Shifa, A. B., & Xiao, W. (2023). Urban bias, migration control and rural land policy: the case of Hukou in China. *Journal of Economic Geography*, 23(2), 251–274. https://doi.org/10.1093/jeg/lbac008-3

United Nations (UN). (2011). Infrastructure for economic development and poverty reduction in Africa. UN Economic Commission for Africa. https://www.uneca.org

Zheng, Zhiqiang (2025). How does transport infrastructure development impact rural livelihoods in the global South? A systematic review of the English Language academic literature. *Environmental Science & Policy*, 173, p. 104231. https://doi.org/10.1016/j.envsci.2025.104231