

SIMON DIEDONG DOMBO UNIVERSITY OF BUSINESS AND INTEGRATED DEVELOPMENT STUDIES

# 2021 SDD-UBIDS MAIDEN RESEARCH CONFERENCE

THEME: TRANSFORMING COMMUNITIES AND ENTERPRISE DEVELOPMENT AMIDST COVID-19 THROUGH IMPACTFUL RESEARCH AND SCHOLARSHIP

# **BOOK OF ABSTRACTS**

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#### A MESSAGE FROM THE DIRECTOR OF RESEARCH, INNOVATION AND CONSULTANCIES (DRIC)

I take this opportunity to express gratitude of the Organising Committee to all who presented papers (completed papers or works-in-progress) at the maiden SDD-UBIDS Research Conference, especially external presenters. We sincerely appreciate your support as we take steps to inculcate a culture of research by creating a conducive environment for research, collaboration and knowledge sharing. The papers were of reasonably high quality. I encourage authors to use the feedback received to improve them for publication.

I wish you a Happy New Year and look forward to seeing you at the SDD-UBIDS 2022 Research Conference.

Professor Maurice Oscar Dassah (Director)

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# Assessing the Availability of Water, Sanitation and Hygiene Facilities in Basic Schools in North-western Ghana

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#### Introduction

There has been growing interest in Water, Sanitation and Hygiene (WASH) worldwide with the central focus on Africa. The provision of adequate WASH facilities such as toilets, safe drinking water, and detergents in schools encourages enrolment, retention of students and creates a conducive environment for effective teaching and learning (World Bank, 2018). In Africa, many schools are confronted with poor sanitation and hygiene due to lack of and/or inadequate WASH facilities (Zormal, 2016). The COVID-19 pandemic has compounded this weakness with frequent handwashing becoming a challenge in schools. In Ghana, several efforts were made to provide WASH facilities to basic schools (GES, 2014). It is, however, unclear if public basic schools in north-western Ghana are adequately provided with WASH facilities. This paper explores the availability, accessibility, and effective use of WASH facilities among basic school children in the Wa Municipality of the Upper West Region of Ghana.

#### Methodology

The study adopted a mixed methods approach where it employed both quantitative and qualitative approaches in data collection and analysis. A multistage sampling technique was used in selecting the schools and respondents. A questionnaire was designed and administered to 45 randomly selected participants, consisting of 30 students and 15 teachers. Qualitative data were collected from three head teachers, the Bamahu circuit supervisor, Municipal SHEP coordinator and the Municipal Environmental Health Expert. Transect walks and direct observation were employed to observe the use and availability of facilities. Results from the survey were analysed using SPSS (version 21) and Microsoft Excel, while qualitative data were generated to present the quantitative data, while qualitative data were presented by direct quotations and paraphrasing.

#### Findings

The results show that there was availability of urinary and toilet facilities, water containers, detergents, and borehole to supply water for frequent handwashing. The results further show that there were separate urinary and toilet facilities for males and females in the schools. It was found that 97% of the schools' population wash their hands two or more times during school hours, with 91% washing their hands with soap under running water. Also, 96% of the respondents indicated adequate water availability for handwashing. Although there were toilet facilities in the schools, the study found low use of toilet and urinary facilities among students: 62% of the respondents indicated open defecation, while 38% use toilets during school hours due to unhygienic conditions of these facilities.

#### Conclusion

The study concludes that WASH facilities were available but inadequate. There was low usage of toilets and urinary facilities by students and teachers. The study recommends the allocation of adequate resources by the Ministry of Education to the Ghana Education Service to improve WASH in schools.

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# Contradictions in Land Tenure in Acephalous Areas of Upper Western Ghana

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#### Introduction

Customary land tenure literature often generalises customary land tenure rules that emerged in centralised areas in Ghana to all parts of Ghana (Abdulai, 1986). However, these rules are not universally applicable to land holdings in Ghana. In reality, these consolidated land tenure principles and interests in customary lands of Ghana are germane to centralised areas of Ghana. The formation of 'customary land tenure of Ghana' partly arose from centralised natives' agitation to colonial appropriation of land and partly from judicial decisions arising out of litigations that hitherto competition for land for concessions and plantations engender in centralised areas (Ollenu, 1962; Agbosu, 1982; Amanor, 2008). This study suggests that interests in the customary land of acephalous communities are incongruous and that, in the context of peri-urbanisation-induced land commodification, there is evidence that seemingly contradicts the *Tindaana* as 'owner' of land in acephalous communities.

#### Methodology

The adopted a qualitative case study approach using two case studies – Mangu and Siriyiri in peri-urban Wa. The main sources of data are review of historical literature on land tenure and the acephalous people of upper western Ghana, analysis of historical and recent court cases on land tenure and in-depth interviews. The historical literature review and review of court cases were undertaken through desk study, while the interviews were conducted using interview guides. Saturation was achieved with 38 interviews. Field work was conducted in two rounds, with a third to validate the findings. The data was manually analysed, which resulted in the formation of recurring and atypical subjects that aided the emergence of themes. The research was assessed and approved by the University of the Witwatersrand Ethics Committee (non-medical), with protocol number H18/06/35.

#### Findings

The study found that the Chief and *Tindaana*, as leaders in the selected acephalous case studies, are not dominant in the midst of peri-urbanisation-induced land commodification and hold interests in land that are akin to that of ordinary indigenes of their communities. The *Tindaana*, in particular, exercises a 'ritual allodial interest' in respect of land, while the Chief holds an interest equivalent to any other indigene. Evidence further shows that ordinary indigenes of the acephalous communities possess interests in land that are similar to the 'traditional' allodial interest that chiefs hold in centralised areas. However, women and long-term stranger settlers in these acephalous communities hold interests that can be likened to the 'traditional' usufructuary interests in land in centralised areas. These findings contradict the centrally biased customary land tenure rules that were formed during the colonial and early post-colonial eras.

#### Conclusion

The study concludes that the *Tindaana* is not the exact prototype of a centralised chief and the interests in land tenure of acephalous communities, in general, need a reinterrogation. Thus, the paper makes a case for (re)construction of acephalous customary land tenure to inform land tenure policy in Ghana.

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# Assessing Contraceptive Use Among Female Migrant Head Porters in Kumasi Metropolis, Ghana

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#### Introduction

Although access to family planning has increased in many parts of the world, it remains low in sub-Saharan Africa. Ghana, in particular, has a 51% demand for family planning services. However, only 33% of this demand is satisfied. Contraceptive usage increases a woman's chances to pursue her career and enables her to work for a long time. The 2014 Demographic and Health Survey affirms that many Ghanaian women, especially migrant women, still have an unmet need for contraception. The Ghana Population Council (2018) further affirms that about 17% of pregnancies are unwanted due to this need gap. Despite public health campaigns and awareness about contraceptive use by the United Nations Population Fund and other stakeholders, there is still a gap between awareness of contraceptives use and uptake among the general Ghanaian population, including migrant head porters. This study sought to assess contraceptive use among female migrant head porters in Kumasi, Ghana. Specifically, the study seeks to analyse the prevalence of contraceptive use, explore patterns of use and examine determinants of contraceptive use among the study participants.

#### Methodology

The study was cross-sectional in design and employed the mixed methods research approach to assess contraceptive use among female migrant head porters in Kumasi, Ghana. Due to the absence of a reliable sampling frame, 200 respondents were conveniently sampled for a survey and 15 migrant head porters who had in-depth knowledge about family planning (key informants) were purposively selected and interviewed using an interview guide. The multivariate logistic regression model was used to analyse quantitative data, while qualitative data were thematically analysed.

#### Findings

The study established a high prevalence (84%) of contraceptive use among the female migrant head porters. Injectables (30.5%), implants (26.6%), condoms (17.5%), and oral pills (13%) were the commonly used contraceptives. Besides, ethnicity (AOR=7.250; CI=1.567-33.541), National Health Insurance subscription (AOR =0.395; CI=0.178-

0.878), knowledge of HIV status (AOR =1.034; CI=0.428-2.500), and having multiple sexual partners (AOR =0.450; CI=0.060-3.377) were associated with high contraceptive use among the female migrant head porters in the study area.

#### Conclusion

The findings have policy implications towards improving contraceptive uptake among female migrant head porters. It is recommended that the Kumasi Metropolitan Health Directorate scales up efforts to maximise migrants' knowledge of HIV/AIDS, improve access to contraceptives and their affordability, and promote subscription to the NHIS to reduce vulnerability to sexually transmitted diseases and unplanned pregnancies among the female migrant head porters.

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# An inter-generational Perspective and Sustainable Agriculture Intensification for Climate Change Adaptation in Northern Ghana

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#### Introduction

Climate change is an acute stressor to rain-fed agriculture, the main livelihood of rural populations in developing countries (Derbile et al., 2021). Africa will suffer a more significant impact of climate change due to its reliance on rain-fed agriculture (Collen & Scholes, 2015. Sustainable agriculture intensification (SAI) provides a window of opportunity for realising this goal (Adolp et al., 2020). There appears to be a shift in smallholder farmers' SAI practices in North-Western Ghana regarding crop choices and varieties in their quest to adapt to the adverse impact of climate change (Šūmane et al., 2018). Farmers blend indigenous and exogenous approaches to climate change adaptation (Derbile et al., 2019). However, SAI practices among smallholder farmers in Ghana remain under-researched. The study draws on an inter-generational approach to examine crop types and choice dynamics as SAI practices for climate change adaption.

#### Methodology

The study adopted a mixed approach to explore how inter-generational grandfathers' (1940-1970), fathers' (1971-2000) and grandsons' (2001-date) agronomic practices have influenced the adoption of SAI practices in Tanchara (Lawra Municipality and Ko (Nandom Municipality). Purposive sampling was employed to select chiefs, landowners, and older farmers to participate in the study. Data were collected through in-depth interviews and focus group discussions. Twenty-four (24) interviews and 12 focus group discussions were conducted with smallholder farmers in the sampled communities. The interviews were conducted in the local language (Dagaare) and recorded with a tape recorder. Responses from the interviews were transcribed into English for analysis. Quantitative data were collected through a survey method involving 150 agricultural households using a questionnaire. The quantitative data were analysed using descriptive statistics, while thematic analysis was applied to qualitative data.

#### Findings

Historical analyses of crop choices of smallholder farmers revealed that they cultivated the same type of crops, cereals, roots and tubers, legumes and vegetables, across three generations. In the grandfathers' era, indigenous root crops, leguminous crops, vegetables and cereals were cultivated, including; millet known, locally as "*Be-luri*", and "*Kubara*", maize, called "*Zeze*", and groundnuts. The fathers' era, is characterised by the cultivation of predominantly indigenous crop varieties alongside the gradual introduction of new crop varieties. In the grandsons' era (current generation), farmers have maintained a mixed portfolio of indigenous and new crop varieties. In fact, the latter is predominant. Farmers' educational level determines the choice of the type of seeds that grow in the current generation. In chi-square test of independence:  $\chi 2$  (16, n = 150) = 141.709, p-value = 0.000, phi = 0.88. Female-headed households grow purchased seeds, while male-headed households grow their own seeds and purchased ones.

#### Conclusion

The study concludes that smallholder farmers have shifted from cultivating indigenous crop varieties to new/early-maturing crop varieties in SAI practices as a climate change adaptation measure. Public-private partnership and endogenous development (ED) approaches should be promoted in sustaining smallholder crop farmers' SAI practices.

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# Customer Satisfaction and Loyalty in the Waste Management Industry in Ghana: A Case of Institutional Customers of Urban Waste Limited in Wa Municipality

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#### Introduction

Solid waste management (SWM) is a major challenge in many cities in the Global South. This challenge is worsened by increased urban population growth, rapid urbanisation, increasing number of slums and their associated public health and environmental challenges (Katusiimeh et al., 2012). In Ghana, local government authorities were traditionally responsible for cities' SWM. However, their efforts were characterised by poor service delivery. In view of this, private sector participation in solid waste management was considered as a viable conduit to provide effective and efficient services to the general populace, public and private institutions. This attracted private waste management companies, including Urban Waste Limited (UWL), to provide quality services to households, private and public institutions (Akaateba & Yakubu, 2013). Even though some studies have been conducted on clients' satisfaction with private SWM services in the Global South, little is known about the extent to which institutional clients are satisfied with the services of such companies in Ghana.

#### Methodology

The study employed a cross-sectional survey design to collect sample data from institutional clients of UWL in the Wa Municipality. Using Yamane's (1967) statistical formula, a sample size of 182 was computed with a population of 333 at 0.05 significance level. The respondents were selected using a simple random sampling technique. The sample data were collected via a questionnaire, which was developed based on propositions of the SERVQUAL model and the Net Promoter Score (NPS) model. The questionnaire was self-administered and the data was collected over a period of three months (December 2020 to February 2021). Descriptive statistics were used to analyse the data, with the aid of the Statistical Package for Social Sciences (SPSS) and the data presented using tables.

#### Findings

The study found that customers' expectations and perceptions of service quality among the five dimensions of service quality (Tangibility, Reliability, Responsiveness, Assurance and Empathy) were generally homogenous as their standard deviation scores were 1.10 and 1.20, respectively. The gap scores for all the five service quality dimensions were negative, including the SERVQUAL average gap score (-.700), suggesting that clients were dissatisfied with the waste collection service provided by UWL. Thus, the perceived service quality did not meet the expected service quality, implying perceived service quality was dissatisfactory to the clients. The results further suggest that the clients were disloyal to the company because the NPS was also negative (-32.9%) because majority (51.6%) of the customers were found to be detractors. The company could easily lose these detractors together with passive customers (29.7%) if an alternative waste collection service provider exists.

#### Conclusion

Institutional clients were dissatisfied with the services provided by the private waste management company and, consequently, loyalty to the company was low. Regular customer service training should be instituted for all staff and a separate corporate clients desk should be created to attend to the needs of institutional customers.

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# Entrepreneurial Motivation Among COVID-19 Induced Redundant Employees in the Hospitality and Tourism Industry

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#### Introduction

The hospitality and tourism sector is largely vulnerable to various disasters and crises, including natural disasters, terror attacks, political turmoil, epidemics and pandemics, which often threaten the safety and security of people and business sustainability (Agyeiwaah, Adam, Dayour, & Baiden, 2021; Dayour, Adongo, Amuquandoh, & Adams, 2020). In the assessments of the International Labour Commission (ILO, 2020), Covid-19 could cause 45% to 70% shrinkage in hotel and tourism (H&T) operations globally. The ILO also predicts that the pandemic could cause 305 million job losses with a greater proportion in the H&T industry. No doubt, among the numerous impacts imposed by the pandemic is the collapse of many H&T businesses and associated redundancies (Dayour et al., 2020), including permanent or temporary lay-offs and reduced working hours. Statista (2020a) predicted that the world's travel and tourism market would lose about 100.8 million jobs in 2020 as a result of the pandemic, with Asia and Europe being the hardest hit.

Markedly, the pandemic has initiated several redundancies within the H&T industry across the globe (Breier et al., 2021) with many affected persons venturing into alternative sources of livelihoods to make ends meet. However, motivations for such decisions and choices remain masked within the context of a crisis like COVID-19. Researchers within the H&T domains have yet to unearth the drivers of entrepreneurial motivations among redundant H&T employees, especially within a resource-scarce context, hence the current study.

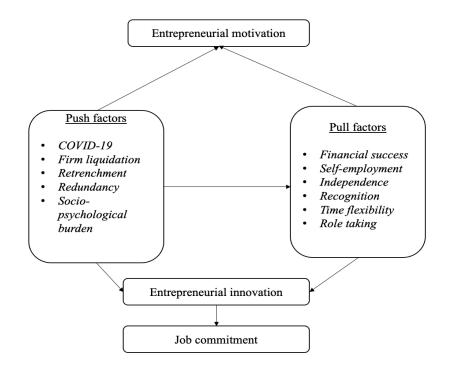
#### Methodology

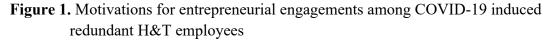
Based on phenomenological orientation, the study examined the lived experiences of redundant employees within the H&T industry. A purposive sampling technique was used to select redundant employees from across the accommodation, food and beverage (F&B), attractions and travel and tour sub-sectors in Accra, the capital of Ghana. Out of 40 facilities, 30 managers/non-owner managers agreed to provide the contact information

of affected employees after a detailed explanation regarding the need for this study. A total of 70 redundant employees' names and contacts were initially obtained, out of which 25 showed interest in the study. Meanwhile, in the course of interviewing, 5 declined to participate, leaving 20 respondents. Data were collected through telephone interviews and socially distanced face-to-face interactions and analysed using thematic analysis involving a blend of both inductive and theoretical coding techniques.

#### Findings

The findings of the study are summarised in Figure 1.





#### Conclusion

The drivers of entrepreneurship among redundant employees can be crystalised into push and pull motivations, based on the push-pull and entrepreneurial event theories. The push motivations were factors external to the redundant employees, which spurred them into undertaking entrepreneurial ventures. These included liquidation of their former employers' firms resulting from the pandemic, retrenchment, redundancies and psychological burden. Pull motivations were innate to redundant employees and made entrepreneurial activities attractive to them. These included the desire for financial success, self-employment and/or independence, a need for recognition, time flexibility and role-taking. Further, the study found that the redundant employees were satisfied with their entrepreneurial ventures and unwilling to return to employment in the industry in post-COVID-19 era, which could contribute to labour shortages in key skills areas.

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# Expectations of Student with Disabilities Living in Off-campus Student Housing in Ghana: A Gap Model Approach

#### Elvis Attakora-Amaniampong<sup>1</sup>, Appau Williams Miller<sup>2\*</sup>& Issaka Kanton Osumanu<sup>3</sup>

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#### Introduction

Globally, the needs of persons with disabilities remain topical because of increased longevity, population growth, and medical improvements (Hines, 2017; Romero, 2017). This has raised concerns on the need for academic institutions to adopt pragmatic measures to provide facilities that adequately cater for the needs of students with disabilities. Contemporary studies on disability indicate university authorities have neglected the inclusions and expectations of persons with disabilities, particularly regarding students' housing. Students' housing, lecture theatres, laboratories, and libraries are built without due reflection on the need for physical access of students with disabilities (Ayoung, Baada & Baayel, 2021). Universities seem to provide equal treatment for all categories of students, which balances worryingly against students with disabilities (Sanni-anibire & Hassanain, 2016). The call for assessing the expectations of students with disabilities is highly subscribed among researchers. This study aims to explore the expectations in student housing among university students living with disabilities in Ghana.

#### Methodology

A mixed-methods (questionnaire-based survey and passive observation) was employed in this study. Specifically, convergent parallel mixed-methods design was adopted for the study. Sampling involved 423 students living with disabilities (SWD), selected from five public and three private universities across Ghana. The quantitative variables for measuring expectations were divided into the managerial aspects and universal design perspective based on extracts from the extant literature. Managerial variables were measured using a five-point Likert scale, while universal building design requirements were measured on a 'YES' or 'NO' basis. Direct observation was used to record information on service areas within student housing, using a checklist, to support the quantitative data. Grounded on the Gap model, Exploratory Factor Analysis was used to extract factors of service quality delivery and universal building design for SWD living in off-campus student housing.

#### Findings

The study found 21 building design variables that support SWD among off-campus student housing in Ghana. Using the universal building design variables, the availability of slip-resistant floor covering and toilet facilities in student housing was common. The toilet facilities commonly found within student housing were not necessarily for the purpose of SWD, but for their visitors. With slippery floor covering in place, SWD were free from hazards and disasters that may come their way. The other 19 variables provided a clear expectation gap in building design requirements that affect service delivery among SWD. In relation to provision of SWD in in-built building services, conformity was similarly low. SWD are more interested in safety, health, managerial assurances, and security. In all, five factors provided a huge gap in services quality delivered by off-campus students' housing.

#### Conclusion

The study concludes that, unlike other health-related studies that deal with expectations of all-inclusive buildings for persons with disabilities in hospitals, this study uniquely uncovered the expectations of services delivery and expectations of building design support to students living with disabilities in the Ghanaian context. Practically, emerging student housing should adhere to the universal building design requirements for persons living with disabilities.

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# **Exploratory Account on the Participation of Ghana in the Contemporary Mobile Phone Telecommunications Revolution**

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#### Introduction

The twenty-first century globalised and technologically revolutionised world order is a major developmental priority for nations of the global community and for influencing Africa and Ghana's technological capacity limitations and improvement. Ghana has embraced the ICT form of the mobile phone for use in diverse aspects of her national life, but this is insufficient for her developmental purposes. Specifically, it has not been exhaustively harnessed and integrated as a tool for development overall. This study explores the developmental implications of the emergence of mobile phone technology in Ghana and knowledge of its usage areas, roles and patterns in innovatively enhancing Ghana's developmental concerns. In this regard, the study enjoins the developmental usage visions enshrined in the formulation of the 2003 Ghana ICT for Accelerated Development (ICT4AD) Policy and the mobile phone specific dependence for development advanced by researchers in this field (Asante, 2019; Unwin & Unwin, 2009).

#### Methodology

The study employed a qualitative approach. Purposive, convenience sampling and key informant instruments were used. It drew from a range of primary source materials consisting of official reports and documents gathered from government and intergovernmental sources, multilateral organisations, cell phone companies, and reputable news sources. Secondary resource materials consisted of journals, articles, published books, and electronic online sources. The study took an interpretivist approach, employing the Diffusion of Innovation Theory and Technology Acceptance Model in relation to modernisation, globalisation and development concepts. It adopted a narrative analysis and the information gathered was categorised into thematic areas on developmental patterns and forms of usage. Problems were interpreted by incorporating this new technology in the Ghanaian development and transformation context.

#### Findings

Positive and challenging prospects emerge from this research. The study shows how instructive cellular phone networks and devices are making impacts as tools for

development by improving election-related voter information needs, for commercial trade facilitation communication, enabling financial inclusion services to rural areas, for health service promotion and delivery, as an educational tool, agricultural purposes and disaster management. By way of challenges, they exert a negative influence on culture, present security implications for the way of life of the people in Ghana, bring up environmental concerns, raise health implications, induce cybercrime practices and can potentially exacerbate inequality in their access. Despite the challenges associated with their emergence and adaptation, they are a worthy consideration for their development utilisation in the global technology age.

#### Conclusion

Overall, findings from the study suggest the right policy could boost mobile phone access, coverage, usage and close the digital access divide, particularly among developing African countries such as Ghana and become a powerful tool to attain innovation-related sustainable development. The various usage forms of mobile phone networks and devices have potential to make an impact in various sectors of Ghana's development. More research is encouraged as this innovation evolves.

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# **Exploring Motivations for Youth Group Membership and Identity Construction in Urban Ghana**

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#### Introduction

Globally, cities are relevant centres of political, cultural, social, religious and economic hubs. However, evidence abound of states' limitations in the provision of adequate internal security in cities (Joyce, 2017). Notably, the exceptional level of urbanisation in sub-Saharan Africa (SSA) is synonymous with rising youth population, scarce employment opportunities, particularly for the unskilled youth, increasing middle-class population and urban space governance challenges (Brooks et al., 2014). Conversely, previous studies on youth in urban SSA largely focused on the initiation processes, consequences, shapes, nature, and forms of youth group formation, membership and associated violence within cities (Maringira & Masiya, 2018). In the domain of the General Strain Theory (Agnew, 2001), this study explored how structural, political and economic intricacies accentuate young people's motivation to belong to youth groups and their sense of identity in the Tamale Metropolis of Ghana.

#### Methodology

This exploratory qualitative research was conducted in the Tamale Metropolis. The interviewees included snowball sampled 30 members of established youth groups (such as Azorka boys, 64 Bench, al-Qaeda boys, the Talibans, Kandahar boys etc.) and a convenient sample of 15 members of communities with prevalent youth groups such as Aboabo, Chengli, Zogbeli, Sakasaka and Poloya Fong. Fifteen purposively selected key informants included: assembly persons of study communities, youth groups leaders, the metropolitan police commander, and religious/traditional/community leaders. Seven focus group discussions were done with members of the established youth groups in the city as a "medium for self-expression" (Obaje & Okeke-Uzodike, 2013:7). All interviews and discussions were audio-recorded, with the consent of the interviewees, and then translated/transcribed verbatim into English. Useful codes were generated from the data to initiate critical discourse analysis (Foucault, 1970), which brought out meaning of the narratives and lived experiences of participants.

#### Findings

Preconditions supporting motivation for youth group membership in the Tamale Metropolis have historic and generational underpinnings. Multiple marginalities intermingling political and economic processes of Tamale evolving from the precolonial, colonial and post-colonial eras appear instrumental in changing life courses of most youth and their willingness to belong to a youth group. These deepened regional inequality and exclusion, which manifest in poverty, inimical social change processes and limited positive growth potential central to sustaining young people's motivation for youth groups membership. Pointedly, poverty and economic marginalities, political party-driven interest, religious dogmatism, intra-ethnic divisions and popular youth culture, which underscores the desire for economic gains, respect and power, posit strong motivation for youth group membership. Youth groups are commonly identified by their names, colonised territories, structured leadership, political party colours, and pictures of revered leaders. The identities of youth groups, commonly, signal their power to rival groups.

#### Conclusion

Over the years, youth interest in political parties, religious orientation, intra-ethnic divisions and popular youth culture appear strong motivating factors for youth group membership in the Tamale Metropolis. Colonised territories, youth groups names, structured leadership, rules and symbols define youth group identities in the city.

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# Healthcare Utilisation Among Poor Older People Under the Livelihood Empowerment Against Poverty (LEAP) in the Daffiama-Bussie-Issa District

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#### Introduction

Globally, the ageing population has been on the ascendency mainly due to improvements in living standards. The United Nations projects the population of older persons 65 years and over to rise from 0.7 billion (9%) in 2019 to exceed 2 billion (16%) by 2050. These figures suggest that more medical resources will be needed to sustain the aging population. Older people often suffer from increased co-and multi-morbidities, which increase their healthcare needs and costs of care. Despite the growing literature on predictions of healthcare use in later life globally, studies have generally glossed over the subjective views of vulnerable older Ghanaian cohorts, inhibiting the achievement of UN Sustainable Development Goal 3. Involving poor older persons under the Livelihood Empowerment Against Poverty (LEAP) programme in the Daffiama-Bussie-Issa District, this study investigates the prevalence, patterns, and proximate factors influencing their healthcare utilisation.

#### Methodology

The study involved a cross-sectional survey with mixed-method accessed data from 120 participants (104 poor older people and 16 healthcare providers) from twelve (12) communities in the study area. Multiple sampling techniques such as cluster sampling, simple random sampling, and purposive sampling (criterion sampling) were used to sample study communities, older people, and healthcare workers, respectively. A structured questionnaire and an in-depth interview guide were the main data collection instruments employed. Bivariate Spearman correlation analysis was used to analyse the quantitative data, whilst content analysis was used in analysing the qualitative data. Also, Anderson's behavioural model (1973) was used to analyse how predisposing, enabling, and need factors determine the healthcare use of poor older people.

#### Findings

The study established that 93% of the study participants utilised healthcare. Regularly, poor older people consulted health centres (57.7%), CHPS compounds (16.3%), polyclinics (16.3%) and clinics (9.6%). Sources of health information were family members (46.2%)

and healthcare professionals (44.2%). Major barriers to healthcare use among poor older persons were financial difficulties, transportation challenges, and the non-comprehensive nature of the National Health Insurance Scheme (NHIS). The study established that gender, ethnicity, religion, marital status, and household size were significant determinants of healthcare use, whilst age, educational background, occupation, and monthly income did not influence the health-seeking behaviour of respondents.

#### Conclusion

In line with Andersons' behavioural model, the study reaffirmed the primacy of need factors in predicting healthcare use with predisposing and enabling variables. The study recommends a review of the NHI policy to cover some of the medications not catered for by the scheme. Also, the Ministry of Health and Ghana Health Service should ensure free healthcare for poor older people to eliminate the financial barriers to healthcare use. Furthermore, transportation networks should be improved in rural areas to solve the physical accessibility challenges. Lastly, the government should increase the minimum LEAP grant for poor older people to improve their healthcare use.

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# Financial Development, Sectorial Effects and Mortgage Financing in Africa

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#### Introduction

Mortgage financing is a daunting task in developing economies due to the low developed nature of their financial sectors. This is not the case in most developed economies where their financial sectors have developed. With Africa's financial sector considered to be bank-based, its low development makes it difficult for the financial institutions to finance mortgage activities. However, studies on drivers of mortgage financing in Africa have not been rigorous enough in examining the continent's financial development and the pass-through effects of sectoral value additions of the economy (Davies, Sare, Ibrahim & Agoba, 2021). All studies on mortgage-finance nexus have failed to examine the pass-through effects of the various sectors of an economy. This study re-examines the effects of financial development on mortgage financing in Africa, while paying special attention to the sectoral effects on mortgage financing with the objective of estimating how the various sectors aid in mortgage financing through financial development of countries in Africa.

#### Methodology

The study adopted the quantitative research approach by relying extensively on a panel dataset covering 10 African countries between 1995 and 2017. We employ the Pesaran et al. (1999) dynamic panel, which addresses challenges of the traditional approaches (OLS, fixed effects) and suggests the use of mean group (MG), which averages the different country estimates while the pooled mean group (PMG) pools the long-run parameters. Pesaran et al. (1999) further argue for the use of PMG because it allows the intercept, error variances, and short-run estimators to vary significantly, while confining the equality of the long-run coefficients among the countries. Thus, relative to the traditional approaches, the PMG has important advantages. First, apart from being independently distributed among the regressors, the error terms are not serially correlated. Second, the PMG produces consistent and efficient long-run estimates in the face of parameter homogeneity. For these reasons, the study relies on the PMG, which unites the efficiency of the pooled estimation, while avoiding inconsistency problems resulting from pooling

heterogeneous dynamic nexuses. All variables and countries were selected on the basis of data availability and the duration required.

#### Findings

Our results indicated that financial development has positive impacts on mortgage financing when the latter is proxied with gross fixed capital formation. In the case of sectorial value-added effects, for both short- and long-runs, agriculture has positive pass-through effects on mortgage financing. The same is found for the manufacturing sector when mortgage financing is proxied with construction.

#### Conclusion

Given the continent's interest in raising the standard of living, it is important for memberstates to pursue policies that link the financial sector to the mortgage finance industry using the agricultural and manufacturing sectors as a conduit to exact the positive impact expected on the continent.

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# Hybrid Planning and Land Tenure (in)Security: Evidence from Periurban Tamale, Ghana

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#### Introduction

Tenure responsive land use planning is gaining increased recognition as a strategy for promoting secure land rights and poverty reduction (Chigbu et al., 2016). As many sub-Saharan African towns are experiencing intensified competition for land due to rapid urbanisation, the need to encourage official recognition of *a continuum of land rights,* particularly under customary land tenure contexts, has been extensively discussed in the literature (Whittal, 2014; Zevenbergen et al., 2013). In contributing to this discourse, this study interrogates the extent to which land-use planning can serve as a practical alternative to protecting the diversity of land rights held under customary tenure. By adopting the tenure responsive land use planning framework as a conceptual lens, this paper investigates the relationship between hybrid land use planning practice and tenure (in)security, based on empirical evidence from peri-urban Tamale, Ghana. The main question the study seeks to answer is: to what extent are the outcomes of current land use planning practices in peri-urban Tamale Ghana tenure responsive?

#### Methodology

Based on a qualitative case study approach, data for the study were drawn primarily from 24 semi-structured in-depth interviews with surveyors and town planners of government land sector agencies, landholding household heads in two peri-urban communities with active land markets and traditional land custodians and their representatives. In addition, three focus group discussions were conducted with representatives (elders and secretaries) of various divisional chiefs in Tamale and heads of households in the two peri-urban study sites. Participation in the study was voluntary; thus, all interviews were conducted following verbal consent from the participants. For anonymity, all identifying information was omitted from the interview transcripts. A thematic analysis approach involving a repeated reading of interview transcripts, inductive and deductive coding, and analyses/reporting of patterns in the data was used.

#### **Findings and Conclusions**

The empirical evidence that emerged from the data indicated that although hybrid planning facilitated promotion of *de facto* and *de jure* tenure security through the

documentation of land transactions and reduction in land boundary disputes, it also served as an avenue for the erosion of the usufructuary interest and rights of indigenous periurban dwellers. The studied land use planning projects were, therefore, largely not tenureresponsive. The tenure insecurity challenges emanated primarily from the limited participation of local land users in land use planning, the commodification and reinterpretation of customary land tenure, and the weak institutional resource capacities of local planning agencies. This study has, thus, contributed to expanding the emerging discourse on tenure-responsive land use planning by bringing to the fore the role land use planning projects can play in improving or restricting tenure security, particularly in contexts characterised by the dominance of customary land tenure systems where chiefs and other traditional leaders act as land custodians/owners. There is, therefore, an urgent need to re-examine current policy frameworks, approaches and practices of hybrid land use planning in Ghana to make their outcomes tenure responsive.

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# Knowledge, Attitudes and Behaviours (KAB) of Senior High School Students towards Hepatitis B Disease in Wa Municipality

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#### Introduction

Globally, Hepatitis B (HB) disease is a public health concern. It is estimated that 1 out of every 15 persons in Africa is infected with HB (Lesi, 2019). Increased knowledge, appropriate attitudes, positive behaviours (KAB) towards infectious diseases such as HB, are crucial in addressing its spread among the public. According to Abesig et al. (2020), HB prevalence is estimated at 14.30% in Ghanian adolescents (Abesig et al., 2020). This implies that HB disease is more prevalent among the adolescent population. The literature shows that assessments of KAB of the public towards HB tends towards the adult population, especially among people in special occupations (such as health-workers and students in tertiary institutions) than adolescents (Adamu et al., 2014; Arthur, 2018; Aniaku et al., 2019). Thus, the purpose of this study is to access the KAB of HB among SHS and determine socio-demographic factors associated with KAB.

#### Methodology

The study adopted the quantitative research approach and used an analytical crosssectional design. Multistage sampling (consisting of stratified and simple random sampling techniques) was used in three stages to select a total of 417 students from five SHSs in the Wa Municipality to participate in the study. The study adopted the survey method and utilised a structured questionnaire to collect data from study participants. Data collected were edited, coded, and entered into Statistical Package for Social Sciences (SPSS) version 23. Analysis of the data was done using descriptive statistics, Chi-square test, and binary logistic regression techniques at 95 percent confidence interval.

#### Findings

The results showed that students in SHS had low knowledge (54%) of HB disease. However, some students showed good knowledge on the cause of HB disease (53.7%), the primary organ it affects (70.8 %), and the risk factors (60.4%) associated with it. On attitudes, it was established that the students had negative attitudes towards HB disease. As such, 69% and 60% will neither eat nor associate with people with HB (PWHB), respectively. Similarly, on behaviours, students exhibited negative behaviours towards HB disease, such that majority were neither tested (77%) nor fully vaccinated (82%) against it yet, they shared sharp objects (83%) and touched open wounds (42%). Father's education [father with no formal education] (OR = 5.237; 95% C.I = 1.761-15.571), and mother's occupation [mother who are entrepreneurs] (OR = 4.276; 95% C.I = 1.446-12.642) were statistically significantly associated with students' behaviours towards HB disease.

#### Conclusion

The study recommends that Ghana Education Service should review curriculums used in SHS to include subjects primarily focused on tropical diseases in Africa, such as HB disease. The creation of programmes focused on helping PWHB disease to deal with social rejections and stigmatisation is also recommended.

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## Living with Humiliation: The Social Consequences of Obstetric Fistula Condition on Women in the Central Region of Ghana Felicia Esinam Pufaa

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#### Introduction

Reproductive, maternal and child health (RMCH) are priority areas of governments worldwide because maternal and child mortality has the tendency of crippling development efforts of countries. Globally, low-and middle-income countries (LMICs) account for 99% (302,000 out of 303,000) of global maternal deaths (Alkema et. al, 2015). The highest risks of maternal death occur in countries in South Asia and Sub-Saharan Africa (Alkema et al., 2015). Besides, maternal mortality rates (MMRs) are very high in developing countries, including Ghana, where one (1) woman dies in every 202 children born compared to one(1) woman in 5900 in developed countries, a 29-fold difference (WHO Statistics, 2019). Obstetric Fistula (OF) is one of the leading causes of high maternal and child mortality globally.

OF was eradicated in developed countries through improved access to Comprehensive Emergency Obstetric Care (CEmOC) and services, but it is prevalent in developing countries like Ghana (Alkema et al., 2015). In an attempt to find a sustainable solution to the problem in Ghana, several efforts have been made by UNFPA, the Ministry of Health and other interested stakeholders to reduce the prevalence of the condition through varied public health campaigns that focused on needs assessment, prevention and treatment. Despite these interventions, the condition is still rampant, especially in the Central Region and the then three Northern Regions of Ghana (the Northern regions are now five). Besides, related studies in Ghana focused on prevalence rates without delving adequately into the socially rooted consequences of the condition to facilitate sustainable social interventions. The main aim of this study was to examine the consequences of on sufferers in the Central Region of Ghana. Specifically, the study sought to explore the predisposing factors of OF; examine the social consequences of the condition and evaluate the policy implications of this condition on affected vulnerable women with a view to informing health development policy planning and implementation for inclusive growth and development in Ghana.

#### Methodology

Qualitative research approach and case study design was employed to provide a focus for the study. Nine (9) districts and 20 communities were purposively selected from the 17 districts in the Central Region to participate in the study. Purposive and snowball

sampling methods were used because of the sensitive nature of the study. An interview guide aided data collection from 40 participants consisting of 21 sufferers and 19 key informants. Data were thematically analysed through open coding, naming, labelling and formation of themes and sub-themes.

#### Findings

Among others, major factors found to be responsible for OF in the Central Region of Ghana include: traditional beliefs and practices, low income and poverty, and inadequate transportation facilities. The social consequences of OF on sufferers consisted of disgrace and shame, social isolation and labelling. In addition, both patients and ex-patients were found to be verbally abused and humiliated, which made sufferers socially isolated and confined to their rooms, culminating in their deepening poverty and psychological deterioration.

#### Conclusion

The findings have policy implication for urgent public health measures such as community-based campaigns by government through the Ghana Health Service, supported by non-governmental organisations (NGOs) and social workers to restore social capital, dignity and economic power of affected women.

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# Remittances and Domestic Investment in Africa: Do Banking Sector Development and Quality Governance Matter?

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#### Introduction

Migrant remittances to home countries have significantly increased over the years, especially in developing countries where, due to lack of employment opportunities or unfavourable working conditions, citizens migrate to developed countries in order to improve their economic conditions and those of their dependants in their home countries (Dash & Sethi, 2020; Chowdbury, 2016; Barajas et al., 2009). This has been facilitated by globalisation in modern times. Whereas most previous studies have delved more into remittances and their impact on economic growth (Chowdbury, 2016; Barajas et al., 2009, Fayissa & Nsiah, 2008, among others), few studies have examined the link between remittances and domestic investment in developing countries (Issifu, 2018; Adams, 2008, Abbas 2019; Dash & Sethi, 2020). This study examines the impact of remittances on domestic investment in Africa using a system GMM econometric estimator. The study departs from the few studies that have examined this link by further investigating the moderating roles of banking sector development and quality governance on the link between remittances and domestic investment. Besides, this study is able to control for any possible endogeneity, which most previous studies have ignored.

#### Methodology

This study used purely secondary data extracted from the World Bank Dataset and International Monetary Fund Dataset. Due to inconsistencies and unavailability of some of the data points for some African countries, 41 African countries with more than half of the data points for all the variables used in the study between 2004 and 2018 were chosen. The study relied on system generalised method of moments (System-GMM) to examine the link between the main variables. This method was used because it has the power to control for endogeneity problems often found in most economic models due to omitted variables or bi-directional causalities.

#### Findings

Using very robust econometric estimator, the study found that migrant remittances have no direct impact on domestic investment in home countries. The study, however, noted that both banking sector development and good governance were found to have significant positive impact on domestic investment in Africa. When banking sector development and good governance were separately interacted with remittances, each interactive term was found to have significant positive impacts on domestic investment. This means that for remittances to influence domestic investment, banking sector and good governance will need to be improved.

#### Conclusion

From these findings, it is recommended that good governance indicator, namely:rule of law, control of corruption, governance effectiveness, regulatory quality, political stability and voice accountability should be given serious attention by policy makers so as to boost domestic investment, which is a key ingredient of economic growth. It is also recommended that the banking sector should be strengthened to make the positive impact of remittances on domestic investment realised.

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# Effects of Financial Development on Mortgage Development in Africa: An Application of GMM Dynamic Pooled Estimator

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#### Introduction

Mortgage development is a peculiar problem in the world, especially in developing economies where this problem is at it peak. A number of factors account for the low mortgage development in Africa, notable among them is lack of financing. Mortgage development has improved tremendously in developed continents compared to a developing continent such as Africa, which is attributed to the role of the financial sector. The impact of financial development on all sectors of emerging economies is enormous. Studies on finance mortgage development nexus in Africa have not been comprehensive enough in establishing the benefits or gains through financial development on the mortgage sector as previous studies (Ijaiya, Lawal, & Oemene, 2012; Iheanacho, 2016) focused on country-based analysis. This study re-visited the mortgage-finance nexus in Africa. The objective was to examine if financial development spurs or inhibits mortgage development.

#### Methodology

The study adopted a panel dataset spanning 1995 to 2017 from the world development indicators by employing system generalised method of moments (GMM) dynamic pooled estimator developed by Arellano and Bond (1991) and Arellano and Bover (1995) involving 51 African countries.

#### Findings

It was observed that financial development (bank asset) affects mortgage development positively and this effect is highly significant, while broad money supply as a measure of financial development impedes mortgage development in Africa. Furthermore, with the introduction of the quadratic term, broad money supply established a U-shaped relationship with mortgage financing, an indication that more money in circulation facilitates mortgage development. However, the shape of the other variables used depends largely on the nature of the proxy used.

## Conclusion

Emerging economies in Africa have a keen interest in improving the standard of living of people. As such, they must develop and implement policies that are geared towards gaining maximum impact from financial development to enhance the mortgage industry. This may be achieved through the use of broad money supply and bank assets, which serve as the channel through which mortgage activities can be financed to impact positively on society and the continent as a whole.

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# Seasonal and Weather Forecasting: Exploring Farmers Knowledge Systems and Implications for Climate-Smart Agriculture in Northwestern Ghana

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## Introduction

Seasonal and weather information is inevitably important to improving smallholder agricultural production and food security in sub-Saharan Africa (Jiri et al., 2016). Seasonal and weather information provides farmers with information on climatic elements and shocks that enable farmers to plan farm activities (Chisadza et al., 2015). It also informs farmers' response actions and mechanisms towards reducing agricultural risks and minimising the impacts of extreme events when they occur (Nyadzi' Ajayi & Ludwig, 2021). Farmers can also increase agricultural productivity at a reduced cost of production (Jiri et al., 2016). However, smallholder farmers' access to seasonal and weather forecast information in northern Ghana is limited, compelling them to rely on local and indigenous knowledge for seasonal and weather information to make agricultural decisions. This paper explores how farmers have, over the years, forecasted seasonal and weather conditions for farming activities and the implications for climate-smart agriculture in North-Western Ghana.

## Methodology

The study adopted a qualitative research methodology. Participants were purposively selected to include persons with in-depth understanding and experience of the subject matter being studied. Food crop farmers and key informants such as earth priests (*Jantina*), chiefs, elders, women leaders, chief farmers, and youth group leaders were purposively selected for the study. Participants were drawn from three communities, namely: Dolibizon, Simboru and Yigantu in the Sissala East Municipality of Upper West Region. Data were collected through in-depth interviews with key informants and focus group discussions (FGDs) conducted with farmer groups or groups of farmers. Men and women were separated during the FGDs to allow free expression of views. The data were collected through note taking, and audio recordings and analysed through transcription, direct quotes, and paraphrasing of narratives and conversations.

#### Findings

The results of the study show that smallholder farmers observed a number of phenomena to arrive at seasonal and weather information. First was the behaviour and activities of birds such as the appearance and disappearance of cattle egrets and hawks, positions of nests of *changala* (weaverbird), morning singing of *kpankpajiare* (swallow bird), singing (crying) of *duonchir* (kingfisher), south-north movement of *tuluntuole* (hornbill). Next, characteristics of plants and tree species such as shedding of leaves and flowering of *butuma* (rosewood), fruiting of wild neem (*kanchiima*), fruiting of *garaa/digalia* (blackberry), flowering and fruiting of *nankpalima* tree was fundamental. Further, farmers observed the presence and absence of earthworms (*varaa*), millipedes (*nankoglaa*), centipedes (*nmanjaaba*), and *bubuachabi*. Other important observations included time and direction of rains such as evening and morning rains; direction of rainstorm/wind; croaking of toads (*sampora*) and frogs (*soring/fuobenyua*) after rainfall; positioning of stars in the sky at night and dawn; and spiritual consultation of deities (*duon, kogla, tongu*).

## Conclusion

The study highlights the importance of smallholder farmers' traditional knowledge systems and the need for the Ministry of Food and Agriculture to integrate local and scientific meteorological forecast information through farmer-based stakeholder participatory programmes to enhance the promotion of climate-smart agriculture among smallholder farmers in northern Ghana.

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# Supply and Demand-Side Models of National Health Insurance in Ghana: Implications for Universal Health Coverage in the Wa Municipality

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#### Introduction

For decades, globally, there has been a struggle to find a secure health financing system that addresses rising healthcare costs, but developing countries appear worse-off, as rising healthcare costs are outstripping government capacity. To bridge the inequity gap in healthcare access and utilisation of primary health services between the rich and poor, the National Health Insurance Scheme (NHIS) holds promises. It provides financial risk protection, improves the quality of care, and contributes to achieving universal health coverage (UHC), which is the United Nations' sustainable development third goal of ensuring equity in the distribution of healthcare needs for those who need them. In strengthening health systems, researching into the supply and demand-side models of national health insurance, implications for UHC are essential. Regrettably, studies examining the demand- and supply-side of national health insurance are limited in the available health insurance literature of Ghana, particularly in the Wa Municipality.

## Methodology

Sequential explanatory design of quantitative dominant, cross-sectional and narrative designs were employed. The survey method, using a questionnaire, was used to solicit responses from 47 healthcare providers through census and sampled 398 insured patients for the qualitative analysis. Also, using an interview guide, 12 healthcare providers and 24 insured patients were purposively selected as informants for further qualitative questioning. For analysis, the expansion analysis typology was used to navigate from quantitative descriptions (frequency, percent, mean and standard deviation) and statistical modelling (correlation, logistic regression, and structural equation model) to form qualitative themes expressed in quotations of the informant's thoughts.

#### Findings

The findings relate to determining the supply of total healthcare; establishing the availability and functionality of healthcare facilities, equipment, qualified health professionals, and drugs supply at all times at the various healthcare levels. The demand for primary health services was also assessed based on access and utilisation criteria. On

healthcare access, the dimensions include geographical availability, affordability, accommodation, acceptability, and safety of care. On healthcare utilisation, the study quantifies the number of times insured patients sought health services over the 2021-year period. This study attempts to determine the supply of healthcare and its effect on NHIS uptake; investigate access to primary health services and its effect on NHIS uptake; examine utilisation of primary health services and its effect on NHIS uptake; and establish the relationship between the determinants of healthcare supply, the demand for primary health services and its effect on NHIS uptake services and its effect on NHIS uptake. UHC.

## Conclusion

From the literature, scholarship on this subject appears veiled. The study recommends using micro-economic principles (demand and supply-side models), and social theories (social justice, capability theory, and health capability paradigm) to answer the critical question regarding how the demand and supply-sides determinants models of national health insurance contribute to UHC in Ghana.

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# Vulnerability of Smallholder Yam Production to Climate Change and adaptation Planning in Rural Ghana

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## Introduction

The incidence of global climate change and its drastic effects on smallholder agriculture and livelihoods in the developing world, particularly Africa, is a major developmental concern at both the global and local levels (FAO, 2017; Mulwa et al., 2017). To address this challenge, the Sustainable Development Goal 13, Climate Action, calls for strengthening resilience and adaptive capacity to climate and integration of appropriate climate response measures into national policies, strategies, and planning (United Nations, 2015). To better understand the risks of climate change for informing climate change adaptation planning (CCAP), vulnerability assessment is critical. However, vulnerability assessment to climate change is generally lacking in developing countries, especially in Africa. To support the effort at bridging this gap in climate change research, this study draws on a Community-Based Risk assessment approach to analyse the vulnerability of smallholder yam production to climate change in rural Ghana and explores the implications for CCAP.

## Methodology

The study employed a qualitative research design, specifically, Community-Based Risk Assessment, to analyse the vulnerability of smallholder yam production to climate change in three selected rural communities in the Sissala East Municipality. Purposive sampling was applied to select smallholder rural farmers and key informants, including chief farmers, household heads, chiefs, earth priests, and Queen mothers as respondents and/or discussants. Further to this, mixed methods were applied in the collection and analysis of data. These included in-depth interviews, focus group discussions and seasonal calendars. Data collected were transcribed and analysed through thematic analysis.

#### Findings

The results show that smallholder yam production is highly vulnerable to climate change. Rainfall variability, high sunshine and high temperatures are the climatic stressors of concern to farmers because they have the most devastating effect on yam production. The effects of these extreme climatic factors on yam production included poor and delayed germination, stunted growth, poor tuber formation and development, premature shedding of leaves, delay in early harvest, poor development of seed yams and high post-harvest losses arising from rotten tubers. Overall, the impact of climate change has led to low yields in yam production, adversely affecting the livelihoods of farmers.

#### Conclusion

From the results, we conclude that yam production is highly vulnerable to climate change and variability in rural Ghana. To improve the adaptive capacity and livelihoods of rural farmers, it is critical to promote an endogenous development approach to Climate Change Adaptation Planning and climate-smart agriculture through Department of Agriculture.

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# What Location Attributes Influence Hotel Room Selection During COVID-19 in an Emerging City? Perspective of Mixed Spatial Hedonic Price Approach and Exploratory Factor Analysis

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#### Introduction

The impact of COVID-19 pandemic on the global economy has been extensive and farreaching, worsened by restrictions on movement imposed by many governments (Agyeman, Laar, & Ofori-Asenso, 2020). Based on that, location attributes have had influence on tourist destination, room selection, and incomes (Feifei et al., 2020). Nonetheless, the emergence of COVID-19 pandemic has resulted in an increasing desire to find location attributes that affect hotel room selection and investment decisions in emerging cities (Agyeman et al., 2020). However, quantifying location attributes' effect on hotel room selection in COVID-19 era has not been studied and constitutes a gap in knowledge. The study assesses the effect of location attributes on hotel room selection in the COVID-19 era in Tamale, an emerging hotel market in Sub-Saharan Africa.

## Methodology

The study used a sequential mixed method research design. Exploratory Factor Analysis (EFA) was adopted to determine the drivers of location attributes of hotel room selection. Geographic Weighted Regression (GWR) and Ordinary Least Square Hedonic Price Model (OLSHPM) were used to estimate the effects of location attributes on hotel room selection. Further, Yield to Maturity (YTM) financial approach was used to estimate the effects of hotel location attributes on investment for post-COVID-19 decision making. The study used geographic coordinates of 163 registered hotels from the Ghana Tourist Authority Global Positioning System (GPS) and a sample of 815 clients was selected based on volunteer sampling method were. Interviews were conducted with five key informants (hotel investors) to support the results of the Yield to Maturity.

## Findings

Hotel class, road accessibility, building age, and hotel rate were the key determinants of hotel room selection. Among these, hotel class showed more significance in pricing decision in the COVID-19 period. The test for spatial collinearity among the hotels shows that there is not much difference between the local R square and the adjusted R square. This provided a collinearity and spatial variation among hotel class, road accessibility,

building age, and hotel rate variables. The models showed that hotels with positive coefficients of room selection are located outside the city centre of Tamale. This reflected in increases in YTM because the hotels located outside the city centre received more clients, with grade one hotels showing a huge net income and good post-COVID-19 investment drive.

# Conclusion

The location of hotels has become even more relevant to clients in this COVID-19 period. Using the GWR and OLS, the study established that accessibility, building age, hotel room price, and hotel class are key local factors that impact hotel room selection. The GWR enabled determination of the local effect and variations in attribute, which improve the model for room selection and investment decision-making. The model showed that grade one hotels located away from the city had increase in clients with a huge net income. However, the drawback is that the model did not show much change in room selection even though COVID-19 has affected patronage. The study implies that potential hotel investors should consider hotel class as a major entry decision factor. This finding could be used by investors to capitalise on locational advantage.

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# Smallholders' Agricultural Land Access in Northern Ghana: Multi-Stakeholder Perspectives

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# Introduction

Smallholder farmers' access to arable land is often at the mercy of multiple stakeholders, including chiefs. The social, political, and economic rights of smallholders are usually less secure and less protected in land transactions (Arthur & Mensah, 2017). Notwithstanding the important role smallholder farmers play in household livelihoods, few studies have sought to understand the nuances, processes, and challenges of smallholder agricultural land access under complex customary land markets (Gyapong, 2021). Lambrecht and Asare (2016) examined the diversity, complexity and dynamics of customary land tenure, but did not delve deeper into the processes and challenges of land acquisition across those tenures. Existing hybrid land tenure systems in Ghana raise concerns about multi-stakeholder roles in land administration at the local level. This study sought to highlight the nature and processes of farmland acquisition in Northern Ghana by assessing how smallholders consolidate their rights to farmlands amidst farmland dispossession due to urbanisation and population growth.

# Methodology

The qualitative research approach was used to collect data. Non-probability sampling techniques, specifically, purposive and convenience sampling were used. Data was collected through field visits and use of interview guides in face-to-face interviews with key stakeholders and focus groups. The study was undertaken in seven (7) communities in the Savelugu Municipality, namely: Kukobila, Gbanga, Nabogo, Pong-Tamale, Tibale, Ying and Kpalung in September 2020. One-hundred and forty-five (145) participants were involved in this study. One hundred (100) smallholders were selected using convenience sampling. Sixty (60) of the smallholder farmers were indigenes of the Savelugu Municipality, while forty (40) were non-indigene settler farmers. Three focus group discussions were held with the discussants made up of selected elders, women group leaders, family heads, unit committee members and representatives of the settler

farmers. Nine (9) community chiefs were also interviewed. Data was analysed using the NVIVO 11 pro data analysis software.

#### Findings

It was found that the dominant method of farmland acquisition in Savelugu is 'inheritance from father'. Seasonal migrant farmers considered factors such as choice of crop to cultivate, suitability of the soil, distance and cost involved in preparing the new field before going farther afield to acquire land. Sometimes, seasonal migrant farmers are privileged to get farmland of their choice. Such a privilege is woven around social networks, trust and availability of vacant lands (Ibrahim et al., 2020). Landowners request smallholders to make payments in kind for the use of their lands, including bags of maize, groundnuts and rice. The Respondents indicated that acquisition of land by new actors, urbanisation and unregulated land sales by chiefs are huge challenges to land access (Anarfi et al., 2020). Migrant farmers without customary ties to communities were dispossessed of their farmlands. Consequently, building social ties is a panacea to reducing the risk of farmland dispossession.

## Conclusion

Local politics underpin local land acquisition processes and, in the wake of local land schemes, smallholders are not safeguarded against land dispossession and power abuse of landowning authorities. Therefore, each family or household should be given some plots of land as compensation and agricultural buffer zones should be developed.

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# Students' Access to e-Resources in Terms of Space and Time: A Ghanaian Tertiary Institution Perspective

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## Introduction

Though e-resources come with a plethora of advantages, there are some hindrances regarding their management, usage, maintenance, and access in terms of space and time. Following the lockdown of all institutions occasioned by restrictions in response to the COVID-19 pandemic, all Ghanaian tertiary education students were ordered to go home. Some students live in remote areas where there is lack of internet connectivity, others from poor financial background do not own or use android phones. Further still, some have never taken a course in or know much about information literacy. However, all these students are expected to participate in online learning using virtual platforms, online library services, and access to e-resources. This study investigated challenges and obstacles confronting students' access to e-resources in terms of space and time in Ghana, a resource-limited environment.

# Methodology

The study employed open-data-collection-kits (ODK) and google forms, coupled with statistical tools (Excel 2013 and GraphPad Prism 8) in analysing a purposively y selected 174 students' responses to a survey-based questionnaire. The study used level 400 students from Departments of Social Science Education and Business Studies Education of the Simon Diedong Dombo University of Business and Integrated Development Studies. This university offers an information literacy course and students have had the opportunity to use the library resources and, consequently, conversant with the techniques of searching library collection.

## Findings

The findings indicated that students need e-resources and virtual libraries to gain access to quality available information for their academic work. The results also showed that most students do not have the time to search for quality information online. They resort to places like google.com, ask.com, seek.com, and other non-academic sites for quick information. It was also found that students do not know how to gain free access to international e-resources and are not conversant with virtual libraries. Most rely on social media platforms for assistance from non-staff and inexperienced people for support. It also emerged that quite a significant number of students indicated they are not aware of the availability of e-resource or the digital library. Major challenges identified were: lack of suitable devices for access, poor internet connectivity for downloading, lack of access to professional support, and poverty, which led to students' poor use of e-resources and virtual libraries.

## Conclusion

Students had no experience in accessing e-resources, techniques involved in accessing them, and how to use them. Additionally, they did not know the difference between academic and non-academic sources of information. Consequently, ilt is recommended Information Literacy be introduced as a required course for levels 100 to 300.

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# **Exploring COVID-19 Impacts, Lessons and Recovery Strategies in Ghana: A Case Study of Formal Food Service Providers in Wa**

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## Introduction

The coronavirus has wreaked havoc on all aspects of the national economies across the globe ((Sohrabi et al., 2020; Yatimue, 2020). The pandemic has affected small businesses, including the food services subsector across the globe, and the landscape of the subsector is going to change forever (Memon et al., 2021). Food services play a vital role in feeding and meeting the food choices of African cities in general and Ghana, in particular. However, a glance at the literature indicates studies have not paid attention to the effects of COVID-19 on formal food services (Roy et al., 2021). This study draws evidence from Wa to explore how COVID-19 crisis plays out regarding provision of informal food services. The study addressed three related research objectives: examine the impact of COVID-19 on food services provision, the lessons learned, and the copping strategies therein.

#### Methodology

The study adopted the qualitative research approach to elicit and analyse the data. Specifically, the multiple case study approach was adopted to conduct the study (Yin, 1984). Purposive sampling technique was used to select four formal food services providers. A semi-structured interview guide was used to conduct four in-depth interviews to explore the views and experiences of service providers on how the Covid-19 crisis has affected service prices, input prices, and inputs access. Lessons learned on building reserves, food handling, hygiene, and digital technology adoption were also examined. Interview guides were developed based on propositions of the Complexity Theory of disaster and the Theory of Planned Behaviour. Interviews were conducted in the English Language and tape-recorded. The responses were then transcribed, read through, coded, categorised into themes, and presented using narrations and quotations.

#### Findings

The coronavirus crisis has affected food services through a decline in overall sales and access to essential food items. It had also led to low patronage of hotel accommodation facilities, conferences, and open bar services. However, none of the entities closed down during the peak of the crisis, except one service provider, which had to shut down to adjust and organise interaction between clients and workers. The lessons learned related to personal and food hygiene, change in service delivery methods, and adoption of digital technology such as Mealtime. However, service providers had no plans to build reserves or add new products or services to existing ones. Even though the coronavirus crisis had negatively affected the operations of formal food services providers, they did not benefit from government's relief packages. Additionally, service providers did not build emergency reserves in anticipation of a worst-case scenario.

#### Conclusion

The patronage of food services declined due to the emergence of COVID-19. As a result, service providers recognised the need to adopt digital technology in providing services. It is recommended service providers build emergency reserves, while the government's relief packages should be tailor-made to meet the unique needs of such businesses.

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# Assessing the Level of Adherence to the Covid - 19 Prevention Protocols in Public Second Cycle Schools in Wa, Ghana

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# Introduction

The Covid-19 outbreak in China and subsequent spread across the globe have impacted countries in multiple ways (Di Gennaro et al., 2020). Like other government, the government of Ghana instituted several measures to curtail its spread in the country: partial lockdown of Accra and Kumasi, border closures, a ban on travelling, social distancing, hand washing with soap under running water, avoiding or restricting physical contact, and rubbing hands with alcohol-based sanitisers and closure of schools (Bonful et al., 2020). However, few studies examine adherence to the preventive protocols in second-cycle institutions in Ghana. This study draws evidence from selected public second-cycle schools in Wa, Ghana, to assess students' adherence to the COVID-19 preventive protocols. The findings could provide the government with real-time data to assist in planning short- and long-term measures to limit the spread of the disease, especially in schools.

# Methodology

A cross-sectional survey involving 339 participants was conducted to explore the level of students' adherence to the COVID-19 preventive protocols in public second-cycle schools in Wa Municipality. A simple random sample was used to select 4 second cycle schools to participate in the study. The research participants were also selected using the fish-bowl method of sample selection. A questionnaire containing both close- and open-ended items aided data collection, which lasted three months, May to July 2021. The researchers used descriptive statistics, chi-square test of independence, and cross-tabulation to analyse the data, while content analysis was applied to data obtained from observation.

# Findings

The results indicate that most (87.9%) of the respondents had heard about the outbreak and spread of COVID-19. The source of information was mainly through radio and/or television (52.2%). The results also indicated that wearing of nose masks dominated the response (79.0%), followed by alcohol-based hand sanitisers. Surprisingly, frequent hand washing elicited fewer responses than the wearing of nose mask and the use of hand

sanitisers. On the issue of disinfection of surfaces before use, it was found that that 87.5% of the respondents did not disinfect surfaces such as tables and chairs before using them. The study also found that 80.0% of the respondents indicated covering their mouth with a tissue or elbow when coughing. Regarding social distancing, the study found that the students were not complying with the practice of social distancing in the classrooms and places of gathering.

# Conclusion

Largely, the students knew about COVID-19, awareness, transmission, and preventive mechanisms. The study found that students had hand sanitisers and nose masks, but few washed their hands frequently. We recommend uninterrupted education on the need to observe the preventive protocols as the cases surge in Ghana

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# An Exploratory Study of Factors Influencing Entomophagy in North-Western Ghana

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# Introduction

The World Health Organisation emphasises the importance of diet and nutrition in promoting and maintaining good health throughout human life. However, rural communities in developing countries continue to suffer from malnutrition, especially due to insufficient animal source protein in their diet. Insects are the most abundant animal species and predicted to play a major role in animal protein consumption and the general food supply system. Their acceptance as food and feed alongside regulations have received global attention. Consumption of insects, especially among rural populations, will reduce malnutrition and diversify their dietary practices. Little is known about the types of insects eaten and factors driving their acceptance as food in the Upper West Region. The objectives of this study were to identify the types of insects eaten, determine factors that influence entomophagy and identify negative impressions toward entomophagy in the Upper West Region.

# Methodology

A cross-sectional survey was conducted using a semi-structured questionnaire which was administered purposively to literate social media users from the Upper West Region through Qualtrics<sup>xm</sup> software and by personal interviews through KoBotoolbox collect.

Natives of the study area aged eighteen years and above based on the 2010 Ghana's Population and Housing Census constituted the sample frame. Slovin's formula was used to obtain 1,108 respondents at 3% margin of error. Out of 359 respondents sent with the Qualtrics<sup>xm</sup> software survey link, 168 (47% response rate) was obtained, while 634 respondents were interviewed personally totalling 802 respondents out of the total sample size. The data was exported to excel, merged and cleaned to 783 valid responses. We calculated the overall mean score of a seven-point Likert scale response to determine the factors that influence entomophagy and performed descriptive statistics to characterise the sample.

# Findings

The results showed that six different insects (winged termites, shea tree caterpillars, palm weevil, locust, crickets, bee larvae and one arachnid) are eaten in the Upper West Region. The mean age of participants was 35.81 (standard deviation [SD] = 14.39), while overall mean (M) was 2.99; (SD=1.63). Various factors influencing entomophagy were identified: convenience of eating insects (M=2.53; SD=1.52); insects are natural food (M=1.74; SD=0.68); my culture accepts edible insects (M=2.01; SD=0.97); experience of eating insects (M=1.99; SD=1.23); nutrients are higher in insects' food (M=2.73; SD=1.62); insects' food has medicinal properties (M=2.28; SD=1.38); and it is pleasurable eating insects (M=2.66; SD=1.60). Ease of collection (M=4.13; SD=2.07) and hunger (M=4.71; SD=2.09) were not factors that influence entomophagy among respondents. Statement such as "insects' food is strange to eat", "insects' food is for the poor" and "insects' food is poisonous" were major negative impressions militating against entomophagy.

## Conclusion

This study provides useful information on entomophagy in the Upper West Region that would assist government, researchers and non-governmental organisations that want to invest in entomophagy projects in an effort to diversify and improve the nutrition of people in the region.

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# "Urban villages in Global-South cities" Geographies and the emergence of informal settlements in urban Tanzania

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# Introduction

One of the greatest concerns in most African cities is rapid urbanisation and the resurgence of informal settlements, defined as unplanned urban areas that evolve outside the formal planning consent. Such areas are characterised by poor access to infrastructure services, tenure insecurity, lack of land title deed, amongst others. In terms of growth and location, they are categorised as either infant, consolidated or saturated informal settlements. In Africa, studies have attempted to explain the residential and water access deprivations of informal settlements' residents (Aliu, Akoteyon and Soladoye 2021; Shuang Chen, Gao, Shen, Kimirei and Mapunda 2020) and the management of informal settlements (Deuskar, 2019; Yuan, Chen, Cao 2021). However, few have so far explored the intra-city geographies and production of informal settlements, factors and actors connected to their production and implications for spatial planning in cities of the Global South.

# Methodology

The study used the case study method alongside the co-evolutionary approach. The case study research method is advantageous for adequate exploration of urban social phenomena as well as complex social issues. Despite its limitations regarding generalisation, it was suitable for in-depth exploration of how different kinds of informal settlements were produced in intra-city scale and factors and actors connected to their production. The study was conducted in Morogoro Urban Municipality (MUM), a secondary city in Tanzania. The city was divided into three zones, comprising the inner city, the outer city and the peripheral. Three informal settlements were purposively selected, one from each of the zones following the three major categories of informal settlements (infant, consolidated and saturated). Twenty-three (23) participants were selected using purposive sampling and interviewed. Spatial mapping, observation and photographing were conducted. The data were analysed thematically with the support of MAXQDA software.

#### Findings

Actors and factors connected to the production of informal settlements were not homogenous across the three categories of informal settlements (infant, saturated, consolidated). Factors such as poverty, migration, formal planning legislation and the fragmented/informal land market were connected to the production of all informal settlements. Utility providers, local home developers and customary landowners were the major actors connected to the production of the different kinds of informal settlements. The development of peripheral informal settlements was more shaped by speculation of utility services, and the cost of land. The actions of planners and policy-makers were more connected to the production of saturated informal settlements located in the inner city and infant settlements located at the peripheral. The findings contrast the dominant perspective that informal settlements are shaped by poverty, urbanisation and rural-urban migration. Saturated informal settlements were not influenced by these factors.

#### Conclusion

The findings suggest that informal settlements co-evolved from diverse factors and require diverse approaches, strategies and networks of actors beyond only the effort of spatial planners. The study raises the need for collaboration between planners, city authorities, utility providers, landowners and local home builders.

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# A Double-Hurdle Model of Food-Away-From-Home (FAFH) Consumption in Ethiopia

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## Introduction

Food-away-from-home (FAFH) are prepared and ready-to-eat foods from restaurants, fast-food joints, hotels, and other types of facilities that are eaten on the premises or carried away and eaten outside (Stewart, 2011). Their consumption has long been an established phenomenon in developed countries. It is a rapidly increasing trend in developing countries as they transition from low-income to middle-income class (Mottaleb & Mishra, 2017). The supply of FAFH is increasing as well (Saksena et al., 2018). Fast-food firms such as McDonald's, Burger King, KFC, and Peterpan are rapidly opening outlets across the developing world. In developing countries, a limited number of studies exist on the dynamics of FAFH consumption due to the lack of adequate data and limited interest in the FAFH service industry in the past. The purpose of this study was to determine factors influencing FAFH consumption decisions and expenditure in Ethiopia.

# Methodology

This study was premised on the Household Production Theory, where households maximise utility subject to prices and resource constraints, including time (Becker, 1965). Data from The Living Standards Measurement Study (LSMS) - Ethiopia Socioeconomic Survey (ESS) for 2018/19 were used. The unit of analysis was the household. After match merging the data, there were 6,770 observations on which the analysis was based. The dependent variables were FAFH consumption decision (yes/no) and FAFH expenditure per adult equivalent. The independent variables included age, education, household headship, marital status, labour market participation, household size, household income, and location. The Double-Hurdle Model, first proposed by Cragg (1971), was employed in the analysis. The model proposes two hurdles households must overcome before a positive expenditure on FAFH can be realised: (a) households must make the decision to consume FAFH, and (b) households must make a positive expenditure on FAFH.

## Findings

The results showed that 56.4% of the households in Ethiopia participate in FAFH consumption and the average annual FAFH consumption expenditure per capita is 4,339

birr. It was clear from the results that participation in FAFH consumption increases with being a male-headed household, labour market participation as measured by hours of work, and rural location. Participation in FAFH consumption, however, decreases with household size and being married. On the level of expenditure on FAFH consumption, age of household head, household size, and household income per adult equivalent play a significant positive role. On the contrary, being married and in a rural location significantly lowers expenditure on FAFH.

# Conclusion

The study concludes that the incidence of FAFH consumption is high in Ethiopia as more than half of the households patronise FAFH. While non-economic factors drive household participation in the consumption of FAFH, economic factors, particularly household income level, drive the level of FAFH consumption expenditure. The study has important policy implications. The findings could guide suppliers of FAFH in their marketing strategies, especially with regard to market segmentation. Another implication is that developing countries need to refocus their agricultural and agribusiness policies as increasing consumption of FAFH has implications for local agricultural production.

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# Chen Burr Hatke Exponential Distribution: Applications in Modelling Climate Change Data

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# Introduction

Probability distributions play a key role in describing and predicting real world phenomena. Fitting the appropriate distribution to a dataset improves the accuracy of the results of analysis by improving the power and sensitivity of the associated tests. Data generation in various fields is often characterised by varied degrees of skewness, kurtosis and failure rates. Hence, existing classical distributions may not always provide reasonable parametric fit to these datasets, leading to misleading results. Thus, modifying distributions to make them flexible for modelling datasets is essential. Modified distributions tend to be tractable and produce heavy tails, among others and, hence, produce better parametric fit to datasets than existing distributions. The one parameter, Burr Hatke exponential (BHE) distribution, lacks a scale parameter, which makes it less flexible as it can only model right-skewed data. Hence, the study sought to generalise it by compounding it with the Chen distribution.

# Methodology

The Chen Burr Hatke exponential (CBHE) distribution is developed following the idea of Anzagra et al. (2020), compounding the Chen G generator with the Burr Hatke exponential distribution (Abouelmagd (2018), Yadav et al. (2019) as the baseline model. Maximum likelihood estimation technique was then used to estimate its parameters. Goodness-of-fit tests such as the Anderson darling, Kolmogorov-Smirnov and Cramer-Von Mises tests were used to determine how well the distribution fitted the given dataset. Information criteria measures were then used to carry out comparative analysis to select the model that provided a better fit from a set of competing models. The usefulness of the new distribution developed was then demonstrated using secondary data on the daily ozone level measurements in New York, recorded from May–September 1973, found in Nadarajah (2007).

# Findings

The study developed the CBHE distribution. The new distribution can model datasets that exhibit decreasing, increasing and right-skewed failure rates, among others, as is evident in plots of its failure rates for varying combinations of the parameter values. Its statistical properties such as the moments, moment generating functions, entropy, order statistics

and mean residual time, among others, were derived. The parameters of the new distribution were estimated and their performance as assessed using Monte Carlo simulations were good, as they were all consistent. The usefulness of the new distribution was then demonstrated using two real datasets. Comparatively, analysis with competing models showed that it modelled the datasets better than the rest as shown by its AIC, BIC and CAIC results.

# Conclusion

The CBHE distribution was introduced and shown to be useful for modelling datasets. Its statistical properties were established and its parameters are consistent. This distribution is a good alternative to exponential and Burr Hatke exponential distributions and expected to attract wider applications in modelling datasets in various disciplines.

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# Effect of Public Financial Management Practices on Performance of Selected Metropolitan, Municipal and District Assemblies in Northern Ghana

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#### Introduction

The fiscal component of decentralisation continues to gain prominence in international development discourse (Kwarteng, 2017). This is further heightened by poor public sector performance and, as part of attempts to periscope the impediments, the introduction of financial management practices is both timely and relevant (Abdulai, 2020). However, empirical studies and available annual reports of the Auditor General and District Assembly Common Fund Secretariat are replete with instances of financial malpractice and lack of interest to curb the spate of financial indiscipline (Auditor General's Report, 2018). Literature on Public Financial Management Practices (PFMP) on performance at the local government level, emphasising revenue mobilisation strategies, budgeting, auditing, and reporting by way of quantitative inquiry is needed (Scott, 2018; Abdulai, 2020; Tetteh, Agyenim-Boateng, Simpson, & Susuawu, 2021). This study evaluates Public Financial Management Practices on the performance of MMDAs. By way of Stewardship, Agency, Stakeholder, and the New Public Management theories, the research seeks to evaluate the four variables of PFMP on the performance of selected MMDAs in Northern Ghana.

#### Methodology

Research methodology refers to the entire process of conducting a research study, from identification of a research problem, data collection, analysis and interpretation, and culminating with writing of the results and conclusions (Creswell, 2007). The study is a quantitative one that will use a survey questionnaire administered to all management and finance staff working in assemblies with the exception of the president's representatives and presiding members to collect data. This study administered the instrument to all the management and finance staff working in assemblies with the exception of the president's representatives representatives and the presiding members. The exclusion is due to the transitioning of new political leadership, which may not afford some appointees the requisite knowledge to respond to the questionnaire.

#### **Expected** outcome

The study is expected to contribute to the literature on public financial management as well yield plausible recommendations that will help fix the cancer of resource mismanagement.

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# Urban Water Governance, Access and Planning through Transdisciplinary Research in West Africa

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# Introduction

In the wake of rapid urbanisation in developing countries, decentralised systems of water supply management have been considered an appropriate approach to addressing safe water needs of increasing urban populations. However, urbanisation in Africa continues to place immense pressure on water infrastructure in African cities and and city authorities struggle to keep pace with urban water supply demands (Adams, Sambu, and Smiley 2019; Dos Santos et al. 2017). This potentially undermines the ability of Africa to attain Sustainable Development Goal 6, which aims at ensuring available and sustainable management of clean water and sanitation for all. Consequently, innovation is critical to address the urban water challenge. The aim of this study is to offer a situated experience and results, potential, limits and lessons through experimenting with the TD research approach as an alternative approach to knowledge production.

# Methodology

This study drew on a trans-disciplinary and multi-stakeholder research approach for, first fostering an integrated and holistic understanding of inequalities in access to urban water supply and, secondly, for engendering co-designing of policy and strategic interventions for improving urban water supply and access in an urban context. Transdisciplinary research draws a reflexive process that includes collaborative deliberation to develop a shared understanding of a problem; the social relevance of the problem framing; social experimentation and collective learning processes; and the critical and transformative character of the research agenda (Roderick, 2014). The project was implemented in the cities of Wa, Ghana, and Niamey, Niger. The formats of stakeholder interactions were key informant interviews, group interviews, focus group discussions, transect walks, observation and desk studies. Others included stakeholder mapping, workshops, surveys, water quality testing and vulnerability mapping. Focus group discussions and workshops created an enabling environment for open, confrontational and participatory discussions among different stakeholders. The field studies were conducted by (non)academic field researchers.

#### Findings

The results are twofold. First, the study indicated the feasibility and relevance of TD as a pragmatic research methodology and a tool for understanding and planning urban water management and access. The approach was useful in promoting a multi-stakeholder approach and maximising participation of stakeholders in the research and planning process. Secondly, the results showed that decentralised systems of urban water supply management have not ensured equity in access to safe water. In both cities, residents in the core urban zones and suburbs had low access to safe water compared to residents in low-density areas and government residential areas. Women and children in low-access zones were the worst affected because they bore the burden of searching for water over long distances and time.

#### Conclusions

We conclude that TD is a feasible, practical research approach and a tool for researching, analysing and planning urban water management and access. Major lesson for academic society is that TD approach is useful for bridging the gap between academic and non-academic societies and, somehow, more-oriented for development research.

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