

Cooperative governance for resilient urban development: Lessons from Accra, Ghana

Kingsley S. Agomor¹ & Jos Chathukulam²

¹*Ghana Institute of Management and Public Administration, Accra, Ghana &*

²*Director, Centre for Rural Management, Kottayam, Kerala, India*

Abstract

The United Nations' global sustainable development agenda highlights the critical role of governance and partnerships involving cooperatives, public, and private entities in achieving sustainable development goals (SDGs), particularly in developing sustainable, resilient, and inclusive cities. As urbanization accelerates, cities play an increasingly vital role in the global sustainability agenda. Addressing complex sustainability issues requires collaboration among various stakeholders, including cooperatives, alongside technical solutions. This study examines the essential involvement of cooperatives in governance, balancing ecological protection with socioeconomic well-being. Achieving Accra's goal to become Africa's cleanest city and part of the 100 Resilient Cities initiative depends on the inclusive participation of non-state actors. This research contributes to the literature on collaborative governance by emphasizing the role of cooperatives in promoting UN SDG 11 on sustainable cities and communities post-2015. The study utilizes qualitative data gathered through interviews with officials of the Accra Resilient City Department, cooperative members, non-state actors, and representatives of local associations. It also analyzes local and international governance documents to present the cooperative economy's perspective on sustainable urban development. This research underscores the pivotal role of cooperatives in collaborative governance for building resilience in Accra, aligning with global sustainability goals.

Keywords: Cooperatives, Governance, Resilient Cities, Sustainable Development Goals

1. Introduction

Globally environmental sustainability has been recognized as meeting the needs of future generations without compromise. Environmental sustainability is built on the foundation of economic, social, and environmental protection, (Singh et al., 2016). In India, Agricultural practices are beginning to adjust to environmental sustainability. This study highlighted the importance of the environmental perspective. Moreover, an environmental analysis has been conducted to draw a connection between systems of agricultural production and environmental sustainability indicating positive environmental responses (Adomako and Ampadu, 2015).

Globally environmental sustainability has been associated with urban growth and city cleanliness. Recent research on the relationship of urban population growth, flood events, and urban sustainability relates to issues of population growth and environmental responses (Cobbinah et al., 2017). Urban growth brings attention to sustaining its development and environment with a policy that bring on board a lot of stakeholders (Cobbinah et al., 2017). Collaboration among neighbors can be achieved through collaborative governance through participation. (Wang & Xu, 2024). Collaboration among public and non-governmental sectors can also help address crises. For example, urban environmental crises (Bortkevičiūtė, 2024) Using multiple agent collaborative governance, stakeholders can achieve poverty alleviation. (Zhang et al., 2020). The SDG framework further calls for a multi-stakeholder approach for targets to be met not just by some groups in some countries, but by all people everywhere. Therefore, collaboration can be fostered by a partnership structure (Nelischer, 2024).

On the other hand, stakeholders can contribute to environmental sustainability through landscape protection decision-making (Li et al., 2024). Stakeholders committed to a common purpose can achieve societal goals such as poverty reduction. However, sustainability can be addressed through collaborative efforts, (Conrad et al., 2018). In January 2016, sustainable development goals were unveiled to address economic, social, and environmental issues. The Environmental Sustainability Goal is to create a partnership between the government and other organizations. Government engagement in a partnership improves its right choices sustainably.

Sustainable development goals can be achieved through global partnerships. Global partnership is critical for the achievement of SDGs in the sense that countries are economically, socially, and politically interlinked. Such a global governance system may help control the epidemic (COVID-19), and protect human rights and people from environmental threats. Ghana was fortunate to be part of about 50 countries the UN selected to undertake in-country consultations to generate inputs for the new global development framework (post-2015 agenda).

Global partnerships can help achieve a sustainable environment through safe cities and human settlements in the industrial era. The SDGs are a developmental transition from a brown economy characterized by the 18th Century Industrial era which was unsustainable and defective into a greener economy characterized by the implementation of 17 interconnected developmental goals which are more sustainable and effective for the creation of a world in which prosperity is collective, societies are inclusive, industrialization is sustainable and the environment is kept safer and healthier (Tharwani et al.2024). The 17 SDGs are categorized under three thematic pillars namely; economic, social and environmental. In Ghana, making a clean and sustainable is the focus of Accra Resilient Policy. Accra faces multiple vulnerabilities such as earthquakes, flooding, sanitation issues, building collapses, informal settlements and exacerbating climate change concerns (Accra Resilient Strategy, 2019). This paper examines from a cooperative governance perspective on how environmental sustainability can be achieved using lessons from Accra, Ghana's capital city. It proceeds with a review relevant theoretical and empirical literature, provided sources of data, discuss the findings and makes a concluding remark.

2. Theoretical and Empirical review

Theoretical Review

Theories on cooperative efforts towards achieving environmental, social development has not given much attention to explaining inclusive roles of non-state actors such as cooperatives in various industries of the private sector. The concept of industrial cooperatives included in resilient urban development efforts aligns with stakeholder theory propounded by R. Edward Freeman (Awa et al., 2024). Freeman (1984) considers the interest of all stakeholders to address a common problem.

The stakeholder theory considers the interests of all stakeholders, not just members. The goal is to balance stakeholder needs and interests. The mechanism of the stakeholder theory involves stakeholder engagement and inclusive decision-making. Freeman's work emphasizes that the need to embrace the interests of shareholders and stakeholders in this process of decision making. This approach is particularly relevant in cooperative governance, where balancing the needs of various members in the community is crucial.

However, he failed to consider the possibility of categorizing stakeholders into non-state actors and state actors and the need to figure out how their varying interests can be tapped towards achieving a common goal. Addressing this gap is very relevant for cooperative governance. It appears that institutional focused on cooperatives is titled towards influence of institutional environmental. That is government defining agent actions by way of laws regulation and in some cases cultural norms.

Although this theory provides a framework to understand government challenges and opportunity faced by cooperatives, it does not give room to understand the involvement non-state actors in the cooperative efforts towards achieving an institution goal.

Government institutions responsible for providing and managing public goods and services adapt policies and implement them in the direction of service delivery (Wijesundara et al., 2024). Institutional theory explains how cooperatives are influenced by the broader institutional environment, including laws, regulations, and cultural norms. Governance practices must adapt to external pressures while preserving the cooperative's core values and principles. These theories provide a framework for understanding governance problems faced by cooperatives. They emphasize the importance of democratic participation, stakeholder engagement, and alignment of interests to ensure effective and sustainable governance. This is relevant for the study because it helps to explain the challenges of local government bodies in adopting cooperatives bodies in achieving clean cities in developing countries. The pressing need to achieve environmental sustainability as espouse in the SDG goals, require collaborative governance to tap industrial cooperatives to play responsible roles in implementing resilient urban development policies provided by public sector institutions. For example, urban cleanliness which is an aspect of environmental sustainability.

To foster partnership between industrial cooperatives and public sector institution to achieve environmental sustainability, there is the need for a revolutionized thinking on cooperative governance.

Empirical review

Environmental Sustainability and SDGs

The findings from the 2019 SDG report show that globally from 2000 and 2017, mortality rates dropped by 49%. Reduction in mortality rates was a result of immunization that saved millions of lives. Mortality rates have improved with electricity access, (Kenny, 2024). In the context of SDG, India can embrace governance and partnership as part of its agenda for city development and the elimination of poverty (Patni, 2024). Every country is contributing its quota to protect the planet. Climate change is one of the major threats to coastal fish biodiversity. (Lin et al., 2024).

About 150 countries have developed national policies to respond to rapid urbanization. Associated with this response are challenges of the development of policies by about 100 countries. Ethiopia contributed more than 300 policies and instruments to regulate production and consumption.

Collaborative governance in Urban development

City development is confronted with the understanding of urban growth and sanitation dynamics (Korah, Koch, & Wimberly, 2024). Collaborative governance theory shows how to produce effective collaborative efforts (Ansell, & Gash, 2008). This theory is associated with governance and social movement theory (Newman, Barnes, Sullivan & Knops, 2004). The theory of collaborative governance was propounded in 2015 by Emerson and Nabatchi (Haris, Suryono, Said & Rozikin, 2024). The theory helps the development and implementation of public policies (Mulyanto and Rabbiul, 2024). The theory provides empowerment (Larkin, Cierpial, Stack, Morrison, & Griffith, 2008). Some scholars have argued for a critical theory of collaborative governance (McIvor, 2020).

Realizing resilient policy on sustainable programs is by ways of collaborating. Sustainable programs are achieved over time through various forms of collaboration (Tremblay, & Scailherez, 2024). Therefore, Collaborative governance encourages public and private actors to work hand in hand (Ansell, & Gash, 2008).

Cooperative Governance in Clean Cities

Policy discourse in Ghana has dwelled on debates on urban resilience (Amegavi, Nursey-Bray, & Suh, 2024). Previous studies show that there is a lack of coherent urban planning in Accra (Oteng-Ababio, Agergaard, Møller-Jensen, & Andreasen, 2024). In Accra, the waste management department's effort is being made to sustain the city's environment (Kwawuvi & Yangouliba, 2023). Accra holds about 5.4 million Ghanaians (Kwawuvi, and Yangouliba, 2023). Some areas in Accra such as Dar es Salaam have been planned by the Department of Town planning (Croese, Robinson, Amedzro, Harrison, Kombe, Mwathunga & Owusu, 2023). For instance, effective community engagement contributed to urban design and agenda (Tavares, Sellars, Dupré, & Mews, 2024). Effective public engagement led to the development of Seoul Yongsan Park (Shin, Woo, & Choi, 2024).

The study of Zhang et al., (2020), argues that cooperative governance practices at the local level which consider the poor citizens and socialization can be improved by recognizing the relationship between cooperatives and behavior outcomes in evolutionary expectations of the environment. However, the study of Lund and Novkovic (2023) based on social capital and agency problems identifies stewardship as an ideal model for cooperative governance. The study of Zhang et al. (2020) argues that cooperative governance practices at the local level, which consider poor citizens and socialization, can be improved by recognizing the relationship between cooperatives and behavior outcomes in evolutionary expectations of the environment. According to Lund and Novkovic (2023), a relationship between member participation and cooperative performance can be explored based on their findings that participatory behavior is relevant to cooperativeness. This includes cooperative governance participation. The study further indicates that cooperatives are vital in local governance partnerships.

In the same vein, Tortia and Sacchetti (2023) explain that members and stakeholders engage through broad decision-making with a particular characteristic of cooperative governance, described as the best cooperative governance dependent on expectations of members in a democratic context and system. It is noted that about one million plants and animals were bound to face extinction (Kindo et al., 2024). Efficient waste management entails the management of dispersion in areas. The lacking structures such as access points contribute to the urban problems of litter collection, sometimes programs are designed on litter management to tackle urban cleaning. Urban cleaning improves the environment (Heravi et al., 2024). The urban poor live in environments characterized by sanitation practices. Some communities in Ghana such as Old Faduma have sewage disposal and housing systems, (Adofo, Opoku, & Sampson, 2024).

Regarding wicked waste problems; waste is disposed without processing, (Kotei, 2024). In addition, waste is disposed with little or no regard for safety and health requirements, (Bayu, 2023). Solid waste is considered an 'urban' problem (Ashshidiqi, Najib & Ningsih, 2020). High level of consumption and unacceptable waste disposal practices pose grave risks (Agbim, 2020). This is creating a threat of solid waste disposition in Benin City (Agbebaku & Kama, 2022).

Ghana's lookout for solid waste governance systems which is sustainable to address wicked waste problems is far from complete, (Volsuuri, Owusu-Sekyere & Imoro, 2022). There is a lack of attention to service provision toward the critical need of the service users in solid waste management (Aning-Agyei et al., 2024). However, this shifts to plastic waste in daily life, (Debrah, Vidal & Dinis, 2021).

Urban areas are associated with the low rate of solid waste collection, (Kotei, 2024). For example, Nairobi faces poor solid waste management practices due to weak policy implementation efforts of

different stakeholders, (Ogotu, Kimata & Kweyu, 2021). Consequently, there is a wicked trend of waste collection, transportation, and open dumping, where the entire amount of waste including plastic is openly dumped (Bowen, Kayaga & Fisher, 2020). Plastic pose as a threat to environmental sustainability, (Bowen, Kayaga & Fisher, 2020). Wicked waste problems are contributing to poor environmental conditions and stand in the way of sustainable development, (Fernando & Zutshi, 2023). Across the developing economies waste problems cause environmentally, socially, and economically negative impacts (Fernando & Zutshi, 2023). The proper management of these challenges is needed most now that the untold adverse consequences are globally affecting both the rich and the poor (Agbim, 2020) as well as public health, environment, and climate change (Prajapati et al., 2021).

To address wicked waste problems is partly a result of a lack of awareness and education of the public on waste activities and management, (Debrah, Teye & Dinis, 2022). When waste collection is irregular disposal place breeds organisms that carry diseases, (Adama, 2022). Solid waste is illegally deposited in rivers and along roadsides affects people, (Henry, Yongsheng & Jun 2006). Incineration produces fumes that pose a health hazard to those living around landfills, (Dzah et al., 2022). Several developing countries lack acceptable ways of managing wastes, (Debrah, Vidal & Dinis, 2021).

3. Methodology

Qualitative data was obtained from 22 interviews. They include officials from the Accra Resilient City Department, Metropolitan Assembly, non-state actors, cooperatives, and public administration students at a seminar held at Ghana Institute of Management and Public Administration (GIMPA) from 20th to 23rd March 2024. Qualitative research design in social science and academic research provides opportunities for researchers to delve into phenomena of interest to the researcher, researchers can present factual textual insights and views on the subject matter of interest (Creswell & Creswell, 2017). In qualitative research design, researchers rely on subjective assessment of views, insights, and understanding of people on subject matter of interest and a phenomenon. In short, qualitative analysis was done using the data gathered through the interviews and content analysis to highlight relevant information for comprehensive understanding of cooperate governance and resilient urban development of Accra.

4. Results and Discussion

The findings of the study have been presented in this section. The findings show responses of the interviewees on the cleanliness situation of Accra and how a non-state actor and industrial cooperative are in partnership towards cleaning the city. The section begins with findings on the cleanliness of Accra.

Accra City Cleanliness Situation Analysis

Focusing on household waste management, the Accra City Cleanliness situation has been analyzed. Managing waste is done in several ways including recycling. In Ghana, stakeholders of waste management and environmental cleanliness include waste management companies or institutions. However, waste management and waste disposal involve the transportation of waste from one place to another; a final deposit point.

The study found that in most cases, they put dustbins across various communities to enable the public to dump waste. This is in consonance with the Local Government Act 462, which prescribed the ‘polluter pay’ system or the pay-as-you-dump. Under this system, the unit charges households a fee for collecting their waste. However, the study found that effectiveness of these systems is limited by a plethora of challenges. Some of these interviewees mentioned that the urban centers of Ghana need

to be given attention to the cleanliness of the city. They explained that settlements located in the city generate waste, especially if you go to the markets, the traders, they are also part of the engagement because you must also show them where to deposit their refuse and where not to keep refuse. The dirty environment of the city contributes to floods that characterize the city during rainfall. Another interviewee noted that Accra is full of dirt and unclean. The waste disposal situation in Accra city is very bad. Plastic bags are disposed everywhere. “You definitely find them on street or in the sea” (Field Data, 2024).

The finding that Accra city need attention to become an ideal city implies that the city is facing “wicked” sustainability problems. Some interviewees expressed their opinions on urban growth and unclean city environment as characterizing Accra and other cities in the country. An interviewee described: if you pick refuse from a household within a locality, they have to travel a long distance to nearby towns from the city. These towns included Kpong and Kotoku. This indicates that waste collectors have to go through long distance before they dispose the waste. This challenge was addressed by dumping of refuse by the Aboboyaa trucks because they need to assist with depositing refuse over short distances. An interviewee explained: “depending on where the district is, you could travel as far as 80 kilometers to dump the refuse” (Field Data, 2024).

An interviewee stated “So, they are all involved”. Sustainable planning initiative of Accra resilient policy engages ESPA to play a major role in bringing informal collectors into the picture, so that whatever is agreed there, they also go back to disseminate to the members of their association. Interviewees of the study hinted that cleanliness is desired by citizens of Accra city.

Waste Management Regulation and Policy

In Ghana, there are several policies for waste management. The Local Government Act, of 1990 (Act 462) is one of the waste disposal regulations. In addition, the Criminal Code, of 1960 (Act 29) also regulates conduct for cleanliness. Other regulations include the Pesticides Control and Management Act, of 1996 (Act 528). Water Resources Commission Act, 1996 (Act 522) together with Environmental Assessment Regulations, 1999 (LI 1652) promotes effective waste management, and the National Buildings Regulations 1996 (LI 1630).

Collaboration among ministries centered on solid waste management has produced some guidelines such as the Ghana Landfill Guidelines (2002). Although Ghana has various regulations and policies in place to manage solid waste, there are still significant challenges in waste management. Waste management involves the collection and disposal of solid waste. Arising with the need for waste disposal has come many methods for disposing of waste such as composting and incineration, (Boadi & Kuitunen (2004). Landfills are often the final place for disposing solid waste driven by door-to-door or house-to-house with the community approval.

Accra Resilient City Policy

The growing sustainability problems in Accra led to the formulation of the Accra Resilient policy in 2019. Effective implementation of the initiative of the Accra resilient city policy is key to achieving environmental sustainability in Ghana. The policy has some success stories of environmental sustainability development. The success can be attributed to the application of cooperative and partnership doctrines.

Accra's resilient policy has largely improved the city of Accra indicating improved services. “We don't receive complaints from the media”, an employee of the Accra City Department stated. Another interviewee stated that “Accra Resilient Policy has helped to a large extent towards the sustainability of the city's cleanliness.” They are responsible for plans, strategies, and implementation of collecting

waste. Engaging stakeholders in a good practice towards sustainable city development is of a high level of interest from stakeholders who would hold it in high esteem because they were a part of the realization of a solution.

Industrial cooperative

The “Aboboyaa” is a popular term for tricycles in Ghana are widely used for various business purposes in Ghana. These three-wheeled vehicles are owned by individual investors. Owners of these tricycles have formed cooperatives in various forms. Some of the cooperatives of tricycles are into shuttles moving people from markets to communities; cutting of goods such as food stuffs and sachet water in the communities; and waste management and cleaning of Accra city.

The Accra Resilient City Department engaged cooperative of Aboboyaa operators to transport waste clean the city. Cooperation with “Aboboyaa” operators that transport waste always posed some challenges. An employee from Accra Resilient City Department commented, “I would not mention the companies, or the partners, but then when we inspected their services, we abrogated the contracts of some of them and then for some we expanded their work areas” (Field Data, 2024). Another interviewee explained: “You know; we have investors who procure these tricycles to work for them so we have registered them as our partners and also regulated their activities to help clean the city of Accra” (Field Data, 2024).

The study identified one major partner in waste management organization management called Zoomlion Ghana Limited. The services of this private company cover collection, transfer, recycling and disposal of waste in Ghana and some African countries. The engagement of this company has contributed tremendously in cleaning the Accra city.

The finding on the Industrial cooperative of “Aboboyaa” and Zoomlion Ghana Limited in helping to clean the city of Accra indicate the role of cooperative governance for resilient urban development. Therefore, sustainable city development can be based on cooperative efforts. The finding of the study also indicates that toward sustainable city development, there was a need for collaborative efforts and involved non-state actors. In developing countries, informal waste collectors rely on recoverable materials as a means of earning a livelihood (Bowen, Kayaga & Fisher, 2020).

Industrial Cooperatives and cooperative governance

Inclusive platforms for non-state actors in the quest to achieve sustainable city development has come to gear with environmental sustainability. Some interviewees were of the view that one way of getting Accra City clean is through the cooperative governance; adopting an inclusive approach to tackle the issues of cleanliness, “I am making reference to a program that we started in Greater Accra. It was dubbed ‘Operation clean your Frontage’. We realized that participated to making sure that the city is clean”. An interviewee noted “the media is no longer putting any issue on us, so it showed that the services have improved” (Field Data, 2024). This finding point to effectiveness of partnership with non-state actors.

These findings indicate that Accra City cleanliness policy implementation requires the commitment of citizens to pay for services provided, this contributes to the creation of accounts to cater for operational cost related to city cleanliness. However, Accra Resilient City Department assured; “so once you pay it, you are assured that your money will be used for that particular purpose.” Successful implementation of Accra resilient policy is dependent on citizens payment of services “So, we had to engage them to let them know that they will have to be paying for the services from these waste management contractors”. An interviewee mentioned that: These actors, mainly found in Accra contributed to the implementation of the policy.

The absence of a polluter-pays principle can restrict the capacity of an Assembly to increase the allocation of skip containers for efficient waste management, (Aning-Agyei et al., 2024). However, across the country, individual behavior towards the environment is reflected in their countries, (Kountouris, 2022). Citizens will pay money for value. Thus, cooperatives in clean city business must observe entails following a line of discipline to achieve value for money and accountability, (Volsuuri, Owusu-Sekyere & Imoro, 2022).

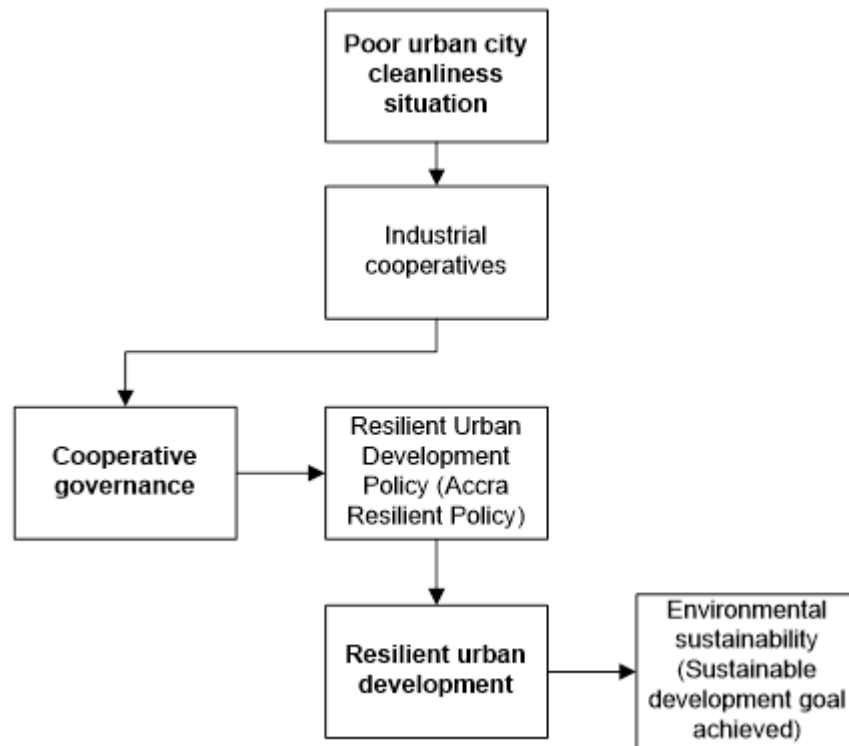


Figure 1: Illustrating lessons on the role of Cooperatives in promoting Resilient Urban Development

Waste management challenges

Managing waste management in Accra faces many challenges including technology, finances, lack of personnel, poor enforcement of laws, and lack of logistics amongst others. These are discussed below

- **Technology**

Almost all interviewees recognize the importance of technology in the management of waste in this modern era. Although the interviewees conceded that technology is limitedly applied in the management of waste, they nonetheless acknowledged its central role in waste management. It was clear that waste management through the use of technology can contribute to cost savings, operational efficiency, and waste reduction. One student for example spoke of route optimization software that can enhance waste collection services. This student mentioned that trucks are tracked and IDs provide various data including speed. This makes it easy to optimize route information regarding waste-collecting trucks and their speed. The tracking system also has an appreciation of the driving force monitoring remotely. Some interviewees also spoke of improved recycling and waste diversion. According to the majority of interviewees, the amount of trash at a landfill reduces recycling.

Promising, tech-innovative like reversible adhesives, super-polymers, depolymerization (chemical

recycling), and technologies to remove additives are almost all in the R&D stage (Soto Bermudez, 2020). The key is better recycling approaches and management systems, (Ashshidiqi, Najib & Ningsih, 2020). For example, in Ghana, Tamale faces waste crises which can be tackled with Waste-to-Energy technologies (WtE) as an innovative solution (Tahiru, Cobbina & Asare, 2024).

• **Finance**

In the case of the financial challenge, most interviewees from the Metropolitan Assembly pointed out that the Metropolitan Assembly was unable to deliver on their responsibility because the Assembly owe money to a number of private waste contractors which limit their ability to manage waste effectively. Small private waste contractors and cooperatives mostly stopped to discharge their duties whenever the payment of their contracts delay. It is only one big private contractor, namely, Zoomlion that tried to cope with the financial challenges. Even though Zoomlion used to cope, the cost of delay in payment has serious implications for the Assembly and the waste management company. With respect to private waste cooperatives and companies, the delay in payment directly affects the maintenance of their equipment and the payment of salaries of staff (Field Data, 2024).

According to officials of government interviewed managing solid waste leaves much to be desired. This situation is triggered by limited funds allocated to the management of solid waste. Although the government is responsible for the health and environment of its citizens, it provides less towards solid waste management. This is because the government experiences greater financial challenges. Adding to the financial challenge situation of the government is the irregular pattern of citizens towards paying for sanitation services in Accra. As a result, the health of the public needs protection services, and the cleanliness of the city of Accra are constrained. Therefore, the services provided are irregular making sustainability elusive.

• **Lack of Personnel**

One major challenge identified is the lack of personnel. Human and financial resources are very much needed for a successful implementation; in situations where there is a lack of any of these resources, the probability of quality implementation becomes very slim (Agomor 2002). Apart from financial issues, there is the issue of personnel. Most of the interviewees asserted, that poor remuneration, and delays in payment of staff, accounted for the retention and recruitment of qualified and committed staff for waste management operations. Indeed, the lack of qualified and committed personnel to effectively plan, execute, supervise, and enforce waste management laws turned out to be a major obstacle that stifled the government's efforts to meet the prescriptions made for cleaning Accra (Field Data, 2024).

The Metropolis lacks enough financial and material resources to manage waste. The lack of financial resources has many implications for waste management. For example, due to limited finances, we are not able to procure enough logistics to manage waste effectively. There are inadequate personnel to tackle metropolis waste. This has seriously affected waste laws and policies adopted in the metropolis. To a large extent, all these explain the poor state of waste management. There are serious logistical constraints facing waste management. In most of our serving areas, there are not many waste containers and bins which may explain the indiscriminate dumping of waste in the city (Field Data, 2024).

• **Waste collection and disposal equipment**

Mensah and Larbi (2005) observed that the population growth in Ghana is 3.5 percent with 0.45kg of waste generated in a day. Solid waste generated annually is less than 3.0 million. According to Boateng and Nkrumah (2006) between 1500 and 1800 tons of waste is generated in Accra. Waste generated is sent to the landfill or reused. A typical solid waste management system requires waste

collection and disposal equipment such as waste bins, containers, skips, skip loaders, tricycles, graders, road sweepers, trucks, and bulldozers. (Ogawa, 2005).

Interviews with official indicated that several government departments, ministries, and agencies have all these disposal logistics that they use to do their work No single department, ministry, or agency has all the logistics. What is missing is a partnership for effective coordination to use the available logistics of the private and public sectors. Legislation can help define roles and functions to avoid the duplication of efforts and maximize the use of national resources.

- **Lack of Public Education and Awareness**

The objective to make Accra a clean city can be examined in terms of the level of stakeholder awareness of processes and procedures. Policy implementation is likely to run into trouble where information is unavailable and, even more serious when the actors in the policy network are not adequately informed, or educated about the policy (Agomor 2002).

Community and public awareness on waste generated from households was examined in the study, paying attention to citizen's engagement. The interviews held with Metropolitan staff, Zoomlion staff, and students all acknowledged that education is much needed to alter the waste management behavior of the public. Most interviewees said education can go a long way to create public awareness on the management of waste and also let the public know about other waste management practices. These vignettes from the informants lend credence to the following responses:

I have personally observed that through education, the public becomes aware of very important waste management practices like recycling and waste segregation. Education also helps individuals to influence others on the need to avoid improper waste disposal practices. Education is needed to alter public perceptions and also enhance their knowledge about waste management practices. Indeed, households do not even know of the importance of recycling; some do not know the economic value of recycling; with my engagements with the public, I have observed some of these things (Field Data, 2024).

Thus, the absence of good governance practices such as partnership, collaboration, transparency, openness, and access to information endangered the successful implementation of waste management policy.

- **Social and Cultural Challenges**

The quest to make Accra a clean city is frustrated by social challenges. The lack of cooperation from the citizenry to make a city clean is sometimes the result of the social challenge of conflict. Efforts to make a city clean can be prevented through ownership understanding between private companies and workers informally, (Govind & Mahongnao, 2021). Conflicts push people to urban areas. Rapid urbanization is another social challenge in getting a city clean. This is because rapid urbanization is increasing the number and volume of solid waste in a municipality, (Amugsi, Muindi & Mberu, 2022).

Citizens can refuse to cooperate to make a city clean due to a lack of environmental and socio-environmental responsibility. To address such social challenges, stakeholders affected ought to come together, (Agbim, 2020). Poor cooperation of citizens affect the potency of solid waste policies and regulations, (Amugsi, Muindi & Mberu, 2022).

The aim to make a country clean can be challenged by waste management culture. It has been noted that public perception based on cultural norms focus on water and organic reuse (Ddiba et al., 2020).

In Ghana, a continual attitude to waste is posing as a cultural challenge (Debrah, Teye & Dinis, 2022). For example, individual recycling behavior is influenced by norms and behavior of waste management (Kountouris, 2022). Moreover, individual recycling norms are influenced by waste management norms and practices (Kountouris, 2022). Thus, cultural consumption and participation affect recycling activities occurring in households (Ashshidiqi, Najib & Ningsih, 2020).

Changes in the attitude of citizens towards waste may be due to regional variation in norms and preferences (Kountouris, 2022). This embrace within-country differences in norms. E-waste management behavior contributes to the cultural challenge to city cleanliness in Ho, the capital city of the Volta Region of Ghana. For example, river dumping (Dzah et al., 2022; Usuh et al., 2023).

Moreover, the culture of waste management defines recycling behavior is recycling behavior (Kountouris, 2022). For instance, the waste management culture. A waste management culture related to untreated waste untreated waste, (Adeleke et al., 2021). To achieve sustainable outcomes such as a clean city there is the need to encourage behavior among individuals and organization behavior amongst individuals and organizations (Fernando & Zutshi, 2023). Sustainable energy derived from waste resourced can prevent the dumping of untreated waste at landfills (Govind & Mahongnao, 2021). Hence, minimizing waste in Delhi has been facilitated by the activities of hand pickers, (Govind & Mahongnao, 2021).

• **Legal and Institutional challenges**

Legislation challenges relate to the functions and activities of harnessing resources to the maximum level of use. In Kenya, the government's maximum resources can be gained with policies and legislation to implement green procurement attention, (Malatji, 2021). In Ghana, there is a pressing need to focus on legislation governing e-waste management practices (Dzah et al., 2022). Addressing e-waste management requires a comprehensive policy approach to reform the socio-technical systems associated with it (Dzah et al., 2022). Policy reforms should give attention to the bottleneck of managing e-waste (Dzah et al., 2022).

Waste management best practices in cities is realized due to poor capacity serving as an institutional challenge. There is the need to address the concerns of inadequate financial, logistics, and know-how in technical areas, (Seah & Addo-Fordwuo, 2021). For example, the volumes of waste collected are influenced by demographic and economic factors, but this cannot occur due to a lack of administrative units that do not privatize waste management units (Adib & Mahapatro, 2022).

Poor capacity to serve citizens is dependent on resource availability. Contributing to the waste problem in a municipality broken down trucks, maintenance (Addo et al., 2020). Non-regulation of waste management Companies by the Assembly, and their low involvement in the affairs of the companies is due to inadequate logistics and material resources. This is a huge local government task a herculean task, (Afful et al., 2024; Boakye et al., 2024).

Legislation challenges prevent the definition of roles and functions to prevent effort duplication and maximize the use of national resources. In Kenya, government efforts has been to regulate with policies and legislation business activities of those involved in waste management, (Malatji, 2021).

In Ghana, legislation on e-waste management practices require attention (Dzah et al., 2022). Reforming the socio-technical system in line with managing e-waste need a policy related strategy (Dzah et al., 2022).

Political will for law enforcement is another legislation challenge. In Ghana there is dynamics of informal operators of waste management at Accra (Boampong, Britwum & Akorsu, 2020). Towards

Sustainable waste management is the critical element of political will to promote waste management policy and legislation, (Kotei, 2024; Sarfo-Mensah et al., 2019). For instance, to fight plastic pollution and resource dependency, the European Commission has introduced Vision 2030 to address plastic waste management issues by way of a cost-effective strategy to reuse or recycle waste (Soto Bermudez, 2020).

Addressing waste disposal requires giving attention to specific laws and coordination of e-waste disposal, (Bowen et al., 2020). For example, Kenya experiences a not-too-strong attitude toward policy implementation as well as enforcement in its urban areas, (Amugsi, Muindi & Mberu, 2022). In developing countries, weak legislation and policy enforcement are controlling to the magnitude of government problems, (Amugsi, Muindi & Mberu, 2022). Non-compliance is also with policies governing waste management. It is important to encourage the promulgating, of legislation that focuses on waste management harmonization and protect the environment to ensure sanitation and health, (Debrah, Teye & Dinis, 2022).

Tackling non-compliance with waste management policies is critical. There is a need to prioritize the formulation, improvement, and alignment of waste management policies. Furthermore, strict enforcement of environmental sanitation laws is essential to protect both human health and the environment (Debrah, Teye & Dinis, 2022).

This will help with the intervention of engaging the private sector through planning to address waste management issues in India, (Prajapati et al., 2021). Thus, policymakers can employ behavioral interventions, (Kountouris, 2022). For instance, government institutions can relook policy in the direction of embracing waste pickers emerging as an incentivized approach of waste segregation, (Govind & Mahongnoo, 2021). Thus, policy makers can employ behavioral interventions (Kountouris, 2022).

Although government institutions are responsible for providing and managing public goods and services such as catering to clean cities, their ability to provide those services is limited by institutional challenges. Some Institutional challenges arise with private-public partnerships and this bureaucracy discourages the private sector from joining heads with public institutions, (Afful et al., 2024; Kavishe et al., 2023). For example, collaboration between public and private organizations in Nairobi has led to strategies that address obstacles to sustainable waste management, notably enhancing policy formulation and financial capacity (Ogutu, Kimata & Kweyu, 2021). Therefore, it is essential to explore methods to improve coordination and cooperation among state agencies and stakeholders (Volsuuri, Owusu-Sekyere & Imoro, 2022). In developing nations, promoting solid waste management practices in municipalities should be prioritized, along with fostering partnerships (Fernando & Zutshi, 2023).

5. Conclusion

The study examine how cooperative governance for resilient urban development can be achieved in the context of Accra, the capital city of Ghana. The study shows that inclusion of non-state actors and industrial cooperatives is potent for the next industrial revolution on environmental sanitation. Sustainable clean cities in African countries are possible to achieve by 2030, through resilient urban development policies. The gap to fill is inclusive non state actors in policy formulation and policy implementation related to clean urban cities. Filling the gap require, recognition by scholars across the globe, embarking an industrial revolution of inclusiveness of the private sector and other non-state actors on cooperative agenda setting for government policy formulation and implementation related to environmental sustainability.

In building sustainable and resilient Accra city as well as clean a policy for sustainable city development. The study concludes that African cities characterize by wicked environmental problems must adapt cooperative governance and include non-state actors as agents in the implementation of clean city policy.

The next industrial revolution related to cooperatives in urban city development is about the inclusion of industrial cooperatives such as the Aboboyaa association in Ghana through collaborative governance seeking to carry out a policy decision for an ideal clean city. The study shows that the Accra city was facing wicked sustainability problems due to non-inclusion of industrial cooperatives in the private sector as stakeholders to help with the implementation of Accra resilient policy. The Accra city department like any other local government unit interested in cleaning cities and attainment of sustainable development goals for environmental sustainability ought to include industrial cooperatives to join their efforts. Clearly the next industrial revolution in the area of environmental sustainability specifically maintaining clean cities has to do with the paradigm shift in the business models of cooperatives in the private sector offering city cleanliness services related to those provided by the local government and non-state actors.

6. References

1. Accra Resilient Strategy, (2019) Accra Metropolitan Assembly reports on resilient strategy.
2. Adama, O. (2022). Garbage Politics: The Global Infrastructure Turn, Local Politics and Public-Private Partnership in Lagos, Nigeria. *Africa Review*, 15(2), 170-195.
3. Addo, I. A., Alhassan, O., Abokyi, S., & Kutor, S. (2020). Assessing municipal solid waste management practices and challenges in the Techiman municipality, Ghana. *West African Journal of Applied Ecology*, 28(2), 118-131.
4. Adeleke, O., Akinlabi, S. A., Jen, T. C., & Dunmade, I. (2021). Sustainable utilization of energy from waste: A review of potentials and challenges of Waste-to-energy in South Africa. *International Journal of Green Energy*, 18(14), 1550-1564.
5. Adib, A., & Mahapatro, M. (2022). Private sector involvement in waste management of metropolises: Insights from Dhaka city. *Waste Management*, 142, 143-151.
6. Adofo, I. A., Opoku, O. A., & Sampson, E. (2024). Slum Health in Ghana: a Case of Old Fadama in The Accra. *Asian Journal of Healthy and Science*, 3(1), 46-62.
7. Adomako, T., & Ampadu, B. (2015). The impact of agricultural practices on environmental sustainability in Ghana: a review. *Journal of Sustainable Development*, 8(8), 70-85.
8. Afful, B. E. B., Addaney, M., Anafo, D., Akudugu, J. A., Borkor, F. K., Yeboah, E. O., & Sampana, J. (2024). Public-private partnership in municipal solid waste management in the Sunyani municipality of Ghana. *Journal of Property, Planning and Environmental Law*, 16(3), 201-217.