

**International
Institute of
Social Studies**

Erasmus

**Exploring the opportunities and challenges for women
in urban and peri-urban vegetable farming in Ghana:
The cases of Tsopoli, Greater Accra Region and Fiapre,
Sunyani Region.**

A Research Paper presented by:

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in partial fulfilment of the requirements for obtaining the degree of
MASTER OF ARTS IN DEVELOPMENT STUDIES

Major:

Agrarian, Food and Environmental Studies
(AFES)

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The Hague, The Netherlands
December 2024

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List of Acronyms

UPA	Urban and Peri-Urban Agriculture
APE	Agrarian Political Economy
FAO	Food and Agriculture Organization
NGO	Non-Governmental Organization

Abstract

In today's world, agriculture remains essential for the flourishing of many countries, including Ghana, west Africa. This research is focused on the lived challenging experiences of women in the selected urban town of Fiapre in the Sunyani region and Tsopoli, a peri-urban town in Greater Accra region both in Ghana. As a young, educated woman who has explored agriculture before, who has encountered difficulties with it, and who is set out to venture again into vegetable farming in the future, I decided to find out what the whole process to start a vegetable farm encompasses. I was particularly interested in the challenges and opportunities encountered by women and my main research question became: 'how do women vegetable farmers in Fiapre and Tsopoli areas experience and address challenges they face in terms of access to agricultural resources?' What I found out became a concern for me, namely that women, who are adaptable and operate major roles in important sectors of every economy like agriculture, are mostly restricted to the marketing of vegetables produce and are unable to be much involved in the process of the cultivation itself.

Through the lenses of Gender, Intersectionality and Agrarian Political Economy, my assistants and I interviewed mostly women but also a few men. I found out that farming is perceived in the society to be for men, which explains the ease that comes with their access to resources. It is important to understand the issues of bias in gender inequalities and social norms that interfere with women's low number and low participation in cultivating vegetable farms. This research also shows that women face less sexist biases in women cooperatives in communities, in community training programmes, in access to credit etc. These finding encourages me to continue on my original impulses, not only to become a vegetable farmer but also to venture into other avenues where I can give support in other areas like giving credit or becoming a supplier of seed among others.

Relevance to Development Studies

The contributions of women to urban agriculture have the potential to greatly affect food security in urban environments, and their roles in food production are essential. Through this and other studies, we can learn what works and what doesn't when it comes to urban vegetable growing, and we can also find out what gets in the way of people's involvement in the agricultural economy. By removing these obstacles, women's income can rise, which in turn can boost a country, its regional and municipal economies. Above all else, this research

has the potential to inform lawmakers on the unique challenges faced by women vegetable farmers, which in turn could help shape more equitable and productive agricultural policies that better accommodate women in urban farming projects.

Keywords

Women, Ghana, Gender, Intersectionality, Urban, Peri-urban, challenges and opportunities, Tsopoli-Greater Accra, Fiapre-Sunyani, vegetable farming, land tenure, farm market access,

Chapter 1 . Introduction

Women, dominant workforce in Urban Vegetable Production but rarely owners of farms

Urban agriculture is presented as a solution to enhance food security and generate revenue at the household level (Skar et al., 2020; Davies et al., 2021; Langemeyer et al., 2021), especially in the wake of the COVID-19 pandemic, which is a response to tackle food insecurity (Lal 2020; Khan et al., 2020). At the same time, urban vegetable production is essential for fostering food security, strengthening nutrition, and improving lives by providing households with a nutritious diet and as a source of income (Skar et al., 2020; Davies et al., 2021; Langemeyer et al., 2021). In the context of urban Ghana, economic factors like food prices and household income plays a significant role which influence vegetable accessibility (Bannor et al., 2022; Annan et al., 2022; Tuffor et al., 2024). The accessibility of healthy vegetables is constrained by significant distances and high transportation costs related to their procurement from production sites (Annan et al., 2022; Tuffor et al., 2024).

Nevertheless, women, the predominant workforce in urban vegetable production, hardly participate in vegetable cultivation (Fadairo et al., 2020; Drescher et al., 2021). This statement is further explained by (Obuobie et al., 2006; Drechsel & Keraita, 2014) that while women are barely involved in cultivation because of the exhausted nature of farm work for them, in most instances they control the process of farming from start to finish. In that they go to the extent of pre-financing ahead, the purchase of some types of vegetable seeds that consumers want on the market to the farmers for planting, select the best harvest and vigorously sell them to consumers who are the last to reach in the process of vegetable production. This raises a series of questions and thoughts running through my mind about why many women work on farms but hardly own them. It became a significant concern for me because I had wanted to venture into agriculture since childhood.

1.1 My Story

During my childhood, my mother who is from a rural village in the eastern portion of Ghana, has a passion for cultivating food crops. In our yard, I observed my mother cultivating various crops such as maize, oranges, plantain, avocado, mango, and others. She did this with the intention of producing fresh and nutritious food for our family, as well as sharing the

harvest with our relatives and neighbours. Additionally, these plants contributed to the ecological equilibrium of our environment. Whenever my mother removes the seeds from vegetables such as peppers, tomatoes, and okra, and deposits them onto the soil, the plants begin to germinate within a few days and produce fruits within a few weeks. I was captivated by the process. I assumed responsibility for the task of dispersing the seeds onto the soil, and it evoked a heightened emotional experience for me. On a visit to our home town community, Obo Kwahu, located in the eastern region, my parents took me and my siblings to their family farm. There, I witnessed vast expanses of cocoa trees, adorned with their exquisite fruits, which I had the opportunity to pluck. The plantains had produced clusters of both unripe and mature fruit with distinct forms. The oranges on the trees were ripe, whereas the overripe ones on the ground had rotted. The cocoyam, is a root vegetable that is harvested by digging it up to reveal its fruits. It has yielded exquisite verdant foliage known as Kontomire in my local dialect, which is utilised in our cultural practices to concoct various culinary delights such as stews and soups. Additionally, various other crops were cultivated on a big scale and harvested for commercial purposes. As I matured, I cultivated a passion for pursuing a career in agriculture, with the aim of producing and selling abundant quantities of fresh and nutritious food, alongside my corporate employment. I plan to take up this as my second job to supplement my income. In 2015, I embarked on my own farming venture by connecting with an acquaintance who introduced me to a person willing to rent out a cocoa plantation in the western region. I signed a leasing agreement for a period of five (5) years but the project ended in failure. In 2019, I made another endeavour to engage in vegetable farming by cultivating several types of peppers (such as Chilli, cayenne, and habanero) on the outskirts of Accra. I initiated this venture with a colleague of mine at work. I desired to cultivate pepper due to its shorter harvesting period. He provided me with a detailed account of the process involved in acquiring a farmstead. He offered to accompany me to his uncle, who would then introduce me to the town leader, who in turn would guide me to a farmer willing to lease their farm. I found the process to be arduous and time-consuming, which led me to abandon it.

My experiences and ongoing interest in farming made me start thinking and asking questions if my experience is an isolated case or I am just not lucky enough, or if vegetable farming and farming in general is not meant for me, or does it have anything to do with my gender or social status. A lot of thought and questions in my mind were unanswered. The more I tried to find answers to the questions, the more questions popped up. As a result, I decided to explore the experiences of women already involved in urban and peri-urban

vegetable farming in a specific metropolitan area of the Greater Accra region and Sunyani region as the opportunity arose as part of my coursework. This will get me closer and enable me to gather all the necessary information to initiate it and be successful in the future on my next attempt at it.

1.2 Understanding the problem is crucial

Several studies point to neglecting urban and peri-urban agriculture in nations across Global North and Global South spheres, including Ghana by policy making authorities (Asomani-Boateng, 2002; Dubbeling, 2014; James & O'Neill, 2016; Ayambire et al., 2019). The neglect of these forms of agriculture occurs in different ways, including a lack of government support services, including agricultural extension and technology (Osei, 2017) and conversion of agricultural land to residential use (Kuusaana et al., 2022). The consequence of the neglect of urban and peri-urban agriculture leads to the lack of realisation of its potential. Regardless of the neglect, according to Quansah et al. (2020), vegetable gardening is Ghana's predominant form of urban agriculture. Similar other West African nations, men hold most positions in open-space urban vegetable farming in Ghana, namely open-space irrigated vegetable farming. According to research by Obuobie et al. (2004) and Hope et al. (2009), women are more prevalent in marketing urban farm produce in Ghana. This is partly due to the cultural belief that marketing is traditionally a woman's responsibility. Additionally, Ghanaian women consider marketing more profitable and less risky than farming. Multiple studies conducted in the major urban areas of Ghana indicate that men have a predominant presence in open-space vegetable growing (Keraita et al., 2002; Adeoti et al., 2012). Fewer than 10% of the farmers working in open spaces are women. In household backyard gardening, which primarily aims for self-sufficiency and traditionally expects women to be the majority, a survey conducted by IWMI in Accra revealed that the numbers of men and women were almost equal, with men comprising 57% and women 43%. Additionally, it was observed that women tended to be older than men in this context (Obuobie et al., 2004).

While the dynamics of and challenges facing urban and peri-urban vegetable agriculture in Ghana have been studied (Keraita et al, 2008; Osei et al., 2017; Nchanji & Bellwood-Howard, 2018; Nchanji & Nchanji, 2022; Tuffour et al., 2024), recent research (Bellwood-Howard et al., 2021) indicate that while men still dominate urban vegetable farming in Ghana, there is a growing number of women who are engaging in farming despite the persistent hurdles they face. Consequently, it is important to explore the experiences of the women that are coming into the urban vegetable farming that used to be dominated by men to have the

understanding of the opportunities and challenges they encounter, how they navigate the challenges and if they encounter the same challenges as men.

1.3 Some background: Urban agriculture and gender relations in Ghana

Urban and peri-urban agriculture (UPA) include agricultural practices, cultivation, processing, and distribution within and near cities (Ayambire et al., 2019). These activities serve the purpose of providing food for local households and/or supplying the urban market. UPA encompasses the cultivation of crops, rearing of poultry and cattle, fishing, and forestry (Hovorka et al., 2009). Quansah et al. (2020) have linked the rise in UPA to the growing urbanisation in numerous countries globally. This is because it is a substantial provider of fresh and perishable sustenance and a source of revenue and food stability.

According to Danso et al. (2014), vegetable growing is Ghana's most common form of urban agriculture. UPA vegetable farming is typically carried out in three ways: continuous production of vegetables primarily for commercial purposes, seasonal cultivation of vegetables in peri-urban areas for commercial purposes, and backyard farming for either home consumption or commercial purposes (Drechsel & Keraita, 2014). Ghanaian vegetable producers cultivate exotic vegetables like lettuce, cabbage, carrot, cucumber etc. and indigenous vegetables like okro, garden eggs, onions etc. in urban and peri-urban farms (Danso et al., 2014). Historically according to (La Anyane 1963, p 4) cited in Asomani-Boateng (2002) it was disclosed that the British colonial administrators established vegetable farming in Ghana. Hence the introduction of various exotic crops into Ghana from their country. They were cultivated to serve as their source of food for consumption. Typically, Vegetable farms are located near different water sources to fulfil irrigation and production needs throughout the year (Drechsel & Keraita, 2014). Evidence from various studies has shown that urban agriculture in Ghana must overcome a series of challenges before it can reach its full potential in addressing food security, decreasing poverty, and fostering sustainable urban development (Quansah et al., 2020). Several factors contribute to these difficulties, such as a lack of suitable land, climate change, political and regulatory frameworks, and cultural and social considerations (Toriro & Chirisa, 2022). Urban agriculture in Ghana encounters a significant obstacle caused by climate change, namely water shortages resulting from altered rainfall patterns. To mitigate this issue, farmers employ water-collecting and irrigation techniques (Akoto-Danso et al., 2019).

However, the most crucial hindrance to urban agriculture in Ghana is the scarcity of land for cultivation. The urbanisation process has caused the transformation of agricultural

lands into residential and commercial zones, resulting in a decrease in available land for farming activities (Ziem Bonye, 2021). Besides, escalating temperatures and alterations in rainfall patterns can result in diminished crop production and heightened susceptibility to pests and diseases (Quansah et al., 2020). Stakeholders determine optimal places for urban farms and select the most effective strategies for acquiring land. The majority of individuals or families possess land ownership. Guaranteeing secure land ownership is essential for attracting investments to this sector. Therefore, insecure land ownership obstructs the institution and progress urban agriculture in African cities. Therefore, (Duvernoy et al., 2018).

Land tenure is important in ensuring and advancing inclusive socio-economic development to attain SDG 5 (gender equality). Women in sub-Saharan Africa face challenges in securing their land rights due to prevailing social and cultural norms that frequently impede their ability to sustain their livelihoods. In Africa, customary tenure is prevalent, with land being inherited or retained by a clan, resulting in uneven land ownership for women (Azumah et al., 2023). Married women frequently face the issue of not being acknowledged as lineage members, which restricts their ability to obtain and utilise land (Dwomoh et al., 2023). Various sociodemographic and economic factors influence women's ability to have secure land ownership. These factors include their marital status (whether they are married, divorced, or widowed), their role within their households and communities, their age, gender, types of marriages, level of education, economic status, and their social connections and resources (Nchanji et al., 2023). Despite implementing policy and legal frameworks to tackle disparities in land ownership in sub-Saharan Africa, these measures lack sensitivity and fail to recognise the diverse issues women face as a collective (Chigbu et al., 2019). Given women's diverse circumstances and experiences in their efforts to get land for agricultural use, this statement is not universally applicable.

Currently, many Ghanaian women farmers (as in other countries) face significant challenges in accessing services to support and elevate their farming activities. Despite the fact that 52% of the agricultural workforce in Ghana is made up of women, only 15-30% of this figure are reached by agricultural extension programmes. There are a number of barriers to change which are faced by women in Ghana. For instance, existing gender extension services are designed with a male bias, and do not take into account factors that hinder women from participating such as poor literacy levels, low mobile phone ownership, and childcare duties. Extension service providers also do not target women farmers: they believe the male household head will pass on necessary information, and that women lack the

organisational skills required to succeed in farming. There is also a notable lack of women extension agents (only 16.6%) to support other women. Even when women farmers can access extension services, gender-based social norms and beliefs that stem from these including that women should act as their husband's 'supporter' rather than be farmers in their own right – prevent them from engaging (CABI, 2024).

1.4 Urban Vegetable farming and access to land in Ghana

Urban crop farming in Ghana can be broadly classified into two types: household gardening, which occurs in and around homes, and open-space farming, which occurs on fields that are not directly adjacent to human habitations, such as along roadsides, abandoned waste dumps, public buildings, wetlands, and drains (Bellwood-Howard et al., 2015). Urban open spaces have different tenure systems. Almost no one pays a fee, and almost no one who farms in open spaces owns the property they work (Gillespie, 2016). One or more federal, state, or local entities possess the vast majority of these parcels of land. In peri-urban regions, farmers may have land ownership or participate in tenancy arrangements such as 'abusa' and 'abunu', also known as sharecropping (Baah & Kidido, 2020).

In the first scenario, farmers pay the landowner one-third and half of their harvest, respectively while in the second scenario, the farmer divide the harvest into two and pays one to the landowner for the privilege of using the land. Farmers in urban areas in Ghana often cultivate their crops in open areas without the necessary permits (Afriyie et al., 2020; de Oliveira & Ahmed, 2021). This happens because landowners do not care if farming occurs on their property unless there is a pressing need for another purpose (Baah & Kidido, 2020). Notifying farmers to vacate their properties to make way for development is discretionary. Investors in agricultural infrastructure (such as wells or cement ponds), soil conservation, and long-term fertility development are discouraged when farmers face uncertain tenure conditions. Farmers might take two primary avenues to acquire agricultural land in Ghana's urban and peri-urban parts. You can obtain this through formal and informal means. Even though there is a formal land delivery system in most urban areas in Ghana, it is off-limits primarily to agricultural uses in the city proper (Bellwood-Howard et al., 2015). The process is too lengthy, complicated, inefficient, and costly for the peri-urban regions that are supposed to be available for agricultural applications (Afriyie et al., 2020; Abdulai et al., 2022).

Furthermore, rather than distributing land to local farming communities, the majority of traditional chiefs who own "stool lands" would rather sell plots for a pretty penny (Cobbinah et al., 2020). Due to these factors, farmers residing in and around major cities

tend to favour informal means of acquiring agricultural land. Accra is home to various informal land configurations (Boamah et al., 2020). One kind of arrangement involves a government agency that owns or controls the property that is being farmed. The agency willingly grants farmers temporary use of the land, often with the help of a third party (Obuobie et al., 2003). From a property regime standpoint, the cultivated lands under such a tenancy arrangement may be called "public, open space property" (Flynn-Dapaah, 2002). This would encompass undeveloped areas surrounding public institutions, including drains, banks of streams and rivers, wetlands, and so on. In order to make way for additional development, farmers might or might not be given notice to vacate the property.

1.5 Research Objectives

- To explore the experiences of women in Urban Vegetable farming in Fiapre and Tsopoli areas in Ghana.
- To explore the differences between women and men in accessing agricultural resources in Ghana.
- To explore the approaches that women adopt to deal with the challenges they encounter in their engagement with urban vegetable farming.

1.6 Research Questions

Main research question

How do women vegetable farmers in Fiapre and Tsopoli areas experience and address challenges they face in terms of access to agricultural resources?

Sub-questions

1. How does access to agricultural resources differ among women and men vegetable farmers in Tsopoli and Fiapre and how does it affect farming?
2. What are the challenges facing women vegetable farmers in Tsopoli and Fiapre and how does this influence farming?

1.7 Study structure

This paper is organized and structured into five different chapters. The first chapter sets the premise of the paper and the motivation behind the decision to explore the experiences of

women farmers in urban vegetable farming. The research problem and the context of the research problem were also explicated in the first chapter, alongside the objectives and the research questions the study intended to address. The second chapter's primary discussion is the theoretical lens adopted in the data analysis in the fourth chapter. While the importance and relevance of the Feminist Political Ecology and the Agrarian Political Economy was highlighted, the chapter also briefly discussed the classification of urban vegetable farming in Ghana to clearly understand where the theories and concepts will be applicable in the analysis. In Chapter Three, the process of data collection was discussed extensively. Major components such as the choices and justification of research and data collection tools, study areas, sampling technique, and the data analysis method adopted were elaborated upon. Most importantly, the reflexivity on the positionality of my stake and interest in the study was also addressed. While Chapter Four was dedicated to analysing the data collected across 2 months about the research questions and objectives of the study, Chapter Five was tailored towards the conclusive reflection and summary of the whole research.

Chapter 2 Theoretical approach

2.1 Introduction

A key topic that will be covered in this chapter is the theoretical framework, Gender and Power Relations Concepts and Agrarian Political Economy, which will be used later in the data analysis in Chapter Four of this study. This paper relies on Gender and Power Relations Concepts and Agrarian Political Economy Theories to get into the challenges and opportunities female urban and peri-urban vegetable farmers encounter. Using these theories will help dissect into the ways institutional pressures and inequitable power dynamics affect women's function or the potential to access resources in agricultural settings.

Gender lens, Gender and power Relation Theories delves into how social control variation impact gender roles, resource access, opportunities, and decision-making function for men and women. This assertion centers on unequal power relations in the agricultural sector commonly inhibiting women's ability to access land, to get loans and farming resources diminishing their economic challenges. Women's roles are frequently dictated not just by social expectations, but by the persistent structural limitations that prevent them from attaining equal status in agricultural settings (Kabeer, 1999; Agarwal, 1994). Especially for women farmers within pre-urban and urban settings, these factors frequently include managing a double part in the production (agricultural) and reproductive (home) realms, limiting their ability to get the most from their agricultural efforts. Agrarian political economy method examines how female farmers, particularly in peri-urban and urban settings, might be impacted based on market forces policies that privilege larger farming companies, worsening inequities and restricting smaller-scale farmers' power to bargain. This perspective also looks at the interconnections of gender and class, which clarify how urban agriculture regulations and market factors may hinder female farmers and limit their ability to succeed. Together, these theories provide a complete perspective through which to examine the socioeconomic constraints that female farmers encounter as well as the key information on how gender-related systems of power and economic policies interact to affect women's agricultural experiences.

In addition to highlighting the relevance and significance of Gender and Power Relations Concepts and Agrarian Political Economy, the chapter also provided a quick overview of how urban vegetable farming in Ghana is classified so that readers can easily understand where the theories and concepts would be applied in the analysis. The discussion

in this chapter is sectionalised into four main sections. The first section discusses the components and differences between open-space and household urban farming systems, which are the two main categories of urban vegetable farming in Ghana, and the second and third sections are dedicated to the discussion of the theoretical framework. The last section is the summary and conclusion of the chapter.

2.2 Gender and Intersectionality

The theoretical framing of Gender and intersectionality is an all-inclusive perspective that can be used to discover the difficulty and opportunities confronting women vegetable farmers in Ghana's urban and peri-urban environment. Intersectionality, a theory associated with (Crenshaw, 2022), underline how diverse segment that constitute identity including race, class, gender, and economic status come together to produce a well defined patterns of privilege and discrimination. This indicates that the obstacles experienced by women in the Urban and peri-urban farmers are not homogenous; rather they vary depending on these intersecting components, influencing each woman's experience individually and contextually. Intersectional principles are necessary for comprehending the countless hindrances that affect one's ability to obtain land, resources, and community or local support.

In Ghana, structural variables involving land tenure arrangements and access to financing have a significant impact on female farmers, but the consequences are complicated by marital status, socioeconomic status, and even educational background (Doss, 2001; Tsikata and Yaro, 2014). Women of lower-income households, for example, may face additional challenges due to inadequate money resources and support, which limits the power they have to bargain in land disputes and their entrance to markets for agriculture. In this sense, intersectionality sheds light on how interventions and policies that take a one-size- to gender failed to address all women's needs. Instead, it emphasizes the demand for a policy that is responsive to such intersecting types of drawbacks, particularly for underrepresented groups classified as women farmers.

In this context, gender theory focuses on the structural power inequities that exist in Ghanaian culture, affecting the roles and duties traditionally allocated to women. For these women, agricultural work sometimes overlaps with family responsibilities, resulting in a double burden involving production and care (Agarwal, 1994). Since women could have fewer resources and fewer hours to devote to farming in relation to men, thus low productive and economic inequality. Furthermore, social norms and expectations surrounding gender roles might limit women's use of services such as extension, educational programs, and

decision-making possibilities within agricultural communities, limiting their ability to grow and empower.

The concept of intersection along with gender approaches demonstrate the various environments in Ghana's urban agriculture, with women's responsibilities and obstacles in farming determined by both socioeconomic position and institutional gender biases. Wealthy or well-connected women, for example, may have easier land access and market, whereas poorer women, who frequently live on smaller, less fruitful plots, face economic and social constraints. Intersectionality demands a thorough understanding of these differences, also focused methods that acknowledge women farming different experiences and strongly address the institutional obstacles that hinder their success.

2.3 Agrarian Political Economy

Scholars have examined, analysed, and comprehended the agricultural production mode and its means of production using the political economy approach. When asked to define Agrarian Political Economy, Bernstein said it was "the social relations and dynamics of production and reproduction, property and power in agrarian formations and their processes of change both historical and contemporary" (Bernstein 2010, p 1).

Moreover, this idea is not complete without answering four crucial questions: (1) who owns what? Property rights and ownership of productive assets such as land are at issue here. (2) whose job is it? The entirety of the many tasks carried out by various individuals within the context of the social relations of production and reproduction are encompassed in this inquiry into the nature of labour relations. (3) Who is entitled to what? Income from production and reproduction sometimes called the "fruits of labour" because it is not always expressed in monetary terms, is relevant here. (4) How does it benefit them? The topic pertains to the social dynamics surrounding accumulation and consumption, as Bernstein (2010) and Ellis (1993: 47–49) discussed.

By way of illustrating Bernstein's theory of agrarian political economy, let us examine how the land tenure system in Ghana limits women's access to land. There has been a lack of strict implementation of land-use planning in Ghana because traditional land ownership has long been the norm. The traditional leaders of the city own 90% of the land in public trust. The increasing land values are luring chiefs to lease their properties to estate developers (Nchanji et al., 2017). This trend could potentially increase competition for farms (Drescher, 2021). Land tenure is an essential social and economic concept that refers to transferring or allocating land rights to people or communities through formal or informal means.

Land and its resources are subject to tenure, which includes the rights to access, use, administer, profit or lose, alter, and transfer ownership. The stability of farmers' land tenure, which is connected to how they use and gain access to their land, affects their capacity to diversify their income sources and food supply (Keovilignavong & Suhardiman, 2020). Borras et al. (2015) and Holden and Ghebru (2016) explain the conceptual connection between land tenure and food security. Both works emphasize the importance of land usage and production in this relationship. The decline in agricultural output and subsequent shortage of arable land caused by land degradation is one element that puts food security at risk.

Land ownership is crucial because land utilisation impacts people's ability to boost productivity and food security. According to Britwum et al. (2014), land tenure is influenced by resource allocation in addition to legislation and customs. Traditional land rights are a product of the intricate bias that some communities use to their advantage while others watch their land rights undermined. These Norms in society determine the distribution of resources highly valued by society, including gender roles and power dynamics (Britwum et al., 2014). Institutional and governmental structures in Ghana while advocating for gender equality lacks the necessary constraint causing disparities as an integral part of the social values. This leads to a land tenure system that discriminates against diverse groups, especially women and makes it harder for them to own and control their own property. The percentage of Ghanaian women who own land varies by region (Nchanji et al., 2023).

When APE is applied to this research issue of women peri-urban vegetable rural growers in Ghana, it becomes obvious that structural inequalities impact women's access to resources for agriculture such as land, loans, and markets. In Ghana, women's farming roles are frequently limited by established land tenure arrangements that benefit male landowners and are strengthened by social and cultural customs through legal systems that favour men in land acquisition and ownership. (Whitehead & Tsikata, 2003) According to APE, these limits are not just fortunate but are determined through a patriarchal economic system that allocates resources depending on gendered power dynamics and established hierarchies. In Ghana, for instance, urbanization and land privatization make it even harder for women farmers in peri-urban areas to get long-term land tenure, since the land has been progressively sold to developers from cities (Amanor, 2001). This global-local relationship demonstrates how APE discloses the effects of international capitalism on local farming communities, notably the limitations imposed on female farmers.

2.4 Chapter Conclusion

The adoption of Agrarian Political Economy and Feminist Political Ecology is crucial in laying the foundation for the data collected in the field regarding the experiences of women in urban vegetable farming in Ghana. This will help in understanding the power dynamics that shape environmental governance and resource management, highlighting how gender inequalities intersect with other forms of oppression, such as class and social norms that might hinder women who might be planning to go into urban vegetable farming in Ghana.

Chapter 3 The Methodology

3.1 Introduction

The discussion in this chapter serves as a critical component of this dissertation, outlining the research design and the specific methods employed to investigate the research questions posed in the preceding chapters. This section aims to provide a comprehensive overview of the methodological framework that underpins the study, ensuring transparency and reproducibility of the research process. Furthermore, this chapter will detail the sampling strategies, data collection techniques, and analytical procedures employed throughout the research process. Ethical considerations and limitations of the study will also be addressed to provide a holistic view of the research methodology.

3.2 Research Design

When planning a study, the first concern is determining the most effective methods for acquiring accurate and trustworthy data that may provide a dependable and legitimate response to your research inquiry. There are numerous methods to gather this information. The decision of selecting either an ethnographic approach, a discursive approach, or any other strategy lies in your hands to obtain qualitative data. The study employed a qualitative research technique, specifically an inductive approach. The inductive approach refers to a non-statistical mode of inquiry that gathers information directly from the field of study (Neuman, 2014). The qualitative approach facilitates an unrestricted and adaptable method of investigation that seeks to examine diversity (Kumar, 2018). O'Leary (2017:257) states that this strategy seeks to get a deep comprehension of the individuals, location, culture, and circumstances by actively participating and fully immersing oneself in the actuality being examined. Therefore, this strategy primarily focuses on a descriptive and narrative method that addresses emotions, perspectives, and personal encounters. Based on this assumption, the researchers utilise secondary and primary sources by employing interviews and textual analysis of documents.

The secondary data sources involved exploring official data and records from the Ghana government, international organisations, national data, and NGOs, which was obtained through the Google search engine. This encompasses reports and statistics from reputable sources such as FAO, World Bank, and other United Nations organisations. The media, including websites, newspaper or magazine columns/articles, news, current affairs, and

books, is another valuable secondary data source. The secondary data was gathered on academic publications in both printed and online formats, including articles, books, journals, conferences, and blogs.

The primary data collection involved conducting semi-structured interviews with farmers who engaged in vegetable farming in urban and peri-urban Ghana and consented to participate in the study. These interviews focus on gathering relevant experiences that align with the study's purpose. The decision to employ the semi-structured interview was inspired by its suitability for the study. This is because some women participating may not feel at ease discussing their most personal secrets or challenges in front of other farmers during a focus group discussion. Despite the time and cost involved, conducting one-on-one interviews with anonymous participants enables them to share valuable insights into other farmers' experiences and coping mechanisms to overcome challenges.

3.3 Study Areas

This study was conducted in two separate districts in Ghana. The first district in question is the Sunyani West District. There are roughly 133 habitation areas, with four categorised as urban. Odomase and Fiapre, two of the four urban areas, have almost merged with Sunyani, the municipal headquarters.

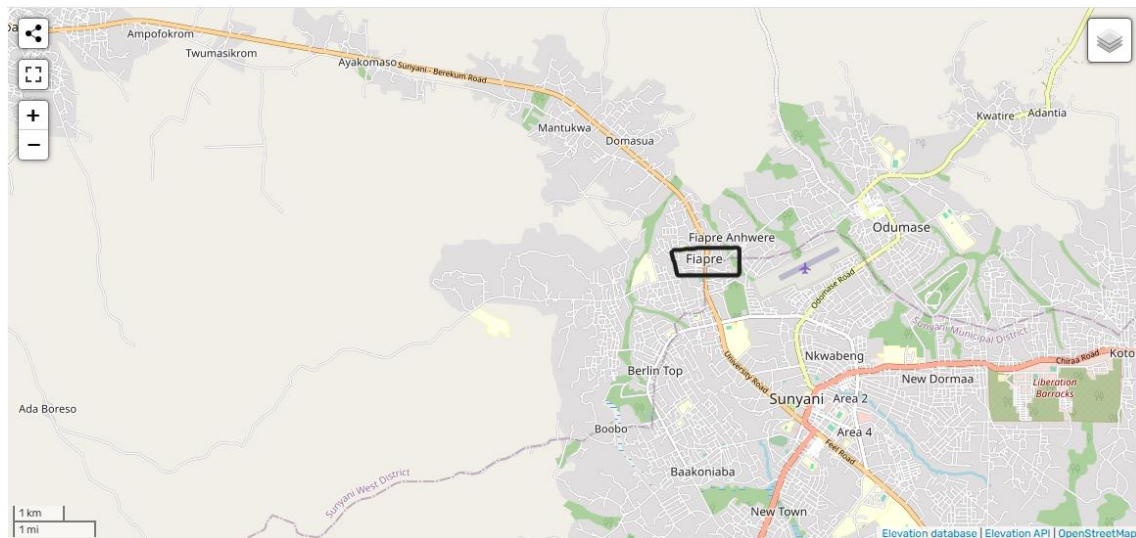


Figure 1:1 Fiapre, Sunyani West district

Source: Topographic-map.com

Fiapre, one of the study locations, is situated in close proximity to Sunyani, which serves as the regional core of the Bono Region. Agriculture is the town's primary income source, although teaching, civil service, and private industries also make substantial contributions.

The importance of the agricultural sector can be attributed to the advantageous climatic conditions, fertile soil, and typically adaptable land tenure systems.

Moreover, the peri-urban nature of several settlements near Sunyani creates favourable conditions for conducting trade, which can be both viable and lucrative. Improving the processing of agricultural output has the capacity to boost the expansion of the manufacturing sector and create job chances for unemployed individuals. The Sunyani West Municipal has a population of 85,272, representing 3.7 per cent of the total population of the old Brong Ahafo Region. Out of the total population, 71.8 percent live in urban areas **(The Sunyani Municipal Assembly. 2021).**

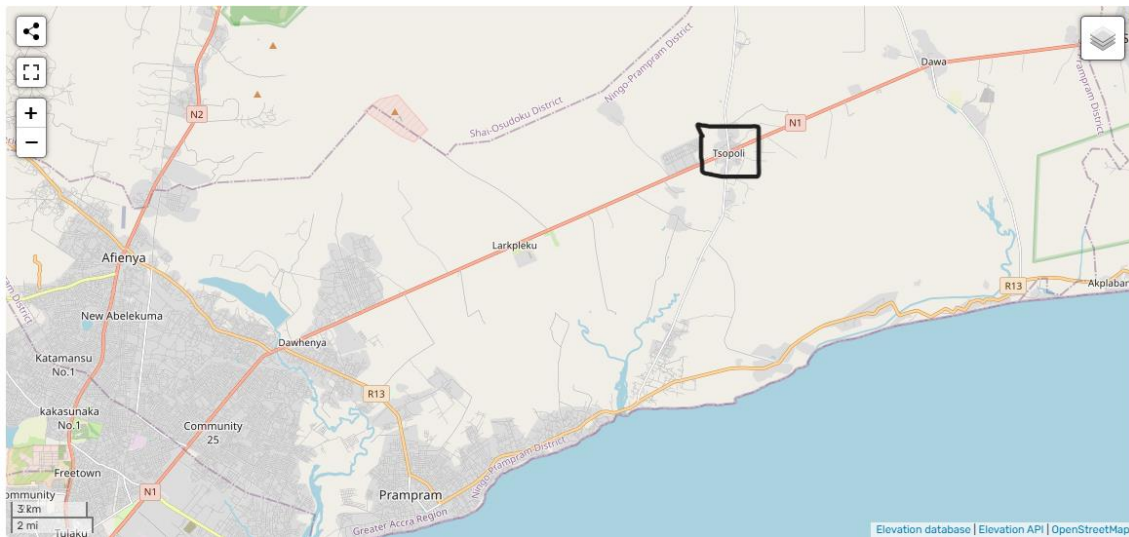


Figure 2: Tsopoli, Ningo Prampram District

Picture source: Topographic-map.com

Tsopoli, the second research location, is located in the Ningo-Prampram District Assembly of the Greater Accra Region in Ghana. The agricultural sector employs approximately 32% of the District's workforce. The main sectors of agricultural activity include the production of food crops, the raising of livestock, and the fishing industry. The District comprises a total of fifty-two (52) rural communities. The agricultural industry utilises the workforce for tasks such as cultivating crops, engaging in fishing, practising animal husbandry, and participating in forestry operations.

Furthermore, several farmers in the District engage in fish farming, animal husbandry, and cow farming alongside their land agricultural activities. The District's coastal location and wide grasslands facilitate these operations by offering abundant grazing spaces for livestock. The transformation of cultivable and agricultural fields into real estate developments and sand mining operations substantially hinders agricultural activities in the

District. The sector is currently facing a substantial reliance on rain-fed agriculture, leading to challenges (Ghana Ministry of Finance, 2023). Tsopoli has been a famous destination for individuals looking to maximise their investments in real estate. Given its advantageous geographical position, this property presents a highly profitable opportunity for individuals seeking a place to live and those looking to invest.



Figure 3: Some women working on their farms during the field work

Source: Field work 2024



Figure 4: Types of vegetables grown in Tsopoli and Fiapre

Source: Field work 2024

3.4 The data collection process

Unfortunately, unexpected circumstances prevented me from personally travelling to Ghana to be a part of the data collection activities in person. Due to my different regional background and cultural upbringing compared to the farmers, I viewed this research as a cross-cultural endeavour. In order to conduct data collection activities, I believed it was necessary to collaborate with research assistants, as recommended by Stevano and Deane (2019). Consequently, I had the alternative to modify the strategy by arranging for advanced learners to also be involved to collect the data. To obtain first-hand qualitative data from farmers with a focus on women, I enlisted the assistance of two research assistants to facilitate data collecting in the previously mentioned study locations. The research assistants I hired needed have language interpretation skills and the necessary research skills to perform qualitative studies to obtain trustworthy data.

During the project's design phase, I arranged to employ two research assistants knowledgeable about the Fiapre and Tospoli regions I intended to visit. The assistant's role was to function as translators and assist in facilitating data collection. Without their assistance, the field would have been inaccessible and incomprehensible to me. The individuals in question are responsible for serving as cultural intermediaries, facilitators, and guardians in cross-cultural and cross-linguistic research (Nguyen et al., 2022; Speck & Schmid, 2020).

Due to their various responsibilities, the involvement of research assistants in a research project has significant ramifications for the study design, methodology, and outcomes (Stevano & Deane, 2019). As a result, I recruited two additional PhD students in their third year who have gained experience as research officers at several prominent regional and national NGOs over the past five years. These individuals joined the two research assistants whom I had already employed. My decision aligns with Nguyen et al. (2022) assertion that social researchers should go beyond relying solely on research assistants' personal knowledge and linguistic skills. It is essential to consider additional attributes, such as fundamental competence, which encompasses listening attentively and providing comprehensive explanations of what is stated. It also involves being modest and setting aside one's ego so as not to hinder individuals from providing information (Nguyen et al., 2022). Nguyen et al. argued that individuals who possess social awareness and a genuine curiosity in understanding others' perspectives are superior to those who hold inflexible beliefs that may bias their interpretation of data (Nguyen et al., 2022).

However, I personally supervise the interview process through WhatsApp video call. The field work was anticipated to run through smoothly and continuously for 5 days in each region. Due to some unforeseen circumstances we completed the interviews by 1st Sept with 8 days at Tsopoli and 8 days at Fiapre. The distance to get to these farmers was approximately 35 minutes in Tsopoli from the bus station. Fiapre was almost an hour from the guest house my PHD assistant was lodging. The research assistants led the team to the various farmers since they are familiar with the study area. I was able to listen to and video record with their permission some of the responses from the participants that were interviewed to ensure that the primary objectives of the study were achieved. Before the interview was carried out, I had already gone through a number of guiding questions with my research team and we narrowed it down to 10 questions since the type of interview that was adopted is a semi structured interview.

Each interview session duration was between 35 minutes and 47 minutes depending on the responses and follow up questions. After the interview sessions was completed, the recorded videos were transcribed because the sessions were conducted in twi, pidgin English and English language and due to unstable internet I could not be a part of all the live sessions. The respondents were allowed to use the language they are more comfortable with so as to give them the opportunity to express themselves freely regardless if they are educated or not. The responses were organised into themes using Thematic Analysis to analyse in a deductive manner to categorised the responses and align them to each research questions.

3.5 Selection of a representative sample

Purposive sampling techniques were used in the selection of participants for the study. This approach is more suitable when the researchers have specific information they are looking for from a specific population in a specific area. Purposive sampling allows researchers to focus on individuals possessing specific features or experiences relevant to the study, ensuring the sample's pertinence to the research question. This strategy facilitates a thorough analysis of complex situations by selecting individuals who can provide detailed, nuanced views, which is particularly advantageous in qualitative research (Andrade, 2021; Campbell et al., 2020). By concentrating on a specific demographic, researchers can gather data more efficiently, conserving time and resources compared to random sampling approaches that may include persons who do not meet the study criteria (Andrade, 2021). Moreover, purposive sampling offers adaptability in the selection process, allowing researchers to adjust their criteria as the study progresses and new insights emerge (Campbell et al., 2020).

Besides, it enables the inclusion of individuals with specific knowledge or experience relevant to the study subject, thus enhancing the legitimacy and significance of the findings.

There are two locations where the data was collected. For 30 farmers (20 women and ten men), the research team interviewed 10 women and five men in each location. Several factors, such as age, gender, marital status, the size and scale of the farm, and whether they were owned or leased, were used to pick the participants to be interviewed intentionally. This is very important because we wanted a broad understanding of the different experiences of women from various demographics active in vegetable farming. The representativeness of the sample size was guaranteed by doing this against the backdrop of a random sampling selection. The respondents' years of experience in farming or urban farming were not considered during the selection process. Our primary interest is in their difficulties and how they cope with them when they venture into vegetables in urban areas.

3.6 Ethical consideration

In social research, ethics pertains to moral reflection, decision-making, and responsibility, which researchers demonstrate throughout the entire research procedure (Plowman, 2017). As stated by O'Leary (2014), research must be approached with extreme caution. Hence, the researcher's objective should be to prioritise responsibility and integrity. The researcher has a moral duty to transcribe the research honestly, without bias or favouritism, and to report the findings impartially without making judgements. (O'Leary, 2014). The researcher is responsible for accurately depicting reality, uncovering truths, and avoiding deliberate bias or mistakes. During the research, I adhered to the ethical responsibility of avoiding any form of injury, as stated by Plowman (2017).

The study team prioritised safeguarding the anonymity of the interview participants by allocating pseudonyms or aliases to the respondents. During the interview, the team did not inquire about their full names or places of origin. This measure aims to safeguard the respondents against any potential harm resulting from their involvement in the study. Before data collection, the respondents' consent was obtained and organised. The participants received comprehensive information regarding the study's objectives in both English and local to ensure their complete comprehension of the expected requirements. In addition, it was explicitly stated that individuals have the prerogative to decline to answer any question they do not wish to respond to, and they have the freedom to withdraw from the process at their discretion.

3.7 Limitation

The experiences of thousands of women in urban vegetable farming cannot be accurately generalised based on the number of participants. I have a limited dependence on third party data collection because it is impossible to ascertain the accuracy of the transcribed data provided to me. Moreover, it is impossible to ascertain the impact of the research assistants' positionality on the data gathering process. Three days into the field work, the PHD assistant for Sunyani bailed out because he had an unexpected event. This left me with one assistant, who was a farmer himself, but didn't have the knowledge and skills to fully conduct the interviews. Unstable internet did not also allow me to take charge. I had to wait for the PHD assistant at Tsopoli to finish from there before moving to Sunyani to continue the interviews.

However, the main challenges encountered was getting the farmers to agree to conduct interview. Apparently, we were not the first researcher they come across in the past 5 years. Many of them refused to participate in the study because they did not see any result or positivity and benefits of the previous studies, they have participated in. Also, as some of them have other jobs they do, they only have limited time to spend on the farm, especially women that have kids they have to take from school. On several occasions, many of the intended respondents cancelled on the appointments they already agreed with my assistants. There was a festival held in Tsopoli which distracted especially the women from coming to their farms for two days. Therefore, we have to devise a strategy and approach the vegetable market to enquire from the sellers about the farmers they buy their products from and it from there that we were able to select based on our criteria those to contacts for interview.

3.8 Positionality

Positionality refers to the social, cultural, and political factors that shape an individual's perspective and position within society. Positionality refers to the researcher's placement within different power dynamics, including gender, sexual orientation, age, race, nationality, personal experiences, urban-rural relations, views, economic status, and social standing (Berger, 2015, p. 220). It can also describe how others establish the researcher's identification and associations (Sanghera & Thapar-Björkert, 2008). The concepts of identification and affiliation can be interpreted as power dynamics that influence the knowledge generated by the researcher and the researched individual (O'Leary, 2014). The question pertains to how these power dynamics influence gathering data and generating knowledge. As a researcher, it is challenging to determine whether I am considered an 'outsider' or an 'insider' in this context, as Sanghera and Thapar-Björkert (2008) suggested. Researchers must practise

reflexivity by consistently examining their biases, beliefs, and experiences. I am a young, educated woman who has developed interest in agriculture. I perceive vegetable farming as a source of earning income, as source of employment for people, as a way to healthy eating and lastly as a skill that can empower generations. The outcome of this research is or could be the realistic information that can propel another woman to go into vegetable farming. Conducting this research is rooted in my personal inclination and that of academics records to know exactly what the whole process of vegetable cultivation entails. Having attempted and failed at it, I find it very imperative and important to explore the challenges and opportunities for women in urban and peri-urban vegetable farmers in the selected regions. The primary aim of discussing my history, values, and potential biases earlier in chapter one of the paper is to elucidate the possible influence on the study. Merely defining my positionality is insufficient; I contend that transparent communication with research participants' fosters trust and encourages them to share their experiences more openly, as they recognise my awareness of my impact on the research process.

3.9 Conclusion

The chapter provides in-depth details on the methodological approach to the whole study. This was done to ensure that the research process was presented transparently and with specific information regarding the sample strategies, data-gathering techniques, and other research methods that were utilised during the research process.

Chapter 4 Data Presentation and Analysis

4.1 Introduction

This chapter primarily examines the lived experiences of women involved in urban vegetable farming in Ghana through the perspectives of feminist political ecology and Agrarian Political Economy, aiming to address the central research question: How do women vegetable farmers in the Fiapre and Tsopoli areas experience and confront the challenges related to access to agricultural resources? The initial section of the chapter examines the disparities in access to agricultural resources between women and men, as well as the implications of this inequality for women aspiring to engage in urban vegetable growing. The chapter highlights the unarticulated problems entrenched in the intersectionality of gender, class, marital status, and age, which significantly impede women's access to land and financial resources essential for a thriving vegetable growing enterprise. The chapter further explains the strategies and coping mechanisms that women in vegetable farming employ to overcome the hurdles that impede their participation in urban vegetable growing. However, it is important to briefly present the profile of the participants that were interviewed in order to have an idea of the demographic of the source of data that will be presented in this chapter.

4.2 Farmers Profile

The reason behind the mixed and overlapping experiences of the respondents that will be discussed in this chapter can be deduced from the socio-economic profile of the people the research team interacted with during the interview sessions. Out of the 20 women that were interviewed, 9 of them are married, 4 are singles, 5 divorcees and 2 are widows. All the men that were interviewed are married with at least one wife although, two of them have multiple wives. The age of the women interviewed ranges from 18-25 years old (6 women), 26-45 (7 women), and 46 years and above (7 women). The age range for the men are 18-25 (2 men), 26-45 (5 men), 46 years and above (3 men). It is also important to note that the majority of the respondents have other jobs they do since vegetable farming is seasonal. From the women farmers, 13 of the respondents have other jobs as source of income such as hairdresser, teacher, hotel receptionist, tailor, make-up artist just to mention a few. Only seven of the women that were interviewed engaged in urban vegetable farming as a full-time job because they also engaged in other type of farming they can easily switch to during the

vegetable off seasons. From the male farmers, only two of them have other jobs and the remaining eight are into agriculture full time as farmers.

The type of urban vegetable farming is also important. As stated earlier that open space is the most common urban vegetable farming, all the male respondents are into open-space farming as well as having their own small piece of land they use to produce vegetable. The female respondents, only 5 of them engaged in open-space urban vegetable farming, the rest either engaged in household garden farming or farm on lease land with arrangement of sharecropping. It is important to also note that almost all the respondents (female and male) have a minimum of secondary education. However, 7 of the 20 women interviewed have tertiary institution degree. None of the male respondents have a university or tertiary institution degree. Below is a summary table of the vegetable famers profile who were interviewed.

FARMERS POFILE TABLE

	Number of Females (20)	Number of Males (10)
Marital Status		
Married	9	10
Single	4	
Divorced	5	
Widow	2	
Age Range		
18-25	6	2
26-45	7	5
46-Above	7	3
Sources of Income		
Other Jobs	13	2
Full time Farmers	7	8
Type of Farming		
Open space	5	10
Household/Others	15	
Education		
Secondary	13	10
Tertiary	7	

4.3 Access to Land Defined by Social Construction of Gender

Gender, according to feminist political ecologists, is one of the most important factors in determining who has access to, and what they know about, natural resources (Rocheleau et al., 2013). In fact, Hovorka (2006:209) posited that, "gender is an integral part of a key element of agrarian change and rural-urban transformation". The findings of this study highlights how these gendered norms and practices affect women's ability to secure land for vegetable farming. For instance, Abena, a 30-year-old vegetable farmer in Sunyani wanted to start vegetable farming when she was 21 years old but could not because she did not inherit land from her father and she was not married. She only started the vegetable farming when she got married to a man that has land.

"I have been exposed to vegetable farming since I was 10 years old because I used to follow my parents to the farm so I can say that I have the skills to excel in it. Unfortunately, I lost both parents to accidents and the family members shared my father's land among the male siblings because my father has no male child. When I approached them for a piece of land, they told me to go and marry. As a result, I don't have a choice other than wait till I got married before I started farming using my husband land" (Abena, Female, age 30, August 20,2024).

Razavi (2013) delves at the ways in which women's agency and decision-making ability are curbed by economic dependence stemming from the land tenure system in agricultural activities. Research by Razavi (2013), Bernstein (2016), and Agyei-Holmes et al. (2020) demonstrates that women are economically dependent on male relatives due to the land tenure structure. As Bernstein (2016) shows, women may end up economically vulnerable as a result of this reliance, since they may have to rely on social connections rather than legal rights to negotiate access. Because of this, they may have less leverage in agricultural markets and be less able to make their own economic decisions (Bernstein, 2016). Adjie, a 28 years old mother of two also shared similar experience of how the only pathway for her to have access to land in order to engage in urban vegetable farming is to marry a man that has land if one is not fortunately enough to have parents that has land and alive to allow you to make use of their land for farming.

"I don't think it is fair that the society has forced many young girls that are into farming to prioritized getting married to a man that has land. Majority of women you see in urban vegetable farming are either using their husbands or fathers land to farm, only few have money to buy land. For example, when I wanted to get married, I will

not even entertain you if you don't have land because my parents are not landowners."

(Adjie, Female, 28 years old, August 19, 2024)

However, the experiences of men that were interviewed differs even though there are some overlapping similarities in experiences with women when it comes to access to land. Mr Lamptey, who has been involved in urban vegetable farming for 20 years maintained that by rights men inherits land from their fathers and land owners prefer to lease lands to men because they are considered as the primary breadwinner of the society. As a result, men go through lesser stress in accessing land.

"Accessing land is not a problem for most men because men can easily enter into agreement with landowners since they believe it is a man duty to provide for his family if they don't have personal land for farming. For instance, I did not inherit any land from my parents but I enter into my first land lease when I was 21 years old, and ever since I have entered into more than ten land lease agreement over the past 20 years"

(Mr Lamptey, 52, Male, Interview August 22nd, 2024)

Another participant that wanted to be called Essien, confirmed Mr Lamptey position that land leasing favoured men in Ghana because landowners believes that leasing to men will produce superior returns.

"It is a popular practice here in Sunyani and other places in Ghana for landowners to prioritized leasing land to men with the exception of women that are financially buoyant. This is because they believe that men are in control of the home and cannot be influence to default on agreement. While I don't have a problem in getting a land lease agreement, my sister struggled to get a land lease until when I followed her to the landowner and stood as a guarantor" (Essien, 44, Male, Interview. August 22nd, 2024)

From the interaction with the participants of this study one can infer that conventional standards frequently prescribe that men serve as the principal earners. Consequently, landowners may regard leasing to men as a more reliable investment (Petesch, 2022). This assumption arises from the notion that men have superior financial resources, hence increasing the potential for lucrative agricultural enterprises. Secondly, women encounter several obstacles in obtaining land access. Cultural customs and inheritance regulations frequently limit women's rights to possess or lease land. As a result, landowners choose to lease to men, perceived as more accomplished at manoeuvring within the agricultural market (Azumah et al., 2023). This establishes a loop in which women are

perpetually disadvantaged. Besides, there exists a problem of trust. Landowners may perceive that men are more inclined to honour agreements and manage the land efficiently (Nara et al., 2021). This false perception supports the tendency of leasing property predominantly to men. Economic aspects are also significant. Men frequently possess access to finance, credit, and resources that facilitate large scale agriculture (Ankrah et al., 2020). This access can enhance productivity, appealing to landowners aiming to optimise their land's potential.

4.4 Access to Land Does Not Guarantee Accessing the Land

The Fiapre and Tsopoli districts respondents demonstrated that traditional beliefs and cultural practices may further impede women's access to land. This is from the accumulated results of interviews conducted with both women and men. In various tribes, land is transmitted through male lineage, thus marginalising women, particularly those who are single or widowed (Kaunza-Nu-Dem et al., 2016). The implication is that if you are married to a man who owns land, your access to that land may be withdrawn upon his death, particularly if you do not have children with him. This is the example of Sussan, a 52-year-old widow engaged in urban vegetable growing for the past 15 years. She recounts the initiation of vegetable farming with her husband three decades ago in a rural setting, subsequently transitioning to an urban environment where they prospered, until their fortunes collapsed following her husband's demise from diabetes.

“We started together from the village and we got bigger and saved enough money and we moved to Sunyani where my husband bought a land. If my husband had not kept a lot of money with me which is unknown to his family, when he died, they would have come after the money too as they came after the land. I was able to use the money to buy the land I am using today because they chased me out of my husband's land. I was accused of killing my husband because I did not bore children for him” (Susan, 52, Female, Interview, August 20th 2024).

In many traditional African civilisations, individuals who are divorced, widowed, or never married experience significant marginalisation regarding land rights (Davison, 2019). During the interviews with the women engaged in urban vegetable farming revealed that, in Ghana, land ownership is predominantly patriarchal with men generally holding formal rights to land. This notion has also been explained by the fact that Ghana's form of inheritance is dominant by the patrilineal descent and how this system support inheritance to the males (Baker, 2022). This may restrict women's access to land, notwithstanding their substantial

contributions to agricultural productivity. Although women may obtain land through familial or community arrangements, such access is sometimes unsteady and reliant on male relatives. For example, Akwete, who has been into vegetable farming for more than 6 years said that she is looking to buy a land of her own because her male siblings might in the future chase her away from the land, she is using presently.

“Yes, I have land that I am using presently and there is no problem but the reality in Tsopoli that it is an area where real estate has started to boom. Therefore, my brothers can decide tomorrow that they want to sell the land to some real estate developers for a huge amount of money. I have seen many of my friends lost their farms because they are using family land to farm” (Akwete, 29, Female, Interview August 30th, 2024).

The experience shared above resonates with Bernstein (2010) arguments that access does not imply ownership, and in the absence of formal rights, women encounter insecurity in their agricultural endeavours. This is evident in the responses of some of the women that participated in the interview.

“Open-space farming is the most common and profitable in urban vegetable farming in Ghana and this is dominated by men. Let me tell you, many women have been forced out of open-space farming because of threat from men. I have a big farm along the road for like 2 years now, all of a sudden, I just saw four men working on my farm telling me this is now their space. Thank God that I have 5 brothers and one is a police officer. He stood by me or else I would have lost my farm just like my 2 friends” (Eshter 26, Female, Interview August 30th, 2024)

This unstable circumstance as emphasized above restricts women capacity to invest on land enhancements or pursue sustainable agricultural practices. However, Ribot and Peluso (2003) assert that a distinct differentiation exists between the right to property or resources and the capacity to access them. A key distinction between property and access lies in their definitions; access pertains to capability, associated with power, whereas property pertains to rights (Ribot and Peluso, 2003:155-156). Ribot and Peluso (2003:158) asserted that access encompasses dynamic relationships, influenced by an individual's or group's status and power within social interactions. As demonstrated from the responses of the women, that even those that have inheritance land they are using to produce vegetables in urban area, they are still skeptical that they might lose the land as a result to the recent boom in real estate that prioritized development projects towards urbanization than agriculture in urban area.

4.5 Double Responsibilities Obstacles

The extent to which women engage in urban agriculture is strongly impacted by societal norms on gender and cultural expectations. What women's stories confirm is that traditional gender roles discourage women from pursuing careers in agriculture. In addition, women often have to balance a lot of other tasks, such as taking care of children and the house, which leaves them with little time and energy to devote to farming. It was evident during the interaction with the women that participated in the interview process how agrarian systems are intertwined with social reproduction as posited by Bernstein (2010). Adwoa, a 47-year-old mother of 4 children explained why many women are not involved in urban vegetable farming which was deeply rooted in the intersection of gender and socio reproduction within the agrarian system. According to her statement;

“It is not easy to combine farm work, house chores, and looking after the children at the same time. When I was younger and single without kids, I did my vegetable farming without stress. I had to stop going to the farm when kids started entering into the picture but I started again 3 years ago when I had older kids that could help look after the younger ones when I am busy at the farm. I know about many women who have lands they bought but have to lease it out to other people to farm because the burden of raising children and farming at the same time is too cumbersome for them to bear” (Adwoa, 47, Female, September 1st, 2024)

In Ghana, women often bear the dual burden of agricultural work and household responsibilities (Owoo et al., 2022). The lack of secure land tenure exacerbates this situation, as women may not have the time or resources to engage fully in farming, limiting their productivity and economic contributions (Doss, 2018). Efua, a 33-year-old who is at the brink of quitting urban vegetable farming echoed the experience and position of Adwoa on the dual burden of agricultural work and house duties.

“I know a lot of people would say the main problem they have is land but I can tell you that the major issue for me and many women that I know is the approval of their husbands to allow them to engage in vegetable farming. For example, my husband told me that the day I will started complaining about the workload of the house duties due to my commitment to the farm is the day I will stop farming” (Efua, 33, Female, Interview, August 29th 2024).

Apparently, from the interaction from the participants of this study, a significant association exists between cultural expectations, gender roles, and the degree of women's

participation in vegetable gardening. Numerous studies indicate that societal expectations frequently constrain women's mobility and decision-making authority inside households (Balayar & Mazur, 2022; Kabeer, 1999). Ultimately, these socio-cultural hurdles may adversely affect women's productivity and economic independence, hindering their full participation in agricultural activities and access to resources.

4.6 Access to Market and Credit

While access to land and ability to access the land for the purpose it was meant for is important, another big problem is getting your hands on some finances that is a necessity to have a successful urban vegetable farming. A number of studies have shown that women farmers often face barriers when trying to obtain loans or other financial services (Cherotich et al., 2022; Adigun, 2022). Due to financial constraints, they are unable to get high quality inputs such as seeds, fertilizer among others (Cherotich et al., 2022). The informal savings organisations that many women belong to would not be able to give them the capital they need to expand their businesses (Adigun, 2022).

“I don't have an issue obtaining land; what I do have is a problem obtaining the loans and financing I need to buy enhanced seedlings, fertilizer, and insecticide. Capital and labour are essential for large-scale vegetable farming; without them, the land will remain idle. If I had more capital, I could have produced significantly more”.

“In vegetable farming, as in all forms of farming, land is of the utmost importance. But you have to hunt for a land that is appropriate for the kind of food you wish to grow because not all lands are suitable for vegetable growing. So, for instance, I'm in a tough financial spot since the property I inherited from my parents isn't very fertile. To fix it, I'll have to put a lot of time and money into applying manure and fertilizers, which will not come cheap”.

Market access poses a considerable challenge for women in urban vegetable farming. According to **Owusu and Hossain (2020)**, women often face difficulties in reaching markets due to inadequate transportation and infrastructure. Additionally, competition from larger, male dominated farms can limit women's ability to sell their produce at fair prices. The lack of market information further complicates their efforts to determine optimal selling times and prices (**Kwarteng et al., 2022**). Well organized marketing arrangements are indispensable for incentivizing production. Ability to market produce and negotiate a fair

price affects whether a farmer will choose to produce the crop and whether the farmer will make investments to increase productivity. There are several studies that detail the vegetable marketing structure in Ghana. They explain that large markets are controlled by associations of traders. These associations include both wholesaler and retailers and are controlled by a female leader called ‘Queen Mothers’ or ‘Market Queens’ (Robinson and Kolavalli 2010). These associations exist for all major commodities, though Peppenelenbos (2005) asserts in (Asselt and Kolavali, 2018: 16) that the associations are strongest in the vegetable sector, specifically for tomato. These associations limit vegetable supply in the markets. First, in some markets, traders are required to register to sell in the market. If they are not registered, they must sell through a registered wholesaler. Second, once traders control access to the market, they control the quantity supplied by limiting the number of trucks that enter the market (Ngeleza and Robinson 2011; Robinson and Kolavalli 2010). Networks that give farmers access to these markets therefore are extremely important.

4.7 Adopted Strategies and Coping Mechanism in Response to the Challenges.

4.7.1. Joining of associations

Women smallholder farmers are less likely to be members of farming cooperatives. These cooperatives give farmers valuable access to information, advice, and occasionally resources from government agencies and non-profit organizations (Jinbaani et al., 2023). Nevertheless, women smallholders face greater constraints than men in accessing capital and commodity markets in Sub Saharan Africa. Collective action has been promoted to remedy those disadvantages. This is because women operate at a low level of activity and generate minimal income in many developing nations, working independently and frequently alone in the informal economy. Small scale cooperatives can have the financial, social, and political influence they require by combining forces (Theeuwes et al., 2021; Meier zu Selhausen, 2016). The interaction with the women farmers shows that there is strength in collective actions as their testimonies shows below;

“When I have been displaced three times from different sites that I used to use for my farming, a friend introduced me to a women group that help secure permission from the government agency that owns the open space I am using to farm now. So when some people came to threaten me, I just call the police to arrest them and since then I am at peace with my farm” (Afia, 47, Female, Interview August 28th, 2024)

Another respondent shared her story how she was able to raise money and buy her own plot of land with the assistance of cooperative and women group she belongs to.

“I am very grateful to my farm employer, she prioritized employing women in her farm and ensured that we joined a cooperative while providing training on modern-day farming technique. After 6 years of working with her, I was able to save some money and she helped me to secure a loan which I added to the money I had saved to buy my own land. Not just me, we are many that benefited from her” (Victoria, August 28th, 2024)

Cooperatives, run by their product users, make decisions that balance the need for profitability with the broader welfare of society. By guaranteeing equal access to markets and services for the membership base—open and voluntary—they also promote economic justice. (Nippierd, 2012). Interacting with all the responses helps me to understand that gendered roles prevent women from forming cooperative business ties. Akua, a 33-year-old farmer in Sunyani shared how her decision to join cooperative and women farmers’ association paid off. She was struggling to make ends meet and was about to quit vegetable farming before she was introduced to a cooperative association.

“I have been involved in vegetable farming for more than 10 years and I never felt the need to join a cooperative society until 2 years ago when I lost one of my farm lands to development project and at the same time, my other farm was not yielding the expected income which made me to run into huge debt. The cooperative helped me to get a lawyer that will fight for me to get compensated for the land loss and also expose me to some credit’s facilities meant for women farmers without property collateral. Since then, I have been back on my feet and cannot be happier than I am now” (Akua, 33, Female, Interview, September 1st, 2024)

45-year-old Mary lives in Tsopoli express her concerns on the challenges women farmers face in the region, she said like most communities near the country’s capital, Accra, urbanization has negatively impacted farming. Lands that used to be farmlands are now the sites of residential homes. Mary, whose parents are also farmers studied agriculture at Kwadaso Agriculture College in Kumasi where her knowledge of crop production improved greatly. She owns 3 acres of farmland in Tsopoli, where she grows tomatoes, okra, pepper, lettuce, garden eggs, cucumber, and sweet pepper. She is the Chairperson of a local Women Farmers Association, where she organizes monthly meetings for the women farmers. At these meetings, the women exchange knowledge and ideas on how to improve their yields

and get buyers for their produce. She explained what motivated her to form the women farmer's association in the area.

“When you look at other major towns and cities, you will find an array of strong women farmers association, especially for women in vegetable and cocoa farming. Unfortunately, in Tsopoli here, I was the first one that started a group to bring women together and as a form of cooperative. It all started with four of my friends 6 years ago, today we have more than 50 women as members. Although we have to be more than that, but most women will still need permission from their husbands which explain why the number is low” (Elizabeth, 45, Female, Interview, August 28th, 2024).

Again, this suggests that access to trader associations is important for successfully marketing vegetables. Wholesalers assemble vegetables from nearby communities. By assembling vegetables and selling to larger urban markets, traders' lower transportation costs per unit and can sell at a premium. In some cases, traders obtain their produce requirements by contracting farmers and supplying them with credit or inputs for a guaranteed purchase at farm gate (Van Asselt et al., 2018). This is the strategy adopted by the women we interacted with during the interview session, they decided to be selling their products as a units and not individually so that they can compete with quantity and sell to bigger companies. Abena, a single mother of two children shared her experience on how the cooperative strategy of selling farm produce as a unit paid greater dividend for the farmers.

“Before I joined the cooperative, I don't usually sell enough of my produce before they got spoilt because my farm is very small. The companies that offer good price for your products will not offer good price if your products are below certain quantity and they might not even bother to come to you. But in cooperative, we gather all the member's products together and sell as a unit and with this we are certain of regular sales and profits for members” (Abenaa, 37, female, Interview, 1st of September, 2024)

This chapter have been able to show the differences in challenges that women and men encounter in accessing land when they venture into urban vegetable farming. Apart from the fact that women have limited access to loans and credits to improve their farming activities, women also face challenges in keeping their farm lands even if they inherit the land or purchase the land by themselves. Female farmers face limited freedom in communication, domestic chores, and responsibility for farming tasks up until sales; they also experience

limited mobility, and men often lack trust. The results as discussed in this chapter shows these barriers to forming inter-organizational business partnerships disrupt the empowerment of female farmers and their potential financial benefits for the family business. The findings of this study reveal that grouping in small scale cooperatives gives female farmers an opportunity to overcome gender discrimination and to become economically liberated. These cooperatives help women gain easier access to financial resources and create inter-organizational interactions with men and other women. In the long run, small-scale cooperatives can change gender roles to favour more gender equality and less marginalization for women.

Chapter 5. Conclusion and Reflections

5.1 Conclusion

To address circumstances challenging women farmers cultivating vegetables in Fiapre and Tsopoli, it is imperative to confront the variations in obtaining resources and overcoming agricultural challenges. In response to the first study question, findings show that female farmers face significant difficulties accessing basic resources such as land, loans, and inputs. Social rules and regulations, little financial assistance, and an absence of resources increase these obstacles, often forcing women to use alternate ways to keep up their farming activities, which include informal credit networks or reliance on put-together resources.

In response to the second research issue, the study found considerable resource differences between women and men farmers. Male farmers have greater entry to agricultural land and money, allowing men to invest more extensively in tools, fertilizer, and irrigation. This difference reduces the productivity of women farmers and hinders their ability to expand activity, affecting agriculture's profitability in certain places.

Concerning the third issue, female vegetable growers in Fiapre and Tsopoli face challenges such as insecure land tenure, shortage of market access, and inadequate institutional support. These obstacles not only restrict agricultural output but also reduce their economic agency. Such constraints perpetuate a cycle in which female farmers suffer discrimination in the sector, affecting the expansion of agriculture, local availability of food, and community development in general.

5.2 My Reflection

When I think about this research, I realize how much it aligns with my agricultural journey, fraught with problems and setbacks. My prior attempts at urban farming had frequently been hampered by similar challenges mentioned in this research, such as limited ability to obtain resources, insufficient assistance, and the challenges of balancing job and personal life with farming obligations. Through taking part in the investigation process, I have come to appreciate how structural constraints might disproportionately influence women farmers, particularly in Peri-urban and urban situations where access to land and funding are scarce.

Seeing these concerns via a gendered perspective and in the larger context of rural political economy has been quite radical for me.

The research approach helped me to link what I have experienced with bigger systematic obstacles that female farmers face, underlining that such difficulties are frequently the result of structural disparities rather than human shortcomings. Learning about these women's ways of adapting, persevering, and sometimes even thriving in the face of adversity was fascinating and motivational. It challenged my earlier assumptions, demonstrating that long-term success in urban farming can be achieved through community-driven solutions, increased advocacy for policy changes, and aggressive resource mobilization. I now recognize the value of collaborative agricultural efforts and am inspired to return to urban agriculture, armed with fresh ideas from this study.

This reflective trip demonstrated the importance of using a gender lens to examine agricultural concerns. The research has provided not only helpful ideas into the practical sides of urban farming but also a deeper knowledge of resilience. This project has provided me with both individual motivation and a wider viewpoint on what sustainable assistance for women farmers could be like emphasizing the relevance of empowered, inclusive farming practices in community growth.

5.3 General policy implications

The findings highlight the importance of specific interventions to close gender-based resource disparities and empower female farmers, such as regulatory reforms, improved accessibility to financial services, and community-based support systems. These approaches have the potential to greatly increase women's productivity and encourage environmentally friendly farming methods in Tsopoli, Fiapre and other regions.

References

- Abdulai, I. A., Enu-Kwesi, F. and Agyenim Boateng, J. (2021) 'Landowners' willingness to supply agricultural land for conversion into urban uses in peri-urban Ghana', *Local Environment*, 27(2), pp. 145–159. doi: 10.1080/13549839.2021.2002288.
- Adigun, G.T., 2022. Determinants of Credit Access among Smallholder Women Farmers in Kwara State, Nigeria. *Nigeria Agricultural Journal*, 53(2), pp.121-128.
- Adeoti, A. I., Cofie, O. and Oladele, O. I. (2012) 'Gender Analysis of the Contribution of Urban Agriculture to Sustainable Livelihoods in Accra, Ghana', *Journal of Sustainable Agriculture*, 36(2), pp. 236–248. doi: 10.1080/10440046.2011.620229.
- Afriyie, K., Abass, K. and Adjei, P. O.-W. (2019) 'Urban sprawl and agricultural livelihood response in peri-urban Ghana', *International Journal of Urban Sustainable Development*, 12(2), pp. 202–218. doi: 10.1080/19463138.2019.1691560.
- Agarwal, B., 1994. *A field of one's own: Gender and land rights in South Asia* (No. 58). Cambridge University Press.
- Agyei-Holmes, A., Buehren, N., Goldstein, M., Osei, R.D., Osei-Akoto, I. and Udry, C., 2020. The effects of land title registration on tenure security, investment and the allocation of productive resources. *Global Poverty Research Lab Working Paper*, (20-107).
- Akoto-Danso EK, et al. Agronomic effects of biochar and wastewater irrigation in urban crop production of Tamale, northern Ghana. *Nutr Cycl Agroecosyst*. 2019;115(2):231–47. <https://doi.org/10.1007/s10705-018-9926-6>.
- Akram-Lodhi, A. H. (2019). What is critical agrarian studies? *Review of African Political Economy*.
- Amanor, K., 2001. *Land, labour and the family in Southern Ghana: A critique of land policy under neo-liberalization* (No. 116). Nordic Africa Institute.
- Andrade, C., 2021. The inconvenient truth about convenience and purposive samples. *Indian journal of psychological medicine*, 43(1), pp.86-88.
- Ankrah, D. A., Freeman, C. Y., & Afful, A. (2020). Gendered access to productive resources—evidence from small holder farmers in Awutu Senya West District of Ghana. *Scientific African*, 10, e00604. <https://search.issuelab-dev.org/resources/21131/21131.pdf>
- Annan, R.A., Agyapong, N.A.F., Apprey, C. and Aryeetey, R., 2022. Review of Ghana's food environment: Drivers of availability, barriers to healthy food access, and impact of interventions and policies. *African Journal of Food, Agriculture, Nutrition and Development*, 22(2), pp.19658-19701.
- Asomani-Boateng, R., 2002. Urban cultivation in Accra: an examination of the nature, practices, problems, potentials and urban planning implications. *Habitat international*, 26(4), pp.591-607.
- Ayambire, R.A., Amponsah, O., Peprah, C. and Takyi, S.A., 2019. A review of practices for sustaining urban and peri-urban agriculture: Implications for land use planning in rapidly urbanising Ghanaian cities. *Land Use Policy*, 84, pp.260-277.
- Azumah, F.D., Onzaberigu, N.J. and Adongo, A.A., 2023. Gender, agriculture and sustainable livelihood among rural farmers in northern Ghana. *Economic Change and Restructuring*, 56(5), pp.3257-3279.
- Baah, K. and Kidido, J.K., 2020. Sharecropping arrangement in the contemporary agricultural economy of Ghana: A study of Techiman North District and Sefwi Wiawso Municipality, Ghana. *Journal of Planning and Land Management*, 1(2), pp.50-62.
- Balayar, R. and Mazur, R., 2022. Beyond household income: the role of commercial vegetable farming in moderating socio-cultural barriers for women in rural Nepal. *Agriculture & Food Security*, 11(1), p.28.

- Bannor, R. K., Oppong-Kyeremeh, H., Kyire, S. K. C., Aryee, H. N. A., & Amponsah, H. (2022). Market participation of urban agriculture producers and its impact on poverty: Evidence from Ghana. *Sustainable Futures*, 4, 100099. <https://www.sciencedirect.com/science/article/pii/S2666188822000338>
- Barker, N., 2022. The Effects of Female Land Inheritance on Economic Productivity in Ghana. *University of Chicago, Chicago*
- Bellwood-Howard, I., Ansah, I.G.K., Donkoh, S.A. and Korbéogo, G., 2021. Managing seasonality in West African informal urban vegetable markets: The role of household relations. *Journal of International Development*, 33(5), pp.874-893.
- Bellwood-Howard, I., Häring, V., Karg, H., Roessler, R., Schlesinger, J. and Shakya, M., 2015. *Characteristics of urban and peri-urban agriculture in West Africa: results of an exploratory survey conducted in Tamale (Ghana) and Ouagadougou (Burkina Faso)* (Vol. 163). International Water Management Institute (IWMI).
- Berger, R., 2015. Now I see it, now I don't: Researcher's position and reflexivity in qualitative research. *Qualitative research*, 15(2), pp.219-234.
- Bernstein, H., 2010. Rural livelihoods and agrarian change: bringing class back in. In *Rural Transformations and Development—China in Context*. Edward Elgar Publishing.
- Bernstein, H. (2010). *Class dynamics of agrarian change* (Vol. 1). Kumarian Press.
- Bernstein, H., 2016. Agrarian political economy and modern world capitalism: the contributions of food regime analysis. *The Journal of Peasant Studies*, 43(3), pp.611-647.
- Boamah, E.F., Sumberg, J. and Raja, S., 2020. Farming within a dual legal land system: An argument for emancipatory food systems planning in Accra, Ghana. *Land Use Policy*, 92, p.104391.
- Borras, S. M., Franco, J. C. and Suárez, S. M. (2015) 'Land and food sovereignty', *Third World Quarterly*, 36(3), pp. 600–617. doi: 10.1080/01436597.2015.1029225.
- Britwum, A.O., Tsikata, D., Akorsu, A.D. and Ako, M.A., 2014. *Gender and land tenure in Ghana: a synthesis of the literature*. ISSER, Institute of Statistical, Social & Economic Research, University of Ghana.
- Campbell, S., Greenwood, M., Prior, S., Shearer, T., Walkem, K., Young, S., Bywaters, D. and Walker, K., 2020. Purposive sampling: complex or simple? Research case examples. *Journal of research in Nursing*, 25(8), pp.652-661.
- Cherotich, J., Sibiko, K.W. and Ayuya, O.I., 2022. Analysis of extent of credit access among women farm-entrepreneurs based on membership in table banking (TB). *Agricultural Finance Review*, 82(1), pp.89-112.
- Chigbu, U.E., Paradza, G. and Dachaga, W., 2019. Differentiations in women's land tenure experiences: Implications for women's land access and tenure security in sub-Saharan Africa. *Land*, 8(2), p.22.
- Cobbinah, P.B., Asibey, M.O. and Gyedu-Pensang, Y.A., 2020. Urban land use planning in Ghana: Navigating complex coalescence of land ownership and administration. *Land use policy*, 99, p.105054.
- COMPOSITE BUDGET FOR 2023-2026 PROGRAMME BASED BUDGET ESTIMATES FOR 2023 NINGO – PRAMPAM DISTRICT ASSEMBLY. <https://mofep.gov.gh/sites/default/files/composite-budget/2023/GR/Ningo-Prampam.pdf>
- Crenshaw, K., 2021. Demarginalizing the intersection of race and sex: a black feminist critique of antidiscrimination doctrine, feminist theory, and antiracist politics. *Law and Society*, 108 p.465.

- Danso, G., Drechsel, P., Obuobie, E., Forkuor, G. and Kranjac-Berisavljevic, G., 2014. *Urban vegetable farming sites, crops and cropping practices* (No. H046599). International Water Management Institute.
- Davies, J., Hannah, C., Guido, Z., Zimmer, A., McCann, L., Battersby, J., & Evans, T. (2021). Barriers to urban agriculture in Sub-Saharan Africa. *Food Policy*, 103, 101999.
- Davison, J., 2019. Land and women's agricultural production: The context 1. In *Agriculture, women, and land* (pp. 1-32). Routledge.
- de Oliveira, Jose A. Puppim, and Abubakari Ahmed. "Governance of urban agriculture in African cities: Gaps and opportunities for innovation in Accra, Ghana." *Journal of Cleaner Production* 312 (2021): 127730.
- Doss, C.R., 2018. Women and agricultural productivity: Reframing the Issues. *Development policy review*, 36(1), pp.35-50.
- Doss, C.R., 2001. Designing agricultural technology for African women farmers: Lessons from 25 years of experience. *World Development*, 29(12), pp.2075-2092
- Drechsel, P. and Keraita, B. eds., 2014. *Irrigated urban vegetable production in Ghana: characteristics, benefits and risk mitigation*. IWMI.
- Drescher, A.W., Isendahl, C., Cruz, M.C., Karg, H. and Menakanit, A., 2021. Urban and peri-urban agriculture in the Global South. *Urban ecology in the global south*, pp.293-324.
- Dubbeling, M., 2010, December. Status and challenges for urban and peri-urban agriculture policy making, planning and design. In *International Symposium on Urban and Peri-Urban Horticulture in the Century of Cities: Lessons, Challenges, Opportunities* 1021 (pp. 121-132).
- Duvernoy, I., Zambon, I., Sateriano, A. and Salvati, L., 2018. Pictures from the other side of the fringe: Urban growth and peri-urban agriculture in a post-industrial city (Toulouse, France). *Journal of Rural Studies*, 57, pp.25-35.
- Dwomoh, D., Agyabeng, K., Tuffour, H.O., Tetteh, A., Godi, A. and Aryeetey, R., 2023. Modeling inequality in access to agricultural productive resources and socioeconomic determinants of household food security in Ghana: a cross-sectional study. *Agricultural and Food Economics*, 11(1), p.24.
- Ellis, F., 1993. *Peasant economics: Farm households in agrarian development* (Vol. 23). Cambridge University Press.
- Fadairo, O., Williams, P.A. and Nalwanga, F.S., 2020. Perceived livelihood impacts and adaptation of vegetable farmers to climate variability and change in selected sites from Ghana, Uganda and Nigeria. *Environment, Development and Sustainability*, 22, pp.6831-6849.
- Flynn-Dapaah, K., 2002. Land negotiations and tenure relationships: Accessing land for urban and peri-urban agriculture in Sub-Saharan Africa. *Cities feeding people series; rept. 36*.
- Gillespie, T., 2016. Accumulation by urban dispossession: Struggles over urban space in Accra, Ghana. *Transactions of the Institute of British Geographers*, 41(1), pp.66-77.
- Holden, S.T. and Ghebru, H., 2016. Land tenure reforms, tenure security and food security in poor agrarian economies: Causal linkages and research gaps. *Global Food Security*, 10, pp.21-28.
- Hope, L., Cofie, O., Keraita, B. and Drechsel, P., 2009. Gender and urban agriculture: The case of Accra, Ghana. *Women feeding cities—Mainstreaming gender in urban agriculture and food security*, pp.65-78.
- Hovorka, A.J., 2006. The No. 1 Ladies' Poultry Farm: A feminist political ecology of urban agriculture in Botswana. *Gender, Place & Culture*, 13(3), pp.207-225.
- Hovorka, A., Zeeuw, H. D., & Njenga, M. (2009). Women feeding cities: Mainstreaming gender in urban agriculture and food security. CTA/Practical Action.
- http://sma.gov.gh/documents/composite_budget_2021.pdf

- James, S. W. and O'Neill, P. M. (2016) 'Planning for Peri-urban Agriculture: a geographically-specific, evidence-based approach from Sydney', *Australian Geographer*, 47(2), pp. 179–194. doi: 10.1080/00049182.2015.1130676.
- Jinbaani, A.N., Owusu, E.Y., Mohammed, A.R., Tengey, T.K., Mawunya, M., Kusi, F. and Mohammed, H., 2023. Gender trait preferences among smallholder cowpea farmers in northern Ghana: lessons from a case study. *Frontiers in Sociology*, 8, p.1260407. <https://www.frontiersin.org/articles/10.3389/fsoc.2023.1260407/full>
- Kaaria, S., Osorio, M., Wagner, S., & Gallina, A. (2016). Rural women's participation in producer organizations: An analysis of the barriers that women face and strategies to foster equitable and effective participation. *Journal of Gender, Agriculture and Food Security (Agri-Gender)*, 1(2), 148-167.
- Kabeer, N., 1999. Resources, agency, achievements: Reflections on the measurement of women's empowerment. *Development and change*, 30(3), pp.435-464.
- Kaunza-Nu-Dem, M.K., Tijani, B., Millar, D. and Humphrey, A., 2016. The complexities of women land ownership in northern Ghana. *Open Access Library Journal*, 3(8), pp.1-8
- Keovilignavong, O. and Suhardiman, D., 2020. Linking land tenure security with food security: Unpacking farm households' perceptions and strategies in the rural uplands of Laos. *Land Use Policy*, 90, p.104260.
- Keraita, B., Drechsel, P., Huibers, F.P. and Raschid-Sally, L., 2002. Wastewater use in informal irrigation in urban and periurban areas of Kumasi, Ghana. *Urban Agriculture Magazine*, 8, pp.11-13.
- Keraita, B., Drechsel, P. and Konradsen, F. (2008) "Perceptions of farmers on health risks and risk reduction measures in wastewater-irrigated urban vegetable farming in Ghana," *Journal of Risk Research*, 11(8), pp. 1047–1061. Available at: <https://doi.org/10.1080/13669870802380825>.
- Khan, M.M., Akram, M.T., Janke, R., Qadri, R.W.K., Al-Sadi, A.M. and Farooque, A.A., 2020. Urban horticulture for food secure cities through and beyond COVID-19. *Sustainability*, 12(22), p.9592.
- Kumar, R., 2018. Research methodology: A step-by-step guide for beginners.
- Kuusaana, E.D., Ayurienga, I., Eledi Kuusaana, J.A., Kidido, J.K. and Abdulai, I.A., 2022. Challenges and sustainability dynamics of urban agriculture in the savannah ecological zone of Ghana: A study of bolgatanga municipality. *Frontiers in Sustainable Food Systems*, 6, p.797383.
- Lal, R., 2020. Home gardening and urban agriculture for advancing food and nutritional security in response to the COVID-19 pandemic. *Food security*, 12(4), pp.871-876.
- Langemeyer, J., Madrid-Lopez, C., Beltran, A.M. and Mendez, G.V., 2021. Urban agriculture—A necessary pathway towards urban resilience and global
- Meier zu Selhausen, F., 2016. What determines women's participation in collective action? Evidence from a Western Ugandan coffee cooperative. *Feminist Economics*, 22(1), pp.130-157.
- Toriro, P. and Chirisa, I. (2021) *Environmental Resilience: Food and the City—Zimbabwe*. Springer Nature.
- Nara, B.B., Lengoiboni, M. and Zevenbergen, J., 2021. Assessing customary land rights and tenure security variations of smallholder farmers in northwest Ghana. *Land use policy*, 104, p.105352.
- Lawrence Neuman, W., 2014. Social research methods: Qualitative and quantitative approaches.
- Nchanji, E.B. and Bellwood-Howard, I., 2018. Governance in urban and peri-urban vegetable farming in Tamale, Northern Ghana. *Land Use Policy*, 73, pp.205-214.

- Nchanji, E.B. and Nchanji, Y.K., 2022. Urban farmers coping strategies in the wake of urbanization and changing market in Tamale, Northern Ghana. *Land use policy*, 121, p.106312.
- Nchanji, E.B., Bellwood-Howard, I., Schareika, N., Chagomoka, T., Schlesinger, J., Axel, D. and Rüdiger, G., 2017. Assessing the sustainability of vegetable production practices in northern Ghana. *International Journal of Agricultural Sustainability*, 15(3), pp.321-337.
- Nchanji, E.B., Chagomoka, T., Bellwood-Howard, I., Drescher, A., Schareika, N. and Schlesinger, J., 2023. Land tenure, food security, gender and urbanization in Northern Ghana. *Land use policy*, 132, p.106834.
- Nguyen, P., Scheyvens, R., Beban, A. and Gardyne, S., 2022. From a distance: The 'new normal' for researchers and research assistants engaged in remote fieldwork. *International Journal of Qualitative Methods*, 21, p.16094069221089108.
- Nippierd, A.B., 2012. *Gender issues in cooperatives*. ILO. https://microfinancelessons.com/files/media_subdomain/resources/gender_issues_coops.pdf
- Obuobie, E., Danso, G. and Drechsel, P., 2003. *Access to land and water for urban vegetable farming in Accra*. IWMI.
- Obuobie, E., Drechsel, P. and Danso, G., 2004. *Gender in open-space irrigated urban vegetable farming in Ghana*. IWMI.
- Obuobie, E., Keraita, B., Danso, G., Amoah, P., Cofie, O.O., Raschid-Sally, L. and Drechsel, P., 2006. Irrigated urban vegetable production in Ghana: characteristics, benefits and risks.
- Osei, S.K., Folitse, B.Y., Dzandu, L.P. and Obeng-Koranteng, G., 2017. Sources of information for urban vegetable farmers in Accra, Ghana. *Information Development*, 33(1), pp.72-79.
- Owoo, N.S., Lambon-Quayefio, M.P., Gyan, S.E. and Oduro, A.D., 2022. Women's earnings and domestic work among couples in Ghana. *African Review of Economics and Finance*, 14(1), pp.26-55.
- Petes, P., 2022. *Gender norms, agency, and trajectories of social change and development in agricultural communities* (Doctoral dissertation, Wageningen University and Research).
- Plowman, L., 2017. Revisiting ethnography by proxy. *International Journal of Social Research Methodology*, 20(5), pp.443-454.
- Quansah, J.K., Escalante, C.L., Kunadu, A.P.H., Saalia, F.K. and Chen, J., 2020. Pre-and post-harvest practices of urban leafy green vegetable farmers in Accra, Ghana and their association with microbial quality of vegetables produced. *Agriculture*, 10(1), p.18.
- Razavi, S., 2013. Engendering the political economy of agrarian change. In *Critical perspectives in rural development studies* (pp. 185-214). Routledge.
- Ribot, J.C. and Peluso, N.L., 2003. A theory of access. *Rural sociology*, 68(2), pp.153-181.
- Robinson, E.J. and Kolavalli, S., 2010. The case of tomato in Ghana: Marketing.
- Ngeleza, G. and Robinson, E.J., 2011. Do Ghana's market queens help or hinder? A spatial arbitrage model incorporating uncertainty and market power. *International Food Policy Research Institute*.
- Rocheleau, D., Thomas-Slayter, B. and Wangari, E., 2013. Gender and environment: A feminist political ecology perspective. In *Feminist political ecology* (pp. 3-23). Routledge.
- Sanghera, G.S. and Thapar-Björkert, S., 2008. Methodological dilemmas: Gatekeepers and positionality in Bradford. *Ethnic and racial studies*, 31(3), pp.543-562.
- Skar, S.L.G., Pineda-Martos, R., Timpe, A., Pölling, B., Bohn, K., Külvik, M., Delgado, C., Pedras, C.M.G., Paço, T.A., Čujić, M. and Tzortzakis, N., (2020) Urban agriculture as a keystone contribution towards securing sustainable and healthy development for cities in the future. *Blue-Green Systems*, 2(1), pp.1-27.

- Speck, S., & Schmid, J. (2020). Struggling with roles and positionality: Reflections on field research in rural Nepal. *Feministische Geo-RundMail*, 83. Available at: https://www.researchgate.net/publication/345314849_Struggling_with_roles_and_positionality_Reflections_on_field_research_in_rural_Nepal (Accessed 11 November 2024).
- Stevano, S. and Deane, K., 2019. The role of research assistants in qualitative and cross-cultural social sciences research. https://eprints.soas.ac.uk/32329/1/Chapter_Stevano%20Deane_Final_September%202017.pdf
- Theeuwes, A., Duplat, V., Wickert, C. and Tjemkes, B., 2021. How do women overcome gender inequality by forming small-scale cooperatives? The case of the agricultural sector in Uganda. *Sustainability*, 13(4), p.1797.
- Tsikata, D. and Yaro, J.A., 2014. When a good business model is not enough: Land transactions and gendered livelihood prospects in rural Ghana. *Feminist economics*, 20(1), pp.202-226.
- Tuffour, M., Owusu, G., & Sarpong, D. B. (2024). Urbanization effects on urban vegetable farmers adaptation: Evidence from Ghana. *Urban Agriculture & Regional Food Systems*, 9(1), e20052.
- Van Asselt, J., Masias, I., & Kolavalli, S. (2018). Competitiveness of the Ghanaian vegetable sector: Findings from a farmer survey. <https://cgspace.cgiar.org/bitstreams/7d77bcb2-11b1-4f09-a27a-4dee7677ca57/download>
- Whitehead, A. and Tsikata, D. (2003) Policy discourses on women's land rights in Sub-Saharan Africa: The implications of the return to the Customary. *Journal of Agrarian Change*, 3(1-2), pp.67-112.
- Ziem Bonye S., Yiridomoh G.Y., Derbile K.E. (2021) Urban expansion and agricultural land use change in Ghana: implications for peri-urban farmer household food security in Wa municipality. *International Journal Urban Sustainable Development*. 13(2):383–99. <https://doi.org/10.1080/19463138.2021.1915790>.