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UNIVERSITY OF BUSINESS AND INTEGRATED DEVELOPMENT STUDIES

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Edited by:
Professor Frederick Dayour
(Director of Research)

PREFACE

From the Vice-Chancellor



It is my privilege to present this collection of Policy Briefs from the UBIDS Annual Research and Development Conference. The University of Business and Integrated Development Studies was founded to advance development-oriented scholarship in northern Ghana and to place knowledge at the service of society. This volume is a clear expression of that mandate.

Research earns its full value when it reaches the people who shape policy and practice. Each brief in this collection states a problem plainly, sets out the evidence, and offers recommendations that ministries, assemblies, traditional authorities, development partners, and community organisations can act on. The topics span health, agriculture, tourism, gender, procurement, spatial planning, and digital finance, and together they reflect the breadth and ambition of the work underway across our university.

I commend the authors for their rigour and for their willingness to speak directly to policy. I also thank the conference organisers and reviewers whose efforts made this collection possible. To policymakers and partners, I offer a simple invitation. Read these briefs, engage our researchers, and put the evidence to work in the service of inclusive and lasting development for the Upper West Region and for Ghana as a whole.

Professor Emmanuel Kanchebe Derbile
Vice-Chancellor

EDITORIAL NOTE

This collection brings together **twenty-two (22)** policy briefs distilled from research papers presented at the UBIDS Annual Research and Development Conference. Each policy brief compresses a larger body of research into a short, decision-ready statement: what the problem is, what the evidence shows, and what should be done about it. The aim is not to summarise scholarship for its own sake, but to place it within reach of the ministries, assemblies, traditional authorities, development partners, and community organisations that must act on it.

The collection is organised thematically rather than by discipline, spanning health systems, agriculture and food security, tourism, gender and traditional authority, procurement and governance, spatial planning, and digital finance.

I thank the authors for their discipline in writing to a demanding format, the reviewers for their careful reading, and the conference organising committee for the work that made this volume possible. Readers are warmly invited to engage the authors directly on the evidence presented here.

Professor Frederick Dayour
Editor

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Women processing organic shea, Wechiau

COMMUNITY-BASED ECOTOURISM FOR WOMEN'S CLIMATE RESILIENCE IN SEMI-ARID GHANA



Organic groundnuts packed for the EU market

KEY MESSAGES

- Recognise community-based ecotourism as a climate-adaptation tool for rural women, not only a conservation or tourism product.
- Secure women's access to credit, land, and export markets.
- Protect the women-led governance of these projects, since it drives the social and environmental benefits.
- Ecotourism-induced climate-resilience is multidimensional: social, economic, ecological and governance facets.

Northern Ghana sits in the West African semi-arid zone, where the past thirty years have brought roughly a degree of warming and about a quarter less rainfall, and the rainy season now starts months late (Dayour, Kimbu & Afenyo-Agbe, 2025). These shifts hit women hardest, who depend on rainfed farming, own little land, and are often left out of decisions. Ecotourism is widely promoted as an alternative livelihood that also conserves the environment. But how does community-based ecotourism help women withstand climate stress, and does their coping conserve the environment too?

THE PROBLEM

Ecotourism is often named as a climate-adaptation option for vulnerable communities, yet there is little evidence on how women use it to cope with climate stress, or whether their coping also supports conservation and mitigation. The mechanisms, and the gender dimensions in particular, remain poorly understood in the tourism literature. This study set out to close that gap by examining how women around a community-based ecotourism site diversify their livelihoods, build resilience, and help mitigate climate change.

APPROACH

The study was carried out around the Wechiau Community Hippopotamus Sanctuary in the Wa West District of the Upper West Region, a community-based ecotourism site on a forty-kilometre stretch of the Black Volta River. Using a qualitative design framed by the Transactional Theory of Stress and a gender lens, the

researchers held twenty-five in-depth interviews with women, three interviews with sanctuary staff, and four focus group discussions across four communities during the 2022 rainy season (Dayour, Kimbu & Afenyo-Agbe, 2025).

RESULTS

- Women diversified into direct tourism work at the sanctuary, as rangers, tour guides, receptionists, food vendors, entertainers, and souvenir sculptors.
- They also took up project-seeded ventures: organic shea butter processing and groundnut farming for the EU market, dry-season irrigation, and beekeeping, backed by small loans.
- Organic shea nuts sold at about GHS180 a bag against GHS150 for conventional, and buyer standards ruled out pesticides and burning.
- Women reported resilience on four fronts: ecological, economic, social, and governance.
- The project mitigates climate change through zoning and bylaws that bar tree felling, bush burning, charcoal, and agrochemicals.
- The extra income shifted relationships at home, giving women more respect and a stronger say in decisions.

"Women can withstand climate change's stressors"

— WCHS management staff



Women running the organic shea facility

CONCLUSIONS

- Community-based ecotourism gives women both direct and indirect ways to diversify income and reduce their exposure to climate stress.
- The same activities build resilience across ecological, economic, social, and governance dimensions.
- Zoning and bylaws tied to the project curb harmful practices and help mitigate climate change.
- The gains support the Sustainable Development Goals on poverty, gender equality, decent work, and climate action.

CALL-TO-ACTION

- The Ministry of Tourism, Culture and Creative Arts and the Ministry of Environment should recognise community-based ecotourism as a climate-adaptation strategy for rural women and resource it as a matter of policy.
- Local governments, NGOs, and traditional authorities should back projects like the Wechiau sanctuary with capacity training, infrastructure, and reliable market linkages for organic shea and groundnut producers.
- District assemblies should monitor these projects to ensure women's leadership and the benefits reaching households are protected.
- Donors and research partners should help scale what works to other sanctuaries and semi-arid districts.

REFERENCES

1. Dayour, F., Kimbu, A. N., & Afenyo-Agbe, E. A. (2025). "Women can withstand climate change's stressors": The role of community-based ecotourism for climate resilience and mitigation in semi-arid Ghana. *Tourism Planning & Development.* https://doi.org/10.1080/21568316.2025.2507615
2. Bonye, S. Z., Yiridomoh, G. Y., & Dayour, F. (2022). Do ecotourism sites enhance rural development in Ghana? Evidence from the Wechiau Community Hippo Sanctuary. *Journal of Ecotourism, 21*(2), 121-146.

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INTEGRITY ASSESSMENT OF THE PUBLIC PROCUREMENT ACT AS A REGULATORY POLICY AGAINST CORRUPTION IN GHANA

KEY INSIGHTS



INTRODUCTION

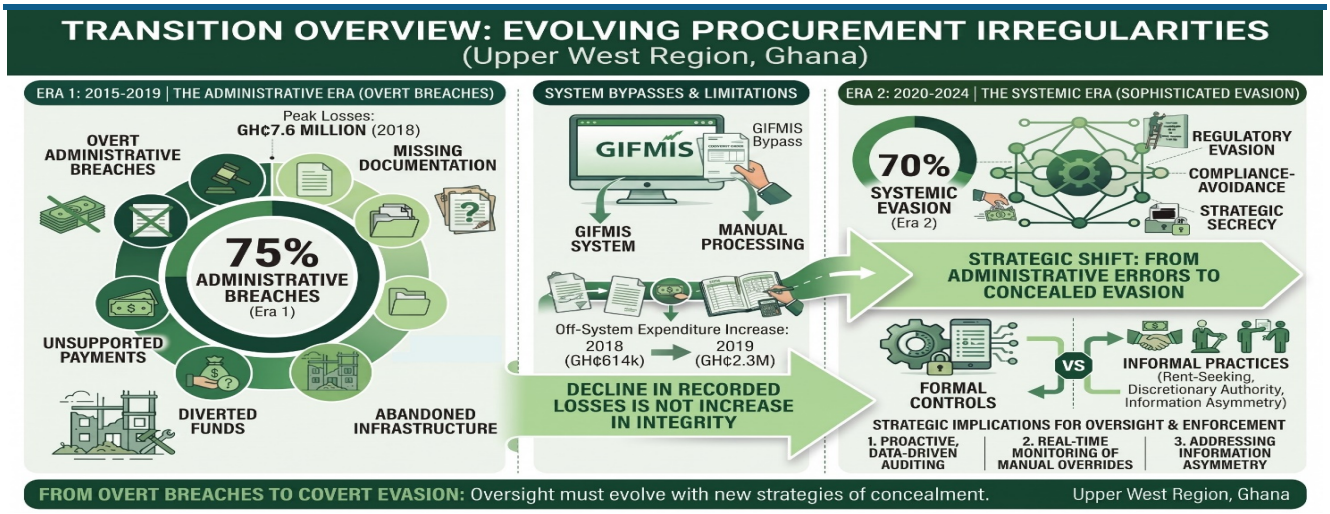
Globally, public procurement is a critical anti-corruption frontier, accounting for approximately 12–30% of national GDP (Asare et al., 2024). Corruption and illicit financial flows cost the global economy about US$3.6 trillion annually, while Africa loses approximately US$88.6 billion, equivalent to 3.7% of its GDP (Commonwealth Secretariat, 2023). Corruption alone accounts for an estimated US$2.6 trillion annually, or 5% of global GDP (GACC, 2025). Although procurement regulations and audit systems provide important safeguards, their effectiveness depends on implementation and enforcement (Mensah & Kanda, 2022). In response, Ghana enacted the Public Procurement Act, 2003 (Act 663), to standardise procedures, limit discretion, and promote competitive tendering, followed by an amendment Act, 2016 (Act 914), which strengthened procurement controls (Asare et al., 2024; Dzreke & Dzreke, 2025). Persistent corruption concerns, however, raise questions about the effectiveness of these regulatory reforms.

THE PROBLEM

Despite the enactment of Ghana's Public Procurement Act, as amended by Act 914, procurement corruption persists. Ghana reportedly loses GH¢2.36 billion through procurement breaches (Ministry of Finance, 2025) and 335.27 million through procurement irregularities (Auditor-General, 2024). Information asymmetry, weak oversight, and patronage networks enable opportunistic behaviour and undermine procurement rules. Although digital reforms such as GhEPS have improved transparency, implementation gaps continue to enable rent-seeking (Dzreke & Dzreke, 2025). Existing research largely emphasises procedural compliance and capacity constraints, but the question remains: why the persistent procurement corruption despite the robust legal regime?

METHODOLOGY

The study covered 11 administrative districts in Ghana's Upper West Region using audit reports from 2015–2024. It employed documentary and content analysis of statutory audit reports, which are considered reliable due to standardised procedures, while ensuring confidentiality by relying solely on publicly disclosed official data.



KEY FINDINGS

- → Procurement irregularities in the Upper West Region escalated sharply, peaking at over GH¢7.6 million in 2018, before declining substantially from 2020 and reaching a recorded zero in 2022.
- → The decline in recorded financial losses does not indicate improved institutional integrity but a shift from overt administrative breaches to more sophisticated forms of regulatory evasion.
- → Procurement infractions were dominated by unsupported payments, diverted funds, missing documentation, and abandoned infrastructure projects.
- → GIFMIS implementation did not eliminate irregularities, as off-system expenditure increased from GH¢614,821.30 in 2018 to GH¢2.3 million in 2019.
- → Procurement infractions shifted from 75% administrative breaches (2015–2019) to 70% systemic evasion (2020–2024), indicating evolving compliance avoidance.
- → Formal regulations and digital controls remain constrained by discretion, information asymmetry, rent-seeking, and ineffective enforcement.

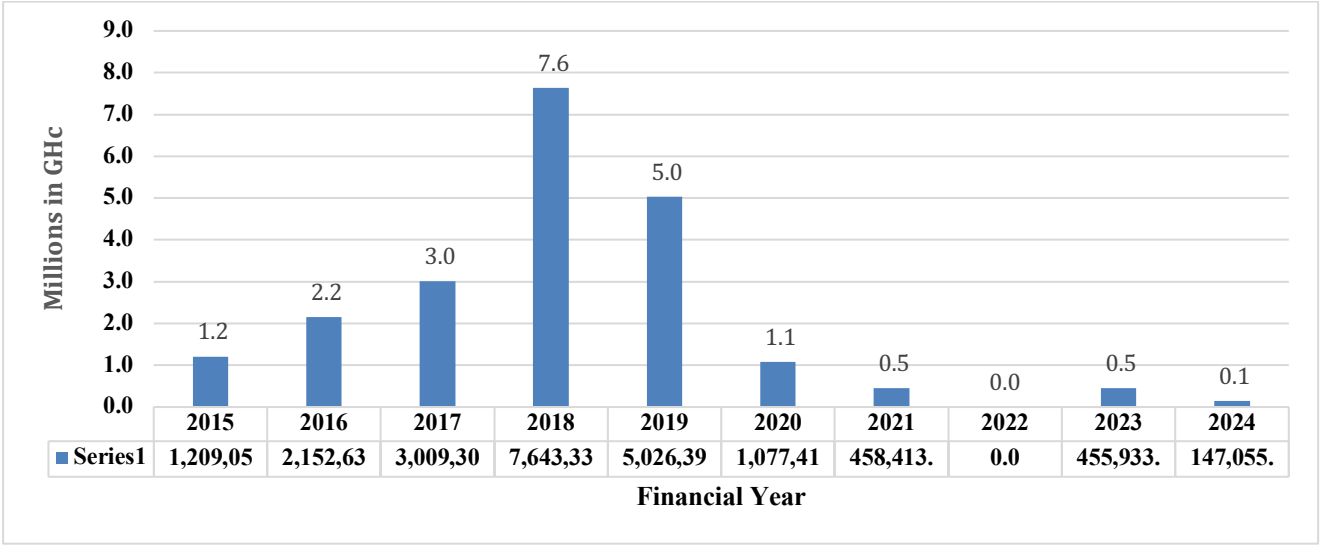


Figure 1: Trends in Recorded Financial Impact of Procurement Irregularities in the UWR, 2015–2024
Source: Ghana Audit Service (2015–2024) Reports on the Accounts of District Assemblies

CONCLUSIONS

- ✓ Procurement corruption persists despite strengthened legal and digital controls, indicating that regulatory frameworks alone are insufficient to ensure compliance.
- ✓ Corruption tactics have evolved, shifting from overt administrative breaches to sophisticated systemic evasion, including bypassing GIFMIS and exploiting discretionary authority.
- ✓ Effective enforcement requires institutional reform that addresses informal practices, weak oversight, information asymmetry, and rent-seeking alongside stiffer punitive sanctions.

CALL-TO-ACTION

- ✓ Integrity control system: Integrate procurement and financial platforms to detect off-system transactions, conflicts of interest, irregular tender patterns, and unregistered suppliers in real time.
- ✓ Performance-linked payments: Require documented confirmation of contract milestones and outputs, supported by geo-tagged evidence and community verification, before releasing payments.
- ✓ Regional accountability platforms: Involve Assemblies, the Public Procurement Authority, Audit Service, civil society, and citizens in publicly tracking high-value contracts, implementation progress, payments, and audit findings, with mandatory follow-up on irregularities.

REFERENCES

Dzreke, S. S., & Dzreke, S. E. (2025). Evaluating the impact of public procurement reforms...World Journal of Advanced Engineering Technology and Sciences, 16(2), 181–201.

Ghana Audit Service. (2021–2025). Reports of the Auditor-General on the Accounts of District Assemblies (2020–2024). Accra: Ghana Audit Service.

Public Procurement Act, 2003 (Act 663) & Amendment Act, 2016 (Act 914). Acts of the Parliament of the Republic of Ghana.

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FROM CONTESTED IDENTITY TO LEGITIMATE TRADITIONAL AUTHORITY: BUILDING A CULTURALLY GROUNDED *POGNAA* INSTITUTION IN NORTHWESTERN GHANA

She is called a chief. She attends meetings, mobilises women, supports community development, and contributes to decision-making (Sabogu et al., 2025, 2026). Yet the question remains: does the *pognaa* represent a substantive power position or just a symbolic recognition?

Across many patrilineal societies of northwestern Ghana, the position of *pognaa* (woman chief) is increasingly gaining visibility within the historically male-dominated traditional governance structures. This shift is a reflection of sustained civil society advocacy and deliberate government policy aimed at expanding women's participation in governance (Atuoye & Odame, 2013). However, this increasing visibility of the *pognaa* appears to have moved faster than the development of the customary rules and institutional transformation needed to govern the position. Her identity, position, and authority within the existing power structures remain contested. Evidence from Dorimon traditional area presents both potential for transformation and a risk of intractable conflicts, constituting a rare policy window. To either define the institution while it is still evolving or allow the inherent contestations and ambiguities to develop into intractable conflicts.

KEY MESSAGES

- The concern is no longer about whether the *pognaa* position is culturally grounded and should exist, but how the institution should be governed.
- Conflicting interpretations and ambiguities weaken women's authority in traditional governance; fragmented processes create space for marginalisation and future disputes.
- Traditional systems are not homogeneous. A minimum policy framework should establish common principles to guide individual traditional areas in defining culturally grounded procedures for the *pognaa* institution.
- The *pognaa* position comes along as a powerful tool for women's agency and empowerment, but not until the inherent ambiguities and contestations are confronted head-on.
- Notwithstanding constraints, emerging trends highlight the potential of the *pognaa* to transform traditional governance.

THE PROBLEM

Across northwestern Ghana, the growing recognition of *pognamine* has so far failed to match up with the required institutional transformation. The institution is tethered to discursive controversy over the identity, position, and authority (Sabogu et al., 2026). The evidence suggests that processes of selection and installation remain fragmented. Her roles are not often defined, therefore leaving them mostly as appendages of the male chiefs. Inherent patriarchal socio-cultural norms and statutory regimes further complicate their independent exercise of power. The challenge is therefore not about increasing women's presence in traditional governance structures, but to build culturally grounded and clearly defined institutions that will enable them to exercise power independently.

METHODOLOGY

The data corpus informing these briefs draws on an ethnographic study of the making of the *Pognaa* institution in Dorimon. I employed in-depth interviews and focus-group discussions with *pognamine*, chiefs, community members, and institutional representatives, as well as participant observation and documentary analysis. The findings were subsequently translated into a participatory policy principle with stakeholders through community

dialogue, memoranda, reflexive workshops, and validation meetings. In addition, secondary data were obtained from policy documents on gender and statutes on chieftaincy, such as the Chieftaincy Act 2008 (Act 759).

RESULTS

- The pognaa's identity and position remain contested, marked by conflicting interpretations and ambiguities: she is simultaneously recognised as culturally grounded, yet her identity and role are often questioned within the traditional value system.
- Unlike the male chief, the processes for selecting, installing, legitimising, and roles of the *pognaa* remain fragmented and contested.
- *Pognamine* struggle to balance socially scripted gendered roles and expectations with their multiple roles and identities as wives, mothers, women, and as community leaders.
- Notwithstanding these constraints, *pognamine* are actively contributing to their communities within the Dorimon society.

"Installing a woman chief constitutes an act of inclusion, but building an institution around her authority is empowerment."



Pognamine after a reflexive workshop

CALL-TO-ACTION

Women's chieftaincy in northwestern Ghana must move beyond symbolic recognition to fully institutionalise their authority. Traditional councils, the Upper West Regional House of Chiefs, and civil-society organisations should work together to develop a baseline policy principle that will guide each traditional area to develop a culturally grounded policy, suitable for their political system. The goal should be simple but transformative: Ultimately, institutionalising the *pognaa* position holds promise for reshaping both local governance and broader debates on gender and traditional leadership in Africa.

REFERENCES

Atuoye, K. N., & Odame, F. S. (2013). 'Queen mother' concept in the Upper West Region of Ghana: is this advancement or an emerging conflict with tradition in a patriarchal society? *European Scientific Journal*, *9*(35), 222–239. http://eujournal.org/index.php/esj/article/view/2195/2080

Sabogu, A., Akurugu, C. A., & Udor, R. (2026). ' A chief who is a woman ': discursive constructions of gendered power and women ' s subjectivities in African traditional governance. *African Identities*, *00*(00), 1–20. https://doi.org/10.1080/14725843.2026.2659209

Sabogu, A., Bebelleh, F. Der, & Sanyare, F. N. (2025). Women chiefs and rural development in Northern Ghana : exploring pognamine ' s role in Dorimon and Wechiau. *Development in Practice*, *36*(3), 474–484. https://doi.org/10.1080/09614524.2025.2551035

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FROM VICTIMISATION TO HELP-SEEKING: EXPLORING THE FACTORS SHAPING DOMESTIC VIOLENCE REPORTING IN TAMALE, GHANA



Domestic violence is a widespread and horrible problem that has a significant effect on victims, their families, and society (Rohn & Tenkorang, 2024). As Tenkorang (2022) noted, there remains a noticeable gap between the number of people who must live with domestic violence and the number of legally reported instances. This underreporting prevents aid to victims and the accountability of criminals (McCleary-Sills et al., 2016). Domestic violence is seen as a form of coercive control that has been continuously used, which forms the foundation of all other acts of abuse (Rohn & Tenkorang, 2024). Alongside overt physical violence, such as striking, straining, and denying medical help, the perpetrator takes away the independence of the victim by subtle methods (Sedziafa & Tenkorang, 2024). Emotional and psychological abuse includes constant criticism, humiliation, gaslighting, and loss of self-esteem of the victim, sometimes with implied violence towards the victim or even their children.

KEY MESSAGES

- Capacity-building seminars should be organized for religious and traditional authorities for them to encourage victims of domestic violence to report abuse cases to the police.
- Domestic violence agencies should be resourced with vehicles, office furniture, and computers to respond to the increasing demand for domestic violence services for victims.
- Domestic violence agencies should provide contemporary support services such as counselling, transitional housing, and hospital referrals to victims of domestic violence in the country.

THE PROBLEM

Domestic violence is one of the most widespread issues worldwide, which affects a significant proportion of the population (Rohn & Tenkorang, 2024). There is a strong discrepancy between the real rates of encountering domestic violence and the percentage of reported cases to the necessary authorities across the world (Schmidt et al., 2023). Identifying the factors that lead to unwillingness to report among victims is a crucial precondition for overcoming these barriers and creating a more effective, victim-oriented support and intervention system (Overstreet & Quinn, 2016).

METHODOLOGY

Data for the study was gathered using a qualitative approach (semi-structured interview guide). The design of the study was phenomenology. Data was collected from current victims of domestic violence, lawyers, employees of social welfare, DOVVSU and CSOs that work with victims of domestic violence. The study involved 30 respondents.

"Empowering victims of domestic violence to report abuse promotes their independence and self-esteem"

RESULTS



- The influence of religious and traditional authorities, stigma, reputational damage, and established forms of marital norms and obligations were found to be the socio-cultural determinants that prevent victims of domestic violence from reporting abuse to the police in the Tamale metropolis.
- The problem of insufficient confidence in the judicial system, re-victimisation of victims of domestic violence by domestic violence agencies, and lack of support services provided by domestic violence agencies in the Tamale metropolis are the challenges facing victims of domestic abuse.
- Fear and safety concerns, as well as beliefs in reconciliation, were the individual factors that influenced domestic violence victims' willingness to report abuse to law enforcement agencies in the Tamale metropolis.
- Financial dependence, perceived economic repercussions, and unemployment, determine the willingness of victims to report domestic violence to police in the Tamale metropolis.

CALL-TO-ACTION

- We call on the Ministry of Gender, Children, and Social Protection and NGOs to build the capacities of religious and traditional authorities by organising seminars for them to encourage victims of domestic violence to report abuse cases to the police. This will give opportunities to victims of domestic violence to report issues of domestic violence to the law enforcement agencies, thereby promoting their independence and self-esteem.

REFERENCES

Rohn, E., & Tenkorang, E. Y. (2024). Motivations and barriers to help-seeking among female victims of intimate partner violence in Ghana. *Violence against Women*, *30*(2), 524–550.

Tenkorang, E. Y. (2022). A survey analysis of barriers to help-seeking at the Ghana Domestic Violence and Victim Support Unit (DOVVSU). *Journal of Family Violence*, *37*(4), 601–611.

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INSTITUTIONAL AND HOUSEHOLD-LEVEL BARRIERS TO ACCESSING MENTAL HEALTHCARE SERVICES IN RURAL NORTHWESTERN GHANA

KEY MESSAGES

- The Mental Health Act, 2012 (Act 846) promises decentralised and equitable care; however, 53.5% reported insufficient mental health facilities (Cramer's V=0.848), 61.5% identified distance as a barrier (Cramer V=0.466), and only 0.2% accessed care through CHPS.
- Socioeconomic precarity converts nominal coverage into practical exclusion: 92.4% reported a monthly income below GH₵653, 58.9% had no formal education, and 81.7% identified treatment cost as a barrier (Cramer's V=0.555).
- Travel burdens exceeded the study's WHO-referenced rural benchmark: mean travel time was 31.6 minutes, 37.6% travelled for more than 30 minutes, and 58.3% mainly walked; travel-time disparities varied significantly by district (Cramer's V=0.352).
- Among households already connected to care, treatment was almost entirely pharmacological: 99.8% used medication and 97.6% rated it "good," but only 10.7% accessed counselling or therapy (Cramer V=0.393). Therefore, high satisfaction coexists with systemic incompleteness.

INTRODUCTION AND THE PROBLEM

Ghana has established a strong statutory and policy foundation for mental healthcare through the Ghana Mental Health Act of 2012 (Act 846) and the mental health gap action programme-oriented (mhGAP) primary care integration. However, in rural Northwestern Ghana, these commitments have not consistently translated into proximate, affordable, or comprehensive care. The result is a policy-reality disconnect where formal treatment exists, but access remains conditioned by geography, poverty, institutional capacity and social legitimacy. This "treatment vacuum" does not imply the total absence of clinical contact in the study. Rather, it describes the absence of a complete care pathway that combines medicine, psychosocial support, financial protection, referral continuity and culturally credible community participation. The burden falls most heavily on households that are least equipped to navigate systemic fragmentation, including 58.9% of respondents who lack formal education.

APPROACH

A cross-sectional survey was conducted among 460 mental-health patients and/or caregivers across seven Upper West Region districts: Nandom, Lawra, Nadowli-Kaleo, Sissala West, Wa West, Jirapa and Wa Metropolis.

Data were collected in 2025 and analysed using descriptive statistics, district cross-tabulations, and Cramer's V association tests at the 95% confidence level.

Cramér's V ranges from 0 to 1 and indicates the strength of association with the district of residence; it does not establish causality.

ELEVATOR PITCH

Equitable global health is ultimately about how power, legitimacy, and resources are distributed between a clinical officer and a traditional healer in a village and whether both are connected to a safe and accountable referral system.

WHAT THE EVIDENCE SHOWS

1. Geographic exclusion is a measurable service barrier

The average travel time to a mental health facility was 31.55 minutes (SD=26.22), more than twice the study's WHO-referenced rural benchmark of 15 minutes. More than one-third of the respondents (37.6%) travelled for over 30 minutes, and 58.3% mainly walked. Travel time differences were significant across the districts (Cramer V=0.352, p<0.001).

Facility location created an even stronger spatial gradient (Cramer V=0.539), with 41.3% of patients accessing rural facilities outside their communities. In Wa West, 73.0% relied on out-of-community rural care and 48.9% travelled for more than 30 minutes; in Lawra, 50.9% crossed the 30-minute threshold.

EVIDENCE AT A GLANCE

31.6 min mean travel time
benchmark <=15 min

37.6% traveled >30 min
Cramer V=0.352

58.3% mainly walked
Cramer V=0.219

2. The policy-reality disconnect is multidimensional

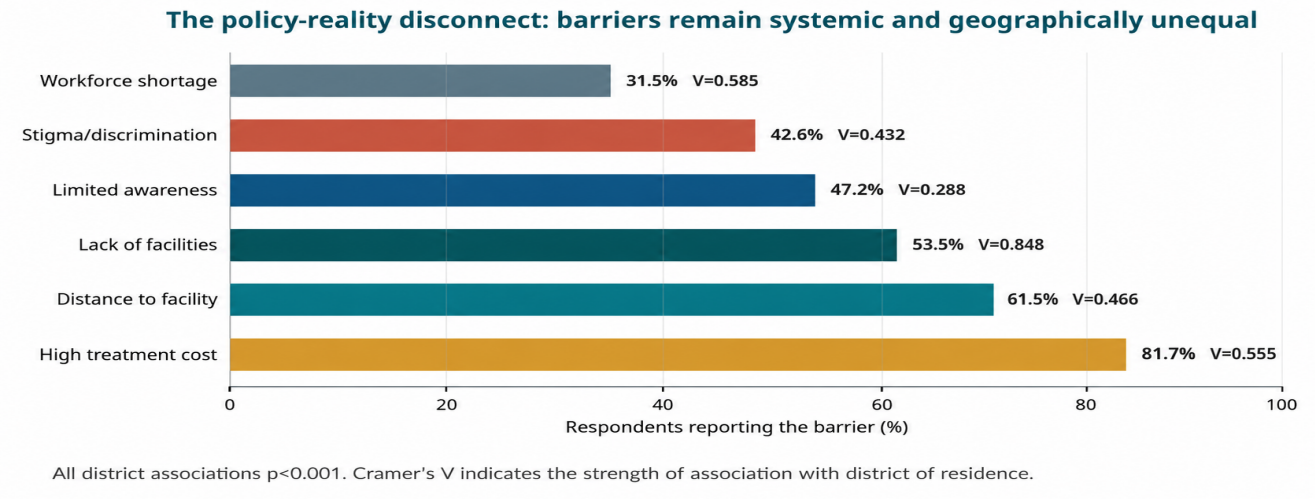


Figure 1. Reported barriers to mental health services delivery. Source: Field Survey 2025 (n=460).

Facility shortages displayed the strongest spatial concentration (Cramer's V=0.848), while workforce shortages (Cramer's V=0.585), treatment costs (Cramer's V=0.555), and distance (Cramer's V=0.466) indicated that the treatment gap was produced by interacting institutional and household constraints. Equity indicators were also strongly location-dependent (Cramer V=0.460-0.636); only 33.5% perceived actual access as equitable, with Wa West and Sissala West consistently disadvantaged.

3. The satisfaction-access paradox masks an incomplete model of care

99.6% **reported receiving treatment** connected sample	**99.8%** **used medication** Cramer V=0.071	**97.6%** **rated medication "good"** Cramer V=0.135	**10.7%** **accessed counselling/therapy** Cramer V=0.393

The clinical efficacy and acceptability of medications are not the problem; inequitable distribution of comprehensive care is. Therapy or counselling was unavailable to 72.0% of respondents (Cramer V=0.465), and its perceived quality varied sharply by district (Cramer V=0.615). CHPS compounds accounted for only 0.2% of service access, revealing how weakly mental health is embedded in community-facing primary care platforms.

Interpretation: The 99.6% treatment figure applies to surveyed patients/caregivers already identified and reached by the study and should not be read as population-wide treatment coverage.

FROM EVIDENCE TO AN EQUITABLE SERVICE MODEL

4. The socio-cultural divide is a referral opportunity, not a contradiction

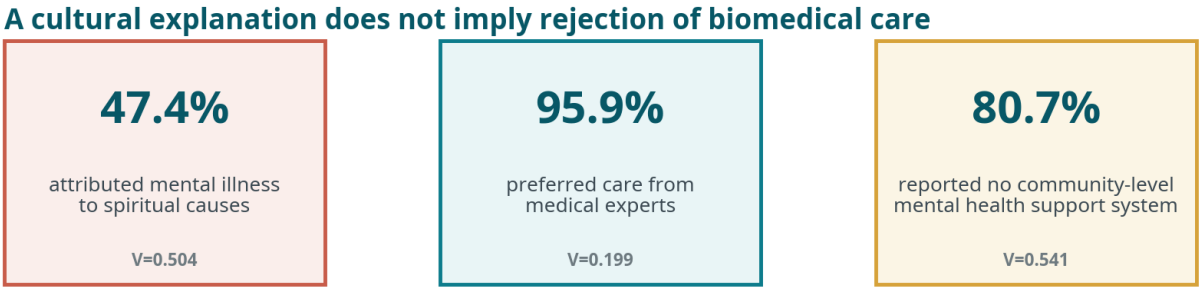


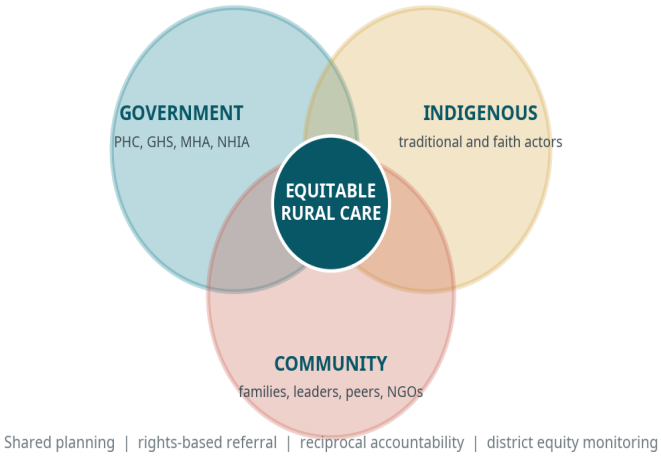
Figure 2. Beliefs, treatment preferences, and support systems. Source: Field Survey 2025 (n=460).

Spiritual explanations were common and strongly patterned by district (47.4%; Cramer V=0.504); yet 95.9% preferred treatment from medical experts (Cramer V=0.199). This coexistence demonstrates pragmatic pluralism: households may hold culturally embedded explanations while still valuing biomedical treatments. Therefore, policy should build trusted referral relationships rather than force an artificial choice between systems.

The institutional architecture is currently excessively narrow. Government providers were recognised by 99.6% of respondents and rated effective by 87.6% (Cramer V=0.190), but participation was limited for NGOs (8.7%; Cramer V=0.256), community leaders (1.3%; Cramer V=0.199), faith-based organisations (6.3%; Cramer V=0.166) and private providers (4.1%; Cramer V=0.593). Traditional healers were involved in 18.3% (Cramer V=0.504) of cases, with a strong district concentration. This is systemic fragmentation: public services carry almost the entire burden, while actors with local reach remain weakly connected to formal care.

The Horizontal Community Triad

Shared power, rights-based referral and district accountability



HOW THE TRIAD OPERATES

- Government actors finance, regulate, train, and guarantee medicine, psychosocial care, and rights protection.
- Indigenous and faith actors receive structured training on red flags, safe referral, non-abandonment of treatment, and rights-based practice.
- Community actors–families, peer groups, leaders, NGOs, and local media–provide navigation, anti-stigma support, livelihood linkage, and accountability.
- District teams govern the interface through written referral protocols, shared review meetings and publicly reported equity indicators.

CONCLUSION

The treatment gap in mental healthcare in rural Northwestern Ghana is not simply a shortage of medicines; it is a governance, distribution, and power gap. The Mental Health Act 846 can deliver rural equity only when national commitments are translated into district-specific resource allocation, functioning PHC capacity, financially protected treatment, and horizontal partnerships among government, Indigenous, and community actors.

CALL-TO-ACTION

Responsible actor	Directive for the next planning and budget cycle	Evidence trigger
Ministry of Health / Mental Health Authority	A joint implementation directive that ring-fences district mental health functions, establishes a minimum rural service package, and directs resources according to travel, facility, workforce, and equity indicators should be issued.	Facility shortage 53.5% (V=0.848); equitable access 33.5% (V=0.636).
NHIA, under MoH policy direction	Undertake a mental health benefits and procurement review and expand reimbursement for guideline-recommended modern antipsychotics, including risperidone and olanzapine, where clinically appropriate, alongside monitoring, counselling, and continuity-of-care costs.	Treatment cost was 81.7% (V=0.555), and medication use was 99.8%.
Ghana Health Service	Integrating mental health into CHPS and routine PHC, training, certifying, and supervising non-specialist teams, deploying scheduled outreach to the most underserved districts, and guaranteeing two-way referral with district mental health officers are recommended.	CHPS access 0.2%; PHC expertise 29.8% (V=0.319).
Regional and district authorities	Convene the Horizontal Community Triad, execute district referral agreements, and publish quarterly equity dashboards for review by service users, caregivers, and community actors.	Government involvement was 99.6%, community leaders 1.3%, and traditional healers 18.3% (V=0.504).

REFERENCES

1. World Health Organization (WHO). mhGAP Intervention Guide for mental, neurological, and substance use disorders in non-specialised health settings: Version 2.0. Geneva: WHO; 2016.

2. Patel V, Saxena S, Lund C, et al. The Lancet Commission on Global Mental Health and Sustainable Development. Lancet. 2018; 392:1553-1598.

3. Roberts M, Mogan C, Asare JB. An overview of Ghana's mental health system: Results from an assessment using WHO-AIMS. International Journal of Mental Health Systems. 2014; 8:16.

4. Ae-Ngibise K, Cooper S, Adiibokah E, et al. "Whether you like it or not people with mental problems are going to go to them": traditional and faith healers in Ghana. International Review of Psychiatry. 2010;22(6):558-567.

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TIES AND POWERS THAT BIND
WHAT DEMOGRAPHICS AND SOCIAL NETWORKS MEAN FOR IMMIGRANTS' DECISIONS TO STAY IN GHANA

WHY THIS MATTERS

Migration policy in Ghana needs to distinguish between people who plan to remain and those who expect to return home. Yet policy and research on South-South migration have paid limited attention to immigrants' intended duration of stay. Yendaw's study addresses this gap among West African itinerant immigrant retailers in Accra, showing that stay intentions are shaped not only by individual characteristics but also by family and friendship networks.

85.6%

intended a temporary stay

KEY MESSAGES

- Most respondents intended to stay temporarily: 85.6% compared with 14.4% who preferred permanent residence.
- Family and friendship networks mattered. Interviewees described return plans and stay decisions as being discussed with, and influenced by, relatives and friends.
- Gender, marital status, country of origin and duration of stay were statistically related to stay intentions; age and education were not significant predictors in the main model.
- The quantitative and qualitative evidence on duration of stay did not point in the same direction, signalling that length of residence alone should not be treated as a simple proxy for settlement intention.

STUDY AT A GLANCE

Design: Cross-sectional mixed methods

Survey: 779 usable responses

Interviews: 9 immigrant key informants

Population: West African itinerant immigrant retailers in Accra, resident for at least six months

Sites: 9 Accra neighbourhoods

Analysis: Descriptive statistics, binary logistic regression and thematic analysis

WHAT THE STUDY FOUND

Stay intention	85.6% of respondents preferred temporary residence; 14.4% preferred permanent residence.
Social networks	Qualitative interviews showed that family ties and friendships shaped plans to return or remain, often through advice and prior family discussions.
Socio-demographics	Gender, marital status and country of origin were significant in the main regression model. Respondents from Niger and Mali showed particularly high odds of temporary residence relative to the reference category.
Duration of stay	Quantitative analysis found duration of stay statistically significant, but interviews with some longer-term residents pointed toward permanent settlement. The paper explicitly reports this divergence.

POLICY IMPLICATION

A migration management system that treats all immigrants as if they have the same settlement horizon can miss important differences. This study shows that temporary residence is dominant among the surveyed group, while social networks and selected socio-demographic characteristics help shape whether migrants envisage returning home or remaining in Ghana. Policy therefore needs to combine effective registration and monitoring of temporary residents with purposeful integration of those seeking permanent residence.

PRIORITY POLICY ACTIONS

1	**Create a detailed register of temporary immigrant residents.** The study recommends a nationwide register to support identification, dialogue and monitoring of temporary residents, particularly in the context of regional insecurity.
2	**Make immigrants' economic participation mutually beneficial.** Ghana Immigration Service, Ghana Investment Promotion Centre and the Accra Metropolitan Assembly should develop an appropriate framework that brings relevant immigrant business activities into the country's tax net.
3	**Support the integration of immigrants seeking permanent residence.** The government should consider measures that help permanent residents integrate so Ghana can benefit from their skills and economic activities.
4	**Build social networks and socio-demographics into migration policy design.** Family ties, friendships, gender, country of origin, marital status and duration of stay should not be excluded from migration-management interventions because the study shows that these factors are connected to stay intentions.
5	**Extend the evidence base beyond Accra.** Undertake nationwide research on immigrants' stay intentions to inform policy with evidence that captures other locations and migrant groups.

WHO SHOULD ACT

Ghana Immigration Service	Ghana Investment Promotion Centre	Metropolitan / municipal authorities
Lead registration, identification, dialogue and monitoring of temporary immigrant residents.	Contribute to the policy framework for mutually beneficial economic participation and formalisation.	Work with national agencies and immigrant communities on local registration, engagement and economic integration.

CALL-TO-ACTION

Move from generic immigrant management to stay-intention-sensitive policy: register temporary residents, engage the social networks that influence migration decisions, and support the integration and productive contribution of immigrants who intend to remain in Ghana.

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GENDERED PATHWAYS TO SUSTAINABLE AND RESILIENT URBAN TOURISM IN WEST AFRICA: INTEGRATING CLIMATE ADAPTATION AND POST-PANDEMIC RECOVERY THROUGH INCLUSIVE GOVERNANCE

THE POLICY MESSAGE

Treat gender inclusion as resilience infrastructure – not as a stand-alone social objective. Give women meaningful influence, expand access to finance and training, and embed these measures in collaborative city governance and climate adaptation.

WHY THIS MATTERS?

Urban tourism is a major source of employment, enterprise development, cultural preservation and urban regeneration in West Africa. Cities such as Accra, Lagos, Abidjan and Dakar are important centres for heritage, business and creative tourism. However, climate change, rapid urbanisation, infrastructure deficits and post-pandemic pressures increasingly threaten their tourism systems. Building resilient urban tourism therefore requires governance that combines climate adaptation with meaningful participation by women, communities, businesses and public institutions. The study's Gendered Urban Tourism Resilience Model (GUTRM) shows that destinations become more sustainable and shock-ready when gender-responsive governance builds trust, participation and networks for collective action.

PROBLEM STATEMENT

Although women constitute a substantial proportion of the tourism workforce and contribute to tourism enterprises and community development, they remain underrepresented in strategic planning, leadership, and resource-allocation decisions. Existing tourism policies also tend to address gender inclusion, climate adaptation, community engagement, and resilience separately. Consequently, policymakers lack integrated evidence on how gender-responsive governance can strengthen collaboration, adaptive capacity, and sustainable tourism outcomes. This gap is particularly significant in rapidly growing West African cities, where institutional capacity and resilience vary considerably.

APPROACH

Sequential explanatory mixed methods; structural equation modelling plus thematic analysis. Findings reflect stakeholder perceptions collected in 2025.

384	40	4 cities
survey respondents	stakeholder interviews	Accra • Lagos • Abidjan • Dakar

RESULTS

Gender participation in decision-making was the strongest governance driver of community engagement and social capital ($\beta = 0.318$; $p < 0.001$).

Community engagement and social capital strongly predicted sustainable urban tourism ($\beta = 0.643$) and post-pandemic resilience ($\beta = 0.587$), both $p < 0.001$.

Climate adaptation received the lowest mean score (3.70/5). Accra led the construct means, followed by Lagos; Abidjan and Dakar generally scored lower.

Gender-responsive governance improved transparency, representation and policy responsiveness, although women's strategic influence remained uneven across cities.

Trust and collaboration among authorities, businesses, communities and civil society accelerated information sharing, joint problem-solving and recovery.

Funding and coordination gaps constrained climate action—especially in Abidjan and Dakar—despite growing use of waste management, coastal protection, digital marketing and business diversification.

RECOMMENDATIONS

1. Share decision power — Set representation targets for women on tourism, destination-management and climate-planning bodies; publish membership, attendance and decision records.

2. Fund capability — Create accessible finance, procurement and capacity-building windows for women-led tourism enterprises and community organisations; include digital readiness and business continuity.

3. Institutionalise collaboration — Establish city tourism-resilience platforms linking municipal agencies, businesses, communities and civil society for joint risk assessment, information sharing and recovery planning.

4. Integrate climate action — Join tourism development with coastal protection, flood and heat preparedness, waste management, resilient infrastructure and environmental monitoring.

WHO SHOULD DO WHAT

Actor	Priority action
National governments	Insert gender and resilience requirements into tourism and climate strategies; fund inclusive infrastructure and enterprise support.
Municipal authorities	Convene resilience platforms and integrate tourism, land use, environment and disaster planning.
Tourism businesses	Adopt equitable recruitment and leadership pathways; invest in continuity, digital tools and eco-innovation.
Communities & civil society	Participate in planning, environmental stewardship and local monitoring; strengthen trusted local networks.
Regional & development partners	Finance technical assistance, peer learning and comparable resilience indicators across cities.

Measure outcomes – not only participation

Track: women's decision-making influence; access to finance, training and procurement; stakeholder trust and collaboration; adoption of climate measures; business continuity and recovery time; and city-level sustainability and resilience outcomes. Disaggregate by sex, enterprise type, and city.

REFERENCES

UN Tourism. (2024). UN Tourism World Tourism Barometer (2024 ed.). UN Tourism.
UN Women. (2022). Progress on the Sustainable Development Goals: The gender snapshot 2022. UN Women.

Authors: Mildred Nuong Deri (mildred.nuong@uenr.edu.gh), **Perpetual Zaazie, Kwame Ntow-Gyan, Jane Dery**

WHEN WIVES MIGRATE
EMOTIONAL IMPACTS AND COPING STRATEGIES OF LEFT-BEHIND HUSBANDS IN THE WA WEST DISTRICT, GHANA

WHY THIS MATTERS

Women's internal migration can strengthen household livelihoods, but prolonged spousal separation can also carry emotional and marital costs for families left behind. In Wa West District, where north-south migration is closely linked to limited local livelihood opportunities, this study shows that the consequences of migration extend beyond income to companionship, intimacy and emotional well-being (Yendaw et al., 2025).

12

left-behind husbands interviewed

KEY MESSAGES

- Destination choices were shaped by wives' professions, social capital and the presence of relatives who could provide accommodation or support (Yendaw et al., 2025).
- Most husbands described unhappiness, loneliness and nostalgia, including the loss of everyday companionship and face-to-face emotional reassurance.
- Spousal separation also constrained sexual intimacy and created marital strain for some participants.
- Common coping strategies included frequent and lengthy phone calls, reciprocal visits, support from relatives and friends, self-control and recreational activities.

STUDY AT A GLANCE

Design: Qualitative, descriptive cross-sectional

Approach: Phenomenological; interpretivist

Sites: Meteu, Buli, Oloteng and Bulingin

Participants: 12 married men whose wives had migrated

Data: Semi-structured in-depth interviews

Analysis: Thematic analysis

Fieldwork: First half of 2022

SCOPE NOTE

This is an in-depth qualitative study of 12 men. The authors caution against generalising the findings to all left-behind husbands in Wa West District or Ghana.

WHAT THE EVIDENCE SHOWS

Why wives moved where they did	Profession, social capital and relatives at destination shaped where women migrated; relatives could provide accommodation, safety and links to work.
Emotional consequences	Participants commonly reported loneliness, unhappiness and nostalgia, alongside the loss of companionship, conversation and the comfort of physical presence (Yendaw et al., 2025).
Intimacy and marital strain	Several husbands described sexual frustration and the challenge of maintaining intimacy during prolonged separation.
How husbands coped	Phone calls and reciprocal visits were central. Extended family, friends, self-control and recreational activities also helped manage loneliness and emotional strain (Yendaw et al., 2025).

POLICY IMPLICATION

The study suggests that migration policy and district development planning should consider the family costs of prolonged spousal separation alongside its livelihood benefits. Where women migrate because local livelihood

options are weak, support for family reunion, counselling, and viable livelihood opportunities at origin can help address the emotional pressures experienced by left-behind spouses (Yendaw et al., 2025).

PRIORITY POLICY ACTIONS

1	Promote family reunion for affected spouses. The Wa West District Assembly and the Department of Social Welfare and Community Development should develop practical family-support interventions that encourage reunion where feasible and help couples manage prolonged separation.
2	Provide professional counselling for left-behind husbands. The study specifically recommends counselling support to help husbands address loneliness, emotional strain, and the pressures associated with prolonged spousal absence.
3	Expand livelihood and skills options for married women locally. Offer skills training to married women in the district so they can strengthen household livelihoods and have more viable livelihood options within or closer to their communities.
4	Strengthen irrigation farming and women's access to irrigable land. The District Assembly should enhance irrigation opportunities and make irrigable land more accessible to female farmers as a response to livelihood pressures that contribute to recurring out-migration.
5	Build a stronger evidence base before scaling interventions. Commission larger studies in Wa West District and nationwide, including research on the psychological effects of spousal separation, because the present qualitative findings are not statistically generalisable.

WHO SHOULD ACT

Wa West District Assembly Coordinate family-support measures, local skills development, irrigation expansion and access to irrigable land for women.	**Department of Social Welfare and Community Development** Support family reunion efforts and facilitate professional counselling and psychosocial support for affected spouses.

CALL-TO-ACTION

Treat the emotional consequences of spousal migration as a family and development issue: support reunion and counselling while expanding realistic livelihood options for women in Wa West District.

REFERENCE

Yendaw, E., Allotey, A. A., & Nantomah, B. (2025). Emotional Impacts and Coping Strategies of Left-Behind Husbands in the Wa West District, Ghana. *Journal of Planning and Land Management, 4*(2), 1-14.

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EFFECT OF URBAN SPRAWL ON AGRICULTURAL LANDS IN BAMAHU, WA MUNICIPALITY



KEY MESSAGES

- Bamahu has lost nearly a third of its agricultural land to built-up development in under a decade.
- The primary drivers of farmland loss include institutional expansion, most notably the growth of the University of Business and Integrated Development Studies (UBIDS), residential development, speculative land commodification, and the absence of protective agricultural zoning.
- Farmland loss is undermining all four pillars of food security: availability, access, utilisation, and stability for peri-urban households.
- More than 62% of farmers report shrinking landholdings, and over half of households experience seasonal food shortages lasting one to seven months.
- The absence of protective agricultural zoning and weak enforcement of land-use planning are the root governance failures behind unchecked sprawl.
- Coordinated action by the Wa Municipal Assembly, the Lands Commission, traditional authorities, and MoFA can still arrest the trend.

INTRODUCTION

Urban growth across Sub-Saharan Africa is consuming agricultural land at a pace that far outstrips population growth, and Ghana is no exception. Between 1986 and 2016, urban land use nationally rose from 21% to 78%, displacing the farmland and vegetation cover that once supported local food systems (Afriyie, 2020). Bamahu, a peri-urban suburb of the Wa Municipality in the Upper West Region, is a clear local example of this national trend. Since the establishment of the SDD-UBIDS campus, Bamahu has shifted rapidly from an agrarian community to a mixed commercial, residential, and institutional hub. This transformation has unfolded largely outside any deliberate land-use plan, leaving smallholder farmers to absorb the consequences. But to what extent has this transformation played out in Bamahu, and what does it mean for the farmers and households who depend on the land for their food and livelihoods?

THE PROBLEM

The predominant emphasis on broader urban contexts has left a conspicuous gap in localised science, one that fails to capture how ongoing sprawl reshapes agricultural land and unsettles the livelihoods of original inhabitants (Adam, 2024). This scarcity of place-specific research does more than overlook these concerns; it actively hampers the formulation of policies precise enough to address the distinct realities of communities bearing the sharpest impacts of urban expansion (Werna, 2022). Addressing this gap stands to yield meaningful insight into how rural communities experience the pressures of urbanisation, while equipping policymakers with the evidence needed to craft sustainable land management strategies grounded in local circumstances (Winkler-Schor, 2024). Beyond this, such research can feed directly into

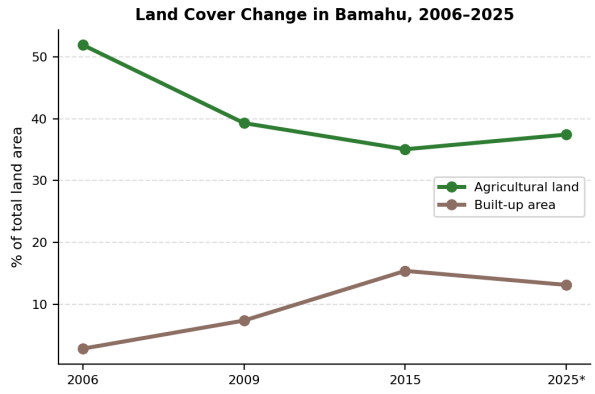
livelihood-enhancement interventions designed to safeguard agricultural resources without disregarding the legitimate demands of development.

METHODOLOGY

The study was conducted in Bamahu in the northern region of Ghana, employing a convergent mixed methods design to assess how this sprawl is affecting farmland and household food security. The research integrates satellite-based land cover classification (Landsat 5, 8, and 9 imageries for 2006, 2009, 2015, and 2025). Through stratified purposive sampling, household surveys were administered to 97 respondents and focus group discussions were conducted. Also, key informant interviews of five institutional stakeholders, including traditional leaders, agricultural officers, health workers, physical planning department, and MoFA were conducted.

RESULTS

Agricultural land cover fell from 51.91% of Bamahu's land area in 2006 to 35.06% in 2015, while built-up area rose from 2.87% to 15.43% over the same period.



62.1% of surveyed households reported that their farmland had been reduced; over half (53.6%) attributed this directly to urban development encroachment.

Institutional expansion, chiefly UBIDS together with road and residential construction, accounted for 55% of farmland converted to non-agricultural use.

75.25% of respondents observed new residential or commercial development within 1 km of their farm over the past decade.

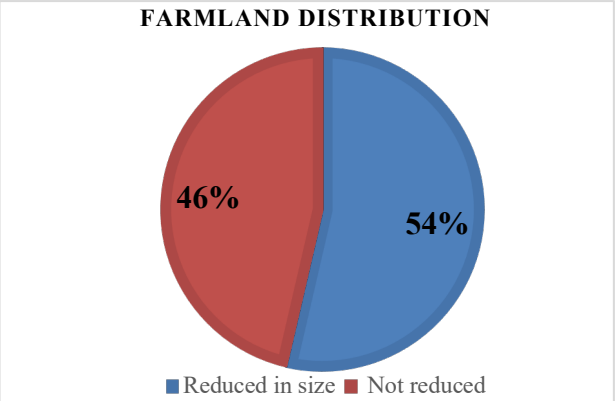
Households are shifting from food self-sufficiency to market dependence: only 32% now source food solely from their own farms, while 60.8% rely on a mix of farm and market.

More than half of households experience some annual food shortage (28.87% for 1–3 months, 24.74% for 4–7 months), coping mainly by buying cheaper food (44.3%) or reducing meal portions (36.1%).

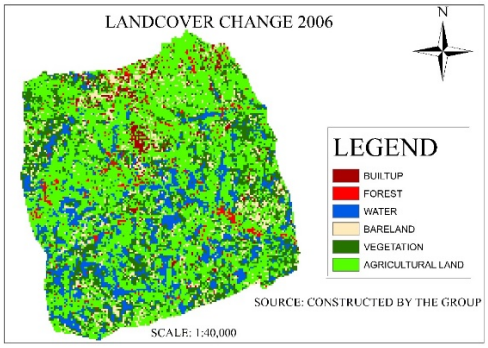
Land governance is fragmented: the Lands Commission, Wa Municipal Assembly, and traditional authorities coordinate poorly, leaving customary land sales largely unregulated and farmers' tenure insecure.

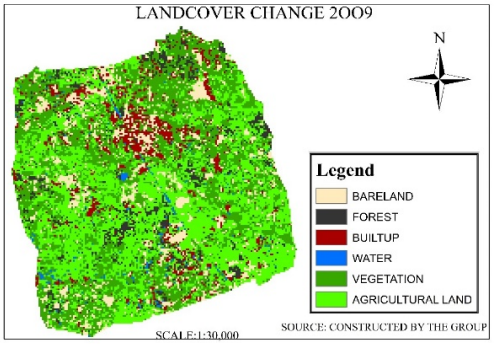
"UBIDS took my land for development. I used to farm maize and yams there. Now I rent land in Nakore for farming."

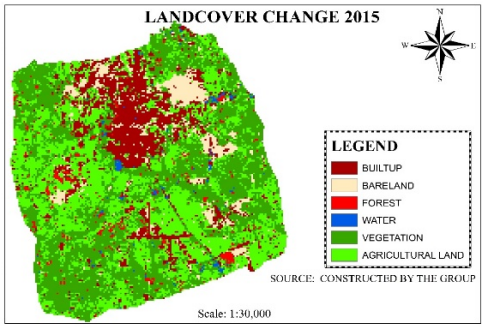
Respondent 7, household survey

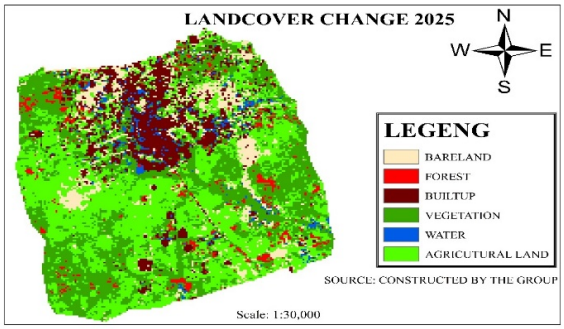


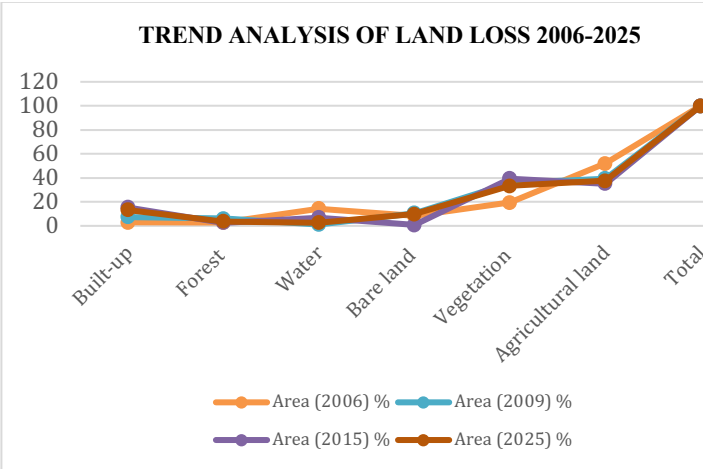
Land Cover Changes

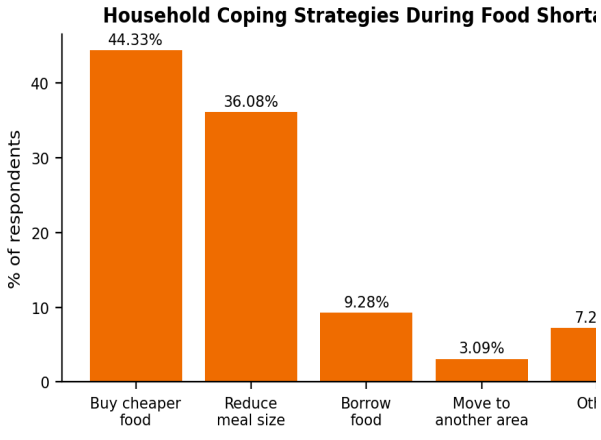












CONCLUSION

Peri-urban farming in Bamahu is under sustained threat from unregulated urban sprawl. Agricultural land is not zoned or protected, and institutional, residential, and road expansion continue to displace farmers onto smaller, fragmented plots with little compensation or alternative livelihood support. The slight 2025 rebound in agricultural land area is encouraging but fragile; without deliberate planning and

enforcement, it is unlikely to be sustained, and the erosion of food security for peasant farmers will continue.

RECOMMENDATIONS

1. Wa Municipal Assembly should develop and enforce a Peri-Urban Land Use Master Plan that reserves protected agricultural zones and restricts unregulated conversion of farmland.
2. Lands Commission (Wa Office) should establish a simplified, affordable Customary Land Documentation Service to strengthen tenure security for peri-urban farmers, particularly women and youth.
3. Ministry of Food and Agriculture (Upper West Region) should expand urban-adapted extension services and promote land-efficient techniques such as drip irrigation, container farming, and vertical gardens.
4. Traditional authorities and Bamahu landowners should form a Community Land Management Committee to vet and monitor land sales, ensuring communal consent and Assembly-approved layout planning.
5. The Physical Planning Department should require that new roads, schools, and utilities be planned in consultation with affected farmers to reduce displacement and preserve productive farmland.

CALL-TO-ACTION

We call upon the Wa Municipal Assembly, the Lands Commission (Wa Office), and Bamahu's traditional authorities to jointly institute a Peri-Urban Land Use Master Plan that protects agricultural zones from further unchecked institutional and residential expansion before continued farmland loss irreversibly undermines food security in the Wa Municipality.

REFERENCES

Ziem Bonye, S., Yenglier Yiridomoh, G., & Derbile, E. K. (2021). Urban expansion and agricultural land-use change in Ghana: Implications for peri-urban farmers' household food security in Wa Municipality. *International Journal of Urban Sustainable Development, 13*(2), 383–399.

Bren d'Amour, C., Reitsma, F., Baiocchi, G., et al. (2017). Future urban land expansion and implications for global croplands. *Proceedings of the National Academy of Sciences, 114*(34), 8939–8944.

Toku, A., et al. (2024). Analysis of land-use and livelihood transformations in peri-urban areas: Insights from North-Western Ghana. Heliyon, 10(19).

Afriyie, K., Abass, K., & Adjei, P. O. (2020). Urban sprawl and agricultural livelihood response in peri-urban Ghana. *International Journal of Urban Sustainable Development, 12,* 202–218.

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STRENGTHENING WORK–LIFE BALANCE (WLB) FOR IMPROVED EMPLOYEE PERFORMANCE IN SENIOR HIGH SCHOOL (SHS) KITCHENS IN NORTH-WESTERN GHANA

INTRODUCTION

The success of Ghana's Free SHS Programme depends not only on teachers but also on the thousands of non-teaching staff who provide essential support services. Among these, SHS kitchen workers ensure that students receive safe, nutritious, and timely meals every day. Despite their critical contribution, kitchen workers operate under demanding conditions, such as long working hours, heavy workloads, staff shortages, inflexible schedules, and limited institutional support (Adzinyo et al., 2024). Globally, WLB has become an important human resource strategy for improving employee well-being and organisational performance. However, little empirical attention has been given to WLB among school kitchen workers in Ghana. This study therefore examined how institutional working conditions influence WLB and employee performance in SHS kitchens in North-Western Ghana.

THE PROBLEM

As noted by Bigson et al. (2020), existing institutional arrangements within SHS kitchens do not adequately support employees in balancing work and personal responsibilities.

The study identified several systemic challenges:

- Chronic shortages of kitchen staff.
- Excessive workloads and frequent overtime.
- Limited flexibility in work schedules.
- Weak managerial and peer support.
- Lack of formal WLB policies.
- Minimal attention to employee mental health and psychosocial well-being.

Consequently, many workers experience work–family conflict, emotional exhaustion, and declining job satisfaction, leading to lower productivity and reduced service quality.

ELEVATOR PITCH

Improving WLB in SHS kitchens requires more than individual resilience; it demands institutional reforms that reduce excessive job demands, strengthen workplace support systems, and place employee well-being at the centre of school management.

RESULTS

The study found widespread dissatisfaction with WLB among SHS kitchen workers.

Key Findings

- **53%** indicated they received inadequate support from colleagues during personal or family emergencies.
- **54.5%** reported that overtime negatively affected their productivity.
- **67%** believed improved WLB would enhance institutional effectiveness.
- **61%** acknowledged that domestic responsibilities negatively affected their work performance.

Qualitative interviews further revealed that workers frequently experienced stress, sleep deprivation, burnout, strained family relationships, and frustration resulting from inadequate staffing and limited

CONCLUSIONS

- Institutional rather than personal factors are the primary drivers of poor WLB among SHS kitchen workers.
- Poor WLB significantly undermines employee productivity, motivation, commitment, and service quality.
- Supportive organisational policies and improved human resource practices can substantially improve employee well-being and institutional performance.
- Investing in the welfare of school kitchen workers strengthens their effectiveness and sustainability.

RECOMMENDATIONS

- Institutionalise WLB Policies within the GES to guide working hours, overtime, leave, and employee welfare.
- Introduce flexible duty schedules that accommodate employees' family responsibilities while maintaining service delivery.
- Strengthen supervisory support through leadership training on employee well-being, emotional intelligence, and conflict management.
- Establish employee wellness programmes, including counselling services, stress.

CALL-TO-ACTION

- The GES should immediately develop and implement a national WLB Policy for non-teaching staff in SHSs.
- SHS Boards and Headmasters should integrate employee well-being into institutional management and regularly monitor WLB indicators.
- Development partners and education stakeholders should support evidence-based interventions that promote healthy workplaces and sustainable school feeding services.

REFERENCES

Bigson, K., Essuman, E. K., & Lotse, C. W. (2020). Food hygiene practices at the Ghana school feeding programme in Wa and Cape Coast cities. *Journal of environmental and public health*, *2020*(1), 9083716.

Adzinyo, O. A., Frempong, F., Appaw, E. T. A., Antwi, A. B., & Nkrow, J. E. (2024). Assessing occupational health and safety practices among kitchen staff of selected senior high schools in the Ho Municipality, Ghana. *Cogent Food & Agriculture*, *10*(1), 2392404.

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THE OLD WAY, THE NEW WAY: WEAVING INDIGENOUS KNOWLEDGE WITH CLIMATE-SMART AGRICULTURE IN NORTHWESTERN GHANA



Smallholder farmer harvesting okra in northern Ghana



Farmers adopting drip irrigation, a labour-saving CSA practice

KEY MESSAGES

- Smallholder farmers in northwestern Ghana already practice four indigenous adaptation strategies: spatial diversification, temporal adjustment, crop portfolio management, and livelihood diversification that map closely onto the three FAO pillars of Climate-Smart Agriculture (CSA).
- Worsening climate conditions are eroding the effectiveness of these traditional strategies, pushing farmers toward hybrid knowledge systems that blend indigenous and formal practice.
- CSA adoption intensity rises with age, male gender, education, household size, off-farm income, extension access, and training.
- Cattle ownership and farming experience are both associated with lower CSA adoption; indigenous knowledge is valuable, but on its own it is insufficient against accelerating climate stress.

INTRODUCTION

Smallholder farmers across Sub-Saharan Africa, and in northwestern Ghana in particular, face intensifying climate pressures: erratic rainfall, prolonged dry spells, and rising temperatures that threaten rain-fed maize production. For generations, farming communities have relied on Indigenous Knowledge Systems (IKS), inherited practices for reading the seasons, spacing crops, and managing risk, to cope with variability. A mixed-methods study of 350 maize farmers, combining a household survey with focus groups and interviews in northwestern Ghana, examined how these indigenous strategies relate to formally promoted Climate-Smart Agriculture (CSA) practices, and what determines which farmers go on to adopt CSA. The findings raise an important question for policy: should CSA programmes be designed to replace indigenous knowledge, or to build on it?

RESULTS

- Farmers practice four identifiable indigenous adaptation strategies: spatial diversification (spreading plots across different soils/locations), temporal adjustment (shifting planting and harvest timing), crop portfolio management (mixing crop varieties), and livelihood diversification (non-farm income sources).
- These four strategies map closely onto the three FAO pillars of CSA, sustainably increasing productivity, adapting to and building resilience to climate change, and reducing emissions where possible.
- Worsening climate conditions and eroding traditional support systems are prompting farmers to adopt hybrid knowledge systems, combining indigenous practice with formal CSA techniques.
- A Poisson regression shows CSA adoption intensity increases with age, male gender, education, household size, off-farm income, extension access, and training.
- Cattle ownership and farming experience are both associated with reduced CSA adoption intensity, suggesting that experience with traditional systems does not automatically translate into uptake of new practices.
- The study concludes that indigenous knowledge remains valuable but insufficient on its own, and recommends targeted investment in rural education, extension services, and CSA training programmes.

"Indigenous knowledge is not obsolete; it is the foundation on which climate-smart agriculture must be built, not a system to be replaced."



Maize farm affected by variable rainfall in northwestern Ghana

CONCLUSIONS

- Indigenous knowledge systems remain a valuable and actively used foundation for climate adaptation among smallholder farmers.
- On their own, however, these traditional strategies are proving insufficient against accelerating climate stress, prompting an organic shift toward hybrid knowledge systems.
- Structural factors – education, extension contact, training, and off-farm income – explain CSA adoption more than farming experience or reliance on indigenous knowledge alone.

RECOMMENDATIONS

- Invest in rural education and targeted CSA training that explicitly documents and builds on existing indigenous adaptation strategies, rather than treating farmers as starting from zero.
- Expand extension services and training access in communities with lower education and off-farm income, where CSA adoption intensity is currently lowest.
- Support the hybrid knowledge systems already emerging among farmers, pairing indigenous knowledge holders with formal CSA trainers.

CALL-TO-ACTION

- The Ministry of Food and Agriculture (MoFA) should formally document local indigenous adaptation strategies as a baseline before designing new CSA curricula for northwestern Ghana.

- District Directorates of Agriculture should expand extension coverage to older, less-educated, and lower-income farming households currently underserved.
- Development partners and research institutions (UDS, UBIDS) should fund pilot programmes that pair indigenous knowledge custodians with CSA extension officers to co-develop locally grounded training.

REFERENCES

1. Ibrahim, A., Anang, B. T., Anzagra, L., & Derbile, E. K. (2026). The Old Way, The New Way: Weaving Indigenous Knowledge with Climate-Smart Agriculture in Northwestern Ghana. [Working paper].

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CAPABILITY, NOT CONVICTION: MAKING HOUSEHOLD PARTICIPATION WORK IN GHANA'S PLASTIC RECOVERY SYSTEM

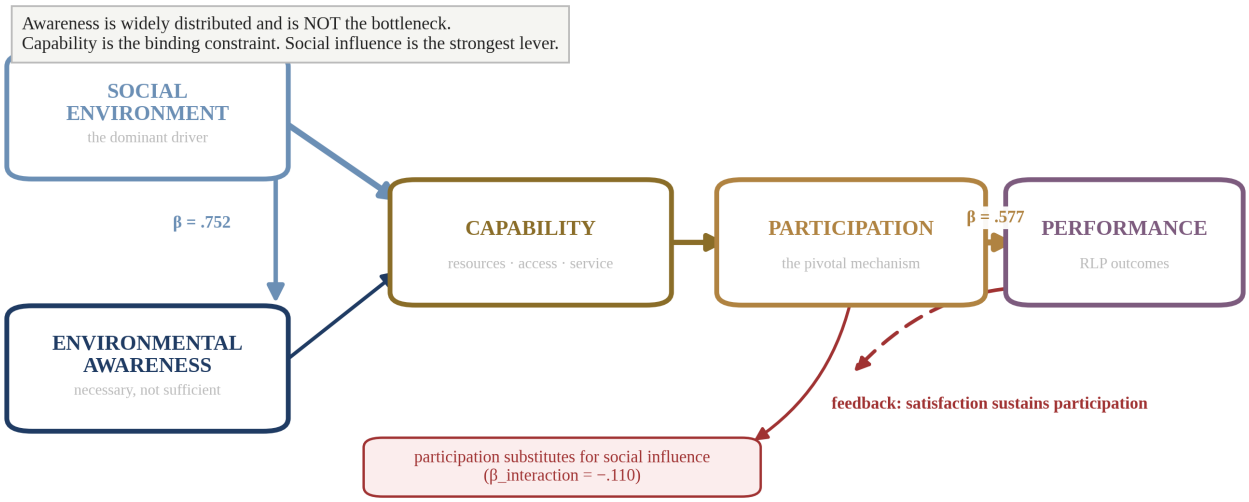
Reverse logistics is the operational mechanism through which a circular economy is achieved — the movement of used plastic from the household back through collection, sorting, and reprocessing. Its performance is behaviourally dependent: the quantity and quality of material entering the system is decided at the household and cannot be engineered through network design alone (Abdul-Aziz, 2026). Ghana's plastic policy already names behavioural change as a pillar. What has been missing is evidence on which behavioural lever moves system outcomes. A survey of 562 households in Tamale Metropolis, Savelugu Municipal and Kumbungu District finds that awareness is close to its ceiling and has no direct effect on reverse logistics performance once household participation is accounted for. The explanatory weight sits instead with social influence and practical capability: whether neighbours and community leaders are seen to participate, and whether a household has somewhere convenient to return material.

KEY MESSAGES

- Sensitisation has largely done its work. Awareness is the highest-scoring and most ceiling-affected construct measured (M = 4.19 of 5). Further awareness-only campaigns will yield diminishing returns, because awareness no longer varies enough to explain who participates and who does not.
- Deliver through community structures, not central messaging. Social influence is the dominant driver in the system, reaching performance through four pathways with a total effect of 0.792. Chiefs, assembly members, religious leaders, and peer networks are the strongest available levers.
- Fund what households say they lack, and measure what they do. The least-endorsed survey items concern resources to participate, access to convenient return facilities, and satisfaction with collection services. Monitoring frameworks should track participation — return rates and sorting compliance — not awareness levels.

A Behaviourally Informed Reverse Logistics Performance Framework

Empirically calibrated on the structural results (N = 562)



Where the constraint sits: awareness is widely held and is not the bottleneck. Capability binds; social influence is the strongest lever. Source: Abdul-Aziz (2026), calibrated on the structural results (N = 562).

THE PROBLEM

Ghana generates in the order of 840,000 tonnes of plastic waste each year, of which roughly 9.5 per cent is collected for recycling. Around 86 per cent of the national load is improperly disposed of; some 250,000 tonnes reach the Atlantic annually, and leakage into water bodies is projected to rise by about 190 per cent between 2020 and 2040. The costs fall on drainage, fisheries, tourism and public health.

The National Plastics Management Policy is comparatively advanced by regional standards and already identifies behavioural change as a core pillar. The deficit is in implementation and in the evidence needed to give that pillar operational content — particularly for northern Ghana, where recovery capacity is thin, and research attention has followed capacity elsewhere.

APPROACH

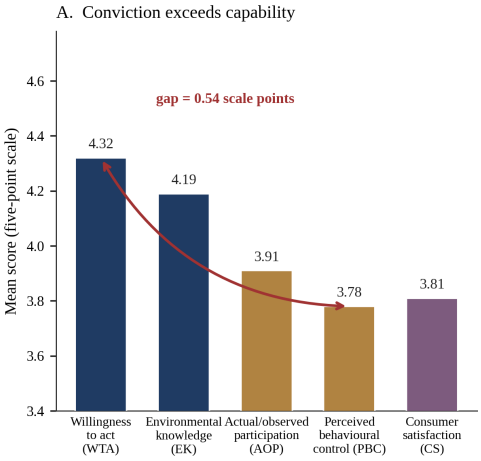
A quantitative, cross-sectional explanatory design was used. A 100-item questionnaire measuring environmental awareness, social influences, consumer participation and reverse logistics performance was administered electronically to adult household decision-makers in three Northern Region assemblies spanning the urban–rural continuum. Of 1,096 raw submissions, 562 met all eligibility, completeness, and response-quality criteria. Partial least squares structural equation modelling with 5,000 bootstrap subsamples tested nine hypotheses; the model explained 84.0 per cent of variance in participation and 69.2 per cent in reverse logistics performance.

RESULTS

Eight of nine hypotheses were supported. The study found that:

- Social influence is the dominant driver in the system, with the strongest single path in the model (β = .751 on participation) and a total effect on performance of .792 through four distinct pathways.
- Consumer participation is the pivotal mechanism and the strongest direct predictor of reverse logistics performance (β = .577).
- Environmental awareness has no direct effect on performance (β = .044, p = .225). It predicts participation (β = .207), and its influence reaches system outcomes entirely through that channel.
- Awareness is socially constituted, not individually held social influence alone explained 56.6 per cent of variance in awareness (β = .752).
- Respondents are more willing than able. Awareness scored highest (M = 4.19) and was strongly ceiling-affected, while perceived behavioural control was the lowest-scoring sub-construct — an awareness–capability gap.
- Social influence works best where participation is lowest. The interaction was negative (β = −.110), indicating substitution: outreach adds least among households already engaged.
- Just 31 per cent recycle regularly and 27 per cent never do, while 59 per cent buy plastic daily.

"The binding constraint on household plastic recovery is capability, not conviction"



Willingness runs 0.54 scale points ahead of perceived capability. Source: Abdul-Aziz (2026), Figure 6.1A.

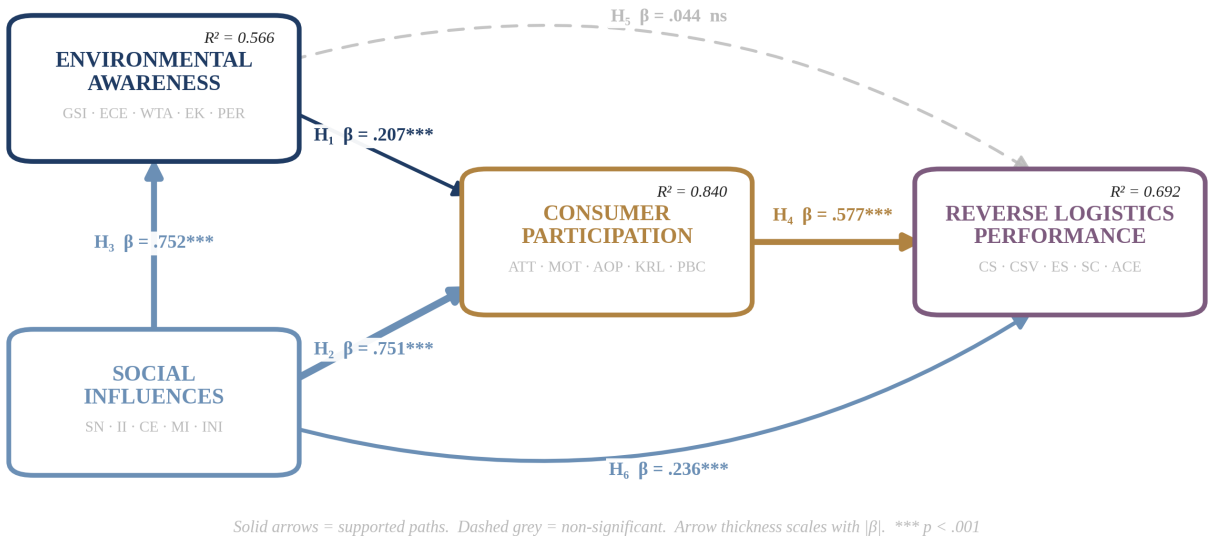
840,000 t of plastic a year — about 9.5% recycled

562 households · Tamale, Savelugu, Kumbungu

HOW THE SYSTEM WORKS

Structural Model: Standardised Path Coefficients and Explained Variance

PLS-SEM, N = 562, 5,000-subsample bootstrap



*Solid arrows = supported paths. Dashed grey = non-significant. Arrow thickness scales with |β|. *** p < .001*

Tested pathways. Awareness reaches performance only through participation; the direct path is non-significant. Source: Abdul-Aziz (2026), Figure 5.9.

CALL-TO-ACTION

We call upon the Ministry of Environment, Science, Technology and Innovation and the Environmental Protection Agency to rebalance National Plastics Management Policy implementation away from sensitisation and towards the two constraints this evidence identifies: household capability and social norms. Every awareness campaign should be paired with a funded expansion of accessible return and collection infrastructure in the same district.

Metropolitan, Municipal and District Assemblies should route delivery through chiefs, assembly members and religious leaders rather than centrally designed messaging and differentiate by settlement type — enabling basic participation first where infrastructure is the binding constraint, as in rural and peri-urban areas, and deploying social-influence approaches where services already exist. Outreach should target low-participation households, where its marginal return is greatest, and formal operators should partner with itinerant buyers and community-based collectors, who already hold the social legitimacy the system depends on.

The anticipated mandatory Extended Producer Responsibility scheme should be designed on the recognition that household participation is effortful, capability-constrained and socially mediated — it cannot be legislated into existence. Progress should be reported annually against household return rates and sorting compliance.

REFERENCES

Abdul-Aziz, M. (2026). The Interplay of Environmental Awareness, Social Influences and Reverse Logistics Performance in Ghana's Plastic Industry: The Role of Consumer Participation within the Circular Economy. PhD Thesis, University of Business and Integrated Development Studies, Wa.

MESTI (2021). National Plastics Management Policy. Ministry of Environment, Science, Technology and Innovation, Accra.

World Bank (2020). Ghana Country Environmental Analysis. Washington, DC.

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DIGITAL FINANCE IS EXPANDING IN SUB-SAHARAN AFRICA — BUT IT IS BYPASSING THE BANKS THAT FUND SMALL BUSINESSES

KEY MESSAGES

- Digital financial services (DFS) and traditional banking inclusion are moving in opposite directions across Sub-Saharan Africa: each step of digital expansion is associated with a measurable decline in bank-based inclusion and in credit to the private sector.
- Financial inclusion still works: where inclusion rises, new business creation follows — whatever the source of that inclusion.
- Governance quality is the strongest and most consistent driver of inclusion, firm entry and credit depth — stronger than digital finance itself.
- There is no evidence that Sub-Saharan Africa is close to "too much finance" for enterprise creation: the region can expand inclusion aggressively.

THE PROBLEM

Small and medium-sized enterprises are the backbone of Sub-Saharan African economies — roughly 90% of firms and 60–70% of employment — yet access to finance remains their single biggest constraint. Over the past decade, the region has led the world in digital financial services: 40% of adults now hold mobile money accounts, up from 27% in 2021, and digital lending to SMEs grew from $96 billion in 2017 to $166 billion in 2019. The policy assumption has been that this digital revolution feeds the formal financial system and, through it, small-business growth. Our evidence suggests that assumption needs revisiting.

APPROACH

We analysed 48 Sub-Saharan African countries over 2010–2024 (672 country-year observations) using two-step System GMM — a method designed to separate genuine effects from reverse causality and country-specific factors. We built composite indices of DFS penetration (internet, mobile and broadband uptake) and of bank-based financial inclusion (branches, ATMs, depositors, borrowers), and tested their effects on two measures of SME activity: new business density and private-sector credit. All seven models pass the standard validity tests.

RESULTS

Digital finance is substituting for, not feeding, the banking system. Higher DFS penetration is associated with lower bank-based inclusion and substantially lower private-sector credit — the disintermediation effect replicates in every credit model we estimate (coefficients of −0.68 to −0.83) and is the most robust finding of the study. A parallel digital ecosystem is growing outside the formal banking channel that funds enterprise investment.

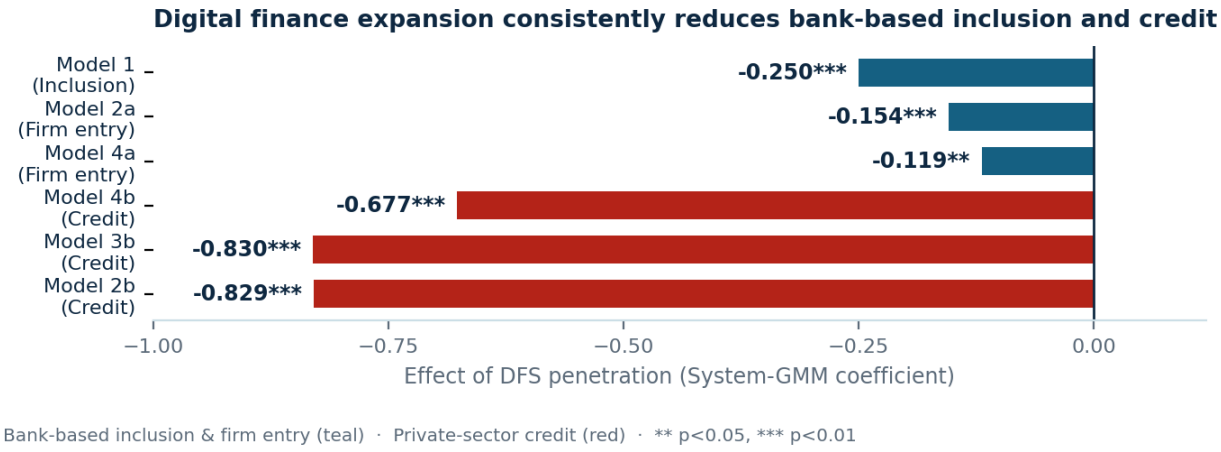


Figure 1. The DFS coefficient is negative in every model estimated; the effect is largest in the credit equations.

Inclusion itself still delivers. Independently of DFS, higher financial inclusion predicts more new business creation. The channel from inclusion to entrepreneurship is intact; the problem is that digital expansion is currently eroding, not building, the bank-based part of it.

Institutions are the master variable. Governance quality — rule of law, government effectiveness, control of corruption, regulatory quality — is positive and significant in every model, with the largest coefficients. No financial-sector intervention in our data outperforms better governance.

No saturation point for enterprise creation. We find no "too much finance" threshold for firm entry. Only in credit depth is there marginal evidence of a turning point, and it lies far above where nearly all SSA countries sit today; it is relevant mainly to the region's most financially developed economies (South Africa, Mauritius, Namibia, Botswana).

CALL-TO-ACTION

1. Make digital finance feed the credit system. Central banks and regulators should mandate interoperability between mobile-money platforms and bank accounts, and require DFS providers to contribute to credit depth rather than merely dominate payments — for example through regulatory sandboxes conditioned on fintech–bank lending partnerships.

2. Bundle inclusion programmes with governance reform. Governments and development partners should sequence interventions so that governance improvements accompany or precede DFS rollouts; inclusion programmes deliver weaker SME returns where governance is weak.

3. Expand financial inclusion aggressively. For policymakers and development finance institutions, the fear of over-financialisation is unfounded at SSA's current levels: most countries have business density and inclusion near zero, so even modest gains translate into firm creation. African Union Agenda 2063 inclusion targets are well justified.

4. Watch credit saturation only where it is relevant. Financial-sector authorities in the region's most developed markets should prioritise credit quality and SME-directed lending over further aggregate credit expansion.

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TRADITIONAL MARRIAGE PRACTICES AND WOMEN'S POLITICAL PARTICIPATION AMONG THE DAGARA OF THE LAWRA DISTRICT, UPPER WEST REGION

UNDERSTANDING THE NEXUS BETWEEN WOMEN'S MARITAL STATUS AND POLITICAL PARTICIPATION IN LAWRA DISTRICT, GHANA



KEY MESSAGES

- Increase women's political representation in local decision-making bodies and their influence on policy-making through financial support.
- Employ participatory workshops to educate communities and traditional leaders on cultural norms that restrict women's engagement in politics; organise social decision-making processes.
- Provide legal and institutional support using targeted mechanisms that can bolster how women overcome restrictive traditional practices.
- Understand the role of cultural practices in women's engagement, as Ghana advances its national agenda for gender equality and democratic participation.

INTRODUCTION

Traditional marriage practices – particularly bride price – are integral to cultural identity amongst the Dagaras in the Lawra District of Ghana's Upper West Region. These customs symbolise respect and social legitimacy for women and carry implications for gender equality and women's political participation. This brief explores how traditional marriage influences women's engagement in politics and community leadership. Recommendations for fostering inclusive participation are discussed.

THE PROBLEM

Traditional marriage, especially the bride price, is viewed in at least two ways: as a symbol of dignity or as a practice reinforcing gender inequality. Many community members associate the bride price with respect and social status, but some argue the bride price reinforces male dominance; it limits women's autonomy, especially in political spaces. Cultural norms around marital status may undercut women's participation in politics. Married women, especially those whose bride price has been paid, may face societal expectations restricting their involvement in decision-making and leadership roles.

APPROACH

The study is methodologically mixed: a case study design of Lawra District and questionnaires from a sample of women participants. Also, interviews included village chiefs, elders, assemblymen and women, religious leaders, a youth leader, the village queen, and the school headteacher.

KEY FINDINGS

-**Symbol of Respect and Dignity**: Bride price and traditional marriage customs often elevate women's social standing, which can motivate their involvement in politics if community attitudes shift positively.

-**Barrier to Autonomy**: Conversely, traditional marriage customs can reinforce patriarchal power structures that suppress women's voices in politics.

-**Community Variability**: The influence of marriage customs on women's political participation varies across communities depending on local leadership and cultural perceptions.

-**Marital Status and Political Access**: Unmarried women and those whose bride price has not been paid often face greater barriers to leadership roles.

-**Role of Community Leaders**: Traditional leaders and elders are pivotal in shaping community attitudes toward women's political roles.



Sensibilisation Campaign in The Tanchara-Koro Community in The Lawra District. Picture Taken During a Field Study in January 2024.



Payment of the Bride Price. Image: Courtesy of CIKOD Centre for Indigenous Knowledge and Organisational Development.

POLICY RECOMMENDATIONS

1. **Engage Traditional Leaders**: Leverage traditional leaders' influence to promote gender-sensitive norms and encourage women's active participation in politics.

2. **Promote Community Dialogues**: Facilitate discussions around marriage customs and women's rights, emphasising the importance of gender equality in rural development.

3. **Strengthen Legal Protections**: Implement policies that safeguard women's rights regardless of marital customs and status to ensure equal access to political opportunities.

4. **Support Women's Empowerment**: Provide training and resources to enhance women's leadership skills and confidence in political engagement.

5. **Develop Culturally Sensitive Campaigns**: Design awareness campaigns that respect cultural practices while advocating for gender equality and women's political agency.

CONCLUSION

Traditional marriage customs amongst the Dagaras hold both cultural significance and challenges for women's political participation. Policymakers and community leaders have a crucial role in balancing respect for cultural norms with the promotion of gender equality. By fostering dialogue, empowering women, and collaborating with traditional authorities, it is possible to create an inclusive environment where women's voices are heard and valued in government.

REFERENCES

Ghana Statistical Service (2019). Ghana Demographic and Health Survey.
Kpiebaya, E. G. (2016). Dagaaba Customary Marriage and Traditional Family Life. Accra.

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Big shed for Traders in Wa

EXPLORING TRADER MARGINALISATION: IDENTIFYING EXCLUDED GROUPS AND THE SOCIO-ECONOMIC BASIS OF MARKET INEQUALITY IN SELECTED MARKETS IN NORTHERN GHANA

Markets in Northern Ghana are vital to local economies, providing livelihoods for thousands of traders and serving as places of social interaction and cultural exchange (Addai, Amponsah & Dinye, 2021). Yet, evidence shows that certain groups, particularly the poor, women, small-scale traders, and ethnic minorities, face systemic exclusion from full participation. This marginalisation stems from unequal access to stalls, discriminatory allocation practices, limited financial capital, and weak representation in market governance structures. This marginalisation not only hampers economic potential but also affects market efficiency and social cohesion. To promote inclusive development and contribute to the achievement of national development goals and the Sustainable Development Goals (SDGs), it is important to address these challenges through actionable policy measures aimed at enhancing equity in market governance and operations. The key question addressed is which categories of traders are excluded and what is the basis for exclusion.

KEY MESSAGES

- Trader marginalisation negatively impacts livelihoods and market efficiency. The exclusion of marginalised groups like the poor, small-scale traders, women, and ethnic minorities leads to diminished income opportunities and weakens traders' resilience.
- Inequality in market access is driven by socio-economic and governance barriers. Unequal stall allocation, structural barriers to space, and social dynamics lead to exclusion and disadvantage for some traders.
- Inclusive market governance through a transparent and fair management system of space allocation not based on social and economic capital can strengthen local economies, foster fairness and trust, and promote sustainable growth.

THE PROBLEM

Markets, services, and spaces are interconnected domains crucial for social inclusion, where individuals and groups seek engagement in societal processes (World Bank, 2013). However, barriers such as exclusion and disadvantage can hinder certain individuals or groups from utilising these opportunities effectively. In an assessment of 'Inclusive Development Policy in Africa', Dekker and Pouw (2022) noted that the poor and the marginalised suffer inequities in their access to markets, social services, infrastructure, and institutions, which often result in monetary and societal costs. Identifying the specific excluded groups within selected markets in Northern Ghana and unraveling the socio-economic drivers that perpetuate market inequality is crucial to developing an inclusive market system that enhances equity in market governance and operations to the benefit of all.

METHODOLOGY

The study is conducted in three urban markets in Northern Ghana, namely: Wa, Tamale, and Bolgatanga, using qualitative methods to gather data from traders and market leaders to create an understanding of traders the market communities consider marginalised, and the basis of disadvantage. Three officials from one metropolitan and two municipal assemblies were interviewed to provide insight into market management systems.

RESULTS

The study found that:

- The most cited marginalised groups are the economically disadvantaged, roadside traders, and villagers from outlying towns.
- Mobile traders, including those using pushcarts and newcomers, are a significant group of marginalised traders identified.
- While the least cited group comprised the socially vulnerable, like the elderly and disabled.
- The economically marginalised, particularly the poor and small-scale traders, are prioritised as the most marginalised group due to their lack of access to secured trading spaces, resulting in precarious conditions of operation.
- Economic disadvantage pushes traders to unstable trading methods, like roadside or mobile trading, which exposes them to increased risks and reduces their customer base.
- Traders working in open spaces or roadside locations are the second highest marginalised group, facing substantial spatial vulnerability due to instability, displacement threats, and absence of designated trading areas.
- Villagers, newcomers, and outsiders (non-natives) face significant challenges due to their geographic origin and social status.
- spatial scarcity and physical exclusion, socio-economic status and financial barriers, social capital and connections, and regulatory pressures are the underlying factors for the state of marginalisation faced by traders

> “Trader marginalisation in Northern Ghana presents significant economic and social challenges. The exclusion of traders like small-scale traders, and minority groups leads to precarious trading conditions, weakened livelihoods, and decreased market efficiency, hindering the country's development goals.”



Mobile Traders using Pushcart in Bolga



Traders at Roadside in Wa

CONCLUSION

Trader marginalisation in Northern Ghana significantly hinders not only local development but national development goals by excluding marginalised traders like the economically disadvantaged, migrants, and minority groups. This exclusion from the places that offer hope negatively impacts poverty reduction and equitable development. To foster equitable markets, decisive actions from policymakers and local authorities are crucial, with actions needing to be directed towards transparent governance, market infrastructure expansion, targeted empowerment programmes, and strong anti-discrimination enforcement.

CALL-TO-ACTION

Local governments (District Assemblies), market authorities/leaders, and development partners must act now to:

- Institutionalise inclusive governance by ensuring transparent stall allocation and creating designated places for marginalised groups in the markets
- Invest in empowerment programmes such as microfinance, training, and infrastructure improvements that enable excluded traders to thrive.
- Strengthen enforcement of anti-discrimination practices and policies to guarantee equal opportunity for all traders.
- Local authorities and private developers, in partnership, should develop market infrastructure with an inclusive mindset for all and not target well-resourced traders through the creation of affordable spaces.

REFERENCES

Addai, Amponsah & Dinye (2023). Social interactions in periodic urban markets and their contributions to sustainable livelihoods: Evidence from Ghana. Regional Sustainability 4 (4),369-377

World Bank. (2013). Inclusion matters: The foundation for shared prosperity. Washington, DC: World Bank. Retrieved from https://openknowledge.worldbank.org/handle/10986/16195

Dekker, M., & Pouw, N. (2022). Introduction to the special issue: Policies for Inclusive Development in Africa. *The European Journal of Development Research*, *34*(5), 2137-2155

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PROMOTING SUPPLY CHAIN RESILIENCE IN TAMALE TEACHING HOSPITAL: DO DIGITALISATION AND ADAPTIVE CAPACITY MATTER?

Healthcare supply chain resilience is the ability of health systems to anticipate, withstand, adapt to, and recover from disruptions such as pandemics, geopolitical conflicts, and political instability that affect the availability and delivery of essential healthcare supplies (Ding et al., 2024). In the face of diverse global and economic disruptions, institutions are increasingly integrating resilience into their operations to ensure continuity and effective service delivery (Iddrisu & Abor, 2025). The healthcare sector, as a critical component of society, is particularly vulnerable to such disruptions, which can significantly affect the availability and quality of healthcare services (Alhassan et al., 2025). Therefore, building resilience is essential to ensuring that healthcare institutions can anticipate, withstand, adapt to, and recover from disruptions while maintaining continuous service delivery.

KEY MESSAGES

Tamale Teaching Hospital (TTH) and policymakers should reduce reliance on paper-based stock records and strengthen electronic inventory visibility.

Digital tools should provide timely alerts for low stock and expirations and support forecasting and evidence-based procurement decisions.

Adaptive capacity should be strengthened through staff training, local technical expertise, alternative suppliers, inventory adjustments and proactive resource reallocation.

THE PROBLEM

TTH, the only teaching hospital and a major referral centre serving Ghana's northern sector, faces diverse supply chain disruptions arising from global crises such as COVID-19 and the Russia–Ukraine war, as well as national and institutional challenges. These disruptions, particularly stockouts of essential medicines and medical supplies, can undermine patients' trust in the hospital, interrupt treatment, and encourage patients to seek medicines elsewhere, potentially increasing reliance on self-medication. Patients have reported receiving only part of their prescribed medicines and purchasing unavailable items outside the hospital, while staff have sometimes had to postpone medications or use personal funds to obtain essential supplies. Strengthening supply chain resilience through digitalisation and adaptive capacity is therefore critical to reducing disruptions, improving medicine availability, and ensuring continuity of healthcare services.

APPROACH

A qualitative case-study approach used semi-structured interviews with 45 respondents, including 3 TTH management, 20 healthcare staff, 20 patients/customers, and 2 supply chain and procurement experts. Interview transcripts were coded using NVivo and analysed thematically to identify recurring supply chain disruptions and resilience factors.

RESULTS

The study found that:

- Digitalisation was perceived to improve data management, workflow efficiency and service delivery at TTH.
- The transition from Lightwave Health Information Management System *(*LHIMS) to Ghana Health Information Management System (GHIMS) reflects an ongoing move towards paperless information management, although technical and cost constraints remain.
- Digital inventory tools can improve stock visibility, forecasting and replenishment by alerting supply-chain units and pharmacists before items run out.
- Modern diagnostic technologies, including the CT scan system introduced in 2023, were associated with more timely and improved diagnostic services.
- Adaptive capacity is strengthened by data analytics, local technical expertise, management flexibility, staff training, participatory problem-solving and preparation of resources.

"Digitalisation can help in forecasting accuracy, reduce the level of shortages of supplies and to help track information to make an informed decision."

CALL-TO-ACTION

We call upon the Ministry of Health and hospital management to support a reliable, sustainable digital supply-chain environment at TTH as GHIMS is implemented. Priority should be given to electronic inventory monitoring with real-time low-stock and expiry alerts. Where specialised tools are unaffordable, the study identifies automated Microsoft Excel tracking as a lower-cost option. At the same time, management should invest in staff training and local technical expertise, maintain alternative sourcing arrangements, adjust inventories proactively and strengthen participatory planning so that technology and people reinforce each other during disruptions.

REFERENCES

Alhassan, A., Offei, F. O., Adu, B. O., Gunu, A. I., Mintah, D. Y., Bobuafor, C., Klu, D., & Doe, P. F. (2025). A scoping review of acceptance and utilisation of electronic health records among healthcare professionals in Ghana. *Discover Public Health*, *22*(1), 730. https://doi.org/10.1186/s12982-025-01146-9

Ding, B., Yang, X., Gao, T., Liu, Z., & Sun, Q. (2024). Confirmation of a measurement model for hospital supply chain resilience. *Frontiers in Public Health*, *12*. https://doi.org/10.3389/fpubh.2024.1369391

Iddrisu, K., & Abor, J. Y. (2025). Green finance and banking. In J. Y. Abor (Ed.), *The Elgar Companion to Financial Economics* (pp. 455–491). Edward Elgar Publishing. https://doi.org/10.4337/9781035341405.00034

Ma, J.-Y., & Kang, T.-W. (2025). Digital Intelligence and Decision Optimization in Healthcare Supply Chain Management: The Mediating Roles of Innovation Capability and Supply Chain Resilience. *Sustainability*, *17*(15), 6706. https://doi.org/10.3390/su17156706

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MOVING BEYOND SYMBOLIC INCLUSION: MAKING WOMEN CHIEFS (*POGNAMINE*) REAL PARTNERS IN CUSTOMARY LAND GOVERNANCE IN NORTHWESTERN GHANA

Customary lands are lands collectively owned by tribes, clans, or families, and are held in trust and managed by traditional leaders for the people (Soale & Akolgo-Azupogo, 2022). Yet, women are disproportionately excluded from participating in decisions that determine how these lands are governed, accessed, and controlled. Women's access to and control over land and its resources have become a key concern in global development discourses. In Sub-Saharan Africa, particularly in Northern Ghana, women continue to face significant barriers to accessing and controlling land. These challenges are largely attributed to women's limited participation in land-related decision-making processes due to discriminatory socio-cultural norms and male-dominated local land governance regimes, which are deeply entrenched in patriarchal systems.

KEY MESSAGES

- Land is central to rural women's livelihoods, food security, and household incomes; symbolic representation without allocative power does little to shift these outcomes.
- The *pognaa* institution is relatively new and locally unsettled; therefore, it is genuinely open to deliberate design - a rare policy window to strengthen the institution before it takes formal root.
- Recognition of the pognamine has not translated into substantive authority, particularly over land.

THE PROBLEM

Across sub-Saharan Africa, it is estimated that 80 percent of land is held under customary tenure, and the practice remains the same in Ghana (Alden Wily, 2018). Customary land is central to rural livelihoods, yet its access and control are mediated through institutions that are largely controlled by men. Meanwhile, women who are major contributors to household food security and rural incomes are often unfortunately locked out of land-related decision-making, which constrains their access and control. This exclusion is particularly prevalent in northern Ghana. The emergence of the pognaa (woman chief) institution in Dorimon and many northern Ghanaian societies creates an important opening for transformation, but their recognition within the traditional governance structures has remained symbolic (Sabogu & Puorideme, 2024) and has not automatically altered the land governance regime. Sustainable Development Goal 5 emphasizes the full and meaningful participation of women in decision-making at all levels. The problem is no longer about whether women are integrated into governance spaces; it is about the nature of their inclusion. *Pognamine* may be present in the traditional governance structures, but male authorities hold final allocative, adjudicative, and administrative decisions and powers over land. This gap in decision-making turns women's representation in traditional governance structures into symbolic, rather than substantive.

APPROACH

The study adopted a qualitative approach of inquiry in the Dorimon Traditional Area. Twelve in-depth interviews were conducted with three chiefs, three pognamine, three tendamba/tendeme, two women leaders, and one representative of the Upper West Regional House of Chiefs. The analysis examined how gender, traditions, and contemporary regimes of power are produced and negotiated in customary land governance practices. In addition, secondary data were collected on current land governance practices in the Waala and Dorimon traditional areas to compare with responses from the field.

RESULTS

The study found that:

- **Land governance is discursively fixed as a male domain:** Land governance is often presented as an uncontested male preserve, administered by chiefs and tendamba. This is a deeply entrenched position, and not a defended opinion, revealing how local norms normalise the exclusion of women in land issues.
- **Pognamine have a voice without decision-making authority**: Pognamine are invited and permitted to speak at community leadership discussions, but do not take part in decision-making.
- **Gendered roles channel women into advisory and mediation rather than positions of authority:** Pognamine are often described as persons who can mediate land-related conflicts because of the disposition of women to calm tensions and communicate well. Although these roles are valuable, they can unintentionally become a mechanism for keeping women out of substantive decision-making.
- **The Pognamine institution is undefined, unresourced, and unevenly established:** There is no well-defined, established mandate, and dedicated funding mechanism for the Pognaa institution. The effectiveness of individual pognamine is based on personal initiatives and NGO support, rather than institutional guarantee. Coverage is also patchy, with some communities having the pognaa position well established while others are yet to.

"Inviting women into land governance meetings is not equivalent to giving them meaningful roles in land governance"



Advocacy session on women inclusion in community development processes, Dorimon



A women's leader advocating for change in discriminatory gender socio-cultural norms

CALL-TO-ACTION

The terms of participation of women chiefs (pognamine) in land governance must be well established. Closing the gap between symbolic and substantive inclusion requires transformation in institutions and practices. We therefore call on the Dorimon Traditional Council, Upper West Regional House of Chiefs, Wa West District Assembly, land-sector institutions, and development partners to act on three priorities: (1) formalise the pognaa institution by defining its role in land-related decision-making; (2) build pognamine capacity in customary and statutory land governance practices; and (3) create and sustain linkages between customary, local governance, and land-sector institutions to enhance the participation of pognamine in customary land governance. Pognamine's inclusion should be defined by their influence over outcomes, not their mere presence.

REFERENCES

Alden Wily, L. (2018). Collective land ownership in the 21st century: Overview of global trends. *Land*, *7*(2), 68.

Soale, J. M. & Akolgo-Azupogo, H. (2022). Changes in Women's Access to and Ownership of Land in Northern Ghana. *Journal of Environment and Sustainable Development. Vol. 1, Issue (2)*,1-11 2022. https://doi.org/10.55921/AKUQ6888.

Sabogu, A. & Puorideme, D. (2024). The Making of Pognaa (Woman Chief) in the Waala Traditional Political System. Implications for Women's Involvement in Community Governance. *Ghana Journal of Development Studies*, 2024.

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BARRIERS TO THE IMPLEMENTATION OF GHANA'S SPATIAL PLANNING AGENDA

Empirical research on polycentric development in Africa remains limited. Some studies document the rise of informal polycentricity – decentralised economic and residential development driven by market forces rather than planning (Obeng-Odoom, 2011). While cities in Asia and Latin America have undergone spatial transformation into polycentric regions, sub-Saharan African cities are expanding spatially in ways that do not fit neatly into existing urban models. Polycentricity has been widely adopted in other jurisdictions such as Latin America, China, and now Africa. However, Natalia and Heinrichs (2019) argue that Europe has seen a saturation of empirical studies on polycentric development, calling for new studies in Africa.

KEY MESSAGES

- The normative appeal of polycentric development lies in its potential to promote territorial cohesion, reduce the dominance of primate cities, and accommodate urban growth through more sustainable patterns of development.
- As decentralisation in the developing world continues in largely unplanned ways, empirical evidence points to the polycentric development model as an effective strategy for addressing issues associated with unplanned urban expansion.

THE PROBLEM

While the National Spatial Development Framework (NSDF) provides a spatial vision that categorises nodes according to a hierarchical role in the network, questions persist concerning institutional coordination, the role of transport systems, institutional capacity, and the inclusion of informal systems that dominate everyday mobility in Ghanaian cities. These gaps between policy intentions and actual urban dynamics underscore the need to assess how spatial planning and mobility systems support, or hinder, the transition toward polycentric development.

METHODOLOGY

The study integrates GIS-based land-use analysis with structured interviews to evaluate the implementation of Ghana's polycentric development strategy and to identify barriers to functional transformation. Spatial analysis of land-use change is complemented by thematic analysis of interview data, organised around two analytical dimensions: spatial coordination and transport integration.

FINDINGS

- The findings indicate that polycentricity has emerged predominantly as a normative planning response to rapid, poorly regulated urban expansion rather than as an outcome
- The polycentric vision is theoretically informed and normatively strong, yet primarily aspirational
- The findings reveal a gap between morphological polycentricity and functional integration. This disjuncture reflects the distinction drawn by Burger and Meijers (2012), where the presence of multiple centres does not automatically translate into interconnected labour markets, economic flows, or commuting patterns.
- A central explanation lies in the absence of continuous and coordinated investment. As one respondent stated, "we are unable to experience consistent investments and continuity in projects and programmes that help us achieve the polycentricity as well documented in policy" (Respondent 2, interview 28 August 2024)

- Vertical misalignment and horizontal coordination challenges within the planning system further constrain implementation.
- While national and regional policies formally endorse integrated and networked urban development, respondents emphasised the absence of institutional arrangements capable of delivering planning at the required regional scale
- Spatial fragmentation persists, and internodal integration remains unlikely.
- Transport planning remains heavily road-oriented, reinforcing patterns of sprawl and automobile dependence
- The lack of integration between land-use and transport planning further constrains transition toward functional polycentricity
- Road expansion is, therefore, perceived not as an enabler of accessibility, but as deepening socio-spatial inequality.
- The broader implication of these findings is that polycentric development remains a largely normative construct – symbolically important within national spatial policy, but materially unsupported by institutional arrangements or transport systems.

CALL-TO-ACTION

Key policy actions must include capacity building to equip local professionals with modern tools and techniques; institutional reform to streamline mandates, potentially through a unified Department of Urban Management; and support for regional planning initiatives to support inter-urban collaboration. In contemporary urban design, polycentric development and Transit Oriented Development (TOD) require aligning railway corridors with land-use strategies; as such, policy should focus on integrating land-use planning, particularly around railway stations and corridors. Policy must prioritise an integrated approach to any future railway renewal projects. This encompasses evaluating the accessibility of station locations in relation to the origins and destinations in the metropolitan area and the complementary land uses around station areas, affordable housing policies and pedestrian-friendly urban environments.

REFERENCES

Burger, M. & Meijers, E. (2012). Form follows function? Linking morphological and functional polycentricity. *Urban Studies*, 49(5), pp. 1127-1149. https://doi. org/10.1177/0042098011407095.

Natalia, V.V. & Heinrichs, D. (2020). Identifying polycentricism: A review of concepts and research challenges. *European Planning Studies*, 28(4), pp. 713-731. https://doi.org/10.1080/09654313.2019.1662773.

Obeng-Odoom, F. (2011). The informal sector in Ghana is under siege. *Journal of Developing Societies*, 27(3-4), pp. 355-392. https://doi. org/10.1177/0169796X1102700406

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THE ROLE OF FARM CREDIT ON CEREAL CROP PRODUCTIVITY IN GHANA: INSIGHTS FROM THE GLSS 7

Cereals including maize, sorghum, millet, and rice serve as staple foods and are major drivers of food security in Ghana and throughout Sub-Saharan Africa (SSA) (Ankrah et al., 2023). Despite the importance of cereals, their productivity has remained stubbornly low for decades, undermining rural livelihoods and national food security (Ankrah et al., 2023; Raheem et al., 2021). This disappointing performance cannot be traced to a single factor; instead, it reflects the combined effects of climate variability, limited uptake of Climate-Smart Agriculture (CSA) practices, and major barriers to farm credit availability (Ankrah et al., 2023; Bissah et al., 2022).

KEY MESSAGES

- Cereal farming in Ghana remains critically underfunded (thus below 8% of total domestic credit of commercial bank allocation to the agricultural sector for over 30 years
- Credit access significantly influences maize productivity, revealing a stark commodity-specific disparity among all other cereals in Ghana.
- Cereal farmers without access to credit are unlikely to invest in Climate Smart Agricultural practices (CSA), leaving them trapped in lower productivity cycles
- Climate projections forecast that maize farmers who fail to adopt CSA practices could experience yield losses of 8 – 11% within a 10-year timeframe, threatening national food security.
- Policy intervention must prioritise green financing for maize farmers. This will expand financial inclusion for the cereal group and will enhance SDG 2 (Zero Hunger).

THE PROBLEM

Credit access and CSA practices have received considerable attention in the literature. However, most of the studies have limited geographical scope and sample sizes, making such studies not nationally representative. The combination of credit access and CSA practices has the tendency to boost productivity among cereal farm households in Ghana (Ankrah et al., 2023). The objective of this study is to investigate the influence of farm credit on cereal crop (maize, sorghum, millet and rice) productivity.

METHODOLOGY

This study utilised data from the Ghana Living Standards Survey (GLSS 7), a nationally representative household survey conducted in 2017 by the Ghana Statistical Service, encompassing 15,000 households across all regions of Ghana. The study employed Ordinary Least Squares (OLS) regression analysis to evaluate the impact of farm credit on the yields of maize, sorghum, millet, and rice. The dataset included information on farm credit access, input usage, socioeconomic characteristics, and cereal yields—making it uniquely suited for national-level analysis.

RESULTS

The Findings of OLS Regression reveal that:

- **Credit Access is Crop Specific and Uneven**
  The regression analysis showed that farm credit has a statistically significant effect only on maize productivity. For sorghum, millet, and rice, credit access did not exhibit a statistically significant relationship with yields. This crop-specific difference implies that the credit arrangements currently in operation may be more effectively matched to maize production systems, or alternatively, that maize farmers are better able to convert credit into productive investments.

- **All Cereal Component**
  After conducting an aggregated analysis to evaluate the overall influence of farm credit on combined cereal yield, the results were not statistically significant. This outcome indicates that the positive maize effect becomes weakened when other cereals are analysed jointly, underscoring the importance of crop-specific credit interventions.

CONCLUSIONS

This study shows that access to farm credit has a significant effect on maize productivity, but it produces no comparable results for sorghum, millet, and rice. This difference across crops needs to be addressed through targeted policy actions that account for the distinctive features and requirements of each cereal subsector.

"Below 8% of total domestic credit of commercial bank allocation to the agricultural sector for over 30 years"

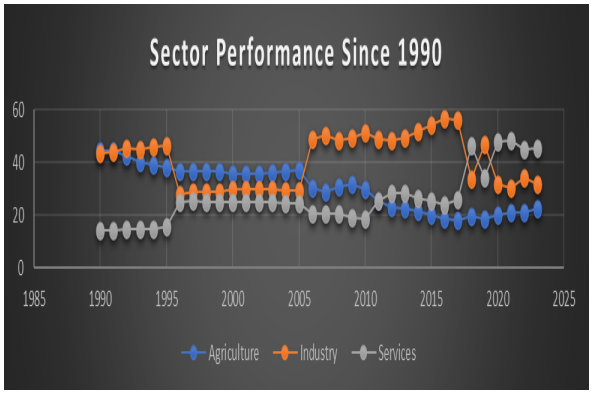


Figure 1: Agricultural Sector Performance since 1990

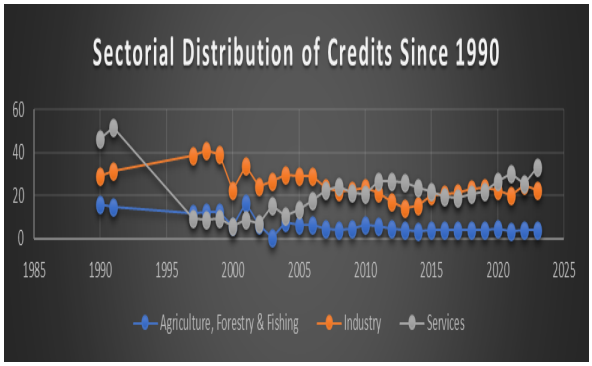


Figure 2: Sectorial Distribution of Credits since 1990

CALL-TO-ACTION

We call upon the commercial banks to establish a crop-specific credit window to deepen green financing efforts. Where there is a need for credit rationing, we encourage commercial banks to dispense credit to maize farmers. MoFA should link credit opportunities to extension services to enhance access to credit.

REFERENCES

Ankrah, D. A., Kwapong, N. A., Manteaw, S. A., et al. (2023). Cereal production and food security in Ghana: Challenges and opportunities. *Journal of Agricultural Studies, 11*(2), 45–67.

Bissah, M. N., et al. (2022). Factors influencing rice production in the south-eastern belt of Ghana. *Heliyon, 8*(12), e12404.

Raheem, D., et al. (2021). The contribution of cereal grains to food security and sustainability in Africa: Potential application of UAV in Ghana, Nigeria, Uganda, and Namibia. *Urban Science, 5*(1), 8.

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Tacca leontopetaloides (L) O at Nyandema

WILD EDIBLE PLANTS AND CLIMATE CHANGE ADAPTATION IN RURAL NORTHERN GHANA

INTRODUCTION

Several historical pieces of evidence suggest that many cultures have relied on wild edible plants (WEPs) for millennia, in pre-agricultural and pre-industrial eras (Shirsat & Koche, 2024).

In sub-Saharan Africa, with dual economies, some rural folks who live in forest-fringed communities depend on WEPs (Appiah & Kyeremeh, 2019). Their closeness to nature has led them to gather crucial knowledge about WEPs (Clemente-Villalba et al., 2024). In an era of climate change, a surging world population, and food insecurity, WEPs seem to offer a glimpse of hope for the world to fill the gap left by the limitations of agriculture (Hansen et al., 2019). However, there seems to be less attention on how WEPs contribute to food security under climate change.

KEY MESSAGES

- Integrating WEPs into climate change adaptation projects, especially in forest-fringe communities, will improve adaptive capacity.
- WEP value chain enhancement projects should focus on women, as they have been identified as the gender dominating the WEP value chain.
- Promotion of WEP value chains should target improved processing, focusing on equipment and training support to reduce current drudgery.
- Government afforestation projects like the Tree for Life should target WEP seedlings and care for the double benefits of supporting food security and carbon sequestration.
- Less-known WEP products like that of *Diospyros mespiliformis* (jackalberry) sweetener should be promoted for possible use by diabetes patients and health-conscious individuals looking for a table sugar replacement.

THE PROBLEM

The worsening of climate variability means there is a limit to cultivated crops, as yields are affected (Gaur & Verma, 2023; Javan & Darestani, 2024; Barati et al., 2024). Current estimates of temperature rise (Valene, 2021) show heat tolerant crop variety thresholds are being surpassed. This decreases the possibility of continuing to release new crop varieties. So, it becomes imperative to look beyond these technologies for nature-based non-farm strategies like WEPs that promise ecosystem services roles to improve the climate while contributing to climate change adaptation efforts.

METHODOLOGY

The study was conducted in six (6) forest fringe communities in Sissala East, Builsa South, and Mamprugu Moadugri in Ghana that access joints forested areas. The exploratory sequential mixed-methods approach was adopted. The first phase of the research adopted focus group discussions and key informant interviews to free-list WEPs and WEP uses, and thematic analysis to examine knowledge of WEPs, how they are retained, and the climate-smart characteristics of WEPs (Creswell & Creswell, 2018; Sarantakos, 2013) concept of ecotourism, principles, and practices, and research findings in other parts of the world were collected through literature searches and reviews.

RESULTS

The study found that:

- The study communities have a relatively high number of WEPs species diversity which support their dietary and income needs. These WEPs are scattered around in people's farms, by the homesteads and deep in the bushes and forests accessible to the communities.
- The WEPs are known to and eaten by people: high salience WEPs are *Vitellaria paradoxa* (shea), *Parkia biglobosa* (dawadawa), *Detarium senegalense* (tallow), *Adansonia digitata* (baobab) and low salience WEPs are *Dioscorea praehensilis* (wild yam), *Tamarindus indica* (tamarinde) and *Tacca leontopetaloides (L)* (arrowroot).
- Key reasons for use of WEPs given are due to cultivated food shortages, medicinal properties of

"When we are hungry… we go around looking for [WEPs] to manage our hunger"



WEPs Actors deshelling shea at Yiziesi

WEPs, material uses and the need for continuation of cultural and social legacy.

- The relevant WEP knowledge areas deemed important to be retained are: WEPs identification skills, WEPs harvesting skills, uses of WEPs skills, WEPs Storage skills, WEPs Processing skills and knowledge of how to sustainably manage WEPs.
- The WEPs in the study areas are nutritious, increase food diversity, serve as alternative foods, facilitate swallowing of staple foods, possess medicinal and health properties, are consumed in different stages of maturity and desiccation, serve as hunger balm and are seasonally available which plays a vital role in our current climate change era.
    - WEPs are perceived as resilient to climate change impacts such as drought, flooding, rising temperature and tolerable to fire outbreaks compared to cultivated crops.
    - WEPs can assist in carbon sequestration and can be well integrated into local farming systems.
    - Women are the gender that dominates in WEPs value chains from harvesting to processing and are perceived to be the most knowledgeable in using WEPs to prepare food.



Strychnos spinosa Fruit; one of the studies WEPs at Kalaasi

CALL-TO-ACTION

The ministries of local government, chieftaincy and religious affairs, Land and Natural Resources, and interested Nongovernmental Organisations should focus on the promotion of cottage industries around high-value WEPs like *Parkia biglobosa, Vitelleria paradoxa* and *Adansonia digitata* as a poverty alleviation strategy, especially among women. Land should be properly acquired to prevent land litigation. The Department of Agriculture, the Ghana Health Service and the Forestry Commission should collaborate to promote the consumption of WEPs.

REFERENCES

Clemente-Villalba, J., Burló, F., Hernández, F., & Carbonell-Barrachina, Á. A. (2024). Potential interest of Oxalis pes-caprae L., a wild edible plant, for the food and pharmaceutical industries. *Foods*, *13*(6), 858.

Gaur, A., & Verma, S. (2023). Impact of climate change on agriculture. *The Impact of Climate Change and Sustainability Standards on the Insurance Market*, 193-209

Sarantakos, S. (2013). *Social Research* (4th ed.). Palgrave Macmillan.

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THE LIVESTOCK PARADOX: WHY CATTLE OWNERSHIP REDUCES CLIMATE-SMART AGRICULTURE ADOPTION IN NORTHERN GHANA



Cattle herd on a smallholder farm in northern Ghana



Livestock being fed on a smallholder farm

KEY MESSAGES

- Contrary to conventional wisdom that livestock ownership signals wealth and enables technology adoption, cattle-owning smallholders adopt fewer CSA practices than non-cattle-owning smallholders in northwestern Ghana.
- Cattle ownership reduces CSA adoption intensity by 14% (IRR = 0.860, $p<0.05$), even after controlling for wealth, farm size, and other covariates.
- Two mechanisms drive this paradox: labour competition from full-time herding, and extension programmes that focus on crop production alone, excluding crop-livestock integration.
- The negative effect of cattle ownership is largest among male farmers, who carry primary herding responsibilities, and for CSA practices that require timely field labour.

INTRODUCTION

The literature typically links livestock ownership with wealth, asset accumulation, and the adoption of agricultural technologies. A mixed-methods study of 350 maize farmers in northwestern Ghana, combining a household survey with focus groups and key informant interviews, tested this assumption in the context of Climate-Smart Agriculture (CSA). Using Poisson regression, the study found the opposite of what conventional theory predicts: cattle-owning households adopt CSA practices at a lower intensity than households without cattle. The findings raise an important question for policy: how should CSA extension be redesigned to reach mixed crop-livestock households rather than inadvertently excluding them?

RESULTS

- Cattle-owning smallholders adopt fewer CSA practices than non-cattle-owning smallholders, a reversal of the conventional wealth-enables-

"Climate-smart agriculture cannot take root in mixed farming systems until policy resolves the labour trade-offs that keep cattle-owning households on the margins of adoption."

adoption relationship found elsewhere in the technology-adoption literature.

- The presence of cattle reduces CSA adoption intensity by 14% (IRR = 0.860, $p<0.05$), controlling for wealth, farm size, and other covariates.
- Mechanism 1: Labour competition: full-time herding during the dry and early growing seasons reduces the labour available for CSA practices that require timely field work, such as mulching, planting pits, and cover cropping.
- Mechanism 2: Extension design gap: cattle owners are often absent when extension officers visit, and most existing extension programmes focus solely on crop production, largely excluding crop-livestock integration.
- Interaction models show the negative impact of cattle ownership on CSA adoption is largest among male farmers, who primarily hold herding responsibilities, and for CSA practices that require timely labour in the field.
- The study concludes that promoting CSA in mixed farming systems cannot succeed without addressing the crop-livestock labour trade-off directly.



Mixed sheep and goat flock kept alongside cattle on a smallholder farm

CONCLUSIONS

- Livestock ownership, despite being a conventional marker of wealth, functions as a barrier rather than an enabler of CSA adoption in mixed farming systems.
- Labour competition during herding seasons systematically limits cattle-owning households' capacity to carry out labour-intensive CSA practices.
- Extension programmes that are designed around crop production alone compound the problem by structurally excluding livestock-keeping households.

RECOMMENDATIONS

- Integrate crop and livestock advice into a single extension package, rather than treating them as separate programmes.
- Develop seasonal labour-planning tools to help cattle-owning households balance herding and CSA field labour demands.
- Support herding cooperatives that reduce the individual time burden of cattle management, freeing up labour for CSA adoption.
- Schedule extension visits around herding calendars so that cattle-owning farmers are not systematically missed.

CALL-TO-ACTION

- The Ministry of Food and Agriculture (MoFA) should mandate integrated crop-livestock modules in all CSA extension and training curricula delivered in mixed farming zones.
- District Directorates of Agriculture in northern Ghana should pilot herding cooperatives and seasonal labour-planning tools in cattle-owning communities.
- Extension planning units should redesign visit schedules to coincide with periods when cattle-owning farmers, particularly men, are available.

REFERENCES

1. Ibrahim, A., Anang, B. T., Anzagra, L., & Derbile, E. K. (2026). The Livestock Paradox: Why Cattle Ownership Reduces Climate-Smart Agriculture Adoption in Northern Ghana. [Working paper].

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THE CAPACITY OF PRIMARY HEALTH CARE FACILITIES IN MANAGING NON-COMMUNICABLE DISEASES IN GHANA

Non-communicable diseases (NCDs), also known as chronic diseases, are conditions that are not passed from person to person (WHO, 2026). They are characterised by their long duration and generally slow progression. The four main types of NCDs are cardiovascular diseases (like heart attacks and stroke), cancers, chronic respiratory diseases (such as chronic obstructive pulmonary disease and asthma), and diabetes mellitus. These diseases are driven by common, modifiable risk factors including tobacco use, physical inactivity, harmful use of alcohol, and unhealthy diets (WHO, 2026).

NCDs are noted as a major global challenge in the United Nations 2030 Agenda for Sustainable Development. The epidemic of NCDs poses devastating health consequences for individuals, families and communities, and threatens to overwhelm health systems. NCDs, including heart disease, stroke, cancer, diabetes and chronic lung disease, are collectively responsible for 74% of all deaths worldwide. More than three-quarters of all NCD deaths, and 86% of the 17 million people who died prematurely, or before reaching 70 years of age, are common in low- and middle-income countries. The socioeconomic costs associated with NCDs make the prevention and control of these diseases a major development imperative for the 21st century (WHO, 2026).

KEY MESSAGES

- 100% of facilities surveyed failed to meet all recommended indicators for NCD management
- 47.1% of health providers had never received NCD-specific training
- Essential medicines for NCDs are consistently unavailable
- Critical equipment for diagnosis and monitoring is lacking
- Health workers are overburdened and under-resourced
- "How can we manage many non-communicable disease patients when we don't have adequate equipment, especially at the laboratory?" — Physician Assistant, 34 years

THE PROBLEM

Non-communicable diseases (NCDs)—including hypertension, diabetes, and cardiovascular diseases—are rapidly becoming the leading cause of death in Ghana, accounting for 43% of all deaths nationally (World Health Organisation, 2021). Globally, NCDs claimed 41 million lives in 2016, with 85% of premature deaths occurring in low- and middle-income countries (Gouda et al., 2019). Despite this growing burden, primary health care (PHC) facilities—the first point of contact for most Ghanaians—lack the capacity to effectively manage these conditions.

METHODOLOGY

This study assessed the capacity of PHC facilities to manage NCDs in Asokore Mampong municipality using a qualitative case study design. Purposive sampling was used in selecting respondents and facilities based on expertise and NCD-related services. Data were collected via a rapid assessment tool and an interview guide.

RESULTS

The study found that:

- Critical gaps in Essential Medicines: Seven out of the eight facilities reported chronic shortages of essential Non-Communicable Diseases (NCD) medications.
  "Another challenge is the nonavailability of drugs from the regional medical stores. you can go there and they don't have so you don't have any option but to come back without the needed drugs" (PA, 29years)
- Inadequate Infrastructure and Equipment: Surprisingly, none of the facilities surveyed had all the necessary diagnostic equipment.
  "How can we manage many non-communicable disease patients when we don't have adequate equipment, especially at the laboratory?" — Physician Assistant, 34 years
- Declining Human Resource: In relation to numbers and skill, the health workforce is insufficient.
  Inadequate human resource is a major challenge we are facing here if we are talking about managing non-communicable diseases. For example, there is no nutrition officer here, no dispensary technician, and many others
- Limited NCD Specific Training: None of the facilities maintained a systematic database for patient follow-up.
- Patient Non-Compliance: Patients resort to herbal medicines other than prescribed medications

> *"They should just provide us with the necessary equipment and things will improve that's all (nurse, 34years)"*

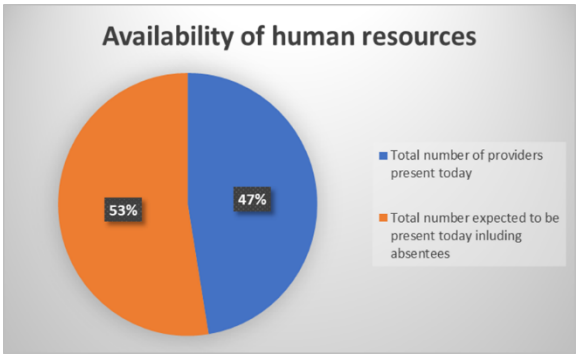


Figure 1: ***Overall training status of health workers on NCD management***

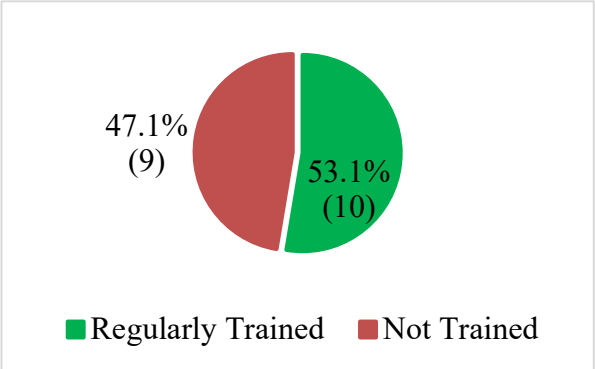


Figure 2: ***Level of training of health workers for NCDs***

CALL-TO-ACTION

We call upon the Ministry of Health and Ghana Health Service to give healthcare professionals (Physician Assistants, General nurses, Registered community health, nurse assistant preventive etc) on-the-job training in the identification and treatment of NCDs and utilise community health nurses to conduct screening in convenient places and as part of normal or special home visits. Furthermore, National NCDs management guidelines should be accessed and made available to all sub-districts within the municipality to guide care provision.

REFERENCES

Gouda, H. N., Charlson, F., Sorsdahl, et al. (2019). Burden of non-communicable diseases in sub-Saharan Africa, 1990–2017: Results from the Global Burden of Disease Study. *The Lancet Global Health*, 7(10), e1375–e1387.

World Health Organisation. (2026). *Noncommunicable diseases*. https://www.who.int/health-topics/noncommunicable-diseases.

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