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Socio-economic and Cultural Practices of Land Tenure Systems on the Slopes of Mt. Kilimanjaro, Tanzania from 1920–1950s.

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Abstract

Land is an important asset by both rural and urban residents. It provides opportunities for various development options in almost all spheres of life. In this case, land tenure foregrounds how particular pieces of land are utilised and developed different from others. This paper traces and discusses the social, cultural and economic constructions of two major land tenure systems; *kihamba* and *shamba,* that exist on the slopes of Mt. Kilimanjaro. The paper shows that the tenure system on the slopes of the mountain influences the socio-cultural and economic affiliations of the Chagga and determines agricultural land uses. Agricultural and other economic activities on the *kihamba* and *shamba* reflect both tenure types and the socio-cultural constructions of the environment. The highlands and lowlands are historically perceived to serve different yet related functions to the people. More discussion will be on the *kihamba* tenure system because it roots deeper into earlier settlements on the slopes than the recent *shamba* system that started in the 1950s. This paper is based on a research work that included review of archival sources, fieldwork interviews conducted on the slopes of Mt. Kilimanjaro, and various secondary sources. The available evidence helps to argue that the nature of settlement and agro-practices on the slopes of Mt. Kilimanjaro is not only determined by the provisions of the physical landscapes rather it results from a combination of factors. The paper examines how economic imperatives, coupled with the social construction of the physical space, influence patterns and nature of agrarian land use.

Keywords: *land tenure, kihamba, shamba, land use, agriculture, Kilimanjaro.*

1. Introduction

It is not easy to understand African agricultural systems by focusing on a limited angle of analysis or theoretical frameworks. Different explanations may suitably clarify some causal factors, while ignoring others at the same time. The common narratives on land use and landscape change have continuously focused on the analysis of economic factors and demographic dynamics, and overlooked social-cultural contributions. Land use entails the modifications employed in improving or expanding productivity in response to

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social and natural pressures. Modifications may involve adaptation in labour or other farm inputs helping to change from one form of land use to another, and vice versa. Studies in landscape histories and functions (Boserup, 1965; Bailey & Munford, 1968; Amborn, 1989) pay attention to the relationship between demographic dynamics and resources use.

Others who have discussed the concepts of land use and land use change include Sen (1959), and Widgren and Håkanson (2016). In their edited book, *Landesque Capital,* Widgren and Håkanson employ the concepts laboursque and *landesque* to denote how societies change the way they interact with their environmental resources. What happens on the environment dictates the kind of modifications required to either sustain or increase productivity. The modifications can either be made on labour (labouresque) or on land (landesque) (Widgren & Håkanson, 2016). On the other hand, scholars view expansion of land use as a result of internal dynamics motivated by opportunities rather than economic imperatives as major factors (Börjeson, 2004; Börjeson, 2007; Håkanson, 2008). The intensification of agricultural production on the highlands of Kilimanjaro, in north-eastern Tanzania, can properly be captured by considering a combination of factors. Neither population increase alone nor market opportunities are enough to explain the nature of agricultural practices on the mountain ecosystem in isolation. Socially and culturally constructed, the land tenure system on the mountain slopes played a significant role towards the dynamics in agricultural practices.

Land is the mother natural resource: all other natural resources are found on land, be it on the surface, underground, water bodies or in forest resources. In this case, the type of land tenure plays an influential role in the way a particular natural resource is exploited from land. Likewise, rural agricultural practices depend on the tenure rights to develop. This paper considers two different -- yet related -- land tenure systems, of the *kihamba* and *shamba,* that exit on the slopes of Mt. Kilimanjaro. It analyses the influence of land tenure on agricultural productivity stretching from the 1920s. It takes a historical approach to trace the dynamics of land tenure and explores land uses existing on the slopes of Mt. Kilimanjaro over time. It argues that agricultural practices on the *kihamba* and *shamba* tenures were determined by a variety of factors: social construction of the environment, economic factors. and social-cultural factors existing on the highlands. While the economic factors and demographic dynamics have been given due attention in resource use literature (Boserup, 1965; Maro, 1974; Börjeson, 2007; Maro, 2009; Paivu, 2009), this paper expands the discussion into the social cultural dimensions and their influence on agrarian practices.

1.1 Context and Methods

In the context of the Chagga cultural landscape, the *kihamba* was the main homeland established on the highlands across Mt. Kilimanjaro, at least above 1000 meters above the sea level. It was used to grow the staple food, banana, and the main cash crop, coffee. This was an important possession for residents; and meant a lot socially, culturally and economically. Additionally, the *shamba* was a farming land outside the homeland and was situated on the lowlands. It was used to produce seasonal crops such as maize, beans and finger millet. All this has changed in the last half a century. What was regarded as a marginal land on the lowlands has attracted permanent settlement and in so being has replaced the former land uses that was mainly for livestock keeping and seasonal cropping. It is in this context that this paper provides the changing definitions, values and perceptions of land that has allowed changes in land uses.

This paper resulted from a research work that included a review of archival sources, fieldwork interviews conducted on the slopes of Mt. Kilimanjaro and various secondary sources. It intended to understand the changing patterns of land uses on the slopes of the Mountain. Archival research was useful to understand colonial interventions in shaping land use and people's responses to it. Documents such as secretariat files and colonial correspondence -- dating from 1920s to 1950s -- were reviewed, and provided information on the role of the government in planning land use. These documents were obtained from the United Kingdom National Archives in London, Tanzania National Archives in Dar es Salaam, and the Arusha Records Centre. The evidence from these sources indicates that land use in the area was both negotiated and protracted due to varying interests on land involving the government, settlers and the local people. These challenges were associated with culture, economic imperatives and environmental consciousness of the people. Importantly, in this paper I have used oral texts collected from fieldwork research in Rombo, Hai, Moshi and Siha Districts. Oral interviews were collected to provide people's articulations of land use dynamics on the slopes and the changing meanings of land use as associated with culture and the physical environments.

2. Reflecting on Mt. Kilimanjaro's Traditional Land Tenure Systems

Land on the slopes of Mt. Kilimanjaro was categorised into two traditional tenure systems and had different roles to serve but both related to settlement and agriculture. As pointed out earlier *kihamba* and *shamba* tenure systems are significant for production as they have been to the surrounding environments and socio-cultural functions on the slopes of the mountain for so long. The *kihamba* remains the principal landscape that allows an easy practice of a rural economy based on agriculture, forestry and pastoralism (Ikegani, 1994; Moore, 2009; Mdoe, 2009), which are basic to the highland population. Ikegani employed the concept agrisilvipastoral economy in an

attempt to find a single word to explain the economic complex of the Chagga society on the hills. Otherwise, it could be explained in three words, i.e., an economy of agriculture, forestry and pastoralism. Historically, *kihamba* was hereditary in nature and its use observed both continuity by preservation of the land and productivity by mixed kinds of farm activities on small home gardens. Home gardens existed throughout the Chaggaland on the upper slopes of the mountain. Early visitors to Kilimanjaro in the 19th century, including Harry Johnston, Lewis Krapf and Johannes Rebman, observed different kinds of economic activities taking place on the mountain slopes from the pre-colonial period (Meyer, 1891; Krapf, 1968). Needless to say, they included cultivation of different varieties of bananas used for cattle; some dried into flour while, others were used as staple food and for making local brew known as *mbege* (Unknown Author, 1885; Morison, 1933). The *kihamba* provided most of what was required by the Chagga to live on the highlands.

Largely, the *kihamba* comprised of a prime land with permanent crop cultivation, settlement and domestication of animals; including cows, goats and sheep. It was organized based on family relations, where each family respected one's *kihamba* because of the spiritual and social functions it embodied. No one sold a *kihamba* plot because it was also used as a burial site for deceased members of a family. The *kihamba,* so to say, had social, economic and political functions. As a property for inheritance and a burial ground, it indicated a social tie between the living and the dead members of the clan. Economically, it was a place where food crops were grown (bananas and beans) and commercial farming of crops like coffee took place (Munger, 1952; Ogutu, 1972; Mdoe, 2009; Munson, 2013).

As a socially valued asset, the *kihamba* land was a measure of when a person had to get married and how many children he should have. Possession of a *kihamba* was a social requirement or a disentitlement for one to start a family. The earlier a person obtained land, the earlier he got married; and the reverse was true. In some instances, families with large plots of land ended up having many children as opposed to those without enough land. Traditionally, in the Chagga society, children were regarded as potential and reliable sources of family labour for domestic and income earning activities in the family and, though everyone wanted to have many children, the option was limited to few: those with sufficient land. There was a close relationship between land ownership and fertility rates in Kilimanjaro since the pre-colonial period where families with large access to land had more children than those without big land (Meckary, 1997; Mbonile et al., 2003; Mbonile, 2006;).

Chagga men owned one *kihamba* for each wife they had. The larger the number of wives, the more likelihood a husband would be given or acquire many

vihamba, and was thus considered a potential rich person because of the *vihamba* owned. Through their wives, they were able to get many children who became a reliable source of farm labour (Swai, 1979 & Meckary, 1997). Sons from rich parents had the potential to get more areas for *vihamba* compared to those from poor families. Alternatively, sons from poor families negotiated *vihamba* from chiefs and as a result they were allocated some areas on the lowlands or they moved to other chiefdoms to get such land (Johnstone, 1946; Kilimanjaro Oral Text (later KOT) 3, 2014). Traditional land tenure in Kilimanjaro helped to reduce frictions over land use among family members and the society as a whole. It secured the use rights of land owned and promoted agricultural practices. Everyone in the society knew who owned which part of land, and no one assumed possession of a land already owned by another family or clan members (Johnstone, 1946; KOT 3, 2014). Nonetheless, conflicts over land use can be associated with the expansion to the lowland and coffee production on the highlands from the 1920s (Kirey, 2012, 2018). In the case of the lowlands, up until 1950s it was like a no man's land.

The kind of tenure existing on the highlands was not easily adopted on the lowlands. This resulted from the social construction of the highland population over the lowlands that regarded the lowlands as marginal lands without potential permanent economic establishments. While conflicts over land use and ownership were negligible at individual levels on the highlands up to 1920s, the situation was different at chieftain levels. Chieftains conflicted over control of their boundaries or struggled to expand to areas owned by inferior chiefs (Tanzania National Archives (later TNA) 5/44, Dundas Moshi District Book sheets 4 & 5). The chiefs wanted to occupy large areas of land to show power and supremacy over weaker chiefdoms. Failure to conquer and occupy large pieces of land and territories indicated inferiority to other chiefdoms. As a result, an inferior chief had weak command over his subjects.

A person who was given a *kihamba* paid a fee called *upata*[1] in one of the Chagga dialects, to the chief as a form of appreciation for the offer of land. This was not regarded as a full compensation of the ownership rights on *kihamba,* but a sign of recognition that the new owner had to show to the chief. To signify this, *upata* varied according to the economic capacity of recipients. It varied from a cow offered by a rich person to a goat or local beer offered by the poor (Johnstone, 1946). Due to population increase (Kitalyi, 2004) and the diversification of the economy, it became difficulty for *kihamba* to contain a large number of people on the same land. Again, agricultural production needed to support the over increasing social and economic needs. This was a

[1] There were different names for this fee across the different linguistic dialects on the slopes of the mountain.

point in time where the highland population sought to expand to the lowlands. Though it was not a form of land use most preferred to *kihamba,* there was no option to expand agricultural production than moving into the lowlands.

Unlike the *kihamba*, the *shamba* was considered a marginal land not suitable either for production or settlement by any individual who considered himself a pure Chagga. It was dry, infested with tsetse flies, together with human and animal diseases (TNA 207/449), which discouraged settlement. The lowlands could not offer the necessities required by Wachagga, namely; the social space, socio-cultural environments and production of both food and cash crops like bananas and coffee, respectively (TNA 207/449; UKNA CO 691/159/6, 1937). It had less value compared to *kihamba* on the highlands. Settlement and production relations on the two landscapes indicated the type of importance each had to the Chagga economically, socially and culturally. The *shamba* was used to produce seasonal crops like maize and beans; crops not largely part of the Chagga staple diet until just recently in the 20th century. However, from the last decade of the 20th century some remarkable transformations have taken place in the Chagga culture and production systems where cash and food crops switched positions to accommodate the fluctuations and unpredictability of coffee prices. Bananas have moved from their centre position in the Chagga kitchens to the market, while maize has taken the previous role of bananas in the kitchens. This change has led into new definitions of land use on both the highlands and lowlands.

Generally, most of the lowland areas could not support the growth of highland's crops such as bananas and coffee to easily attract permanent Chagga settlements. This was only possible on the highlands with reasonable investment in regard to manure and irrigation, something that did not exist on the lowlands (Bender, 2019). Though other crops (cotton and sugar cane) were grown on the lowlands, they nonetheless attracted less attention for permanent settlement. A little bit further up the mountain slopes starting at approximately 7,000 feet, wheat, barley and pyrethrum were grown in large estates by white settlers for commercial purposes (Stahl, 1964). The impact of population increase on the slopes of Mt. Kilimanjaro did not by itself force people into the lowlands. Movement to the latter was rather due to a combination of population increase, cultural construction of what it meant to be a grown-up Chagga and what was perceived to separate the highland from the lowland landscape. These were catalysts for the stay on the highlands, and likewise the relocation to the lowlands (Misana et al., 2003). Oral articulations indicate that before the 1950s the *shamba* areas were occupied on annual basis, hence the same plots could be allocated to another person in the next growing season. Usually, this discouraged land improvement for agricultural productivity as ownership was on temporal basis. Rapid establishment of permanent settlement and economic activities on the lowlands started after the WWII, aiming to respond to both social and economic opportunities.

2.1 Conceptualising Kihamba *as an Economic Space, 1920s-1930s*

The economic space on *kihamba* started specifically when the Chagga connected themselves into networks that enabled them participate in transactions (Wimmelbücker, 1999; Winter, 2009). Initially, pressure on land started by the cultivation of bananas. Banana farming started to indicate the direction through which the highland ecology was later to be perceived, and how that perception was significant in land use dynamics. For instance, it replaced onion farming in some areas where previously onions enjoyed a considerable commercial advantage with Indians before coffee was grown (KOT 5, 2014). Before the introduction of large-scale coffee farming, colonial Moshi District produced almost half of the total onions produced in the Northern Province during the colonial period (Swynnerton, 1947; Swynnerton, 1948). When bananas were introduced in the 19th century, the Chagga favoured banana farming than expanding onion cultivation. During the same period, they depended on grains such as millet from the networks with neighbours through trade links (Wimmelbücker, 1999; German East Africa Annual Reports, 1905–1906; Bender, 2011).

Progressively, the introduction of coffee farming in Kilimanjaro -- especially by the 1850s -- interfered with the traditional land tenure system on aspects of allocation and use. Certainly, such interference was not always negative as they generated both economic and social advantages in the society, and its impacts varied depending on the ability of individuals to acquire and use land (Nayenga, 1981; Kirey, 2012; Kirey, 2018). For example, in the pre-coffee period land was distributed and sometimes occupied by people following some rules, during the coffee period progressive coffee growers grabbed land without following the rules for land distribution.[2] This practice left some peasants squeezed in small areas as their land was taken over by progressive farmers for coffee farming (Tanganyika Territory, 1946). The reason for the change of tenure rules was the added value for land due to high demand for growing coffee as a newly introduced crop in the highlands. When one compares the annual reports for the department of agriculture and the Provincial Commissioners reports between the years 1920s and 1940s they indicate a swift adaptation and development on the mountain slopes with regard to the expansion of coffee arable land and the productivity resulting from such expansion.

The value added into land was much more a significant factor in areas where land was scarce and cash crops growing were increasing (Tanganyika Territory, 1941). The development of coffee economy on *kihamba* land was not highly contested and negotiated with the previously existing forms of land use

[2]The rules included asking a piece of land from the chief and sub-chiefs subsequent to paying a prescribed fee. After the introduction of coffee, expansion into the new areas became haphazard.

and crop preferences because it did not require extra land or total replacement of former crops to provide space for coffee farming (Kirkpatrick, 1936). In turn, coffee farming became successful due to its incorporation into the existing physical space. Coffee could grow well under the sheds of banana groves; hence the same space served a double purpose by providing staple food and at the same time commercial farming of coffee (Gilbert, 1945).

Nevertheless, the introduction of coffee impacted on some minor types of crops grown, and the ones outsourced from elsewhere through trade (Wimmelbücker, 1999; Bender, 2011). After the introduction of coffee, *kihamba* land acted as an economic unit where the Chagga economy was organised (Munger, 1952) and more people wanted to own *vihamba* to grow coffee. However, peasant involvement in coffee cultivation did not pass unchallenged. Settlers who also produced coffee were not comfortable to see peasant production prosper. They spread propaganda against local peasant farming, but the British colonial government favoured both peasant and settler farming, although settlers were much more advantaged than peasants (Ogutu, 1972;.Iliffe, 1971; Iliffe, 1979; Swai, 1983; Little, 1991). By the 1930s peasant farming posed a sizeable challenge to settlers by growing and harvesting coffee in large quantities. During this period, the total number of coffee produced and supplied to the market in the Northern Province of Tanganyika territory came from settlers, followed by peasant farmers in Kilimanjaro.

In this way, the period starting from the 1920s experienced a steady development of coffee production in Kilimanjaro only with relatively minor drops in yields. The whole first half of the 1920s decade witnessed peasant farming of coffee in Kilimanjaro at an experimental stage, while peasants in other areas like Bukoba District produced major Arabica coffee in large quantities. Peasant producers in Kilimanjaro used the opportunity to experiment with coffee farming precipitously. In understanding the enthusiasm for peasants to grow coffee in the region, the government appointed a Coffee Officer who worked with African instructors to supervise peasant coffee production in the area. Yet, the views and intentions of supervisors were sharply contrasted with those of producers. When supervisors aimed at controlling peasant coffee farming, peasants on their side struggled to increase experimentation and expansion of coffee farming.

For instance, the Coffee Officer and instructors on African growers in Kilimanjaro advised African peasants to have restricted number of coffee plants owned to not exceed 1,000 while in reality they planted more than this. The control was grounded on three assumptions; first, to enable peasant producers to take proper care of the plants in order to avoid spread of diseases to non-African estates. Second, it aimed to limit African producers into

expanding their production into large scale. Smallholder peasant production was preferred to large-scale peasant farming. This also linked to the first reason. Yet, it was hard to stop peasants from planting more and more coffee trees. Third, they wanted to allow a limited land to be used for cultivation of other crops like foodstuffs, which, without control could be neglected (United Kingdom National Archives (later UKNA) CO 1071/366, 1926). Nonetheless, all these suggestions did not work for so long as they ceased to operate as soon as they were to be implemented. What remained obvious in place of the three suggestions was to discourage African coffee production, an alternative taken when it was too late already. Peasants continued to increase their coffee cultivation and intensification of their small plots to respond to questions of land availability for other purposes.

Table 1: Coffee Production During the Experimental Stage in Kilimanjaro up to 1925

	1916	**1922**	**1923**	**1924**	**1925**
No. of planters		592	1,400	3,320	6,916
Bearing Trees	37,153	36,265	68,714	141,138	381,509
Immature trees	51,194	142,155	304,478	573,007	844,607
Total Trees	**88,347**	**178,420**	**373,192**	**714,145**	**1,226,116**

NB: For obvious reasons no data were available for 1917, 1918, 1919, 1920 and 1921. It was a period of transition from German to British colonial rule. Germans prepared the 1916 data and British started to prepare theirs in 1922.

Source: Report on Tanganyika Territory for the Year, 1925: 53**.**

Between 1923 and 1935 major increases and improvements in production took place in both peasant and settler productions. The period of experimentation started to transition into a period of prosperity and coffee booming. This was experienced in the number of planters, coffee acreages under cultivation and coffee output. The number of growers increased from 3,000 in 1923 to more than 18,000 in 1935. Crop productivity increased from less than one thousand tons in 1923 to more than 16,000 tons in 1935. Coffee trees jumped from less than a million in 1923 to more than seven million in 1935 (Tanganyika Territory, 1926; Bennet, 1935). By 1926, peasant coffee farming was established more in Bukoba than Kilimanjaro, as the former had passed the experimentation stage, while the latter was in a slow transition.

In Bukoba African growers owned 5,000 acres of coffee against 500 acres of European growers. At the same period, Moshi had 5,000 acres of African growers against 30,000 acres of European growers. Other areas of north-eastern Tanzania, for example, Arusha had 60 acres and 9,000 acres for Africans and Europeans, respectively; while Tanga had 5 acres and 5,500 acres for Africans and Europeans, respectively. However, in the Usambara's there were no African coffee growers, while Europeans had 2,500 growers (UKNA CO 1071/366, 1926;

House of Commons–UK parliament records, later HC, 6th March 1929; HC, 16th March 1925). The extent of land devoted to coffee farming reflected the amount of coffee yields resulting from these regions. In the Northern Province, unlike the Lake Province (Bukoba), settler estates owned large coffee farms while African peasants were struggling to establish theirs. A comparison of exported coffee between 1930 and 1933 indicates that African peasant production from Kilimanjaro competed closely with settlers (African produce in brackets) as in 1930 export coffee was 1918 tons (756); 1,073 (563) in 1931; 1,506 (1,033) in 1932; and 1,378 (1,008) in 1933. Likewise, Arusha exported (African in brackets) 1,373 (45) in 1930; 805 (33) in 1931; 1,285 (44) in 1932; and 2,123 (160) in 1933.

The above statistics are illustrative of the extent to which coffee farming was taking place on peasant and settler basis. This was a result of the failure of heavy capital investment in the Usambara during the German period where concentration was shifted mainly to Kilimanjaro and Arusha to a lesser extent (Fughes-Couchman, 1964). Later on, in 1935 export coffee placed Kilimanjaro second in Tanganyika Territory after Bukoba. The leading Bukoba exported a total of 10,882 tons, while both peasant and settler farms in Kilimanjaro exported 2,000 and 5,234 tons, respectively. Other areas of the territory growing coffee contributed only 672 tons out of the total 18,588 tons of annual coffee export (Tanganyika Territory, 1936). In the 1930s coffee production in Kilimanjaro moved from experimentation into an economic enterprise dependable by both peasants and the government. Successful peasant farming of coffee in Bukoba satisfied the government to allow the same on the slopes of mountain Kilimanjaro and Meru. Peasant coffee production by 1938 comprised more than seventy per cent of export coffee, while less than thirty per cent was produced on estates. It was the same time also when coffee produced in Bukoba was considered of low quality, which in one way boosted and turned the attention of the government from Bukoba to the slopes of Mountain Kilimanjaro and Meru (HC, 6th June 1924; HC, 2nd March 1938).

Several conclusions can be made out of the statistics above. First, African production was relatively higher in Moshi District followed by Arusha and Usambara where few estate farming existed. Second, the outcome for this expansion of coffee cultivation over land use by Africans could well be felt more in Kilimanjaro and somehow in Arusha than in other parts of the territory, excluding Bukoba where not many land use concerns were reported during the time. Land use was entwined in vested interests of peasants and settler estate farming. Third, settlers were quite right when they put up pressure against peasant coffee farming in Kilimanjaro because peasants threatened their autonomy over coffee farming and trade (UKNA CO 691/102/7; TNA 5/23/1). Also, the peasants posed a strong competition for fertile land and the availability of reliable labour for estates. They also competed with estates for

getting labour from other ethnic communities who went to Kilimanjaro for wage labour, as peasant farming also employed some wage labourers (Swai, 1979). In this case, settler accusations over indigenous production of coffee were not linked with the carelessness of peasant coffee farming, but rather with the challenges on labour, land and the coffee market.

The above historical developments show active adaptation and engagement of peasant coffee farming in Kilimanjaro. The introduction of coffee on the mountain slopes totally influenced changes in the minds of people and ways through which land use was organised. Coffee cultivation increased the potential for *kihamba* land, and similarly made use of areas formerly considered lightly marginal that were used for free grazing (KOT 2, 2014; Woodley, n.d).

2.2 Kihamba *as a Social Space*

The introduction of new plants, food and cash crops in Kilimanjaro, especially from the end of the 19th century, contributed largely to the social binding that created the *kihamba* culture. *Kihamba* was -- and still is -- more than a farm or a settlement. It is a socially created and imagined space differentiated from all other spaces on the mountain slopes, or elsewhere in Tanzania. Guy Davenport (1954) provides a detailed analysis on how 'imagination' over a landscape can influence ways through which societies interact with their environments, and how such imagination influence land use. Being a Chagga is synonymous to having affiliation to the slopes of Mt. Kilimanjaro.[3] The environment outside the banana groves belt was for others; people of the wilderness, traditionally known as *kysaka*[4] in one of the Chagga dialects in Rombo (KOT 19, 2015; KOT 51, 2015).

Such a conception of the two ecological landscapes made it increasingly difficult for the Chagga to accept permanent movement into the lowlands. Otherwise, an external pressure was to be applied (Mkenda, 2009). This association of the Chagganess with the highlands of Mt. Kilimanjaro is maintained by a social and customary right to belong to the land when alive and dead (Durant, 2009; Hasu, 2009; Myhre, 2017). Cash crop production alone could not make the reluctant Chagga to relocate from the mountain but the social aspect of belonging was significant and more likely stronger than economic intentions. If economic purposes were stronger ties to the mountain, then the decline of coffee economy would experience a massive and rapid move away from the highlands. Social affiliation to the social and physical space of the mountain was selective as not everyone was included. Burial for example was an entitlement reserved for clan

[3]Almost all interviews collected in Kilimanjaro, highland and lowland, recounted the social and economic significance of *kihamba* and the affiliations that people had developed to their landscape.
[4]Each Chagga dialect had a word referring to this.

members who also had reflective rights on inheritance of *kihamba* land upon fathers' wish and death. Otherwise, it could not be done on *kihamba* if the deceased had no such righteous entitlements as defined socially and culturally (KOT 5, 2014; KOT 6, 2014; KOT 73, 2015; Myhre, 2018).

In connection to the above, women had no rights over land on the slopes of Kilimanjaro. They could only be affiliated to it through marriage. They belonged to the land that husbands belonged, and not otherwise. Marriage ensured sustainability of clans on one side, and on the other it provided right of belonging to ancestral land for women who could not otherwise be entitled to belong to clan land (Mbonile et al., 2003). This was also reflected when women died. Unmarried women were buried on the boundaries of their father's *kihamba* because they had no paternal right over it, and no one on the mountain slopes allowed his *kihamba* to be used for burial of a person from a different clan (Maro, 1974).

Kihamba as a social space does not seem to foresee any future decline among the Chagga ethnic group as it is fully embedded in people's ways of life. The social ties and relations binding clans to the mountain remain strong, although the inheritance of *kihamba* land on the slopes has progressively fallen into a lesser practice due to unavailability of large plots of land. The Chagga have established and maintained a new form of relationship with the mountain where they go back to when they face problems in their daily activities; and as an annual visit to the land which other ethnic groups in Tanzania refer to as a pilgrimage to the Chagga ancestral land. Although the allegiance to the mountain seems to be an old affair for old members of the society, young Chagga see it as an opportunity to go home and explore what it all means to be a Chagga. *Kihamba* can only decay on the economic roles it used to offer due to the on-going climatic and economic preference changes in response to the market and production, but will remain stable as a social space for a long time.

The reasons for the decline of *kihamba* as a productive space are obvious: population increase, decline of the size of *kihamba*[5] due to continued fragmentation, and most notable is the unpredictable price of coffee that fails to meet costs of production (Grove, 1993; Kitalyi & Soini, 2004; Winter, 2009; Banzi & Mwaigomole, n.d). However, the economic decline of the roles of *kihamba* has nothing to do with the social side. It remains unchallenged where relatives from different parts of the slopes and the country would go back to the mountain to see grandparents, attend burial ceremonies, and so on. However, intermarriage between the Chagga and non-Chagga can be a threat to the future of this allegiance to the highlands as different cultures and beliefs about the mountain may end up ignoring going back to the mountain.

[5] The size of *kihamba* declined from as large as three or more acres to less than a quarter of an acre.

2.3 Kihamba*: Conservation or Intensification?*

The land acquired through traditional ways to become clan land was taken care of by all clan members. It was a land where all spiritual, religious and social functions were performed by a particular clan (Munson, 2005). On such clan land, people from different clans had no right to use it in any other way. They observed high level of environmental preservation of the *kihamba* because it was easier to monitor clan land use than communal land. Conservation aimed at ensuring continuity of utilising particular pieces of land for a long period (Munson, 2005; 2013). This became the origin of the traditional *kihamba* land tenure, because the owner of such land was able to pass down ownership to his sons on a hereditary basis (Munson, 2013). This kind of land acquisition was possible in the early days of frontier settlement on the mountain slopes, especially on the highlands, but the way to acquire land changed significantly as population increased, and the introduction of coffee cultivation colonial activities (Bender, 2013). After the introduction of coffee as a cash crop, Kilimanjaro experienced a high level of unprecedented expansion to new lands. Both progressive Africans and Europeans acquired land leaving a majority of the people landless (Iliffe, 1979; Kimambo, 1991; Spear, 1996).

Normally, the *kihamba* and *shamba* land tenure systems operated side by side in the Chagga economy, although they represented different roles for the rural economy. The *shamba* was regarded as a man's supplement to the higher slopes family/clan *kihamba*. *Shamba* land was given only seasonally and would be required by the chief when the crops were reaped and when the *shamba* land was required to be given as a *kihamba* land to someone. The temporality of tenure on the lowlands made a sharp contrast between the highlands and the lowlands. While on the highlands, owners of land planted trees and made good use of it for sustained clan inheritance, on the lowlands little attention was given on the land because there was no assured continued use over subsequent growing seasons. This echoes well with what Meek (1949) points that the type of land tenure and land use can affect each other.

The agroforestry culture developed on the highlands was delayed on the lowlands up until the 1950s when permanent settlement started to establish. Lowlands experienced some new practices of what was taking place on the highlands in regard to forestry culture. The kind of afforestation on the lowlands was new in the sense that the traditional old grown-up tree species were cleared during seasonal occupation of the areas, while new trees were planted on farm boundaries, leaving large areas of the farms without trees. Forestry culture on the lowlands was not the same as the one on the highlands, but at least it indicated a transfer of knowledge and experience from the highlands to the lowlands. In some few lowlands such as in Moshi, Siha and Hai districts, some home gardens may be seen though they are not exactly the

same as those existing on the highlands. What existed on the highlands was both an aspect of conservation and intensification. The use of smaller land areas for production of multiple crops entails land intensification on the highland slopes.

3. Conclusion

To understand the dynamics of rural land use and the development of the rural sector requires tracing its historical precedence. Agricultural land use on the slopes of Mt. Kilimanjaro is historically rooted on struggles over land ownership and varied interests. Currently, those who are unable to own or find land in the highlands are the ones moving to the lowlands, while at the same time maintaining the highland socio-cultural space. The paper has examined the dynamics of land tenure, use and conservation of natural resources on the slopes of mount Kilimanjaro, indicating that the type of land tenure meant a lot to the general land use. The highlands that was regarded as a good land, a sanctuary for the Chagga, was reserved for settlement and cultivation of a lucrative coffee crop. Coffee could not grow on the lower altitudes but the highlands could favour multiple crops. The lowland *shamba* was regarded as marginal land: a land suitable for the non-Chagga (*kyasakas*). Even when the lowlands received commercial value from the 1950s, still the highland population continued to use it seasonally and went back to the highlands. However, as the preceding discussion has shed light, movement from the highlands to the lowlands is now a common practice since the 1950s.

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References

German East Africa: *Annual Reports, 1905 - 1906* (Translated into English by anonymous author and deposited at History Department, University of Dar es Salaam).

Amborn, H. (1989) Agricultural intensification in the Burji–Konso cluster of Southern Western Ethiopia. *Azania, 24*(1*),* 71-83.

Banzi, F., Boerma, D., and Mwaigomole, G. (n.d) Kihamba agroforestry and Maasai Pastoral Systems. *(GIAHS Tanzania).*

Bender, M.V. (2011) Millet is gone! Considering the demise of eleusine agriculture on Kilimanjaro. *The International journal of African historical studies*, *44*(2), 191-214.

Bender, M.V. (2013) Being 'Chagga': natural resources, political activism, and identity on Kilimanjaro. *Journal of African History* 54(2), 199-220.

Bender, M.V. (2019) *Water brings no harm: management knowledge and the struggle for the waters of Kilimanjaro*. Ohio University Press.

Bennet, A.L.W. (1935) A short account of the work of the Kilimanjaro Co-operative Union Ltd. *The East African Agricultural Journal* 1(2), 169-174.

Börjeson, L. (2004) *A history under siege: intensive agriculture in the Mbulu highlands, Tanzania, 19th century to the present*. Stockholm, AUS-Stockholm Studies in Human Geography 12.

Börjeson, L. (2007) Boserup backwards? agricultural intensification as its own driving force in the Mbulu highlands, Tanzania. *Geografiska Annaler Series B, Human Geography* 89(3), 249-267.

Boserup, E. (1965) *The conditions of agricultural growth: the economics of agrarian change under population pressure.*

Davenport, G. (1981) *The geography of the imagination*. San Fransisco, North Point Press.

Dundas, C. (n.d) History before British occupation. *Moshi District Book, Vol. I* (Sheets 4 & 5).

Durrant, J. (2009) Global adventure and conservation icon. In: Clack, T.A.R. (ed.), *culture, history and identity: landscapes of inhabitation in Mt. Kilimanjaro area, Tanzania: essays in honour of Paramount Chief Thomas Lenana Mlanga Marealle II, 1915–2007*. London, BAR International Series, pp.27-38.

Foreign Office. (1920) *Tanganyika: German East Africa, Handbook Prepared under the Direction of the Historical Section of the Foreign Office, No. 113* (London, H. M. Stationery 1920).

Fughes-Couchman, N.R. (1964) *Agricultural change in Tanganyika: 1945–1960.* Stanford University, Food Research Institute.

Gilbert, S.M. (1945) the mulching of coffee arabica. *The East African Agricultural Journal* 11(1), 75-79.

Grove, A. (1993) Water use by the Chagga on Kilimanjaro. *African Affairs* 92(368), 431-448.

Hakanson, T. (2008) Regional political ecology and intensive cultivation in pre-colonial South Pare, Tanzania. *The Journal of African Historical* Studies 41(3), 433-459.

HC (House of Commons, UK parliament), 2nd March 1938, Tanganyika (Coffee Export), Hansard Parliamentary Debates Vol. 332, Cols. 1129–1130.

HC, 6th June 1924, Native Coffee Growing, Hansard Parliamentary Debates, Vol. 175, Col. 27.

HC, 6th March 1929, Tanganyika (Coffee), Hansard Parliamentary Debates, Vol. 226, Col. 378.

HC, 16th March 1925, Tanganyika (Coffee Production), Parliamentary Debates, Vol. 181, Col. 1833.

Ikegani, K. (1994) The traditional agrosilvipastoral complex system in the Kilimanjaro region, and its implications for the Japanese assisted lower Moshi irrigation project. *African Study Monograph* 15(4), 189-210.

Illife, J. (1971) *Agricultural change in modern Tanganyika: an outline history.* Dar es salaam, East African Publishing House.

Iliffe, J. (1979) *A modern history of Tanganyika.* Cambridge, Cambridge University Press.

Johnston, P.H. (1946) Some notes of land tenure on Kilimanjaro and the vihamba of the Wachagga. *Tanganyika Notes and Records* 21.

Jonston, H.H. (1886) *The Kilimanjaro expedition: a record of scientific exploration in eastern equatorial Africa.* London, Kegan Paul.

Kathleen, S. (1964) *History of the Chagga people of Kilimanjaro.* The Hague, Mouton and Company.

Kimambo, I.N. (1991) *Penetration and protest in Tanzania: the impact of the world economy on the Pare 1860-1960*. London, James Currey.

Kirey, E.R. (2012) Land conflicts in Moshi-Rural District, 1930-2000. University of Dar es salaam, MA Dissertation.

Kirey, E.R. (2018) Land related conflicts in Uchagga, 1960-2000. *Utafiti,* 13(1), 34-53.

Kirkpatrick, T.W. (1936) Ecology of coffee plantations: climatic conditions in East Africa coffee plantation. *The East African Agricultural Journal* 1(6), 476-486.

Kitalyi, A. and Soini, E. (2004) Chagga homegardens, a threatened ecosystem: potential development options to reverse the trend. International Centre for Research in Agroforestry, The Prunus Tribune.

Krapf, J. L. (1968) Travels, researches, and missionary labours during an eighteen years' residence in eastern Africa. With an appendix by E. G. Ravenstein. Second edition, with a new introduction by R. C. Bridges. London, Frank Cass and Co. Ltd.

Little, M. (1991) Colonial Policy and Subsistence in Tanganyika, 1925–1945. *Geographical Review,* 81(4).

Macha J. G Meckary, M.J.G. (1997) Land tenure and fertility change in rural areas: the case of Kilimanjaro region. University of Dar es salaam, M.A Dissertation.

Maro, P. (2009) The impact of human population on land management. In: Clack, T.A.R. (ed.), *culture, history and identity: landscapes of inhabitation in Mt. Kilimanjaro*

area, Tanzania: essays in honour of Paramount Chief Thomas Lenana Mlanga Marealle II, 1915–2007. London, BAR International Series, pp.207-212.

Maro, P.S. (1974) Population and land resources in Northern Tanzania: the dynamics of change, 1920–1970. University of Minnesota, PhD Dissertation.

Mbonile, M.J. (2006) Migration widows of Rombo District, Kilimanjaro region. *Les Cahiers d'Afrique de l'Est,* 32(33).

Mbonile, M.J., Misana S.B and Sokoni, C. (2003) Land use change patterns and root causes on the southern slopes of Mt. Kilimanjaro, Tanzania. *LUCID, Working Paper* No. 25.

Mdoe, N. (2009) Coffee and dairying in Kilimanjaro: historical development, income diversification in the livelihood of the Chagga. In: In: Clack, T.A.R. (ed.), *culture, history and identity: landscapes of inhabitation in Mt. Kilimanjaro area, Tanzania: essays in honour of Paramount Chief Thomas Lenana Mlanga Marealle II, 1915–2007*. London, BAR International Series, pp.213-224.

Meek, C.K. (1949) *Land law and custom in the colonies*. London, Oxford University Press.

Meyer, H. (1891) *Across African glaciers: an account of the first ascent of Kilimanjaro.* London, George Philip and Son.

Misana S.B. et al. (2003) Linkages between changes in land use, biodiversity and land degradation on the slopes of Mt. Kilimanjaro, Tanzania. *LUCID: Working Paper* 38.

Mkenda, F. (2009) Becoming Chagga: population and politics around Kilimanjaro before 1886. In: Clack, T.A.R. (ed.), *culture, history and identity: landscapes of inhabitation in Mt. Kilimanjaro area, Tanzania: essays in honour of Paramount Chief Thomas Lenana Mlanga Marealle II, 1915–2007*. London, BAR International Series, pp.125-140.

Moore, S.F. (2009) Past in the present: tradition, land and customary law on Kilimanjaro 1880-1980. In: Clack, T.A.R. (ed.), *culture, history and identity: landscapes of inhabitation in Mt. Kilimanjaro area, Tanzania: essays in honour of Paramount Chief Thomas Lenana Mlanga Marealle II, 1915–2007*. London, BAR International Series,pp.39-76.

Morison, T. (1933) The Wachagga of Kilimanjaro: reminiscence of a war time. *Journal of the Royal African Society* 32(127), 140-147.

Munger, E.S. (1952) African coffee on Kilimanjaro: a Chagga kihamba. *Economic Geography* 28(2), 181-185.

Munson, R. (2005) The landscape of German colonialism: Mt. Kilimanjaro and Mt. Meru ca. 1890–1916. University of Boston, PhD Dissertation.

Munson, R. (2009) Continuity and change in the historical landscape of Mt. Kilimanjaro: the Rau forest and Ashira Parish. In: Clack, T.A.R. (ed.), *culture, history and identity: landscapes of inhabitation in Mt. Kilimanjaro area, Tanzania: essays in honour of Paramount Chief Thomas Lenana Mlanga Marealle II, 1915–2007*. London, BAR International Series, pp.155-170.

Munson, R. (2013) *The nature of Christianity in Northern Tanzania: environmental and social change, 1890–1916.* Boulder, Lexington Books.

Myhre, K.C. (2018) *Returning life: language, life force and history in Kilimanjaro* (Vol. 32). Berghahn Books.

Nayenga, P.F.B. (1981) Commercial cotton growing in Busoga District, Uganda, 1905–1925. *African Economic History* 10, 175-195.

Ogutu, M.A. (1972) The cultivation of coffee among the Chagga of Tanzania 1919–1939. *Agricultural History* 46(2), 279-290.

Päive, H. (2009) People of the banana garden: placing the dead at the ultimate home in Kilimanjaro. In: Clack, T.A.R. (ed.), *culture, history and identity: landscapes of inhabitation in Mt. Kilimanjaro area, Tanzania: essays in honour of Paramount Chief Thomas Lenana Mlanga Marealle II, 1915–2007*. London, BAR International Series, pp.77-87.

Sen, A. (1959) The choice of agricultural techniques in underdeveloped countries. *Economic Development and Cultural Change.* 7(3), 279-285.

Spear, T. (1996) Struggles for land: the political and moral economies of land on Mount Meru. In: Giblin, J., Kimambo, I.N and Maddox, G. (eds.), *Custodians of the land: ecology and culture in the history of Tanzania.* Oxford, James Currey 1996, pp.213-240.

Swai, B. (1983) Colonial rural development policy and agrarian protests in Tanganyika Territory: The Usambara Case; 1920–1960. *Transafrica Journal of History,* 12(12), 153-174.

Swai, B.B. (1979) The labour shortage in 1930's Kilimanjaro and the subsequent employment of child labour. *Utafiti: Journal of the Faculty of Arts and Social Sciences University of Dar es Salaam* IV(2), 111-132.

Swynnerton, R.J.M. (1947) Onion cultivation on Kilimanjaro. *The East African Agricultural Journal* 12(3), 176-179.

Swynnerton, R.J.M. (1948) Further note on onion experiments on Kilimanjaro. *The East African Agricultural Journal* 14(1), 23-25.

Tanganyika Territory. (1941) Annual Report of the PC on Native Administration for the Year 1940.

Tanganyika Territory. (1936) *Report by His Britannic Majesty's Government to the Council of the League of Nations on the Administration of Tanganyika Territory for the Year 1935*. London: H. M. Stationery Office.

TNA 207/449: Game and Tsetse; Tsetse Fly Position in the Moshi Maize Growing Area.

TNA 5/23/1: Moshi: Kilimanjaro West Farmers Association, 1938–1950.

TNA 5/44: Moshi Boundaries–General, see files, 44/2, 44/3, 44/4, 44/5, 44/6, 44/7, 44/8, 44/9, 44/10 and 44/11.

UKNA (United Kingdom National Archive) CO 1071/366: Report on the Tanganyika Territory of His Majesty's Britannic Government to the United Nation's Trusteeship Council for the Year, 1926.

UKNA CO 691/102/7: Unrest in Kilimanjaro; Situations that has arisen among the Natives.

UKNA CO 691/159/6: Tanganyika Territory, Soil Erosion, Annual Report, 1937.

UKNA CO 1071/366: Report on Tanganyika Territory Report of His Majesty's Britannic Government to the United Nations Trusteeship Council for the Year, 1925 (London: His Majesty's Stationery 1926).

Unknown Author. (1885) The Kilimanjaro expedition. *Science* 5(107), 152-154.

Widgren, M. and Håkanson, N.T. (2016) Introduction: landesque capital, what is the concept for? In: Widgren M. and Håkanson, N.T. (eds.) *Landesque capital: the historical ecology of enduring landscape modifications.* Left Coast Press, Walnut Creek, CA, pp. 9-30.

Wimmelbücker, L. (1999) Production and Living conditions: The Kilimanjaro Region, c.1800–1920. University of Hamburg, PhD Thesis.

Winter, C. (2009) The social history of the Chagga in outline with special reference to the evolution of the homegardens. In: Clack, T.A.R. (ed.), *culture, history and identity: landscapes of inhabitation in Mt. Kilimanjaro area, Tanzania: essays in honour of Paramount Chief Thomas Lenana Mlanga Marealle II, 1915–2007*. London, BAR International Series, pp.272-303.

Woodley F. J. (n.d). Notes on the Arusha District.