

Foundations for Systems of Land Use and Cultivation Methods in Pre-Colonial Period among Agricultural Societies In Kenya

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ABSTRACT: Agriculture has always been a cornerstone of African societies, particularly in pre-colonial times when the methods of cultivation and systems of land use were shaped by a complex interplay of environmental, socio-cultural, economic, and political factors. This paper aims to explore these determinants with a specific focus on Kenya, offering insights into the diverse agricultural practices that sustained its pre-colonial communities. Understanding these factors is significant as it sheds light on the adaptive strategies employed by African societies to optimize agricultural productivity in varying ecological zones. The central thesis of this paper posits that the interplay of local environmental conditions, cultural traditions, economic necessities, and political structures collectively influenced the development of agricultural methods and land use systems in pre-colonial Kenya. By reviewing these aspects, this paper not only contributes to the historiography of African agriculture but also provides a contextual foundation for appreciating contemporary agricultural practices in the region. A case study research design was employed on determinants or the foundations of the systems of land use and cultivation methods that were used by the Kenyan agricultural communities. The study utilized qualitative methods, including interviews (of scholars of pre-colonial history), observation, focus group discussions (of scholars of pre-colonial history), and document analysis, to gather rich insights on pre-colonial land use systems and cultivation methods and historical records. Sampling was purposive, targeting individuals who had direct experience of the pre-colonial land use systems and cultivation methods literature. Data was analysed thematically to identify patterns and trends in the determinants of systems of land use and cultivation methods used by the Kenyan Pre-Colonial Agricultural communities. The findings of this study will contribute to the broader discourse on economics circles. The research will serve as a valuable reference for future studies on the intersection of geographical agricultural -economic development in Kenya.

I. Definition of Key Words:

Agriculture – Is the cultivation of food and goods through farming, produces the vast majority of the world's food supply.

Pre-colonial: existing or occurring before an area undergoes colonization.

Colonialism control by one power over a dependent area or people. It occurs when one nation takes control of another for benefits such as resources. Often, they force their language and culture on the locals

Political means relating to the way power is achieved and used in a country or society. It can also be referred to relating to the government or public affairs of a country.

Political factors refer to the influences and forces within a political system that shape the behaviour of individuals, groups, and institutions.

Social factors refer to the elements that shape human interactions and societal structures, including cultural norms, values, demographics, and social institutions.

II. Introduction

Pre-colonial Africa was characterized by a vast array of agricultural practices that varied significantly across different regions due to diverse environmental conditions and cultural influences. Understanding these factors is significant as it sheds light on the adaptive strategies employed by African societies to optimize agricultural productivity in varying ecological zones (Smith, 1995). In many parts of Africa, agriculture was the primary means of subsistence, with communities developing sophisticated techniques to cultivate crops and rear livestock. These practices included shifting cultivation, terrace farming, and the use of irrigation systems in arid and semi-arid areas. The cultivation of staple crops such as millet, sorghum, and yams, alongside cash crops like cotton and tobacco, showed adaptability and ingenuity of African farmers (Iliffe, 1995). Also, the integration of pastoralism with crop farming in some regions practised mixed farming system that maximized resource use and reduced risk (Vansina, 1990).

2.1 Historical Background

In Kenya, pre-colonial agricultural practices were influenced by the country's diverse ecological zones, ranging from the fertile highlands to the arid lowlands. The various ethnic groups, including the Kikuyu, Luo, and Maasai, developed unique farming methods suited to their environments. The Kikuyu, for example, practiced intensive farming and terracing in the central highlands, cultivating crops such as maize, beans, and sweet potatoes. In contrast, the Maasai of the Rift Valley primarily engaged in pastoralism, herding cattle, sheep, and goats (Ogot, 1999). These systems of land use were not static but evolved in response to climatic changes, population pressures, and socio-political dynamics, demonstrating a high degree of resilience and adaptability (Sutton, 1993).

III. Environmental Factors

Environmental factors played a crucial role in shaping agricultural practices in pre-colonial Kenya, influencing everything from crop selection to cultivation techniques. **The climate** of Kenya, characterized by a wide range of weather patterns due to its varied topography, significantly impacted agricultural activities. In the highlands, where the climate was cooler and more temperate, crops such as maize, beans, and potatoes thrived (Morgan, 1981). Conversely, the arid and semi-arid regions of northern and eastern Kenya experienced erratic rainfall and prolonged dry spells, necessitating drought-resistant crops like millet and sorghum (Were & Akonga, 1989). These climatic variations required communities to develop adaptive strategies to ensure food security and sustainable farming practices.

3.1 Soil types and fertility also varied across Kenya, influencing agricultural productivity and land use systems. The fertile volcanic soils in the highland regions, enriched by periodic volcanic activity, supported intensive farming and allowed for the cultivation of a variety of crops (Soper, 1967). In contrast, the sandy and less fertile soils in the coastal and arid regions limited the types of crops that could be grown and often required the application of traditional soil fertility management techniques, such as the use of organic manure and crop rotation (Huxley, 1999). The differential soil fertility across regions necessitated distinct farming practices tailored to local conditions to maximize agricultural output.

3.2 Water sources and irrigation methods were vital for agricultural sustainability, particularly in regions with unreliable rainfall. The presence of rivers, lakes, and seasonal streams provided essential water resources for irrigation in areas like the Tana River Basin and the Lake Victoria Basin (Adams, 1992). Traditional irrigation techniques, such as furrow irrigation and the use of shallow wells, were employed to divert water to farmlands, ensuring a steady supply of water during dry periods (Adams & Anderson, 1988). These methods not only supported crop cultivation but also facilitated the establishment of permanent settlements by providing a reliable water source for both agriculture and domestic use.

3.3 Geography played a significant role in determining the types of cultivation techniques used in different regions. The rugged terrain of the highlands necessitated the use of terracing to prevent soil erosion and manage water runoff effectively (Sutton, 1993). In the flat, arid lowlands, the practice of shifting cultivation allowed farmers to exploit the fertile topsoil before moving on to new plots, thereby maintaining soil productivity (Vansina, 1990). Additionally, the proximity to coastal areas enabled the cultivation of trade crops such as coconut and cassava, which were exchanged with inland communities, promoting economic interdependence and cultural exchange. The diverse geographic features of Kenya thus fostered a variety of agricultural practices tailored to local environmental conditions, illustrating the adaptability and resilience of pre-colonial farming systems.

IV. Social-cultural factors

Socio-cultural factors significantly influenced agricultural practices in pre-colonial Kenya, embedding farming activities within the broader framework of traditional **beliefs and practices**. Many communities viewed agriculture as not merely an economic activity but a spiritual and cultural one, deeply intertwined with their cosmology and rituals. For instance, the Kikuyu believed that **their god, Ngai, had bestowed them with fertile lands** on Mount Kenya, and they conducted elaborate rituals and offerings to ensure good harvests and protection of their crops (Kenyatta, 1938). Similarly, the Luo performed **rain-making ceremonies** and invoked ancestral spirits to bless their agricultural endeavors, highlighting the spiritual dimension of farming (Ochieng, 1974).

The role of the community and family was central to agricultural activities, with farming often being a collective effort. **Communal land ownership and cooperative labor systems**, such as the Kikuyu's *mwethya* (work parties), were prevalent, where families and neighbors worked together on each other's farms in rotation (Middleton, 1953). This not only facilitated large-scale farming projects but also reinforced social bonds and ensured equitable access to resources. The concept of communal labor extended to other activities, such as building irrigation systems and managing communal granaries, ensuring that agricultural practices were sustainable and resilient against environmental challenges (Ambler, 1988).

4.1 Gender roles were clearly defined within the agricultural context, with men and women often having distinct responsibilities. Men typically did clearing land, herding livestock, and constructing irrigation channels, while women were primarily responsible for planting, weeding, and harvesting crops (Mackenzie, 1998). Division of labor was not rigid, and in some communities, women also played crucial roles in managing household granaries and seed selection, ensuring food security and the continuity of agricultural practices (Davison, 1988). Gender roles were embedded within the larger socio-cultural framework, reflecting modern roles of both gender in sustaining the agricultural system.

4.2 Knowledge transfer and education were essential components of agricultural sustainability, with skills and techniques passed down through generations. Elders played a critical role in educating the younger members of the community about traditional farming methods, weather patterns, and soil management techniques (Orchardson, 1971). Apprenticeship and oral traditions were common means of preserving agricultural knowledge, with storytelling, songs, and proverbs serving as educational tools. For example, among the Kamba, proverbs about farming were used to teach children about the importance of hard work and the rhythms of agricultural life (Mbithi, 1971). This transmission of knowledge ensured that agricultural practices were adapted to local conditions and remained resilient over time.

V. Economic Factors

Economic factors played a crucial role in shaping agricultural practices in pre-colonial Kenya, influencing the types of crops grown and their significance. The primary crops included staple foods like millet, sorghum, yams, maize, and sweet potatoes, which formed the dietary backbone of many communities (Ehret, 1974). These crops were chosen for their adaptability to local climatic and soil conditions, ensuring food security. Additionally, cash crops such as cotton, tobacco, and sisal were cultivated in regions where they could be traded for other goods, enhancing economic stability and providing a means of wealth accumulation (Ogot, 1967). The cultivation of diverse crops not only met subsistence needs but also facilitated trade, both within and beyond regional boundaries.

5.1 Trade and barter systems were integral to the economic landscape of pre-colonial Kenya, linking different communities and fostering economic interdependence. Local markets served as hubs where agricultural produce, livestock, and handcrafted goods were exchanged. For example, the coastal communities engaged in long-distance trade with Arab traders, exchanging goods like ivory, slaves, and agricultural products for beads, cloth, and metal tools (Kusimba, 1999). Inland, barter systems allowed communities to exchange surplus produce for goods they lacked, creating a balanced and interconnected economy (Spear, 1981). This trade network extended to neighboring regions, facilitating cultural exchange and the diffusion of agricultural innovations.

5.2 Land ownership and inheritance practices were vital in determining agricultural productivity and social organization. In many Kenyan communities, land was communally owned, with usage rights allocated by local leaders or councils based on family size and agricultural needs (Shipton, 1989). This system ensured equitable access to land and prevented the concentration of land in the hands of a few. Inheritance practices varied, but land was typically passed down through patrilineal lines, with sons inheriting plots from their fathers. However, matrilineal inheritance was also observed in some communities, where land passed through the female line, reflecting diverse cultural practices (Gulliver, 1969). These inheritance systems helped maintain social stability and continuity in agricultural practices. The distinction between subsistence and commercial farming was marked by the primary objectives and scale of agricultural activities. Subsistence farming dominated, with families growing enough food to meet their immediate needs and ensure survival (Netting, 1993). This form of agriculture was characterized by small-scale, diversified cropping systems that were resilient to environmental fluctuations. In contrast, commercial farming, though less common, focused on the production of specific crops for sale in local and regional markets. This included the cultivation of cash crops and surplus produce, which provided income and enhanced economic status (Kitching, 1980). The balance between subsistence and commercial farming allowed communities to meet their dietary needs while engaging in economic activities that facilitated trade and wealth accumulation.

VI. Political Factors

Political factors were deeply intertwined with agricultural practices in pre-colonial Kenya, influencing **governance and land policies**. Governance structures in pre-colonial societies were often decentralized, with **local leaders and councils wielding significant power over land distribution and agricultural management** (Ochieng, 1975). Land was typically held communally, and its allocation was regulated by elders or local councils based on family needs and social status. This communal ownership system ensured that land resources were utilized efficiently and equitably, preventing the accumulation of land in the hands of a few individuals and supporting the sustainability of agricultural practices (Kenyatta, 1938). These governance systems provided a stable framework for agricultural production and community cohesion.

6.1 Local leaders and chiefs had a profound influence on agricultural practices, often setting rules and regulations that guided farming activities. Chiefs and elders played pivotal roles in organizing communal labor for large-scale agricultural projects, such as the construction of irrigation systems or the preparation of communal fields (Ambler, 1988). They also mediated disputes over land and resources, ensuring that conflicts were resolved

amicably and did not disrupt agricultural productivity. In some regions, local leaders introduced innovative farming techniques and encouraged the adoption of new crops, thereby enhancing agricultural output and economic resilience (Spear, 1981). Their leadership was crucial in maintaining order and promoting agricultural development within their communities.

6.2 Conflict and cooperation among different groups significantly impacted agricultural practices in pre-colonial Kenya. Competition for fertile land and water resources sometimes led to conflicts between neighboring communities, disrupting farming activities and threatening food security (Ogot, 1976). For example, pastoralist groups like the Maasai often clashed with agricultural communities over grazing lands, leading to territorial disputes and intermittent warfare (Galaty, 1993). However, cooperation was equally prevalent, with communities often forming alliances to share resources and labor. Inter-community cooperation was facilitated through trade networks, marriage alliances, and shared cultural practices, which fostered peaceful coexistence and mutual support in agricultural activities (Ehret, 1974). These cooperative relationships were essential for maintaining stability and ensuring the sustainability of agricultural systems.

The political landscape in pre-colonial Kenya was characterized by a delicate balance between conflict and cooperation, influenced by the leadership of local chiefs and the communal governance structures. Effective leadership and governance policies were crucial in managing land resources, organizing agricultural activities, and resolving disputes, thereby promoting agricultural productivity and social harmony. The interplay between political factors and agricultural practices highlights the importance of governance in shaping the economic and social fabric of pre-colonial Kenyan societies (Middleton, 1953). Understanding these political dynamics provides valuable insights into the resilience and adaptability of pre-colonial agricultural systems and their role in sustaining communities.

VII. Conclusion

The pre-colonial agricultural practices in Kenya were shaped by a multifaceted interplay of environmental, socio-cultural, economic, and political factors, each contributing to the resilience and adaptability of local farming systems. The diverse ecological zones influenced crop selection and cultivation techniques, while traditional beliefs and communal labour systems embedded agriculture deeply within the cultural fabric of society. Economic activities, including the cultivation of staple and cash crops and the establishment of trade networks, fostered economic stability and interdependence among communities. Political structures and governance played a pivotal role in land distribution and agricultural management, ensuring equitable access and efficient utilization of resources. The combination of these factors not only sustained pre-colonial agricultural productivity but also provided a robust foundation for understanding contemporary agricultural practices in Kenya, reflecting a legacy of innovation, cooperation, and adaptation.

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