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# **Digitisation of Land Records and its Implications for Women's Land Rights in Kenya**

A Research Paper Presented by:

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(Kenya)

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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December 2023

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## List of Acronyms

FAO	Food and Agriculture Organization
FGD	Focus Group Discussion
FIDA	Federation of Women Lawyers - Kenya
FPE	Feminist Political Economy
GDP	Gross Domestic Product
GoK	Government of Kenya
ICT	Information Communication Technology
IGAD	Intergovernmental Authority on Development
KII	Key Informant Interviews
NIE	New Institutional Economics
NLC	National Land Commission
NLIMS	National Land Information Management System
NLP	National Land Policy
RA	Research Assistants
SDG	Sustainable Development Goals
UN	United Nations

# Acknowledgement

God did it!!

I would like to express my sincerest gratitude to Nuffic for funding my graduate studies under the Orange Knowledge Program Scholarship. Without their financial support, I would not have been able to actualize my dream of studying abroad. I also wish to thank all the people who contributed in one way or another to my academic journey that led me to pursue this master's degree. Asanteni Sana!

I am especially grateful to my supervisor Assoc. Prof. Tsegaye Moreda Shegro for introducing me to literature that enabled me to see the world from a political economy perspective and for his support guidance and encouragement throughout the research process. Likewise, I want to give a special thank you to Prof. Dr. Jun Borrás, my second reader for all the constructive suggestions that shaped the direction of this research. Your expertise and achievements in academia are admirable.

Above all, I dedicate this research to mother for being the rock on which I have stood tall before the world and faced every situation with my full chest. Your encouragement, unconditional love and constant support from the whole family have led me to where I am today.

To my friends and colleagues Joel Masomhe and Dumase Shawa, thank you for giving me a voice of reason when I was at my lowest. I can't thank you enough for your words of encouragement and your company through every step of my academic journey.

My Master was a very challenging journey. I want to sincerely thank the entire ISS community, friends and family for their unwavering emotional support, optimism and encouragement during the entire period of my study.

## **Abstract**

Gender inequality in access and control of land resources is pervasive in Kenya. A small proportion of women own land independently. Even so, the inefficiencies in Kenya's existing manual land records system have exacerbated the plight of women's land ownership as it is inaccessible, prone to wear and tear and a breeding ground for corruption. While the country's efforts to digitize land records could potentially foster the security of land records, increase accessibility and aid transparency in land processes, it is not very clear that women will benefit from the digitization of land records. Against this background, this paper examines how Kenya's existing manual records system has impacted women's land rights and explores the potential of Kenya's current efforts in digitizing land records for protecting women's land rights. Data for this study was collected from the rural areas of Busia County in Kenya through focus group discussions and key informant interviews. The data was then analysed through the lens of political economy with a keen eye on feminist political ecology. Findings suggest that while digitizing land records can help mitigate the challenges faced within the manual records system, digitization of land records alone without accompanying it with policy reforms that address gendered power imbalances, cultural norms, and political dynamics will not enhance women's access to and control over land. Digitization of land records interacts intricately with aspects of the political economy and how these interactions transpire is still heavily influenced by politics and power. Despite the good intentions of the Ardhisasa digital platform, the study found that the system has unfortunately also been riddled by challenges such as resistance to change, digital illiteracy, double titling and vulnerability to hacking which could worsen already-existing disparities in tenure and land distribution. The paper further recommends that policy makers consider redistributing land where it is feasible and address power relations that underlie gender-based inequality over land access and control through structural reforms.



## **Relevance to Development Studies**

Development is perceived differently across global divides and for developing nations like Kenya, policy transformations like land reforms signify a move towards achieving a development goal. Most times, these types of programs are rolled out with intentions of tackling development problems, however, some of them are usually not well thought out to address the real issues for which they were formulated. With prevalence of inequalities around access to resources along gender, it is important to have this kind of critical study examining these issues and that will inform policies and development interventions like digitization. This study contributes to broader academic debates in the political economy around land politics, gender and food security.

### **Keywords:**

Manual land records, women land rights, access, control, ownership, digitisation, Kenya

# CHAPTER 1: BACKGROUND OF THE STUDY

## 1.1. Introduction

Across sub-Saharan Africa, agriculture continues to be the predominant source of income, employment, and livelihood. Although land is currently the most important means of production in rural areas, its access, ownership, and control are very unevenly distributed between men and women (Whitehead and Tsikata, 2003). In the context of this study, women's land rights should be understood as the access to ownership, usage and control over land, allocation, inheritance, or ability to make decisions relating to land and other land resources (United Nations, 2013). Gender inequality in access to and control over land resources is pervasive (Agarwal, 2003). This is particularly concerning given women's key role and involvement in growing food crops. Over 50% of the labour force required for agricultural in Sub-Saharan Africa is provided by women (FAO, 2020). Despite their role in agriculture, women rarely owned the land they cultivated. Land access and ownership are usually vested in men (Doss, Summerfield, and Tsikata, 2014). Women's land rights are important in advancing social and economic goals such as food security and economic growth. The gendered nature of land access and control, therefore, has far-reaching implications for women's welfare, equality, empowerment, food security, and rural poverty.

In Kenya, land and access to land is a crucial resource without which Kenyans can lose their heritage and way of life – agriculture being the most significant economic driver in the country. As Mohajan (2014, p.28) puts it “The agricultural sector is still the backbone of Kenya’s economy and economic development is dependent on agricultural improvement.” Agriculture directly contributes a gross domestic product (GDP) of 33 percent and other sectors linked with agriculture provide 27 percent. Similarly, more than 78 percent of agricultural production in the country is from small-scale farmers (World Bank, 2015). This is a clear indication that Kenya relies mainly on small-scale agricultural production. As is the case in most African countries, rural women in Kenya significantly contribute to agricultural activities and food production. A report by the Food and Agriculture Organization (FAO) on the “Policy of Gender Inequality 2020-2030” revealed that globally, close to half of the smallholder farmers producing about 70 percent of food in Africa were women, hitherto women’s percentage ownership of land in the world was less than 20 percent. More specifically, women in Kenya contribute to up-to 65 percent of agricultural and food production (Onyalo, 2019). However, of all land titles issued in Kenya, only 1 percent is allocated to women with only 5% held by women jointly with men and only 1% held by women alone (FIDA Kenya, 2019, p.1; Kenya Land

Alliance, 2014). This means that the drivers of Kenya's food production do not have access to the very essential factors of such production. Most women rely on land that is owned and controlled by men (Onyalo, 2019). The lack of ownership limits the full production capacity and usage of the land. According to a report by FAO (2022) on the State of Food Security and Nutrition in the World, the state of food insecurity continues to worsen in the country with 35 percent of households being headed by women. Besides the very limited proportion of women owning land, land tenure insecurity remains a major challenge women continue to face. To protect the small proportion of women landowners, digitization of land records can help enhancing their land tenure.

One of the ways to combat food insecurity in Kenya would be to address gender inequality regarding land access and ownership. Factors such as negative traditional norms and cultural practices have reinforced this discrimination against women (United Nations, 2013). However, high costs, corruption and lack of transparency within the land management authority and land transactions generally remain the key factors exacerbating discrimination. A study by Transparency International (2018) revealed that land corruption has more detrimental impact on women than men since they are at the forefront in crop production. Therefore, there is urgent need to address the issue of corruption and lack of transparency in land transactions and management in Kenya if the status of women's land rights is to be improved. According to Djurfeldt (2020), corruption in the courts and land-related institutions has fuelled the repressive patriarchal cultures that continuously pose a hinderance to women's ability to own land in Kenya and most African countries. One of the main reasons why corruption thrives in land-related public institutions is the manual records management system, which is currently predominant in the offices of the Ministry of Lands and Physical Planning in Kenya (Keorapetse and Masegonyana, 2012) . The manual system was riddled with issues like human error, corruption opportunities owing to missing files, inadequate land information, access issues, and multiple titling cases, all of which contributed to the general insecurity of land rights in Kenya (Ayodo, 2014). These issues tend to exacerbate the already existing resource inequalities faced by women under the customary law, hence affecting the land tenure security of women, which in turn affects the livelihood and food security of their families, especially those female-headed families.

## **Digitization of land records**

In 2012, Kenya enacted the Land Registration Act No. 3, a piece of legislation that mandated that land records be kept in digitized form. The Act provides the necessary steps for the standardization of land

registration and records management. This would aim to centralise land transactions, records and electronic files in one place. The overall process would be conducted by migrating the manual register to digital data base (Soar et al, 2020). In 2020, the Land Registration (Electronic Transactions) Regulations was brought to force by the Ministry of Lands and Physical Planning. It is from these laws that the country started digitizing land records. In 2021, the ministry launched Ardhisasa, a platform where land transactions can be conducted digitally and online (Soar, Wangari, & Wamache, 2022). However, the digitization process is just at the inception stage. For the last 3 years, the ministry has focused on Nairobi, where they have yet to complete the digitization process. The process is going to cost the country billions, if not trillions, of Kenyan shillings and may take several years to be rolled out in the entire country (Koech, 2023).

Kameri-Mbote and Muriungi (2017) define digitization of land records as the process of converting physical land records, such as maps, deeds, titles, and pertinent documents, into an electronic or digital format. The goal of digitization was to solve historical land issues, including lost records, duplicate titles, destroyed documents, and record gaps. By requiring a landowner to approve each application filed in relation to a specific piece of land, it seeks to increase the security of ownership (Soar, Wangari, & Wamache, 2022). The transformation of land information is pivotal in allowing the records to be easily stored, accessed, and managed electronically, thus replacing the conventional paper-based systems.

Thus, this study aims to examine how Kenya's existing manual records system has impacted women's land rights and explore the prospects and potentials of Kenya's current efforts in digitizing land records for protecting the security of ownership, control and access to land by women.

## **1.2. Problem Statement**

Even though rural women contribute about 60-80% of the labour for agricultural and food production (FAO, 2020), which some call "the feminization of agriculture", they do not equally access and own land and other productive resources. Generally, men are the owners of land, while women only gain rights to use land through marriage. Such gender inequality over land resources continues to be a key issue in contemporary Kenya. Not only are rural women challenged by unequal access to and ownership of land, but they are also faced with land tenure insecurity and are thus vulnerable to threats of land grabbing. To increase the proportion of women owning and controlling land resources, countries have sought to remove barriers that prevent such access and control. The United Nations

Sustainable Development Goal (SDG) five on gender equality, for instance, mandates countries to employ equitable access to resources through structural reforms and ensure that women have access to, ownership, and control over land and other forms of property in line with the country's national laws. To realize this, Kenya has, through its constitution, established a principle that seeks to eliminate all forms of gendered discrimination relating to land and property on land both in law and customary practices (Article 60(1)(f): Constitution of Kenya, 2010). To further achieve this aspiration, the country enacted a law that mandates that land records be kept in digitized form – the Land Act 2012. The law further offers directions on the standard steps to be considered during registration, the required documents, and the format of the electronic files that are used.

Despite a clear aspiration to achieve gender equity in land access, ownership, and control, there are still difficulties with the implementation of these laws and policies. Women are already disadvantaged in the gendered relations over land because their contribution to agriculture and food production in the country is not supported by the resource allocation policies. It is crucial to note that even that already very small share of women who own land titles is being eroded by corruption and lack of transparency that is being facilitated by the manual less transparent way of titling land and processing of claims. The huge disparity in land access, ownership, and control and tenure insecurity between men and women in Kenya could partly be attributable to insecure manual land records which often result in lost records, duplicate titles, destroyed documents, and record gaps. This study, therefore, sought to examine the relationship between secure land records and women's access to control and ownership of land resources in Kenya.

### **1.3. Where am I coming from? (Justification and relevance)**

It is essential that I say a few points about my positionality in relation to this research, particularly my personal experiences and observations, which have contributed to inspiring and framing this research. I am a Kenyan and a woman. As I grew up in my village, I observed with a lot of curiosity as my mother and other women spent most of the days on farms. I also noticed that my father seemed to have a say in the use of the land. Being that he was polygamous, my father was the one showing my mother and other stepmothers where to till and to what extent. He could decide at any time to take away a piece of land from one woman and give it to another. I also observed that men in my village could send their wives away from the land, together with their children. Such women used to rent temporary structures in the local shopping centre, where they lived in abject poverty with their children. They could not go back to their father's homes because they did not have a right to inherit

land from their fathers. Some children growing up under such conditions died of malnutrition, while others became destitute without any prospects for their futures.

As I became older, I realized that most women in my village did not own land. Even for those who were awarded land during the Land Adjudication in the 1960s and 1970s, they ended up losing their land to corruption and impunity, mostly by men. I would see men extending their boundaries and encroaching on lands owned by women. The land tribunals, which were mandated by law to address these issues, were dominated by men. As a result, the impunity against women regarding land is never addressed appropriately. In cases where a husband dies and leaves a wife in Kenya, the Law of Succession Act provides that the wife is to be the first beneficiary (IGAD, 2018). However, I observed several cases where stepbrothers adulterated the land records to disinherit the widows. With the manual land record systems, it has been easy to falsify information in the succession proceedings in court, hence disinheriting or significantly reducing the rightful inheritance on the widows. In a nutshell, what I have seen is a systematic land-grab that disenfranchises women of their land, contributing to food shortages and other challenges in the villages, especially in homes headed by women. When I realized that Kenya had initiated the process of digitizing land records, my mind went back to those women in my village, and this became my inspiration as I joined the political economy class at ISS. While many studies have been done around women land rights, not many of them interrogate whether and how the digitization of land records can enhance women's land rights.

## **1.4. Research Objectives and Questions**

### **1.4.1. Research Objectives**

- To examine the impacts of digitisation of land records in Kenya on women's rights to access, own and control land in Kenya
- To establish the extent to which the inefficiencies of the manual land records management system affect women's land rights in Kenyan rural communities
- To assess the extent of lack of transparency in the existing manual land records in Kenya

### **1.4.2. Research Question**

To achieve its objective, this study seeks to answer the following central research question: How and to what extent does Kenya's manual land records system affect women's land rights, and how does the digitization of such land records contribute to protecting women's land rights?

### **1.4.3 Sub-questions:**

- How and to what extent does Kenya's existing manual land records system affect women's access, ownership, and control over land?
- To what extent have the manual land records resulted in a lack of transparency in land management in Kenya?
- How do women benefit from the digitization of land records?
- What are the potential challenges in digitizing land records?

### **1.5. Chapter Outline**

My research paper comprises of six chapters. Chapter one comprises introduction, background and problem statement, relevance and justification, methodology, research questions and objectives. Chapter two covers the literature review. Chapter three captures the Theoretical and methodological considerations, and chapter four and five presents the bulk of the empirical discussions. The last chapter six, comprises the conclusions and recommendations.

# CHAPTER 2: DIGITIZATION IN THE CONTEXT OF KENYA

## 2.1 Introduction

This chapter delves into the analysis of Kenya's land reforms dating back before colonial rule and highlights how and why digitization came into the picture. A critical analysis of existing literature on digitization and women land rights has been adopted from historical, social, political and economic perspectives. I will also discuss the theoretical approaches that are adopted to analyse the research questions presented.

## 2.2. Historical context

Historically, land reforms in Kenya have been both politically sensitive, socially and culturally complex issue. This overview of Kenya's history of land ownership and distribution will highlight key points with a specific focus on the colonial-era land policies, post-independence land redistribution efforts, and historical injustices associated with land in Kenya.

### 2.2.1. Colonial-Era Land Policies

Prior to colonial rule, land rights in Kenya were determined traditionally through cultural norms. Depending on the specific needs of families, land was allocated for shelter, farming and gathering. Grazing land, however, was used communally. Land administration was by traditional law whereby elders/community leaders were charged with the role of distributing land and settling disputes relating to the use of land (Mwathane, 2011). The colonial government, however, changed the course of land rights in Kenya by imposing alien land tenure relations and completely altered African traditional tenure systems (Kameri-Mbote et al., 2013).

In the 19<sup>th</sup> century, the European powers engaged in the colonization of Africa, including Kenya in what was termed the scramble and partition for Africa. Kenya was colonized by the British, who introduced new land policies like Land Registration Act (1902) which regulated registration of land and establishment of land titles in colonial Kenya, the Native Land Trust Ordinance (1913) and settler colonization drastically changed the traditional land tenure systems of several indigenous communities. During the colonization period, the colonialists formulated the Crown Land Ordinance (1902) which declared all land as Crown land, giving the British government the power over all the land in Kenya (Morgan, 1963). This colonial policy was aided by the British consideration of the customary tenure arrangements practiced by most Africans as not in alignment with development and



modernization (Veit, 2019). These policies facilitated land alienation hence the appropriation of customary land by the British colonial government which dispossessed indigenous communities of their ancestral land.

Through settler colonization, the British encouraged white settlers to come to Kenya and they were given large tracts of land, often taken forcibly from indigenous populations. In other words, most of the fertile land was owned by the ruling class while the peasants work on the land for paid labour. All the fertile land, which were termed as “the white highlands” were owned by the white settlers while the rest of the land belonged to the government with the natives having unregistered interests on the same.

### **2.2.2. Formalization of land rights in Kenya (Land adjudication)**

Land adjudication was a policy reform in the 1960s-1970s aimed at privatizing land in rural areas of Kenya. The origin of land adjudication in Kenya can be traced back to the Working Party on African Land Tenure of 1957 to 1958. The process transformed all land from customary land into statutory freehold tenure in Trust land areas. Establishing and documenting land rights and interests, merging and delineating boundaries, and generating an adjudication registry were all steps in the process (Matende-Omwona, 2021). Formalization of land rights was associated with capital accumulation to aid rural development and poverty reduction through agriculture.

According to Sjaastad and Cousins (2009), universalist proposals for the formalization of property were predicated on the idea that property regimes are sets of rules that govern behaviour, in part by means of institutional structures that serve to enforce these norms. Nevertheless, this presumption became "shaky" since it ignored the dynamics surrounding how social interactions, human behaviour, and various institutional orders interact. Previous research findings indicate that a more flexible and context-specific approach to property formalization cannot be achieved without first taking into account the dynamics surrounding the interplay between social interactions, individual behaviour, and various institutional regimes (ibid., p.26).

The formalisation of land rights is not just a technical or legal problem, but a complex issue that is intertwined with local politics and culture. Therefore, politics and culture play a significant role in this process. Furthermore, because women are consistently disadvantaged in both the privatized and in government property rights regimes, economic and political reforms frequently impair women's rights (Ossome, 2014). The goal of land commodification, or the release of land for easier acquisition,

was clearly linked to formalization and titling. However, rural women may not instantly profit from these processes since a number of obstacles prevent them from entering land markets. This led to a significant change in favour of using more adaptable tenure security measures, which is why digitization is occurring now (ibid., p.1).

### **2.2.3. Post-Independence Land Redistribution Efforts**

After independence, all the land which was owned by the British settlers were surrendered back to the native government. Post-independence governments acknowledged the historical land injustices and initiated land redistribution programs. Notably, the “One Million Acre Scheme,” was established to defuse tensions, and reallocate land from white settlers to indigenous Kenyans. The intention was that the said parcels of lands could be used communally for common purpose. However, this was not the case. Despite these efforts, land reform initiatives in the country were numerous challenged by corruption tendencies, political interference, and resistance from powerful landowners. Many indigenous Kenyans did not receive the parcels of land they were promised.

“In the “Ndungu Report”, it was established that the Kenyatta and Moi families (the initial ruling elites after independence) grabbed almost all the lands which was meant for communal or public purposes and allocated them to themselves, their kins and allies (Southall, 2005). As a result, currently, the Moi, Kenyatta and other few political elite families own about 50% of private properties in Kenya (Nzioka and Namunane, 2020). This has resulted in a bourgeoisie-proletariats relationship between the owners of capital and land and the owners of labour. A perfect example is seen in the tea plantation in Kericho Kenya where the residents have been turned to proletariat rural labourers working on meagre pay, while the few companies remain the bourgeoisie controlling all the means of production the welfare of the proletariat. Land grabbing through the lens of marxist (class-based) agrarian political economy” (Edepi, 2023).

### **2.2.4. Historical Injustices Related to Land**

Historically, the colonial rule in Kenya left a legacy of land injustices including but not limited to land grabbing by political elite and well-connected individuals to the detriment of vulnerable communities. The power relations between those who profited from those injustices and those who were dispossessed remains a contested topic that continues to significantly shape the application of land reforms in Kenya. These injustices have persisted into the 21<sup>st</sup> century as witnessed by both largescale land grabs as well as the invisible domestic land grabs. Land issues were central to the Mau Mau

Uprising of October (1952-1960) in which many Kenyans were detained, tortured and displaced. Land disputes continued to be a major driver of tension and conflicts in Kenya's post-elections violence (2007) as many people were displaced from their homes and land issues remained unresolved.

The Constitution of Kenya, 2010 and 2012 Land Acts amounted to major institutional restructuring aimed at handling land rights and administration. This involved devolution of government from eight provinces to 47 new county governments, separation of power relinquishing the president's powers over land governance to a non-partisan national authority – the National Land Commission which would then be deconcentrated to have a role at the local level (Boone *et al.*, 2016). Power relations are central in discussions regarding land reforms in Kenya and understanding these dynamics is key in the analysis of the country's efforts to address historical land injustices, land tenure security and equitable allocation of land resources. In the context of digitization and women's land rights, these power dynamics become intertwined and significantly influence each other.

### **2.2.5. Structural Issues**

In Kenya, structural problems regarding land are complicated and entrenched in the nation's history, politics, and socioeconomic dynamics. These problems significantly affect how property is used, owned, and tenured; they have also fuelled historical injustices, disputes, and difficulties with fair distribution of land. As such, the legacy of dispossession created by British colonial land policies like the Crown Land Ordinance still affects land ownership in Kenya today. Additionally, the land tenure system in Kenya is mainly communal, an arrangement that often lacks legal backup and security. Disputes and uncertainties over land rights often arise from this system. The leasehold tenure system tends to raise ownership questions as leases expire and in some cases evictions by the state. In October 2023, Citizen Television reported about mass demolition of homes in Athi River in Nairobi County by the government deemed to be squatters on state property. The homeowners, however, claim that they legally acquired the properties. Now there can only be one potential explanation for this confusion, that the person to whom the land was leased years ago sold it claiming to be the rightful owner. There are several such cases in Kenya, most of which are attributed to the manual land records system which is prone to manipulation.

Important to note, is the issue of land fragmentation. Land is often subdivided during inheritance among generations leading to smaller and less productive land parcels that lack proper records, surveys, or titles, making it difficult to establish land boundaries, ownership, and tenure rights.

As the country's population grows, land scarcity is exacerbated leading to disputes over land and impacting agricultural productivity and food security. All these structural issues have in one way, or another contributed to historical land injustices in Kenya and are still present to date hence the need for land reforms. The raise of Mwai Kibaki (third President of Kenya) to power spark discussions around land reforms which eventually led to the enactment of the land Act in 2012 under which digitization was birthed.

### **2.3. Overview of the digitization of land records in Kenya**

To date, land tenure insecurity, and lack of transparent land governance remain a serious concern in Kenya, hence the introduction of digitisation. Digitization of land records was done for various reasons; the main reason being to eliminate historical land problems such as loss of documentation, duplication of titles, destruction of records, and missing records and thus enhance accessibility security of ownership. According to Koech (2023), digitization was introduced to improve the overall accessibility and transparency of land records, ensuring there are no *cartels* who control the flow of information. So far, only land registries in Nairobi and surrounding counties have been digitized. According to the Ministry of Lands and Physical Planning, currently, trainings are being conducted in the remaining land registries across the country. Despite the excitement surrounding the ongoing digitization process, political economists may argue that the introduction of digitization system adds to the already existing complexities and therefore, understanding how this process is maintained and managed requires knowledge of the specific policy/legal, structural and institutional context in which Kenyan land records are digitized.

#### **2.3.1. Land Administration and Institutional Framework**

There are several existing institutions and key stakeholders responsible for land administration in Kenya, and are all assigned specific roles, functions and challenges in the context of land administration.

##### **The Ministry of Lands and Physical Planning**

In Kenya, the Ministry of Lands and Physical Planning oversees digitization of land records. This ministry is responsible for providing policy direction, administrative and land management affairs like registration and surveying across the country. There are three key departments under the ministry, each with a specific responsibility. To foster the implementation of digitization process, the ministry introduced the National Land Information Management System (NLIMS), a platform that was created

by the ministry to secure land records, increase accessibility, and lower land transactions costs. NLIMS then developed Ardhisasa, an online platform for accessing land data and conducting paperless transactions that are simple, safe, cost-effective, efficient, and transparent. This was meant to improve service delivery while also eliminating paper records, which nurture and catalyse corruption and fraud. According to the Ministry of Lands, land transactions in Kenya have been made difficult due to poor record management and bureaucratic processes. Therefore, Ardhisasa was intended to combat fraud and improve public service delivery by fast-tracking land search, registration, transfer, and title issuance which would then speed up land investments.

### **National Land Commission (NLC)**

The National Land Commission (NLC) is an independent constitutional body that was established under Article 67(1) of the Constitution of Kenya in (2010). The Commission, which was drawn from the National Land policy of 2009, is operational under the National Land Commission Act, (2012), the Land Act, (2012), and the Land Registration Act, (2012), as well as the Community Land Act (2016). As mandated by the Constitution, the Commission plays a significant role in overseeing land matters in the country, including advising the national government on procedures of conducting registration of land titles across the country, providing national land policy recommendations, research about land and the use of natural resources, and endorsement of other government authorities, among other key functions pertaining to dispute resolution and land use planning. The Commission, led by the Chairman, includes eight Commissioners who are appointed for a non-renewable six-year term (Government of Kenya, 2021).

### **County governments**

County governments are key stakeholders in the digitization exercise because they are tasked by the constitution (2010) to administer land processes and local resource governance. Counties came into force when the government was devolved in 2002. They play a key role in capacity building, coordination with national government and data collection.

### **Environmental Law Court**

This court was established by the Act of Parliament under section 4 of the Environment and Land Court Act, (2011). It is mandated to hear and determine disputes around land use, ownership and the environment.

### **2.3.2. Policy and Legal Framework**

In Kenya, the process of digitizing land records is governed by several legal frameworks that provide the rules, regulations, and guidelines governing land registration and management, notably the Constitution of Kenya (2010), the Land Registration Act of (2012), and the Land Act of (2012). Registration of land and other related activities are done under the legal directions of these statutes.

#### **Constitution of Kenya (2010)**

The Constitution of Kenya (2010) legally speaks to women's rights to access, own and control land and other property. In accordance with the National Land Policy (NLP) (2019), it provides for the protection of women's right to land and other property, access to justice, principles of land policy and equality and freedom from all sorts of discrimination.

#### **Land Registration Act of 2012 and Land Act (2012)**

This Act which was enacted on May 2, 2012, contains complete measures and rules that govern the registration of land in Kenya. It sets stage for different categories of land titles, registration steps and procedures, and the role played by Land Registrars. The Land Act of (2012), on the other hand, focuses on land ownership, land rights, and management across the country. The Land Laws Amendment Act of 2016 (No. 28 of 2016), 2016-08-31 modifies the Land Act of (2012), the Land Registration Act of (2012), and the National Land Commission Act of (2012). The goal is to ensure sustainable and productive land resource management. The Act applies to public, private, and community land, as defined in Articles 62, 63, and 64 of the Constitution (GoK, 2019).

#### **Data Protection Act (2019)**

This is an Act of Parliament that gives Articles 31(c) and (d) of the Constitution a mandate: to set up the Office of the Data Protection Commissioner; regulation of personal data processing; establishment of safeguards for data subjects' rights and the legal responsibilities of those who control and process data for related purposes.

The transition to digital land records marks a significant movement in the documentation, administration, and accessibility of land ownership rights, specifically concerning advancing gender parity and women's empowerment. In this case, it is important to take an analytical critique of how secure land records can shape female dispossession of land and how this applies in terms of the percentage of women who currently own land in Africa and specifically Kenya.

## 2.4 Additional literature on digitization of land records

According to the digital farming Kenya report, agriculture account for 26 percent directly and 25 percent indirectly to GDP yearly. The report shows that among the 8.6 million farmers, 81 percent are small scale farmers who own around 1.21 hectares of land with the average of farmers being 60. This implies that there is unequal ownership of land across class, gender and age groups. Despite the irregularities shown above, the use of Information Communication Technology (ICT) in agricultural activities has increased from 5 to 55 percent for the years 2000 to 2018 respectively (Netherlands Enterprise Agency, 2019). As argued by Fraser (2019), “technological change has given rise to the so-called *digital revolution*” (p. 1). The increase in the use of ICT in agriculture has somehow resulted in digitization of one the greatest assets in the production process - land.

The paper by Gupta, Shah, and Mandal (2020, p. 60) scrutinizes the novel paradigm being employed for land records in India. This excerpt provides a beneficial understanding that is relevant to conditions in Kenya. The study emphasizes how digitization can revolutionize transparency, precision, and ease of access to land records. By lessening the dependence on handwritten systems susceptible to human inaccuracies and tampering, the emergence of digital platforms presents an opportunity for creating a more balanced framework where women who already own land can advocate for their land rights with greater efficacy.

On the other hand, the study conducted by Bennett, Miller, Pickering, and Kara (2021, p. 222) on applying blockchain technology within land management reinforces this perspective. Blockchain's fundamental characteristics of transparency, security, and inalterability hold immense prospects for enhancing the validity of land records. Njoroge (2019, p.1) intimates that such a progression could be instrumental in safeguarding women's property rights by significantly reducing opportunities for fraudulent acts, which commonly lead to their marginalization.

Ansah *et al*, (2023, p. 103) explore crucial factors determining the success of institutionalising blockchain-based land administration. The decentralization attribute inherent in blockchain could actualize a democratized approach to land management, empowering marginalized communities, especially women. Kameri-Mbote and Muriungi (2017, p. 160) echo similar sentiments and emphasize how drone usage in land mapping in Kenya can further underscore technology's role in implementing inclusive property rights. On the other hand, Kwanya (2014) provides an exhaustive study on big data's ability to refine land record management within Kenya. Given its access to detailed information

about ownership patterns pertaining to land property, big data has the potential to identify and correct gender imbalances manifested through disparities in landed properties' ownership.

Nevertheless, without recognizing the gender dynamics influencing land ownership, it remains difficult to completely comprehend the ramifications of digitization on women's property rights. Mackenzie's (1990, p.610) study provides an insightful analysis of the intersectionality between gender and land rights in Kenya, underscoring societal norms and expectations that frequently put women at a disadvantage. In a similar vein, Kevane and Gray (1999, p. 2) explore how land rights are influenced by gender in Burkina Faso. Their findings offer an international comparative outlook that could further illuminate this research study.

The contribution of financial incorporation towards the economic enfranchisement of women, as explored by Hendriks (2019, p. 1030), can shed light on the complex interplay between digitization and other facets of women's empowerment. Enhanced accessibility and command over monetary resources could potentially enrich the advantages obtained through digital land records for women, equipping them with the tools necessary to assert and safeguard their proprietary rights to land.

Additionally, it is important to consider any potential negatives that may arise from digitization. Nayak (2013, p. 72) stresses the possibility of unexpected repercussions stemming from land records management policy changes, which could amplify existing disparities. Therefore, while digitization brings forward promises of transparency and efficient operations, it is important to accompany it with political reforms. Otherwise, it may bolster societal power imbalances if not executed cautiously.

The available data provide an intricate overview of the effects of the digitization of land records. While this technology presents numerous possibilities for improving women's property rights via enhancing transparency and diminishing corruption practices, its effectiveness lies in acknowledging and fighting deep-seated gender prejudices. The research further underscores the necessity for all-inclusive measures, such as introducing financial inclusion policies and implementing legal changes. This strategy will ensure that the digital transition does not simply replace one form of exclusion with another but genuinely empowers women. Therefore, it is important to significantly



assess the social, political and economic aspects that can help improve women's land ownership in Kenya.

## **2.5. Debates Around Women's Access to, Ownership and Control over land**

The article by Razavi (2009, p. 197) sheds light on agrarian alterations and assesses their impact on women amidst land restructuring measures. The piece deeply probes into the gender aspects inherent in these changes and illustrates how such transformations influence women within the scope of land-related reforms and policies. By meticulously casting a critical eye on the manner in which women are influenced by these shifts, emphasis is put on their contribution to rural economic structures (Razavi, 2003, p.3). Furthermore, Razavi delves into power imbalances that accentuate agricultural conversions while bringing various obstacles that deter female access to property rights. This article interprets the gender-based characteristics involved in agricultural evolution, underscoring the necessity of policies sensitive to gender to counterbalance the unfair treatment and susceptibility faced by females living in rural atmospheres (Michael & Leslie, 1999, p.5). Ultimately, it offers valuable perspectives on how evolutionary change in agriculture can affect women's lives and its correlation with the digitization of land registries and their effect on women's rights. However, while focusing heavily on gender bias linked to land rights, this text fails to delve into the potential ramifications of digitizing such rights within Kenya's borders.

Similarly, Tsikata (2003, p. 150) debates the efforts put in place to address women's interest in land tenure rights, with a key focus on the situation in Tanzania. Even though the article focuses on the situation in Tanzania, it provides a clear overview of the impact of women's land rights, which provides a significant blueprint for the digitization efforts in Kenya. The ideas shared in the article provide a contextual understanding of the value of digitization and the subsequent benefits to the rights of women but neglect the potential of digitization in exacerbating the land injustices faced by women. Even though the text shares valuable insights on the issue at hand, it is important to complement the various findings by involving the statistical and informational insights that categorically address the plight of women in Kenya.

Razavi (2007, p. 66) assesses the liberalization issue, which is prevalent in developing nations. Liberalisation is a concept that occurs on different fronts and can be used to evaluate the development of a given society. Echoing Deere's (1995, p. 55) assessment of feminist economics, Razavi (2007,

p.65) addresses the theme of access to land by women and the significance of economic policies when aiming to achieve socio-economic progress on the rights of women owning land. The excerpt tends to provide a broader understanding of the value of gender parity and the value that is tied to the influence of policies toward women. While mirroring the position held by Agarwal (2003, p. 185), the excerpt shares an objective point of view associated with the implications of digitization and how it can help improve the development of nations, in this case, Kenya. Even though there is a thorough assessment of the inequalities that are meted out towards women, there is a need to have an assessment of the gap and come up with valuable measures to address the situation.

With an enhanced focus on the development of technology, Jackson (2003, p. 455) shares valuable insights on the possession of land and is fixated on the land rights linked to women. Through enhanced gender analysis, this study can cover the ideas of gender dynamics and how the involvement of digitization is a significant entity that ensures that women are accorded proper rights to own land. Further, Lastarria-Cornheil (1997, p. 1318) delves into privatization and property rights in Africa. The source is impactful in shedding light on the different effects of privatization on land ownership in Africa. Even so, these articles do not fully capture the impact of digitization of land records and how the consideration of the option improves the percentage of women owning land in Kenya.

# CHAPTER 3: THEORETICAL AND METHODOLOGICAL CONSIDERATIONS

## 3.1 Theoretical Framework

This study will be underpinned by the concept of feminist political ecology (FPE), I have adopted this approach to make sense of the data collected because FPE fuses feminist viewpoints with political ecology outlooks and theorizes the differentiated forms of power and resource access. The objective is to comprehend the complex links among gender, power dynamics, and environmental issues by placing emphasis on how gender-specific roles and relationships impact access, dominion over, and utilization of natural resources such as land.

I will also adopt Henry Bernstein's four fundamental questions and critiques of New Institutional Economics (NIE). The NIE critiques advocates for redistributive land reform. In this case, digitization without policy reforms may imply digitizing inequality and the landlessness of women.

### 3.1.1 Feminist Political Economy Perspectives

Historically, land, woods, waterways, and other natural resources were primarily handled as commodities or economic resources. However, because local legal and informal rights define who owns and controls the resources, natural resource administration is ultimately political (Deepa, Monterroso and Gallant, 2021). Current land, water, and forest management techniques show power inequities and gender concerns. Inequalities in natural resource ownership and use are highly political and structural, and understanding power relations via a feminist political ecology lens provides an approach for addressing these challenges. After such an analysis, natural resource management plans can be successful in transforming lives and reaching the Sustainable Development Goals.

Feminist political ecology opens the door to a more profound interpretation of the gender-based power relationships that affect openness and fraud in land management. The research of Shahra Razavi (2007, p.65) on introducing gender aspects into agricultural transformation, along with Bina Agarwal's study on sex roles and land rights through government, familial, and commercial perspectives, can offer comprehension regarding how gender interactions sway decision-making procedures and the distribution of resources.

Through the application of feminist political ecology, the study can explore how flaws and dishonesty in the manual management of land records impact women's entitlement to land.

Investigations such as Cecile Jackson's gender-focused scrutiny on land tenure and Cheryl Doss's (1995, p. 60) work on intra-household possession ownership consequences offer valuable insights for this assessment, drawing attention to the existing gender-based inequities in accessing and controlling land.

The prism of feminist political ecology and the fundamental agrarian questions present a holistic probe into the possible advantages and setbacks posed by the digital conversion of land records in relation to women's property rights. Insights can be derived from Bina Agarwal's analysis of negotiation dynamics and gender relations, as well as Bridget O'Laughlin's (2007, p.22) study about the distribution of resources within households, which may shed light on how such digitization can affect women's influence over decision-making processes and their access to resources inside familial structures.

Utilizing the principles of feminist political ecology as a scholarly underpinning for the research proposition on digital management of land registries in Kenya introduces an intricate discernment by asserting gender-related aspects of land ownership and broad resource control. By referencing crucial sources, the study may scrutinize how digitization can either intensify prevailing gender disparities or generate prospects to improve women's access to lands and tenure protection. In essence, this intended survey could play a significant role in fostering fairer and more comprehensive land administration guidelines in Kenya, considering the intricacies revolving around gender relations within natural resource governance.

### **3.1.2 Henry Bernstein's Four Fundamental Questions**

In the process of understanding land reforms and resource distribution, it is prudent to evaluate the dictates of New Institutional Economics. The concepts underpinned in the theory focus on the institutions that are associated with economic activities and the discussions extends beyond new classical economics. While seeking to understand institution and property rights, Groenewegen (2022) focuses on the idea of institution and institutional change. Further, the author pays attention to mainstream economics as a blueprint of nature that happens to focus on “spontaneous, evolution and credibility” (Groenewegen, 2022). Further, Aoki (2007) states that “An institution is a self-sustaining, salient pattern of social interactions, as represented by meaningful rules that every agent knows and are incorporated as agents’ shared beliefs about how the game is played and to be played.” In this case, the theoretical perspective insinuates that while seeking to achieve gender parity, systems are bound

to interact with each other and ultimately reach an 'equilibrium' (Aoki, 2001). As a result, gender parity in society is bound to be achieved spontaneously without external interference. Ultimately, as gender parity is improved there will be improved land ownership rights in society.

However, there are different points of view which are held against the utilization of New Institutional Economics. Henry Bernstein (2004) provides profound criticism of neoclassical populism (an economic and political concept that attempts to combine neoclassical economic concepts with the populist political appeal) and its impact to the rest of the community. Bernstein (2004) examines the agrarian question and examines the political, social and economic challenges which are associated with individuals in a given social space. The author agrees with the notion that land is a crucial factor of production and monopolization of this entity significantly affects the labor market. Bernstein notes "The purpose of land reform is to rupture the system of labour controls and bring to an end the monopoly and monopsony powers of large landowners." Therefore, this disputes the idea by New Institutional Economics regarding the self-sustaining aspect of institutional equilibrium. Therefore, this concept echoes the fact that there needs to be government involvement which can aid in improving the social structures and welfare of the community in the long run.

Examining the agrarian questions of who, what, and how sets precedence towards understanding the value of reforms in different institutions. Contrary to the paradigms of the New Institutional Economics, the agrarian questions tend to affirm concentration on the elements of property ownership and political decentralization (Hodgson, 1998; Johnston, 2000). The agrarian concepts seek to justify the occurrences which take place in institutions and how they affect the entire moral position of the community. The question of 'what' focuses on the resource which is land, 'who' points out to the people overseeing the distribution process, and 'how' justifies the metrics of distribution. Hence, institutional reforms that attempt to answer these agrarian questions provide a foundational viewpoint which help in enhancing equality in the society.

By examining these theoretical dimensions, various components crop out regarding the steps that can be considered to improve gender parity. The consideration of New Institutional Economics cannot be perceived as a feasible mechanism to handle the profound uncertainty present in the community. The presence of proactive measures which address the agrarian questions is significant and works towards improving the welfare of the community. With such problems put at bay, the exercise of land record digitisation can be undertaken effectively, and this will aid in improving access and transparency.

## **3.2 Methodology**

### **3.2.1 Development of a Research Process**

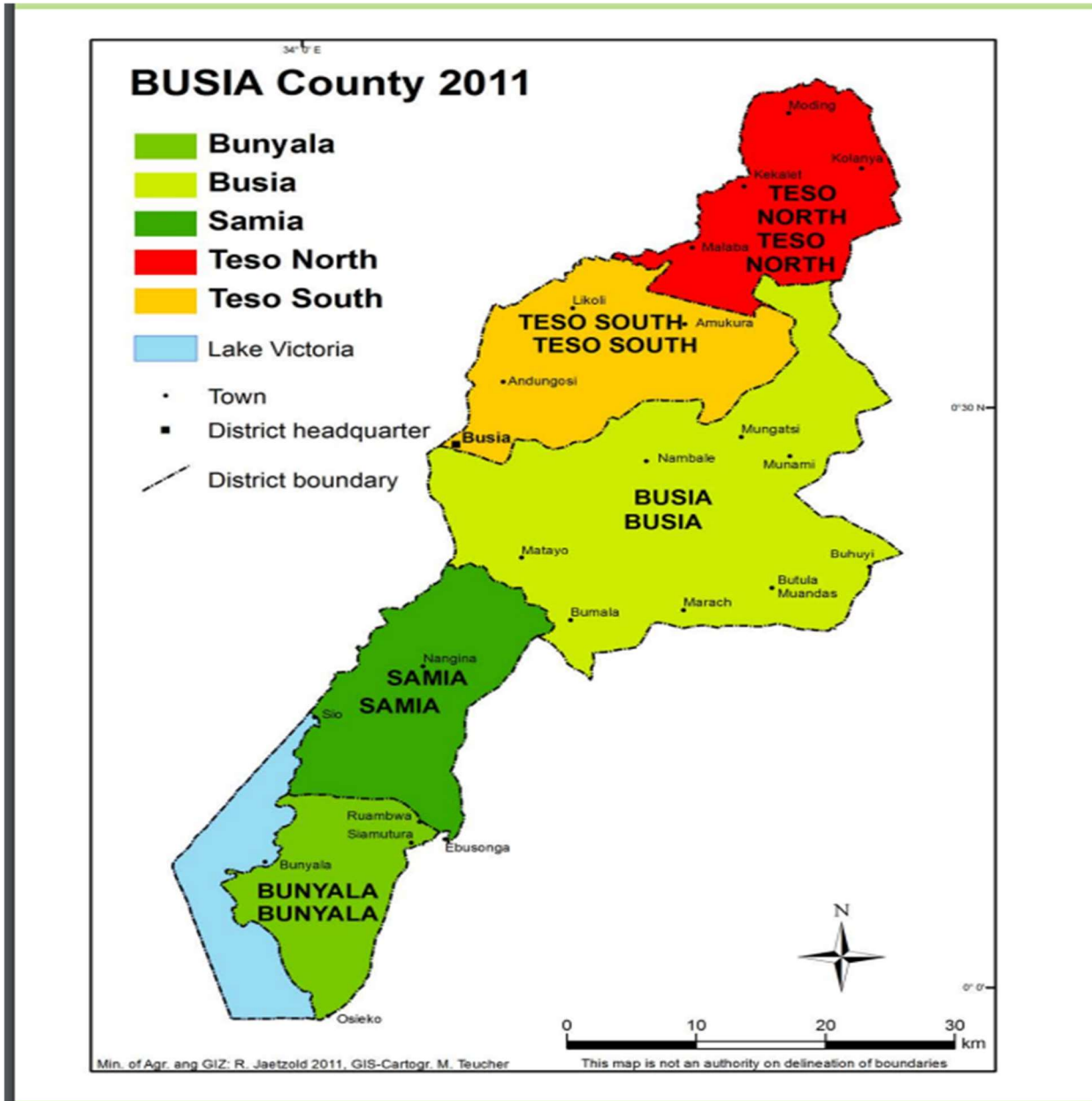
The research paper preparation phase focused on exploring the different research angles to establish the research gaps, drafting the research proposal, developing the research objectives and questions to be explored and answered by the study, and establishing the overall design of the research paper. This was done between February and June 2023. Between July and August, I embarked on data collection and analysis of the findings and presented my preliminary findings in September. By November 2023, I finalized my findings and submitted my full research paper.

### **3.2.2 The Research Area**

Busia County is one of Kenya's 47 counties created under the Ministry of Devolution, located in the western region of the country. The County borders Uganda to the west and is named after the county's administrative centre, Busia Town. The county area coverage is approximately 1,695 kilometres squared and is praised for its cultural diversity and vibrant economy, and natural beauty. Administratively, Busia County is divided into seven sub-counties, i.e. Bunyala, Samia, Teso North, Nambale, Teso South, Butula and Matayos. Each sub-county is further divided into wards, making for efficient governance and service delivery. I chose Busia as my case study because I come from Busia and I understand from experience the frustrations that women go through when it comes to issues of land.

Agriculture is the backbone of Busia County's economy, with a focus on especially subsistence and a bit of commercial farming, which makes land the most contested resource. The county is known to produce various crops, including maize, sugarcane, millet, sorghum, beans, and vegetables. Fishing is also a significant economic activity, owing to the proximity to Lake Victoria. The county is home to various ethnic communities, including the Luhya, Teso, Luo, and Abakuria, each with its own unique cultural practices and traditions. This diverse ethnicity is a great contributor to the prevailing patriarchal mentality in the region.

**Map 1:** Map of Busia County after devolution following the 2010 constitution (showing the location of sub-counties selected for the study)



Source: Ministry of devolution

### 3.2.3 Research Design

The paper adopted a qualitative research approach. I chose this approach because my research was concerned with an assessment of opinions, behaviour and attitudes (Kothari, 2004). To understand the relationship between land, gender, and digitization in Kenya, I employed the following analytical tools; (i) stakeholder analysis for context related understanding and identification of involved parties

and their interests and influence. (ii) institutional analysis was conducted to enhance comprehension of the legal and informal rules governing land processes in Kenya.

### **3.2.4 Data Collection Techniques**

I used the several data collection techniques to develop analysis of my findings and recommendations. First, document review which consisted of a systematic review of exiting literature on women's land rights and digitization to better understand the local context and inform my research objectives and field data collection. While undertaking a systematic literature review on the identified objectives and research questions, I first examined the global cases on digitization and women's land rights, then narrowed down to the African and regional cases, and eventually into the Kenyan context.

Secondly, I conducted key informant interviews virtually with experts in the field of land governance, from the ministry of lands and urban planning and county governments. I managed to interview the Land Registrar, Officials from the Land Board Commission and the technical personnel in the digitization process at the Ministry of Lands. The target group for interviews was chosen based on their level of expertise on the topic and access to digital communication platforms such as Zoom. The group is also knowledgeable about the topic of research because the nature of their work deals with land issues. Contrary to my planned list of interviewees, I was not able to get an interview with the chief magistrate, judge from the Environmental and Lands court as well as surveyors, but I ensured that related questions were by other key informants. Cumulatively, I conducted 5 key informant interviews with three men and two women from the land registry, County land board, Technical personnel Ministry of lands and land administrators.

Additionally, with the help of research assistants, I was able to organize and conduct five focus group discussions with groups of women and men delving on the research questions of this study. They organized heterogeneous focus groups of around 6 to 10 people per group comprising of women, widows, men, and members of the public through "public barazas" organized by the area chiefs. The choice to have five focus groups is to get diverse views from the data sets based on the experience of the participants. Additionally, the focus group discussions were conducted in six different sub-counties in Busia County to widen the scope of the study i.e., Bunyala- 8 participants (all women), Teso North - 7 participants (six women and one man), Teso South – 8 participants (6 women and 2 men), Matayos- 8 participants (6 women and 2 men) and Samia – 10 participants (5 men and 5 women). The discussions focused on establishing real time experience and observation of women,



men and members of the public regarding the objectives of the study. Overall, 37 women and 10 men took part in the focus group discussions. All the participants were contacted with the help of the sub-county chiefs.

**Figure 1:** A picture of one of the Focus Group Discussions (Note: I have obtained consent from this particular group to use their pictures in this paper).



**Source:** Author

### **3.2.5 Ethical Consideration**

Topics around land records can be sensitive and personal, hence it was crucial to protect the privacy of individuals involved, especially when discussing their rights and ownership. This research involved engaging with personal information, for which confidentiality is key. To counter this, I ensured confidentiality and anonymity of the participant's data by taking appropriate measures to securely store and handle the collected data. Prior to the focus group discussions and key informant interviews, a

consent form was shared with all participants indicating the aim of the study and how their personal information and photographs will be used. Only participants who signed the form were allowed to participate. Pseudonyms were used in the discussions within this paper to protect the identity and confidentiality of the participants and encourage active participation and information sharing during the interviews.

### **3.2.6 Methods of Data Analysis**

To analyse the data collected through interviews, I adopted the Thematic Analysis (Braun and Clarke, 2006) to address the research questions. When permitted by the participants who were all above the age of 18, interview sessions and focus group discussion were voice recorded and transcribed by the research assistants. The transcribed data was then coded based on the themes, patterns and topics that emerge from the data. The coded data was later grouped and categorized manually using Microsoft word to identify patterns and trends. The analysis and presentation were done through narrations. The next step was to interpret the findings from the analysis. This involved making sense of the data and identifying any implications or insights that emerge.

### **3.2.7 Methodological Considerations and Limitations**

Given the sensitive nature of corruption, it was decided not to use the word "corruption" directly in the participant's interview and focus group guides, but instead to gather data on corrupt behaviour using surrogate terms like lack of transparency. According to the stakeholder being interviewed, the term was used in the stakeholder interview guide if that stakeholder's work involved corruption. Furthermore, it is important to note that the research assistants interpreted some data from Swahili to English during focus groups since some participants preferred to respond in their local language. However, all interviews with technical experts were conducted in English.

Lastly, I created composite stories and direct quotes to best illustrate my findings. The events depicted in the upcoming chapter are based on data gathered from focus groups and interviews and not centred on any one individual. All names, except where noted, have been changed in this paper to preserve the privacy of those who provided information to the research assistants.

The biggest limitation to my research has been limited information due to reliance on Research Assistants (RAs). The positionality of some research assistants has also had a great impact on the type of data collected. For instance, one of the assistants were already biased towards women and so did not feel comfortable discussing women related issues in the presence of men in one of the FGDs. The

outcome was that he asked general questions whose responses would not directly answer the specific research questions and hence wasted time and financial resources. This also goes to confirm how deep patriarchy is rooted in this region that I choose for my study. To counter this, I held two online preparatory meetings with the team of six RAs where I shared a brief background of my study and specific objectives and made clear my expectations. I also ensured that the team was comprised of both women and men so that the research results are not impacted. It is also important to note that the digitization exercise in Kenya is still at inception stage with only a few land registries currently using the Ardhisasa platform. This limits the extend this study is able to cover.

# **CHAPTER 4: THE MANUAL LAND RECORDS SYSTEM; RISK FACTORS CONTRIBUTING TO GENDER INEQUALITY**

## **4.1 Introduction**

In this chapter, I will examine and present the findings from the data collected through the primary and secondary sources. I will examine the challenges faced by women in accessing and asserting their land rights within the current manual records system.

## **4.2. The Manual Register: Hindering factors**

Land is a fundamental resource not only in Kenya but also in different parts of the globe. Over the years, land documentation in Kenya has been done through manual channels which are laborious, prone to wear and tear and, in most cases, not easily accessible. While the nation is making significant strides in the digitisation of land records, the presence of manual land records still possesses significant social and political challenges. In this case, it is important to understand the issues which women face while asserting their rights to access, control and own land through the manual records system and how the process of digitisation may play a significant role in addressing these challenges. Women in the case of this study are considered not as a homogeneous category, there are women who are married and have access to land through their spouses, widows, divorcees and unmarried women. The land laws in Kenya apply differently to these categories of women.

### **4.2.1 Lack of Awareness**

"You cannot protect what you do not know" (Amai, FGD1, Sept 2023). The lack of knowledge of their land rights by women is a significant impediment to ownership of land according to FAO (2020). According to FIDA Kenya (2019) women especially in rural areas are not aware of the existing laws relation to succession, inheritance, acquisition of land and the general land registration processes. This situation is created by manual land records and fuelled by patriarchal norms which keep women away from land related discussions. Men would rather entrust their land documents to surveyors or their brothers instead of their wives or daughters. When widowed, most women remain vulnerable to disinheritance especially by their husbands' relatives because they have no knowledge of dealing with succession procedures. The death of a husband poses a serious threat to a woman's life in Sub-Saharan Africa, and widows are frequently left penniless (Doss, Summerfield, and Tsikata, 2014, p.10). Kenya is not exempted as the study shows that the deceased husband's brothers or close relatives often take land from the widows contrary to Kenya's Law of Succession Amendment Act, (Bill No.15, 2021),

which provides for gender equity with regards to succession matters and prescribes that a widow retain absolute control/life interest over her husband's land and the matrimonial home (Government of Kenya, 2021) . Jane Amai, a 57-year-old widow from Teso North sub-county in Busia County narrated her experience of being widowed in a polygamous family;

It's over 20 years now since the death of my husband and am still fighting to succeed his estate. The extended family has frustrated all my efforts to gain administration rights to the portion of the property left to me and my children because culture prohibits women to own land. I do not have any physical documents to prove ownership. My land is now useless because I cannot benefit financially from it but am glad that I have so far resisted dispossession attempts (Jane Amai, FGD4 participant, September 2023).

Jane's fate is not unique to her alone, most of the women (widows) in FGD1 complained about how they are still struggling to gain control of their matrimonial land after the death of their husbands. This is attributed to the patriarchal nature of society, which has historically disempowered women (Ochwada, 1997). The patriarchal nature of society has facilitated men to own land and sell them at will. On the other hand, the land adjudication committees are male-dominated, and this brings about natural bias towards women (Mackenzie, 1990). For instance, in most communities in Busia County are structured in a way that women are not encouraged or permitted to access land records or engage in land-related matters which leaves them clueless of their rights to land. In the event of their husbands' death, women become more vulnerable to land disputes initiated by male family members or external actors who attempt to dispossess them. Nonetheless, digitizing records can only bridge this gap in the presence of awareness creation and dissemination of information by educating women about their rights.

#### **4.2.2 High illiteracy rates amongst rural women**

Women suffer disproportionately due to the gender gap in education in Kenya which may limit their ability to access higher education due to financial constraints, which could in turn impact their ability to assert their land and property rights (Shabaya and Konadu-Agyemang, 2004). Most of the women have not attended the basic primary education because the society preferred educating male children and forced girls into early marriages. This has kept women in the dark about their land rights and the correct legal mechanisms for example on succession procedures hence vulnerable to dispossession. Moreover, the rural illiterate women cannot easily access the new constitution which guarantees their

rights own or inherit land and other properties. Hence, they are unable to claim their land and property rights as and when it is required to do so (FIDA Kenya, 2019). What stood out in the discussions from FGD2 was that the illiteracy levels of women in Busia County is high.

I don't understand land issues because I never went to school. When you go to the land registry, they tell you that the process of acquiring a title deed is a long and tedious one. I am then forced to ask my son to take charge since he is more educated than I am and can easily understand the registration process (Interview with Truphena, a 70-year-old granny, September 2023).

In FGD4 for instance, most women use the native Teso language whereas when they come to land registry it's hard for them to express themselves in English or Kiswahili since most of them are old widows or uneducated women. For marginalized groups in society like women, literacy constitutes a very essential part in their attempt to gain legal and socioeconomic rights (Stromquist, 1990). Even so, digitization alone will not bridge the existing gender gap in education. In fact, this could pose an even bigger problem in the digital register which may require both computer skills and internet access.

### **4.2.3 Missing land records**

Disappearance of land records whether due to destruction, loss or inadequate record keeping present a big challenge in Kenya's land registries which can have far-reaching implications for women's land rights including but not limited to dispossession and vulnerability, tenure insecurity, property ownership and land related disputes. With manual records, one can easily change information and get rid of the original copies. Missing records in the land registry as explained by Joyce below can be because of heaps of tattered and dilapidated state of records and files, which create hurdles for women and especially widows who attempt to access their land records for purposes including succession, credit acquisition or other land transactions.

When my husband passed away, I went to the land registry in Busia to effect succession and transfer the property to my names. When I got there, I was asked for the title deed number for a search to be performed to establish my ownership. To my surprise, when the search was done, the registry administrator told me that my property number couldn't be traced in the file because the green card was missing. I asked for an explanation, and they told me that a green card is a document containing the history of ownership of a given piece of land (Joyce, a participant from FGD1, September 2023).

The lack of proper documentation can lead to cases of land grabbing and land disputes. Moreover, women are more vulnerable to losing their land in such disputes due to the patriarchal nature of the society in the absence of strong legal proof of ownership.

In a situation where the records are kept in a manual system, and someone's property has been tampered with and especially if it is a woman, it would be difficult for her to have firsthand information about what happened, and if some records would be missing and in the case of litigation in court, it would be a difficult hassle finding evidence where records are missing. So, someone can easily lose a case just because the documents are not available (Land registrar, KII1, September 2023)

Even so, securing land rights, particularly those of vulnerable and disadvantaged groups in society, such as widows and divorced women, goes beyond having legal proof or land titles. Addressing women's land tenure insecurity and enhancing women's access to land resources as argued by Borras et al., (2022) requires addressing underlying power imbalances, particularly patriarchal power relations that mediate access to and control over land. (see Moreda 2022 for similar cases in the context of Ethiopia).

#### **4.2.4 Limited Access to land information**

Access to land information is crucial for verifying land rights. The manual system often requires in-person visits to government land offices, which can be challenging for women, particularly in rural areas, due to factors like distance, time constraints, and cultural norms. The expenses associated with moving long distances discourage most women from completing all the processes required for them to access, control or own land. The case of Auma, a 40-year-old woman from Bunyala sub-county highlights the difficulties she encountered in navigating the manual land records system;

A woman like me from Samia gets married in another County like say Homa Bay, when there's need for any land acquisition process, she will have to travel a long distance to obtain physical documentation from the land registry offices in Busia County (Auma, a participant in FGD2, September 2023).

Moreover, physical access to land-related information is not the only challenge posed by the manual land register. People and especially vulnerable groups like women need to be educated about land rights as provided for by the law and empowered to be able to interpret and handle their land records. If the accessibility issues are not adequately addressed before transforming manual land

records into digital formats, then there will still be challenges of navigating and accessing digital records as this requires some level of literacy.

#### **4.2.5 Poverty and the Expensive and Tedious Manual Records processing system**

Majority of the women in FGD2 explained that for them to assert their land rights, one must have money that will facilitate and fast track the whole process right from getting an official land search to getting a title deed. Unfortunately, due to limited access to resources and illiteracy, most rural women are not financially independent and thus cannot exercise their rights due to dependency on their male counterparts. Additionally, the increasing number of female headed households also means that women have a bigger responsibility to feed and care for the family, this are consequences of intra-household possession ownership (Doss, 1995).

Ajakait, a widow from Teso North, narrated how getting a simple land search from the registry was almost impossible because she lacked money to pay for the search. I went to Busia Land Registry to have a land search done on my late husband's piece of land but when I got there, I was told to pay Ksh 1000 to aid the process. I didn't have that amount so, I decided to go back home without any assistance (Ajakait, a participant in FGD4, September 2023).

Another woman, Amoit-Atyang, narrated how getting a Cadastral survey map was not possible not unless she paid for the services.

I went to get the survey map of my land from the land registry in Busia but on arrival, I was told that survey maps were not there and that I needed to go to the Kakamega regional office. Additionally, I was told to pay 1500 so that they can go and collect the map from Kakamega. To me, that was a lot of money that I could not afford, and so I was not helped (Amoit-Atyang, FDG4 participant, September 2023).

Most of the women in the discussion agreed that the manual register introduced too much bureaucracy creating a breeding ground for corruption. Money is asked for at every stage of the process before a service is offered which in most cases is an amount higher than what is required. This has been aided by a few corrupt individuals who need their palms oiled so that they can perform their duties.



#### **4.2.6 Diminished Capacity in the Judicial system**

The expensive legal system in Kenya tends to exclude women from equal access to justice as they are already disadvantaged in resource allocation and thus dependent on men financially. Despite the integral role that the judicial system plays in land disputes resolution, the process is affected by lack of documentation required to build a case, backlog of cases and rampant corruption cases, all arising from the manual register. Several land cases take too long to get to a hearing and decision and for most women, expenditures associated with court fees, travel, witness expenses, and other related charges are exorbitant. Consequently, it is crucial that the rule of law is implemented in cases where competing customary laws conflict with national laws to avoid widening the knowledge gap about land rights; this creates room for corruption (Kameri-Mbote *et al.*, 2011). Moreover, women are faced with more barriers than men in accessing fair judicial processed regarding land due to lack of access to funds and patriarchy. Even in cases where a verdict is rendered in favour of women, it can occasionally be difficult to implement, particularly in rural areas with anti-women attitudes on land issues. Perpetua, a 62-year-old widow from FGD1 shared how she has been in and out of court for the past 6 years over an alleged purchaser's interest over her late husband's land.

#### **4.2.7 Gendered power relations over land**

The hierarchy of control over land centrally features men and is influenced by broader social and cultural norms (Kameri-Mbote, 2005, p.9). According to Gafaar (2014), “[A]mong various Kenyan communities, women do not traditionally own land or other immovable properties. At best, they have usufruct rights, which are hinged on the nature of the relationship obtaining between them and men either as husbands, fathers, brothers or such other male relatives [154]”. Widow’s rights to land in Kenya are dependent on different factors such as number of male children, how they relate with the family of the deceased and age among many other factors (Deo and Dubey, 2019). In this case, the woman is normally considered as an outsider. The findings of the study show that society views women as people who should submit to the men.

In an event that a woman owns land, it becomes contradictory to the norms that society and threatens the patriarchal societal thinking. The patriarchal part of it goes with the egoism of the men in the society. They feel now, if you're empowered, then you won't be submissive. The men think they lose their power because they use the resources to control women (Bwari, KII, September 2023).

When it comes to power relations in a dominant patriarchal community like Busia County, women are left at the mercy of men who believe women have no place in matters of land. Reports

from FAO show that there are different gendered factors that affect land distribution under the customary law. One is the fact that customary marriages are not registered, and this is a primary issue as courts fail to recognize such unions as valid marriages. As a result, if death occurs to the spouse, then woman is most likely to lose the property to the relatives of the deceased since they believe that no marriage existed.

#### **4.2.8 Limited Access to Financial services**

Chapter 488 of the Banking Act that is considered to be neutral when accessing credit tends to require the husband's consent when women are acquiring loans (FAO, 2022). Furthermore, not many women hold title deeds which can be considered a pivotal collateral that is used in most banks. Even the 5% of women who jointly own land with their husbands are not recognized under the customary law which is dominant in most communities. In this case, manual land records can make it hard for banks to verify land ownership and collateral, which can fuel the risk of fraud. This is because it limits the ability of banks to conduct due diligence and assess the value of properties, which would help to streamline the lending process.

When it comes to financial aid from local organizations that offer funds, it becomes hard for a woman to access funds due to lack of collateral security, unlike the men who easily access credit because they possess land titles. Although things are changing with formal laws, it will take time for these laws to be implemented successfully. You find that men don't like giving land to daughters. When asked how many children they have, they will say, 'I have two boys'. So, when you ask, what about the girls? They say, no, those ones will get married and leave, so I don't even count them. This mindset already has disadvantages women from a young age (KII2, September 2023).

According to the study by Gaafar, R. (2014), the Marriage Act 2014 happens to bring customary marriage into formality but there are different constraints which exist in the process such as the understanding of a polygamous union. Even so, there are different steps that need to be undertaken to formalize customary marriages. Customary community and tenure rights are recognized by the 2010 constitution, but the scope and limits have not been defined by formal law. Even though the customary underpinnings are recognized by law, the 2010 constitution invalidates them if they are inconsistent with its various provisions. Historically, primacy of gender has been considered over the years and this has significantly disadvantaged women.

#### **4.2.10 Cultural norms and biases**

This involves highlighted distinction in a way that shows consideration of one gender over another in community, see Mackenzie (1990). This can also be termed as discrimination, posing a huge hinderance for women in the community when accessing and asserting land rights. In an online interview, Veronica Bwari, an Administrator in the Busia land registry had this to say about the challenges faced by women in asserting their land rights through the manual records system;

Here in Busia, we have various ethnic communities like the Luo, Samia, Teso and Luhya. Culturally, these tribes handle land matters differently when it comes to women, whereby culture doesn't allow women involvement in land transactions, inheritance, or ownership. It is considered an abomination for a woman to own land. These challenges are further exacerbated by the manual land records system, which is bureaucratic and influenced by patriarchy. The only time a woman's involvement is acknowledged is when she consents to the husband selling matrimonial land because the law now insists on both partners consenting to such a sale (Bwari, KII, September 2023).

A study by Wily (2011) discovered that the diverse inefficiencies associated with land access, control, and ownership are caused by weak customary laws. The weak legal status plays a major part in hindering not only ownership but also the distribution of land both in urban and rural regions. As a result, governments tend to exercise undue liberties over land, and this affects the entire land distribution and ownership processes. Furthermore, the author notes that the presence of abused domestic laws also affects the entire distribution process.

The above challenges are however not unique to the manual land records system. If not adequately addressed before effecting the digitization process, the government will only be digitizing the already existing inequalities associated with ownership, access to and control over land in Kenya.

#### **4.2.11 Susceptibility to manipulation**

Manual land records can be easily manipulated by corrupt land administration personnel to favour some privileged individuals or by those powerful actors.

## **CHAPTER 5: THE DIGITAL LAND SECTOR: OPPORTUNITIES AND CHALLENGES**

### **5.1. The Current status**

The digitization of land records which started in 2018 is now making great progress with about six land registries already using the digital platform.

### **5.2. Potential Benefits of Digitization**

Some of the findings from the interview materials show that digitizing land records will reduce the rampant issue of fraud by enhancing transparency and accountability. Digitization will eliminate middlemen in land transactions. With digital land records, one will just log into the online platform from wherever they are and find the required information (Namukuru, FGD5, September 2023). Even so, it can be argued that this accessibility of records may also come with a risk of exposure to potential grabbers. Ideally, power will lie with any person with access to this information.

Evidence from several studies also support the interview results that digitisation of land records has and can be potentially beneficial to women, who are also considered marginalized groups in various ways: either by enhancing their access to land records or by reducing the tendencies of male relatives conniving with land officials and altering existing records in a bid to disinherit women, especially widows (Agarwal, Anthwal and Mahesh, 2021;Getie, Birhanu and Dadi, 2023; Holden and Tilahun, 2020). Findings from FGD5 show that digitization will make accessibility land records easy. Obtaining physical documents in rural areas like most sub-counties in Busia can be challenging due to poor infrastructure and long distances from land registries. In this case, digitized versions of records offer convenience in accessing vital information from any part of the country. While this may be true for the 5% of women who already hold land titles in Kenya, it is crucial to note that digitizing land records without enforcing policy reforms that can increase the percentage of land ownership by women will only formalize patriarchy and inequalities in land ownership. There is need to address the social, political and economic dynamics surrounding restitution and redistribution of land and land resources.

Critiques of New Institutional Economics (NIE) argue that digitisation of land records plays a key role in aiding commodification of land. The critics from agrarian political economy tradition assert that digitizing land records without implementing land redistribution and restitution could serve

as a mechanism to formalize and institutionalize existing inequalities in land access and control and could potentially facilitate processes of land commercialization and land speculation.

The discussion with participants from FDG1 revealed the ability of digitization to improve data integrity and security of land records and improve the governance of land resources by easing the bureaucracies involved in the administration of land matters. According to them, digitization provides greater public transparency by allowing those with access to view up-to-date information more quickly. According to Kazungu (2023), digitizing land records can improve efficiency in collecting land rates, mitigate incidences of land fraud, and enhance the role of banks in transactions. Additionally, digitization can help to reduce the risk of double titling, which is a common problem in Kenya. Moreover, digitization can make it easier for individuals to access information about land ownership and other property records, which can help to facilitate economic transactions. The study further shows the digitization can help to streamline the process of verifying land ownership and collateral, which can increase access to credit. As argued by Hendriks (2019), enhancing women's accessibility and command over monetary resources would equip them to assert and safeguard their land rights through the digital system.

Overall, all the laws that govern the digitization of land records in Kenya such as the National Land Commission Act 2012, the Land Act 2012, and the Land Registration Act 2012, speak of equal rights in the process of accessing and owning land along gender lines. Understanding these land rights and conditions is important for coming up with a well-versed understanding of the digitization process in the long run. However, the digitization process requires a major overhaul in legal and institutional frameworks, technological competences; and communal aspects. Without fully taking into account the aforementioned aspects, the expected results of digitization will be partially realized mainly on the account of consolidating several databases into one. Thus, enhancing data accuracy, increase security and reduce counterfeiting documents and making land transaction more swift compared to before. However, differences in power relation across classes, age and gender in relation to land ownership will continue to exist and deepen in the country.

### **5.3 Potential barriers or risks associated with digitization**

Despite the benefits associated with digitizing land records discussed above, data from the State department for Physical and Urban Planning shows that the digitisation process through the Ardhisa platform has been faced with various challenges over the period. This platform was designed with the

purpose of reducing human errors when handling land records and removing the influence of *cartels* who overrun the activities in the Ministry of Lands. Despite the evolution of the Ardhisasa digital platform, findings of the study show that infrastructural hiccups like digital literacy is still a big challenge both for staff and the intended users of the platform. Additionally, access to internet services across the country is a luxury enjoyed by a few who can afford to pay for it, despite internet being a necessity for accessing digital information. It is therefore important to come up with valuable strategies that address the underlying issues around digitization which affect equitable access to and control over land information.

Legal and regulatory frameworks serve as integral impediments that hinder the digitization process (Doss, 2006). The enacted under the constitution to oversee land reforms in the country have failed in their implementation. Insufficiency in the implementation of land reforms in Kenya on matters around land ownership under the customary law on recognizable marriages happens to affect the digitisation process. Women, according to Gaafer (2014), are perceived as outsiders and, in most cases are left out of ownership discussions.

According to the Intergovernmental Authority on Development IGAD (2018) Country Land Governance report, public institutions that were mandated to oversee land administration across the country have fallen short of capacity, independence and resources as evidenced by continuous fights for influence and wrangles between the Ministry of lands and the independent National Land Commission (NLC). The NLC has failed to reach a level of functional independence due to the continued reliance on the national government resource allocation and capacity building which makes it vulnerable to manipulation and control. This institutional failure goes contrary to the theory of institutional equilibrium as argued by Aoki (2001). Moreover, it is crucial to ensure that no institution possesses more power than it should and that there are checks and balances to prevent abuse of such power.

Errors introduced during the scanning process or due to manual input can lead to discrepancies in documents, which could cause confusion or even more disputes over ownership rights. Results from the KII2 interview indicate that there is not 100% confirmation whether the status of all existing land records in the registries across the country are accurate. There are registries that have attempted to update their records; however, in some other registries whose names the informant withheld, there may be some illegal documents that are kept in their records under the guise of being

genuine records. This will happen in cases of wired fraud, where impersonation has been done. The imposters or fraudsters will be registered as the official owners if we start the digitization process without screening. Paying attention to the power plays in the digitization process will play a key role in ensuring that the system does not end up widening the inequalities in resource distribution.

I know carrying out a county verification exercise may be a difficult task, but I think something has to be done to ensure that the records that we are putting in the digital platform are not fraudulent records (KII2, September 2023).

Digitization requires a clean manual data register to avoid incidences of biased algorithms. Automated systems used in digitization may inadvertently reinforce gender biases and land injustices present in historical land records (Nayak, 2013). This can further marginalise women's land rights if not addressed. The manual record system needs to first be cleaned and verified before moving to the digital system. This is important because digitizing records alone will neither enhance or re-balance redistribution of access to women nor will it reform the restitution of rights in land to persons dispossessed of such rights. Currently, as observed from counties where digitization has already taken effect like Nairobi, manual records are moved to the digital platform before verifying. This only means that all the problems within the manual system are simply being digitized. Digitization should be a continuous exercise in all registries across the country and skilled personnel should ensure that records are regularly updated.

Another key challenge that was revealed during the interviews is resource limitation. Technological transformations like digitization require a lot of funds to reach its full completion.

Although the government has just indicated that they will do it, I can see a situation where resources may slow the process. But there is commitment from the side of the government. Currently, all land officials are being taken through a preparation and orientation exercise for digitization all over the country (KII1, September 2023). They added that, despite the hiccups that they may face, there is goodwill from the government's side to have all records digitised.

Data from all interviews was consistent and revealed that digitising land records would make them prone to buffering and hacking, thereby increasing their vulnerability to land grabs. While digitization has several potential benefits for women and the general population, it goes without saying that making land records digital may expose the same people being protected from dispossession by

those with power. In most cases in Busia and many parts of rural Kenya, land grabbing has been tracked down to politicians who later sell to private investors as well as civil servants in the Ministry of Lands - the very people to whom all land records are entrusted.

The digital divide between urban and rural areas can affect women disproportionately. Rural women may face greater challenges in accessing digital land registration services, exacerbating existing inequalities and raising concerns about unequal power dynamics in accessing digital records (Bernstein, 2004; Nayak, 2013). Women in rural Kenyan villages have limited access to digital technologies, including smartphones and internet connections. This can hinder their ability to participate in digital land registration processes or access information about land. The high number of unskilled users may further deem the process useless. Even after the land records have been digitized, women will still need to be educated on how the system works.

Right now, I use a button phone, and even if you gave me those smartphones, it won't help me much because I lack knowledge on how to use them. Also, those smartphones use a lot of power, and as you can see, we don't have electricity here. Cyber cafes are equally far from here, which will require me to travel long distances in order to access services (Lydia Mungala, FGD3, September 2023).

There is resistance to change and lack of political goodwill especially from senior government officials and parliamentarians who have reportedly been involved in several cases of land grabbing. In as much as the government has shown goodwill towards the digitization process, there are powerful political individuals, especially those who benefited from past land injustices and potential beneficiaries of an inefficient land department, view digitization of land records as an obstacle to their wealth and influence (IGAD, 2018). Most of those individuals who may not be very happy with process for their selfish reasons will do whatever it takes to block the successful implementation of such policy reforms. Entry of land data into the digital realm represents a technological and infrastructural shift which can bring an end to the monopoly powers of those in possession of large chunks of land (Bernstein, 2004) As a result, it makes land more accessible to potential buyers, transferring control and governance to mostly multinational and financial actors. Nonetheless, local elites may oppose these programs for fear of exposing fraud and land-grab plans.

Manual land records are bulky, prone to manipulation, easily subject to human mistakes and errors and wear and tear. The storage of manual land records is also a reoccurring problem given the



subdivisions of land parcels due to inheritance and land transfers. Consequently, these discrepancies have in one way, or another led to double titling, a situation where two or more people poses a title deed in their names for the same parcel of land.

From the data collected, I was able to observe contradicting ideas when relating to different literatures with regards to digitization. Data collected from the technical personnel, i.e., registrars, land administrators, and surveyors, was consistent with most of the literature, implying that digitization alone without land reforms won't enhance the increase in women's land ownership. However, the other set of data provided a different view compared to the literature on digitization. Further rounds of surveying were done to try and establish the cause of the inconsistency, and it was observed that some of the participants, especially women who had inherited/acquired land within the existing manual records system, thought that digitization was the best way for them to be able to retain their land without any changes to the land title without their knowledge. However, the other section of participants was not fully aware of what the digitization process was all about. Their optimism was mainly influenced by the fact that the current manual land record had so many weaknesses and needed to be replaced.

# CHAPTER 6: CONCLUSION AND RECOMMENDATIONS

## 6.1 Conclusion

This study has explored the challenges and limitations of manual land records in Kenya and examined whether and how current efforts in digitalizing land records could strengthen land rights, particularly the land rights of women. This study found that the inefficiencies in the manual land records system has greatly disadvantaged women in relation to their land rights. The system is associated with disappearance of documents, tedious and bureaucratic tendencies which fuel cultural norms that are biased towards women in the midst of gendered power relations around land ownership. Limited access to land information and financial services, illiteracy and lack of awareness as well as delayed access to justice are all risk factors associated to manual land records. Although digitization of land records as shown in this study, has the potential of addressing the bureaucratic nature of the manual land records and enhance accessibility and transparency in land transactions, it is not clear yet how and to what extent digitization of land records can help address the underlying problems around access to land like inequitable distribution of land resources in Kenya especially for disadvantaged groups like women in their different categories. As this paper demonstrated, women are not homogeneous but differentiated categories such as married, widows, divorced, unmarried and etc, and the land laws are applied differently to each category and their vulnerability also varies. Digitisation of land records in Kenya is still an ongoing process which gives room to amend laws that govern the process. Records and the way they are recorded are significant, but they are seldom the deciding factor in redressing unequal social relations. Land titles approximate land-based social relations, and they both reflect and reproduce power relations that, in many societies, take the form of intersectional axes of conflicting interests. The most prevalent axes of social and political difference are class, gender, ethnicity, and generation. To remedy injustice and unfairness, it is necessary to address the underlying causes of these unequal relationships. While records and other technical issues are one of them, they are not the only ones. To prevent putting too much agency to things like digitizing records, it is crucial to take these concerns into account. Formalizing and digitizing land records without prior or concurrent redistributive/restitutive reforms may only end up formalizing and digitizing inequality, especially in countries with intersectional land-based inequities, such as Kenya.

## **6.2 Recommendation**

Even though the digitization of land records is a welcome initiative and could contribute to addressing the problems associated with the manual land records system, it will not address the underlying structural issues stated in this paper surrounding ownership, access to and control over land. The government and policy makers should, therefore, consider redistributing land where it is feasible and address all the gaps in access to control over land through structural reforms.

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## Appendices

### *Appendix I: Key Informants (KII) details and Focus Group Discussants (FGD)*

Key Informants	Name	Occupation/Title	Gender	Location
KII1	Walude	Land Board council member	Male	Busia
KII2	Nyabote	Land Registrar	Male	Busia
KII3	Isaac	Technical personnel- Ministry of lands	Male	Nairobi
KII4	Veronica	Records Officer - Land Registry	Female	Busia
KII5	Lawrence	Land Administrator	Male	Busia

#### FGD1 – Bunyala sub-county

NO	NAME	AGE	MARITAL STATUS	LOCATION
1.	Connex Nanjala	38	Married	Bulemia
2.	Joyce Nabwire	45	Married	Bunyala
3.	Caren Auma	70	Widow	Bunyala
4.	Lydia Mungala	58	Married	Bunyala
5.	Perpetua Ogal	62	Widow	Bunyala
6.	Dindi Achieng	32	Married	Bunyala
7.	Adelaide Adhiambo	40	Married	Bunyala
8.	Faith Nekesa	26	Single	Bunyala

#### FGD2 – Samia sub-county

No	Name	Age	Gender	Marital Status	Occupation	Location
1	Ibrahim Imende	31	Male	Married	Surveyor	Samia
2	Irene Odongo	25	Female	Single	Student	Samia
3	James Barasa	40	Male	Married	Sub-Chief	Samia
4	Vincent Olima	45	Male	Married	Businessman	Samia
5	Ruth Anyango	28	Female	Single	Student	Samia
6	Cornelia Masiga	70	Female	Widow	Farmer	Samia
7	Mary Tabu	65	Female	Widow	Farmer	Samia
8	Sofia	25	Female	Single	Salonist	Samia
9	Ogutu Smokin	67	Male	Married	Village Elder	Samia
10	Mzee Barnaba	70	Male	Widower	Council Of Elders	Samia

FGD3 Teso North Sub-county

NO	NAME	AGE	MARITAL STATUS	OCCUPATION	LOCAION
1	Lydia Amoit Atyiang	41	Married	Farmer	Kakapel
2	Immaculate Amoding	30	Married	Farmer	Akichelesit
3	Jane Amai	29	Widower	Farmer	Kakapel
4	Mildred Nekesa	27	Single	Farmer	Kekalet
5	Humphry Orina	33	Married	Ass Chief	Kakapel
6	Josphine Atenge	42	Married	Farmer	Angurai
7	Gloria Amojong	35	Married	Teacher	Kakapel
8	Rachael Ajakait	37	Widower	Businesswoman	Kaaset

FGD4: Teso South Sub- County

NO	NAME	OCCUPATION	AGE	MARITAL STATUS	LOCATION
1	Doreen Amoit	Student	26	Single(F)	Asiriam
2	Catherine Anyokoit	Farmer	36	Widow(F)	Asinge
3	Jacob Amusugut	Student	28	Single(M)	Angoromo
4	Gladys Achalat	Farmer	52	Widow(F)	Amukura
5	Eunice Ayuma	Assistant Chief	43	Married(F)	Chakol
6	Dorah Imuriai	Businesswoman	39	Married(F)	Likolis
7	Ursula Ongaria	Nurse	40	Married(F)	Adungosi

FGD5: Matayos Sub-county

NO	NAME	AGE	MARITAL STATUS	OCCUPATION	LOCATION
1	Mary Nanjala	54	Married	Clerk	Murende
2	Dennis Omondi	28	Single	Land Administrator	Budokomi
3	Charles Oundo	56	Married	Chief	Mayenje
4	Caterina Namani	65	Widow	Farmer	Buduluku
5	Roselida Namukuru	49	Married	Business Woman	Nasewa
6	Paustina Akumu	67	Widow	Farmer	Siteko
7	Christine Namachoe	52	Married	Farmer	Luliba
8	Immaculate Imende	27	Single	Teacher	Munongo

Appendix II: Consent form

NAME: IBRAHIM TIMONDE  
GENDER: MALE  
SUB-COUNTY: SAMIA

International  
Institute of  
Social Studies  
*Erasmus*

Erasmus

Information and consent form (ethics and privacy)

Consent Letter for Emily Edepi, MA Candidate  
Dear Respondent,

REF: Consent letter

I am a student pursuing Masters in Development Studies, majoring in Agrarian Food and Environmental Studies, at the International Institute of Social Studies, Erasmus University, The Hague, The Netherlands. I would like to ask for your collaboration in the study I'm conducting for my research required for the partial fulfilment of the MA program.

In 2012, Kenya enacted the Land Registration Act No. 3 – a legislation that mandated that the land records are to be kept in digitized form. The Act offers directions on the standard steps to be considered during registration, the required documents and the format of the electronic files that are used. In 2020 the Ministry of Lands and Physical Planning formulated the *Land Registration (Electronic Transactions) Regulations*. It is from these legislations that the country started digitisation of land records. In 2021, the ministry launched Ardhisasa, a platform through which land transactions, previously done manually, can now be done online. However, the digitization process is just at the inception stage. This study, therefore, examines how Kenya's existing manual records system has impacted women and explores the potential and opportunities of the digitization of these land records in improving land rights of women in Kenya using case study of Busia County in Western Kenya.

I have identified you as one of the people who have been affected by the discrepancies in current manual record system and a potential beneficiary of the digitization process. Therefore, I would like to collect some feedback in relation to the impact and the operationalization of this project. The overall study will involve answering a few interview questions with my research assistants Morara Samuel, Edward Esiroma, Linda Asha, Sharon Anyango and Agnes Auma through face-to-face interviews, Focus group discussions in person or otherwise virtual calls on phones, zoom, skype etc. The short questionnaire takes 30-40 minutes to complete, and will be completed in person by my Research Assistants at a time and location convenient for you. I'm unable to travel in person to Kenya because of the high cost of transportation involved, which is why I hope you will be willing to provide responses to the questions in the interview document.

When meeting with my Research Assistant, she/he will take notes in hard copy and record anonymously, so that you can speak freely. I would like to stress that your participation in this research is voluntary, and that all efforts will be taken to protect your identity. All the answers I receive from you will be treated with utmost confidentiality. Although there is no monetary reward for participation, I would like to sincerely thank you in advance for your valuable assistance, and hope that the resulting study will help further. At the end of the interview/discussion, you will have the opportunity to comment on your answers. If you disagree with the notes or if my research assistant misunderstood you, you can ask to have parts of them amended or deleted.

Kindly sign below to affirm that you understand the study's primary aim and that you agree to take part, whilst retaining the right to withdraw without prejudice at any time, should you so wish. Thank you so much for your participation.

Respondent Signature: *Emilio Edepi*

Date: 8th Sept 2023

Add your e-mail and/or WhatsApp number here (in case you want to discuss this further).

1

Classification: Internal