



Encroachment of Urban Pedestrian Infrastructure: A Case Study of Cattle Rearing Activities Along The Kanda Highway in Accra, Ghana

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ABSTRACT: The use of urban pedestrian walkways for unintended uses such as cattle grazing is prevalent in some areas in Accra. This qualitative study, in the form of a case study, employed the tools of interview, personal observation and photographic evidence to determine how cattle on the Kanda Highway in Accra impacted the socio-economic, spatial, and environmental aspects of urban pedestrian walkway use. The research, drawing on secondary materials to provide the background to the case study, used purposive sampling to select respondents who interacted with cattle on the Kanda Highway. It found that cattle on the pedestrian walkways impeded pedestrian movement, constituted a threat to the safety of users of the road and walkways, contributed to environmental sanitation problems, and resulted in resident-herder conflicts. It revealed a weak state of urban planning and enforcement of urban regulations and plans, which has led to residents, pedestrians, cattle owners and herders negotiating access to and use of space in an informal way. It also found, however, that the resourcefulness and adaptability of residents and pedestrians was finding alternative coping strategies for the conditions on the Kanda Highway. The study identified missed opportunities in harnessing the potential of livestock keeping in urban areas through integration into agro-ecological systems and creative, 'outside the box' policy thinking. In the face of the socio-economic imperatives that create the conditions for such unintended uses, it recommended the short-term use of specific and enforceable zoning for grazing areas and watering points, as well as enhanced institutional coordination and collaboration, with dialogue among stakeholders and residents, and public education as a longer-term solution. It also emphasized the need for urban planning to be more inclusive of the realities of survival in the urban peripheries of Ghana and other African cities, and in line with the rightful use of the city by all users.

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INTRODUCTION

City infrastructure, particularly walking paths, is important in the process of ensuring mobility, accessibility, and security to the urban residents. These facilities have been under threat of various encroachments in most developing nations though. The Ghanaian capital city, Accra is not an exception. The presence of cattle rearing business in the city pedestrian walkways is one of the strange and more noticeable encroaching measures. On the Kanda Highway, as an example, herders often take up foot paths and green medians with livestock to provide a shared area between people and livestock. This brings up issues not only of urban planning and land use but the issue of the safety of people in the city, of their sanitation and their own rights to the city.

The pedestrian infrastructure in Accra was built to ensure the movement of people is non-motorised, to decrease the number of people traffic jams, and to make people have healthier lifestyles. The gains made on such investments are however compromised when such spaces are intruded into. Rearing of cattle along the Kanda Highway is a physical barrier to free movement of people as well as a source of pollution on the environment, due to the accumulation of animal waste which is dangerous to the health of the people. In addition, such activities represent a more profound conflict between rural practices and administrative rules of urban

planning. Such frictions are likely to increase as Ghana keeps urbanising at a high pace (urban growth rates remain steady at an average of 3.5% per year [Ghana Statistical Service [GSS], 2021]).

Socio-economic realities tend to be the force behind the phenomenon of urban encroachment. To most herders, cattle urbanisation is a means of livelihood because of shortage of land, climate change, and economic insecurity in the villages (Fuseini & Kemp, 2020). Such informal activities have seemed to be normalized by the fact they are not enforced by the enforcement of urban bylaws as well as the fact that there are no specifically allocated areas where such economic activities can be practiced. As Yeboah and Obeng-Odoom (2010) explain, due to the porousness of urban land governance in Ghana, the competing interests in the country are able to emerge in ways that undermine the logic of formal planning.

Although some literature has focused on urban encroachment by traders and street hawkers (Owusu, 2016), few studies have been conducted to focus on the livestock activities in urban pedestrian areas. This paper aims at bridging that gap by analysing the dynamics of cattle rearing along the Kanda Highway and the effects that it has on pedestrian infrastructure. It also examines the regulatory oversights, societal attitudes and possible policy-reactions to this kind of encroachment.

The problem of the encroachment by cattle on the pedestrian space is not a question of infrastructure management only; it is a question of the urban governance and spatial justice, and the way cities accommodate various forms of life. Through a case study of the Kanda Highway, the study offers an insight into the realities of life in Accra urban areas and can be used in the discourse of inclusive and sustainable city planning.

LITERATURE REVIEW

The development of urban infrastructure, including pedestrian paths, is one of the major elements of sustainable and inclusive urban plans. These areas have been set up in such cities as Accra to facilitate the safe flow of individuals, diminish the conflict between vehicles and pedestrians, and enhance the environmental sustainability. But the truth of the situation on the ground is usually telling a different story. Informal traders are not only a problem in pedestrian infrastructure within most of Ghana, but also other less-publicized forms of encroachment like cattle rearing in the Kanda Highway. It is in this context that this literature review examines the bigger picture of the pedestrian infrastructure, urban encroachment and informal urban activities as well as livestock management within urban areas.

The Pedestrian infrastructures in the city and its significance.

Pedestrian structure is the foundation of mobility in most cities, particularly among the low-income urban dwellers who use walking as their means of transportation mainly. Litman (2017) argues that walkability not only improves the health of the population but also lowers the cost of transportation and leads to the social and economic liveliness of cities. The government in Ghana has endeavoured to enhance the walks in the streets during wider urban transport infrastructural developments. Nonetheless, the quality of such infrastructure is usually disrupted by the inadequate maintenance and the absence of laws to protect pedestrians and all types of encroaching (Mensah, 2014).

Intrusion of the public space in Urban Ghana.

The issue of encroachment in the urban Ghanaian terrain is not new. Generally, the focus has been on the operations of street sellers, mechanics, and business vehicle drivers who occupy pavements, bus stops and open areas. According to Yeboah and Obeng-Odoom (2010), such encroachment is indicative of livelihoods as well as institutional failure. Africa has an informal city, and informality is a central topic of the manner in which most African cities work. It is thus no revelation that even less traditional modes of encroachment like the urban herding of cattle are getting space in these disputed spaces.

Such porous application of zoning policy and disjointed application of urban bylaws have added to the situation where various actors, both formal and informal, are competing over the same space (Acheampong and Ibrahim, 2016). In such places as the Kanda Highway, herders have taken advantage of the unused pedestrian areas and green strips to keep livestock or leave cattle to sell. The mechanisms associated with these activities interfere with pedestrian traffic and deteriorate the physical landscape, but they remain mostly unregulated because of regulatory inertia.

Urban Livestock Keeping: Past and Future Urban Planning.

Raising of livestock in cities is not new. The rural-urban migration process in several African cities has led to the traditional ways of livelihood, such as animal husbandry. The practice of urban keeping livestock is commonly considered in a polaristic perspective either as a danger to health and planning or as rural survival by the urban poor. Foeken and Owuor (2008) noted that in urban areas such as Nairobi and Kisumu, the urban livestock practices have proved to be a blessing in terms of income and food security to the families but have brought serious sanitation, road safety, and aesthetic challenges.

Cattle herding in urban areas in the Ghanaian setting is a relatively unexplored area of research. Fuseini and Kemp (2020) observe that even though the urban herding phenomenon is more prevalent in the north, growing land pressures and economic poverty have caused the urban herding to extend into the southern cities like Accra. These activities are in most instances not only framed as encroachment in areas such as the Kanda Highway, but also as a symptom to more profound governance and socio-economic problems.

Organizational and Policy Structures.

Regulatory tools to control the use of land and space in the cities are in existence. As an example, the Accra Metropolitan Assembly (AMA) has rules that do not allow animals to be grazed in the open areas. Nevertheless, it is not regularly enforced and overall people do not show awareness or interest. Agyemang and Morrison (2018) discovered that in areas where inhabitants are familiar with bylaws, the poor nature of the municipal authorities results in reporting or compliance having a low priority.

In addition to that, the system of urban land management is disintegrated. Arku et al. (2016) assert that due to the overlapping functions of metropolitan assemblies and traditional authorities as well as land commissions, land use is usually unclear. This uncertainty leaves space that informal actors can act without much responsibility.

Social Dimension and the Perception of many people.

There are conflicting responses by the population to the racialization of pedestrian infrastructure due to cattle herding. There are those who complain about blocked footways, dangers, and environmental erosion whereas others see the herders as casualties of a broken system trying to make ends meet. In Ghana, urban areas are characterised by socio-spatial inequalities that are usually realised in the way space is accessed, used, and even contested as opined by Asiedu and Agyei-Mensah (2008). The need to know the social opinion is therefore important in formulating inclusive and effective interventions.

Summary of Gaps

Although urban informality and management of the public spaces has received an increasing scholarly interest, it can be observed that little attention has been given to urban livestock farming, especially in the pedestrian areas. Majority of studies revolve around traders in the market, slum dwellers or hawkers without much regard to the impact of mobile herders and livestock on the urban infrastructure. This research fills this gap by discussing the cattle rearing along the Kanda Highway and its effects on the movement of pedestrians, personal health, and urban management.

METHODOLOGY

This section describes the methodological framework that was used in the study on the encroachment of urban pedestrian infrastructure by cattle rearing activities along the Kanda Highway in Accra, Ghana. The question that the study sought to unravel was the level, reasons and effects of the phenomenon in the framework of urban planning, regulations in the use of the public spaces, and ordinary urban living.

Research Approach

The research design used in the study was qualitative research design. The rationale behind the selection is that the phenomenon that was to be studied demanded exploration of human behaviour, lived experiences, and social practices in-depth and quantitative methods might not have fully been able to cover this issue (Creswell, 2014). It was also a qualitative method that made it possible to have a more flexible and interpretative interaction with the participants, especially in learning about their perceptions, motivations, and coping mechanisms to the encroachment of pedestrian space by cattle herding.

Research Method

The approach to case study approach was used to offer a comprehensive and situation-oriented perception of the problem along the Kanda Highway. The case study approach was suitable since it made it possible to explore a real-life scenario in its natural environment and gave the chance to triangulate with numerous sources of data (Yin, 2018). The strategy helped the researcher to explore the local socio-spatial dynamics of the Kanda region, as opposed to broad generalisation of the whole city of Accra.

Study Area and Population

The research was done in the Kanda Highway which links various communities in Accra and is also a major pedestrian route. The target population consisted of:

- Local pedestrians who pass by the sidewalks on a daily basis.
- People living alongside or close to the Kanda Highway.
- Cattle herders were seen to be working in the vicinity.
- Urban planning officers and the Accra Metropolitan Assembly (AMA) officials.
- Police officers charged with the responsibility of controlling social space and traffic.

This heterogeneous group offered the perspectives of various parties; users, regulators, and encroachers.

Sampling Method and Sample size.

In the study, purposive sampling method was utilized in the selection of those who had direct contact or experience of the issue. The selection of this method was based on the intention of the researcher to specifically identify people with pertinent information (Palinkas et al., 2015).

A total of 25 respondents were chosen and they included:

- 10 pedestrians (randomly stopped on the highway),

- 5 local residents,
- 5 cattle herders,
- 3 AMA officials in urban planning,
- 2 police/city guards that are engaged in street regulation.

The sample size was also quite limited, but it was adequate in regards to the depth and richness of data needed in qualitative research (Mason, 2010).

Data Collection Methods

Primary data was collected by:

- Altogether, semi-structured interviews, which left the possibility of a guided and yet open conversation with the participants.
- Field observations especially in busy and weekends to record the patterns of cattle movements, pedestrian interference, and utilization of the public space.
- Photographic record, employed to capture in visual form cases of encroachment and the quality of the pedestrian walkways.

The secondary data was taken as official reports of the Accra Metropolitan Assembly and media coverage of urban cattle breeding in Accra.

Data Analysis

Thematic analysis was used to analyse the data obtained. Interviews were taped and transcribed and coded to determine the themes and patterns of recurrent patterns of causes, consequences and understandings of cattle-related encroachment. Most of the themes like conflict of space, weak enforcement and economic survival strategies came out as major categories in the coding process (Braun and Clarke, 2006).

Validation and Reliability.

In order to make the findings credible, the following strategies were used in the study:

- Triangulation: Interviews, observations and documents were cross-examined to confirm the findings (Denzin, 1978).
- Member checking: The participants chosen were approached again after initial analysis so as to ensure that their perspectives were properly reflected.
- Reflexivity: The researcher recorded a reflective journal, which was a journal that she used to record the biases, thoughts, and decisions that she had in data collection and analysis to ensure that she was transparent and minimized subjectivity.

Methodology Limitations.

Although the qualitative method provided richness, it did not provide much breadth in terms of extrapolating the results. Besides, the presence of the researcher in the course of observations can have affected the behaviour of certain participants (observer effect). This limitation was however minimised through the extended experience in the field.

RESULTS AND DISCUSSION

1. Pedestrian Interference and Safety Issue

The frequent roadblocking of pedestrian traffic by the free-roaming cows on the Kanda Highway was one of the strongest results of the field. Most of the respondents, especially those commuting to work and traders, expressed experiences of almost hitting cattle and having to always dodge around droppings, herds and even violent animals. To others, it seemed like a normal nuisance to be able to see cattle on the sidewalks; to others, it was something to be feared and stressed.

“One has to be cautious when walking here. The cows approach too near sometimes and you are forced to leave the walk pathway and get on the road. It's very risky.” – Ama B., pedestrian, 2025.



Figure 1: Cattle obstructing pedestrian walkway during mid-morning traffic
Source: Photographed by researchers, 2025.

Such a constant encroachment was observed to contribute to the likelihood of pedestrian and vehicular accidents particularly in areas that lack clear lanes in which the two groups would be. Some of the interviewees underscored that the sidewalks that were designed as safe and easy to move around had become conflict zones, good not only to humans and animals but even vehicles (Owusu & Oteng-Ababio, 2015). The sociologists of urban planning say that the security and accessibility of the infrastructure system should take into consideration the most vulnerable citizens, particularly pedestrians (Gehl, 2010). In this case, the opposite situation is observed, in which the safety of pedestrians becomes compromised due to the absence of the enforcement of spatial regulations in urban areas.

2. Poor Urban Planning and Lax Enforcement

The next important issue that came out in the data was the ineffectiveness of the urban planning implementation. Citizens and authorities have recognized that the city by-laws were there to control the transportation of livestock within the cities, but they were not implemented with regard to enforcement with weak results. The field observations indicated that there were no signages, barriers, or system of community enforcement systems that would lock out animals in the pedestrian areas.

“We report them and nothing is done. The urban watchmen do not actually do much. They are even acquainted with the shepherds themselves sometimes”. – Kwabena, Resident, 2025.

This inaction is an indication of institutional failure. The literature on African urban governance observes that a disparity between planning and implementation is evident in most cities because resources are limited, corruption exists, and the administrative system is inertial (Myers, 2011). The informal power networks have further increased this gap in Accra, where the herders can be politically or socially exempted of sanctions. This leads to the unchecked encroachment, although it is visible to be interfering with the normal daily life in the urban areas.

3. Livelihoods and Urban Survival Strategies

However, and most interesting, when cattle herders were interviewed, they gave a very different cover, based on survival and economic need. Most of the herders were migrants of the northern regions of Ghana and their arrival in Accra was an expansion of rural lifestyles into urban space. They had reported that the availability of open spaces and green fields near highways played a crucial role in feeding and management of their cattle since there were no specific grazing routes or ranching areas in the city.

“We do not want to cause any inconvenience to anyone; the cows have to eat. Where else can we go? There’s grass here.” – Abdulai, Cattle Herder, 2025.

This observation is indicative of wider debates on the topic of urban informality in which migrants tend to adjust rural livelihood to the limitations of urban settings (Lindell, 2010). To the herders, the walks and fringes along the highway are one of the few available and free grazing areas. Nevertheless, this adaptive approach results in spatial conflict and it is an expression of the discrepancies between formal urban design and informal survival tactics.

4. Coping and Adaptation on a Community level

Nonetheless, there are coping strategies that have been formed by the pedestrians and residents despite the challenges. An example is that some sections of the day, particularly early mornings and evenings are now known as cattle periods and people are attempting to avoid walking along those sections of the highway during these periods. Some of them move on the other side of the road or walk on the verge of the road that can make them more prone to accidents.

Also, there were residents who showed empathy to the herders, as they knew that their existence was also due to the inability of the state to design the city to accommodate both human and animal life in the city.

“It’s not their fault entirely. Had the city provided them with a spot where their cows may be, they would not be here. But now everyone suffers.” – Esi A., Market trader, 2025.



Figure 2: Commuters forced to share road space with moving vehicles due to cattle presence.
Source: Photographed by researchers, 2025.

Such coping behaviour is reflected in the results of the research in other cities of a similar nature, where local people adapt their patterns to informal applications of official infrastructure (UN-Habitat, 2020). Nevertheless, these changes cannot be sustainable and they emphasise the necessity of inclusive urban planning to consider all stakeholders of space human and non-human.

5. Impact on the Environment and Public Health

Lastly, but also significant, was an environmental and sanitation influence of the cattle rearing on the pedestrian infrastructure. The cow dung lying on the sidewalks did not only cause inconvenience when walking but also health hazards. Waste had collected and stagnant water in some areas, and flies were attracted, and caused bad smells.

“The smell is enough to make you sick even though you may not step in it. And there are occasions that you are eating and you can smell cow droppings on the road”. – Yaw D., Food Vendor, 2025.



Figure 3: Accumulated cattle waste (droppings) on pedestrian walkways along Kanda Highway.
Source: Photographed by researchers, 2025.

Sanitation conditions are related strongly to disease outbreak in urban areas (WHO, 2016). The practice of free roaming and defecation of animals in the walkways adds to inappropriate hygienic conditions, notably in case of poor waste disposal. Such impacts are not only on the health of the population, but also on the urban beauty and tourism prospects.

6. Stress on Urban Infrastructure and Urban Maintenance Budgets

The research found that the high frequency of movements of cattle along foot pavements and road sides had resulted in observable destruction of infrastructure. There was a breaking of slabs, eating or trampling of vegetation used to beautify and blocking of drainage outlets with animal droppings and debris. Such recurrent types of physical damages imposed another strain on the maintenance budget that was already stretched by Accra Metropolitan Assembly.

An official at the Accra Department of Urban roads stated that they had to carry out constant repairs in the place where cattle movement was common but the money to fund such small infrastructure was usually inadequate.

“And we mend and mend, and get them back. It is a waste of money unless it is enforced in the long term”. – Engineer in Urban Roads Department, 2025.

This observation is in line with issues expressed by UN-Habitat (2013) that informal use of public infrastructures in developing urban centres is part of the reason why such development accelerates the degradation of such infrastructure which increases the cost of long term to the municipalities. Unless this problem has a lasting solution, the cities such as Accra might keep spending on temporary solutions that can only provide temporary solutions, thus frustrating the process of achieving sustainable urban development (World Bank, 2019).

7. Socio-Political Stresses and Neglect Feeling

Less concrete yet highly resonant was the development of a socio-political conflict over the implementation of the by-laws against cattle grazing in the urban areas. Certain locals felt that the government was not keen to take any decisive action against herders on the basis of their ethnicity or political inclination. This view created the feelings of inequality and neglect, especially to the residents who felt they could not do anything to be changed.

“If it were any of us doing this, we would be fined or arrested. But they [the herders] are left alone. That’s not fair.” – Efua N., School Teacher, 2025.

This outcome is an indicator of wider governance problems in Ghana, with decentralised urban governance usually failing to broker between opposing interest groups without drawing claims of bias (Songsore, 2017). The cattle problem was therefore not simply a space issue anymore, it was an issue that symbolically reflected wider social dissatisfaction with the city and its governance, representation and justice.

8. Missed Opportunities for Regulated Urban Agro-Ecology

Surprisingly, some urban planners and environmentalists interviewed indicated that in as much as the encroachment of cattle is a problem, it could be used as an opportunity. They cited examples of other regions around the world where urban agriculture or agro-ecological systems are managed and controlled but do not conflict with cities (Mougeot, 2006).

Provided that Accra had a place where herders would graze on urban areas or a pilot cattle ranch within the boundaries, such a model would be of benefit to herders and the urban since it would provide revenue, limit encroachment on streets and supply chains of organic manure to urban farms.

“Raising bovines in an urban economy can become a part of the proper planning, not a nightmare. – Dr. Mensah, Urban Ecologist, 2025.

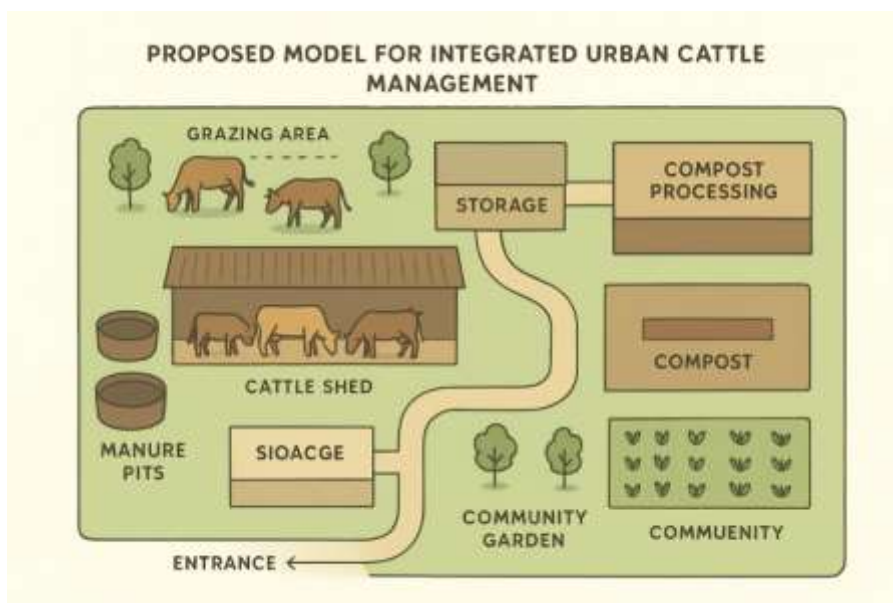


Figure 4: Design proposal or schematic of a community-based cattle holding facility.

Source: Researchers construct, 2025.

This re-framing endorses the perception of the scholars such as Redwood (2009), who promote the use of inclusive urban agriculture policies to acknowledge and organize informal rural activities in real-world urban systems. Instead of only criminalising cattle herding, Accra might want to consider new policies that will embrace it as part of green economy.

DISCUSSION

1. Pedestrian Disruption and Safety Concerns

The use of cattle in the pedestrian walkways of the Kanda Highway was a major cause of safety hazards to the pedestrians. Most of the respondents recounted situations when they have had to make sudden steps to get off the pavement to the road to dodge incoming cattle. This abrupt deviation exposed them to direct traffic and hence more accidents were likely to occur. The elderly, people with disabilities and children were at a greater risk with such encounters.

Surprisingly, some pedestrians said they adjusted their time of walking to prevent the main cattle movement times, which was mostly early in the morning or late in the afternoon. These behavioural transformations point to a major invasion of the liberty and ease of displacement, a fundamental urban right. Multiple urban planning models consider pedestrian safety as the key to inclusive and sustainable urban centers, but the situation with Kanda Highway reflects the opposite scenario a situation where animals are prioritized over human beings.

The worry of being gored or trampled down was not a big deal. Some of the interviewees narrated personal injuries or close calls. One of the women shared her experience with her little daughter who had fallen in a drainage gutter in an effort to escape a herd of people.

This continuing disturbance makes the cities feel insecure about their infrastructure and indicates a failure in animal containment as well as strategic planning of pedestrians. It illustrates an existent critical loophole in the urban governing of Accra, which is the inability to protect non-motorised road users. Such cattle encroachment would otherwise drive away any form of pedestrian movement, which is an indirect promotion of car dependency, thereby undermining the idea of a people-friendly sustainable city.

2. Poor Urban Planning and Lax Enforcement

Among the most egregious observations of the research was how urban planning mechanisms failed to foresee and control the infiltration of the pastoral onto the pedestrian areas. The Kanda Highway is a major urban highway that does not have proper barriers,

signs, or even the enforcement mechanisms that can stop the herders using the walkways as a grazing area. This highlighted a structural failure in the way the city of Accra is incorporating formal planning and informal activities.

The interviewed planning officials were aware of the issue but suffered no hesitation to cite lack of legal clarity, political will and logistics to implement by-laws that already exist. Officials in certain instances went as far as sympathizing with herders terming them as being victims of the rapid urbanisation which had cost them their grazing fields. This combination of sympathies and administration helplessness has resulted in a loophole where execution is haphazard or non-existent.

The city development policies have not been integrated with informal activities like cattle rearing as well. Urban planning has generally worked in a vacuum and not much interaction with individuals themselves who are affected by or contribute to the problems. This detachment has rendered enforcement not only futile, but also socially insensitive. The planners in cities need to start considering the informal players as components of the urban ecosystem and not as nuisances to be eliminated.

“It is not only the enforcement that is a problem, but the lack of inclusive planning.” – Planner, Accra Metropolitan Assembly, 2025. The outcome supports the thesis that sustainable urbanisation in Africa should deal with informal realities through flexible and context-sensitive plans of urbanisation.

3. Livelihoods and Survival Strategies in the Urban Areas

One of the recurring ideas in the research was that even in a developed city such as Accra cow rearing is not a fetish of encroachment-it is a survival tactic. A majority of the herders that were interviewed during the study are migrants who came into Ghana, or the Sahelian-countries, in the North. To them, cattle represented both a means of income as well as a source of wealth, tradition and a social identity.

The location of Kanda Highway was selected because of the access to water, open grassy sides, and the accessibility to clients (butchers and meat sellers). These herders were in most cases ill equipped or uneducated and had limited choices in a fast urbanising world.

Interestingly, the herders frequently took their grievances about how the residents referred to them as problems. They considered themselves to be doing the best they can with a bad situation, they were surviving in a city which had little to offer them in terms of formal jobs, or in terms of supporting traditional trades. To others, the city had failed to provide specific areas as livestock farms thus showing signs of exclusionary development.

“We are not criminals. We are simply struggling to make ends meet like any other human being.” – Yakubu, a cattle herder, 2025.

This finding demonstrates that seemingly encroaching is a display of economic desperation and rural-urban migration strain. Any sensible intervention should take note of these survival politics and offer an alternative that will not take away dignity and yet still maintain order in the city.

4. Community Adaptation and Coping

Local communities in the Kanda Highway have been forced to develop special coping strategies in light of the constant encroachment of cattle on walking paths. Other inhabitants have erected improvised barriers in front of their houses using used tyres or waste wood as a way of keeping away roaming animals. Others have developed informal neighbourhood watch where children or aged people are alerted about the cattle approach.

Such community resilience shows the ability and the inability of informal adjustment. Although such measures mitigate the risk in the short term, they are also an indication of a lack of trust in the government. As they witnessed, their appeals to the local government did not succeed much and they decided to handle things on their own.

Specifically, women were important in neighbourhood adaptations. Traders in the walkways would at times come together to challenge the herders or show cattle in some other direction with sticks or whistles. These actions though usually avoided direct harm, caused friction between the community members and the herders.

“You summon them to the assembly; they do not come. Then we barricade ourselves as we may.” – Ama Serwaa, street food, 2025.

Such changes indicate a larger truth in most African urban areas where informal communities have been forced to be their own defenders against a collapse of planning. They, however, also question the extent to which grassroots responses can be effective in the absence of institutional support.

5. Environmental and Public Health Implications

The other factor that was worrisome about the study was the environmental degradation and health hazards to the people due to uncontrolled cattle movement in the Kanda Highway. The walkways and drainage systems were covered with cow dung, urine and remains of feed. These unclean environments not only made unpleasant smells but were also really dangerous in terms of the spread of diseases especially in a high populated place.

In the area, gastrointestinal infections were identified to be on the rise during the rainy season but health workers suspected that this could be associated with animal waste contamination of water. Uncovered sewers containing cattle faeces were breeding grounds to flies and other pests, which increased the health risks.

Furthermore, the availability of rubbish on the walking paths also made people not walk particularly during the early morning or at night. This not only slowed down the normal movement but also had an impact on the mental health with some residents reporting having a general feeling of being left to rot by the state.

“This is a smelly place, where the kraal is smellier than the city. It’s embarrassing.” – Kwabena, a resident, 2025.

These results can be compared to the WHO recommendations of healthy urban space, which emphasize the role of sanitation, waste management, and walking-friendly areas. Unless it is cleaned up regularly or restricted, there is a danger that the situation is bound to escalate into a chronic environmental health risk.

6. Pressure on Urban Maintenance and Structures

The cattle have caused the unexpected pressure on the urban infrastructure and the maintenance budgets due to the presence of cattle on the pedestrian walkways and green areas along the Kanda Highway. Repeated steps of the hooves on pavements undermine the premise of footpaths, making them crack and ruin gradually. Herding activities have displaced protective slabs over drains in some parts or completely broken them thus posing a threat to pedestrians.

The city officials with specific reference to the Accra Metropolitan Assembly (AMA) admitted in interviews that a significant part of their limited maintenance budget has been on replacing such damaged pedestrian amenities, despite the fact that the source of such damages, i.e., encroachment by livestock, is not always addressed. It is an ad hoc maintenance process that shows an absence of long-term investment and planning in infrastructure resilience.

In addition, the aesthetic value of walking areas is affected negatively by trampled grass, cracked kerbs and faeces. These circumstances will reduce the worth of nearby houses and cause lack of trust among people in the urban planning. The informal traders in the highway also testified that they experienced reduced customer visits during periods when cattle was dense attributing this to the unsanitary and unattractive conditions.

“We repair the walkways and they are destroyed again in two weeks. It’s frustrating.” – City engineer, AMA, 2025.

This outcome illustrates the importance of the proactive planning of the city that safeguards infrastructure both by physical boundaries and social control. Further neglect can spread more financial loss and resentment by the people.

7. Socio-Political Controversies and Neglect Perceptions

Maybe one of the more sensitive yet strong results brought about by the study is the appearance of the socio-political tensions that had arisen due to the cattle rearing activities. The tolerance to cattle herders by many residents was seen as an indication of negligence or discrimination by the government especially the youth and middle-income homeowners along the kanda highway. Some of the interviewees opined that in case the activities were occurring in a more affluent part of Accra, then an immediate intervention would have been dispatched.

Such interpretation of selective application creates mistrust between citizens and local officials. Others even put it in ethnic terms, pointing out that most of the herders were of communities of the north Ghana or Fulanis, and they believed that political leaders were afraid to do so lest they would get a backlash on ethnic grounds. Although this opinion was not a universal point of view, it shows the extent to which unregulated encroachment can enlarge social boundaries and ignite political resentments.

Herders conversely were left behind and marginalised by the benefits of urbanisation. They felt that the increasing opposition to their presence was not only a threat to their livelihoods but also a manifestation of a cultural rejection of them. Urban livestock has been exposed and stigmatised due to the lack of specific areas that should be used to seek their services.

“Would cattle be given the freedom to roam in case it was East Legon or Cantonments? We are second-class citizens, obviously.” – A male resident, aged 34, 2025.

Such an outcome proves that urban planning or rather the absence of it may tend to fuel socio-political differences and a sense of inequality unknowingly, and eventually undermine social cohesion.

8. Missed Opportunities for Regulated Urban Agro-Ecology

Although having cattle in cities has been regarded largely as a nuisance or a hazard, it was also found that with a more sensitive and proactive approach, one could turn this problem into an advantage. Through adequate regulation, cattle rearing may be incorporated into a larger urban agro-ecological system that enables food systems to be sustainable.

Other urban professionals and non-governmental organizations have proposed that there can be established special grazing areas or peri-urban cattle parks where livestock can be kept under control and at the same time safeguard the community infrastructure. Also the animal waste may be gathered and used to produce biogas or compost in the city farms and gardens. This has proven successful in such urban centres as Nairobi and Kampala where urban agriculture has been imaginatively integrated with urban planning (Bryld, 2003).

Ineffectively, such models have not been studied in Accra. Lack of policy innovation implies that the city is not enjoying the economic, environmental, and food security benefits that could have come up. The youth organizations might be employed in handling compost or animal services, and this will generate employment and urban-rural connectivity.

“The city planners would want to consider us as partners and hence we can construct something helpful.” – 2025 Nima. Community liaison and herder.

This ultimate outcome promotes the change of the current discourse of exclusion in the city to the discourse of inclusion and challenges the stakeholders to rethink the urban future of Accra as an inclusive, sustainable, and innovative city.

CONCLUSION

The research paper aimed at investigating the increasing trend of cattle rearing activities that are intruding into pedestrian infrastructure along the Kanda Highway in Accra and its overall implications on urban planning, citizen safety, socio-economic forces and environmental sustainability. With the ever-growing capital city in Ghana, the issues which distinguish the rural livelihood culture and the contemporary city development become more illegible and, in fact, more acute. The case study revealed a chain of interrelated problems, where the infrastructural and environmental effects of these encroachments were also supported by the socio-political conflicts and possibilities of reconsidering the issue of urban sustainability.

Disruption of the pedestrian safety and movement was one of the most immediate discoveries. The use of roaming cattle on sidewalks, pedestrian crossing, and green reserves causes people to fight over space with animals, and in some cases, is a life-threatening experience or even causes them to use the road against their will. This is not just dangerous to the lives, but also represents a larger disregard towards the protection of the urban public infrastructure that the users of those infrastructures need. On foot areas are supposed to be safe and friendly places. However, in this instance with the Kanda Highway, they have been destroyed and became grazing fields with no control.

The issue behind this phenomenon is the ineffectiveness of urban planning systems and enforcement measures. The study found out that although Accra Metropolitan Assembly and other supporting agencies know about the encroachment, they have been mostly reactive, disjointed and temporary. Lack of zoning laws that take into consideration livestock management in the city contributes to this reoccurring issue. It was also quite clear that the enforcement measures, though taken, are not even and in some cases caused by political or social factors, as well as, this affects their effectiveness even more.

On top of the physical and administrative issues, the research also illuminated the human accounts of the matter. These practices are a survival strategy to many of the herders and cattle owners. Their flow into the city and specifically into such regions as Kanda can be attributed to a greater force of migration into the cities that was driven by financial crisis and lack of land in the countryside. Such survival strategies of the city are frequently neglected in the course of policy discussion. Their stubbornness is, however, a sign of the multi-faceted nature of life in a developing city where informal economies and traditional ways of making a living, as well as modern infrastructure, often come into conflict.

Societies and communities around the Kanda Highway have not been sitting back and letting the challenges go past their heads. Local adaptation strategies, such as the re-routing of walking paths, self-organised community clean-ups, and direct contact with herders were recorded in the research. These coping strategies emphasize the resilience and frustration of the affected residents. Nevertheless, these community reactions are not long-term viable solutions particularly when there are weak or no governmental leadership and policy frameworks.

The paper has also identified the health and environmental impacts of cattle encroachment. The waste accumulated, degraded green areas, and storm drains that are polluted are the environment that is conducive to outbreak of disease and deterioration of the environment around cities. In addition, repairing damaged infrastructures over and over again strains the already stretched budgets of the city in terms of maintenance, which could be employed in developmental projects.

Simmer of less obvious strength but even greater power was the socio-political agitation which encroachment has created. To the average city dweller, the cattle-herding that is still condoned in the city is symbolic of biased rule and city blindness. On the other hand, to herders, community rebellion by authorities can be viewed as non-inclusion into the urban living. Such a dynamic, without proper control, will increase social segregations along the lines of classes, ethnicity, and geography.

The best idea, perhaps, though, is the concept of controlled urban agro-ecology. Rather than seeing cattle as a source of disruption to the urban environment, a potential therein exists to incorporate their presence in sustainable models, i.e.: through recycling their waste, zoned grazing practices and involving the marginalised groups economic activity. Although Accra is yet to harness this potential, based on the experience of other African cities, an innovative, inclusive urban planning can turn apparent issues into developmental opportunities.

To sum up, the invasion of the cattle by the pedestrian infrastructure is not merely a case of the misplaced livestock but a more significant issue of missing links in the governance of cities, social equity, and infrastructural planning. To respond to this issue with seriousness, Accra needs to pursue the idea of holism where both regulation and compassion are embraced, the aspects of traditional livelihood are balanced with urbanization and activities, and the growth of the city is aimed at benefiting all its residents including human beings and animals. It is at that time that sustainable, inclusive urban development will occur.

RECOMMENDATIONS

Create Special Urban grazing areas and livestock corridors.

To deal with the direct intrusion of cattle on the pedestrian roads, the Accra Metropolitan Assembly (AMA) and city authorities should involve the Ministry of Food and Agriculture and the traditional authorities to pioneer well-marked urban grazing zones or

livestock corridors. These areas, ideally those that are on the outskirts of the city or those areas that have under-utilised public spaces can be used as fenced zones where the herders can control the animals without affecting pedestrian safety or destroying their infrastructures.

They should have amenities such as water troughs, shade, fencing, and veterinary facilities in such zones. When managed effectively, such spaces would decrease the propensity of the herders to go into the pedestrian zones to find pasture. On the one hand, this might seem a resource-intensive approach, but on the other hand, the long-term costs (damage to infrastructure, decreased hygiene of the population, and regained pedestrian safety) justify the expenses.

Besides that, their livestock routes in peri-urban and urban transition zones can be mapped and the routes assigned to direct herders out of high-traffic zones. Compliance and mediation during disputes can be controlled by communities-based committees that are inclusive of herders, planners and residents. More to the point, such zones should be backed with the help of education and sensitisation programmes allowing herders to know the importance of cooperation.

This recommendation gives a long-term solution to minimise encroachment of cattle rearing by recognising that cattle rearing is an actual reality in urban Ghana and a means of harmonising the urban planning with the cattle rearing.

Enforcement of Urban Planning and Institutional Co-ordination.

One of the most evident weaknesses that the study has uncovered is the laxity in the implementation of urban planning rules. The government is not always equipped in personnel, political goodwill, or logistics to deal with crimes such as trespassing on the pavements. Hence, it is a matter of urgency to reinforce enforcement systems by improving institutional and investing in local government capacity.

AMA and sub-metros should be provided with regular funding, training and technological assistance in order to execute their mandates efficiently. The introduction of mobile monitoring teams would help monitor unauthorized actions such as animal grazing in foot paths and imposing fines or giving timely warnings where fines are mandatory. These teams are supposed to operate in conjunction with the local community watchdogs, traditional leaders, even the youth volunteer groups who can be early informants. Inter-agency cooperation should be enhanced in order to minimize bureaucratic overlap. Data and operational plans of the Environmental Health Department, Department of Urban Roads, Ministry of Local Government, and Livestock Services Division should be shared on a regular basis. Joint enforcement strategies will enhance efficiency, as well as, do away with confusion that normally causes inaction.

In addition to the legal instruments, it is significant to have a popular method of enforcement. The law enforcers should take an educative stance- talking to both the herders and the locals on the effects of encroachment and the advantages of collaboration. Planners should not only punish violations, but engage communities and come up with solutions.

Enforcements that are loose and patchy will mean that any infrastructural investments so as to safeguard pedestrian areas will be of a transient nature. Thus, having institutional strength is a crucial element of sustainable urban development.

Encourage Agro-Ecology and Waste-to-Resource in Urban Areas.

Although livestock rearing in urban areas has been seen as a nuisance, the study has indicated that with proper management; rearing cattle in urban areas can also serve as an important element in urban ecology. Consequently, it is suggested that policy-makers should start to consider the urban agro-ecology models that involve livestock as a component of a circular economy.

An example of this would be the collection of cattle waste and using it to make organic compost or biogas. Not only does this waste-to-resource strategy help to decrease pollution of the environment, but it also contributes to green development objectives of the city. The AMA with the collaboration of the Ministry of Environment, Science, Technology and Innovation may establish pilot projects in conjunction with universities or innovation hubs and focus on a part of Nima or Alajo where cattle are primarily found. The products will be organic fertiliser and energy which can either be used to support urban farming programs or sold to individual consumers.

Moreover, the programmes would employ young people and women in the collection, processing, and sale of waste. Microfinance might also be used to facilitate innovations around the recycling of animal waste by entrepreneurs. This change of attitude toward the urban cattle as a problem to the solution should be accompanied by the public awareness campaigns to alter the attitude of the urban inhabitants.

This method represents a gradual change of the enforcement-only responses to one that fits the sustainability and innovativeness. It is a strong solution of transforming a problem into an economic and environmental opportunity of Accra.

Establish Community-Based Dialogue Systems and conflict mediation systems.

Among the less apparent but important discoveries in this work is the developing socio-political conflict between the residents and the herders, which is mostly caused by the feeling of urban disinterest, alienation, and antagonistic interests in the space. To deal with this, the local government authorities, especially the AMA, are to institutionalise community dialogue platforms at which stakeholders involved in cattle encroachment regularly meet.

The platforms must comprise not only herders and residents but also traditional authorities, members of assemblies, religious leaders, planners, and representatives of the youth. They would aim at safe and neutral environment to get to talk about grievances, explain rights and responsibilities, and co-formulate action plans that would accommodate shared interests.

This type of dialogue may be conducted in every quarter of a year and by experts who are trained in conflict resolution. The main points of concern, documentation of past agreements and representation of voices of the marginalised groups (women and migrant herders) should be documented in these sessions. There are the visual tools such as community maps that can be employed at meetings to establish the areas of shared problems and suggest practical boundaries or grazing boundaries.

This bottom-up strategy ensures that there is ownership and accountability amongst the parties. It also assists in calming down tensions that would otherwise result in violence, property destruction or even lawsuits. The residents can start perceiving herders as neighbours who are struggling to live rather than as invaders. Instead, herders will feel represented and will perhaps be more willing to adhere to agreed-upon protocol.

Instead of focusing on the cattle issue as a policy or enforcement issue, the human aspect of social coexistence should be given priority. Dialogue has the potential to overcome the trust gap that is increasingly severing connections in the Accra urban environment and establish the foundation of more sustainable cohabitation there.

Invest in Urban Space Use and Coexistence Public Education Campaigns.

One of the key elements of solving issues of the encroachment of urban infrastructure is the modification of mindsets. Several residents, particularly those who have just been migrated to urban centres, might lack full knowledge of the use of public space in urban centres and the consequences of their actions to others. Equally, pastoralists relocating to cities bring with them rural lifestyles that are not compatible with the urban crowded cities. In order to avoid this gap in knowledge, the priority should be given to public education as one of the response strategies.

The cities should conduct widespread public sensitisation campaigns in partnership with the civil society organisations and the local media. They should be dedicated to urban space etiquette, the value of the pedestrian infrastructure, the dangers related to cattle-human relationships, and the legal liability of cattle owners. The message must be packaged in varieties of local languages and distributed via other reliable community outlets such as FM radios, religious establishments, schools, community durbars, and markets.

Messages can be delivered creatively and in culturally resonant ways through infographics, short documentaries and drama performances as well as billboards. As an illustration, a brief community play illustrating a child who was injured in escaping down a footpath to avoid the cattle may provoke emotional thinking and elicit behavioural change more than simply through rules or punishment.

These campaigns are not to be done once. District planning should have continuous messaging and feedback loops and local leaders ought to be empowered to facilitate these dialogues at the local level. Education is also used to bring about a common ground and civic accountability, which is needed to bring down the conflicts of space and attain peaceful co-existence of urban residents.

The fact that urban residents know the reasons behind the design and control of infrastructure makes them more likely to preserve and appreciate it. Pedestrian encroachment and urban disorder, therefore, require education to be used to augment enforcement.

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