1.0 INTRODUCTION

The aim of this paper is to present a conceptual framework which puts forth the argument that both land use and land tenure in Africa have undergone an evolutionary transformation from the simple to the complex since the humanization of the continent. This conceptual framework departs significantly from the general intellectual picture which has been painted especially since the attainment of political independence in many African countries, that both land use and land tenure were characterized by simple subsistence modes of production based on communal or egalitarian land tenure systems (Yudelman, 1964; July, 1975).

Thus the paper attempts to show that although subsistence production and communal land tenure systems are still prevalent in many parts of sub-Saharan Africa, a careful examination of the literature would seem to suggest that land use has evolved in certain regions from simple subsistence and shifting cultivation to sedentary or permanent types; while land tenure has also evolved over the passage of time from communal forms to those types in which individual control and ownership are emphasised. Thus, this conceptualization has implications relating to the promotion of sustainable agriculture in Africa.

2.0 LAND USE:-

Land use in rural Africa, which refers to the usage under which any given piece of land may be put for a given period of time under prevailing environmental and technological conditions, has undergone an evolutionary transformation, from the simple hunting and gathering to the more complex sedentary or permanent and commercial cultivation systems.

According to Pritchard (1979), land use in tropical Africa has evolved from Hunting and Collecting practiced by the Bushmen in the Kalahari desert and other nomads such as the Pygmies in the Zaire/Congo Basins through Shifting cultivation which is still widely practiced in the Miombo woodlands of sub-Saharan Africa, especially where population is sparse to Bush Fallowing in which the cultivator returns to an abandoned patch of land once the soil and vegetation has recuperated. In this system, the cultivation of root crops such as yams and cassava have led to semi-permanent cultivation and settlements as the cassava fields are extended annually and the crop remains stored underground and is only harvested when required.

Indigenous farms of sedentary/permanent agriculture have been found to exist in the Sahara among the Souafa populations who cultivate palm trees, rice, fruit, cotton, vegetables, eucalyptus
trees and keep sheep, goats and camels in areas where fossil underground water is available (Pritchard 1979, p. 88).

Sedentary agricultural land use also includes the various indigenous agronomic complexes such as those of the Kuba and Zande peoples in the Congo involving cassava - cereals - legumes rotations; the Sonjo sweet potatoes - cereals - irrigation complex in Tanzania; the Lugbara cassava - cereals - legumes - bananas complex in Uganda and the West African Rice - Tubers- Legumes based agronomic complex (Kajoba, 1993). In other agronomic systems, different types of cereals, legumes, root crops, cucurbits and fruit trees were cultivated, and irrigation, crop rotations, cattle and green manuring were practiced to ensure agricultural sustainability.

Furthermore, the introduction of cash crops such as cotton, tobacco, tea, groundnuts etc. during the colonial period, have resulted in the diffusion of modern, sedentary and commercial land use practices from European settler farmers to African farmers who started production for the cash market.

In his classification of traditional land use systems in Zambia, Schultz (1976) also presents what amounts to an evolutionary development of land use, from the simple to the complex. He first identifies the shifting axe and hoe cultivation, which is the original mode of land use practiced in higher rainfall regions. This is the shifting cultivation mode of land use in which crops are sown in the ash, which results from burning felled trees. The period of agricultural use is limited to a few years (not more than four years). The shifting of fields may also be accompanied by the relocation of villages. Rights of possession or user rights to the land are not upheld after fields are abandoned. The level of technology is limited to the use of an exe and hoe for land preparation.

Along riverine locations associated with the rift valley where alluvial sediments offer highly productive sites for cultivation, the semi-permanent hoe cultivations has evolved. Under this system, continuous arable use may last up to ten years, and short fallow periods are needed for the recovery of soil. This system makes it possible for small land requirements per family, and facilitates a more stable land settlement and land tenure system.

Another aspect of the semi-permanent hoe cultivation is that which has developed around the lakes and large swamps especially in Luapula Province. Here, commercial fishing is combined with cassava cultivation, which is sustained over long periods in the productive chipya soils. In the Mwinilunga system, “the original chitemene system has been extensively replaced by a semi-permanent cassava cultivation” (Schultz, 1976, p. 69).

The next stage in this evolutionary development is the emergence of the semi-permanent hoe and ox-plough cultivation, which has developed among the Luvale, Lozi and Mambwe peoples. Among the Lozi and Mambwe, cattle raising offers an opportunity for ox-drawn ploughing which facilitates expansion of cultivated areas. Soil fertility is maintained by the application of cattle manure. These indigenous semi-permanent agronomic systems were first identified during the colonial period by Trapnell and Clothier (1996).

In this system, cultivation is semi-permanent or even permanent, and is characterized by the complex variety of agricultural techniques, which have been developed in adaptation to the various natural conditions especially on the Central Barotse plain. Because plots are small on the flood plain, farmers have intensified cultivation on these plots found on fertile alluvial soils by using oxen to plough and by the application of cattle manure.

In the Mambwe system in Mbala, cultivation is based on crop rotation in the mound system where beans, maize and cassava have displaced sorghum and finger millet. Although the holdings are small on average, about four different varieties of crops are cultivated.

Due to the impact of modernization especially in those regions where there was a marked presence of European commercial settler farmers (in Central, Southern and Eastern Plateau regions) on state land, there has developed a semi-commercial ox and tractor plough cultivation on traditional land. A widespread adoption of oxen and tractors for ploughing has taken place. Permanent cultivation on relatively large rectangular holdings has been made possible by the application of fertilizers and cattle manure.

Although production for subsistence is still maintained, many small-scale and medium-scale farmers produce crops such as maize, cotton, sunflower etc. for the cash market. The
increase in commercialization in this land use system has led to crop specialization and the overwhelming dominance of maize as both a cash and food crop.

3.0 LAND TENURE

A careful examination of the literature would seem to suggest as indicated above that Land Tenure in Africa has also gradually evolved from the simple to the complex; from the communal types to those where there is more tight control over allocation of land, suggesting more individual control of land.

White (1959) defines land tenure as "the rights of individuals or groups over arable, grazing and residential land, how such rights are acquired, what they consist of, how they operate in the holding, transfer and inheritance of land and how they may be extinguished" (White, 1959, p. 172).

A number of African land tenure systems were identified by White (1959), which included the following:-

(a) Societies in which an individual obtains land rights by residence, without allocation through a hierarchy of estates:-

This was the most prevalent type of land tenure in pre-colonial Africa (and in Zambia) where land was generally plentiful and the populations were sparse. Individual families within a given village usually acquired land by clearing virgin bush; by land transfer; and by inheritance (Conroy, 1945). As long as individuals were politically acceptable in the community/village, they acquired a piece of land after consulting the village headman, who in turn had constant contact with the subchief or chief.

Once an individual had acquired a piece of land, the community protected his/her rights to its use as long as he continued to use it. When not in use, land reverted to the community. The individual did not own the land as such but enjoyed its usufruct. The Chief did not own the land either - but held it in trust for his people. Since the Chief did not own the land, he did not extract surpluses from the subsistence cultivation peasantry in the form of a permanent land tax, although the people could give him gifts of food and relish (such as meat and fish) and beer especially at special ceremonies to cerebrate the new harvest.

The Chief and his subjects participated in direct production of their own food for subsistence and the subsistence cultivation peasantry especially women, controlled the produce in their own granaries (Crehan, 1983). Thus, under this system of subsistence production and communal tenure, society was egalitarian and not sharply differentiated (Cabral, 1969, Yudelman, 1964).

(b) Land holding under the control of lineages:- In this system, access to agricultural land was exclusively reserved for the use by the members who traced their heritage from a common ancestry. Among the Luvale of North Western Zambia, White (1959a) found that the pattern of landholding was closely related to the matrilineages. As a rule, transfer of land rights among the Luvalé was between matrilineal relatives or friends, and the land rights of a deceased person were most likely taken over by a matrilineal relative.

However, transformations in land tenure had begun to emerge even under this matrilineal system in which access to land was based on lineage. Owing to the practice of long continuous cultivation of cassava gardens, the permanence of rights over plots of land held by individuals were inevitably strengthened (White, 1959a, p. 32).

White (1959a) further observed that due to land shortage especially in the Chavuma area, commercialization of land as a saleable commodity was quite marked. Transfer of land to persons outside a matrilineage for a cash consideration began to take place and was quite common. According to White (1959a), the sale of land at Chavuma appeared to have reached a more developed form than in most parts of Northern Rhodesia (Zambia). Surplus gardens with crops and surplus resting land were sold and "prices were high" (White, 1959a, p33). On the whole, the rights of individuals to sell land appeared to be strong enough to enable them to do so without obtaining the consent of their head of the matrilineage. This commercialization of land
emerged among the Luvale of Chavuma despite the fact that land had acquired a close association with the matrilineage.

Lineage land-holding was also found among the Lungu patrilineages on the shore of Lake Tanganyika, who emphasised close identification of individual holdings with their patrilineages (White, 1959a, p.31).

In Ethiopia, Gilks (1975) shows that in the Tigre/Amhara area of the North, the system of land tenure was controlled by lineages and was known as Rist. The land belonged to the founder of the genealogy. All male and female descendants had equal claim to the land within the family.

(c) Societies in which Chiefs exercised direct control over allocation of land with a descending hierarchy of estates:

This form of land tenure was associated with the emergence of centralised pre-colonial states or kingdoms. Skinner (1964) shows that in the pre-colonial semi feudal agrarian-social structure of the Mossi empire in Burkina Faso, the King and the chiefly classes controlled land and assigned land rights to their subjects who included serfs, slaves, eunuchs and bondsmen. In Zambia, Barotseland (now Western Province) evolved a political and land tenure system that could also be described as evolving towards a quasi or semi-feudal type.

Land and other resources on the Zambezi flood plain were scarce and according to Lozi law all land in the kingdom belonged to the king (Gluckman, 1969, p. 253). The king controlled the termite and human made mounds on the flood plain. Other mounds were controlled indirectly by attaching them to the aristocracy (such as councilors/indunas) and the nobility (Princes and Princesses); care takers of royal graves and guardians of the king's cattle. The most prolific fishing sites, reed beds, bird - reserves, grazing sites and turtle lakes were reserved for the king (Gluckman, 1968, p. 26).

The mounds on which the staple sorghum crop was grown were highly productive and they acquired scarcity value. The village/home stead heads allocated the land and tended to monopolise the use of it. Commoners or peasants/serfs obtained land through their homestead heads and could inherit it. Clarence-Smith (1979) is of the view that a quasi landlord group emerged and tended to have privileged rights of access to arable land and other resources and could exclude people from obtaining access to them, although the subsistence cultivation peasantry/serfs had access to grazing land, hunting land and the poorer fishing cites. He adds that the landlord group with political titles owned resources privately and these were inherited within their families usually in the male matrilineal line. Furthermore, "there was often a whole hierarchy of landlords between the primary holder of land and the direct producers" (Clarence-Smith, 1979, p. 221).

This system of semi-feudal land tenure made some members of the aristocracy (the indunas) very powerful since they controlled personal/regional military personnel (Langworthy, 1972, p. 82).

(d) Feudal systems with landlords and tenants:

Feudal systems of land tenure and feudal relations of production emerged in many different parts of Africa, such as in parts of Bunyoro in Uganda and the Mailo system in Buganda (White, 1959, p. 173). In the south and west of Ethiopia, feudal land tenure emerged especially towards the end of the nineteenth century. Gilks (1975) shows that the emperor granted lands to the military commanders, the aristocracy; the nobility and the church. Such lands could be leased, mortgaged or sold. Although those groups which were granted land were expected to perform military service and pay land tax to the state they in turn collected various taxes from the tenants (Kiros, 1993, p. 31) such as land tax, education tax, cattle tax, agricultural income tax etc. The tenants/serfs, usually paid rent in kind, and the rent varied depending on the landlord. Usually tenants were expected to pay 50 percent of the harvest. In some cases, the rent was higher. Tenants who defaulted in their obligations could be evicted by the landlords and became landless (Gilks, 1975).
Individualised land tenure under commercial production:

The imposition of colonial rule in many parts of Africa, especially in sub-Saharan Africa, led to land alienation and the settlement of European commercial farmers. This was the case in Kenya, Malawi, Zimbabwe and Zambia. These settlers were granted individual freehold or leasehold tenure on what became crown or state land. In Zambia, like elsewhere, this process created two different legal systems, the long established customary land law and English land law (Mvunga, 1980).

With the passage of time, commercial agricultural production by European settlers in Zambia soon began to diffuse in the 1930s to African subsistence farmers who adopted new technologies such as hybrid maize and ox-drawn ploughs. This agricultural transformation was particularly noticeable among the Tonga people in Southern Province, but also occurred in Central and Eastern Provinces. Among the Tonga, traditional attitudes towards land began to give way to pressures for individualization of land tenure (North, et al, 1961). After the attainment of political independence, the diffusion of modern agricultural techniques led to the emergence of an indigenous group of commercial farmers (Baylies, 1979), who had interest in secure land tenure rights which were expressed in English/modern law. In this regard, Mvunga (1980) has contended that land tenure systems are not static, but dynamic; they are modified, restructured and respond to political and economic changes in society.

4.0 POLICY IMPLICATIONS

The policy implications arising from this conceptualization is that in order to resuscitate agricultural sustainability in sub-Saharan Africa, there is need to work towards an interface, between indigenous land use or cropping systems (which seem to be neglected) and modern market oriented systems.

This should involve incorporating into market production, traditional practices such as small-scale irrigation and inter cropping of cereals including local maize, different rice varieties, drought tolerant sorghums and millets and root crops such as cassava, yams and sweet potatoes. Such an approach could help broaden the food base and cushion against the impacts of periodic droughts, which have proven to be more devastating under the existing mono cropping agronomic regimes, which were introduced during the colonial period (Kajoba, 1996).

These indigenous agronomic systems should be modernized and brought into the market through attractive producer prices for the traditional crops and other supportive infrastructure including markets, extension and input supply through appropriate private sector, donor, NGOs and state interventions.

With respect to land tenure, the conceptual framework suggests that there is need to empower small-scale farmers (including women), with secure individual tenure so that they can experience a sense of ownership of their land holdings. This could involve making legal provisions, which allow small-scale farmers to gradually convert the traditional land which they cultivate, into leases with security enshrined in law rather than in custom. Such security can be used for collateral and ensure that women farmers do not suffer the insecurity which befalls them especially upon widowhood or divorce.

The paper contends therefore that changes in land use and land tenure which involve the incorporation of traditional/indigenous agronomic systems into market production, and the empowerment of small-scale farmers (including women) with secure land tenure, could contribute to the promotion of sustainable agriculture which can probably meet the challenges of the vagaries of weather especially in sub-Saharan Africa.

5.0 CONCLUSION

An attempt has been made in this paper to show that both land use and land tenure in Africa have evolved over time, from the simple to the complex; from extensive uses of land (such as under chitemene or shifting cultivation) to more intensive and permanent land use types. In the same way land tenure has also gradually evolved from the simple or communal types, to those in which individual land rights are more clearly expressed and even enshrined in law, such as under titling programmes in countries like Kenya (Birgegard, 1993), although the
subsistence/shifting forms of land use and the communal forms of land tenure do still survive in sparsely populated areas.

The policy implications of this conceptual framework is that both scholars and policy makers need to realise as indicated above that both land use and land tenure are dynamic and are capable of being transformed over the passage of time, as a result of internal dynamics of population increase and differential control of resources by emerging rural groups (Howard, 1980); the introduction of the money economy since the colonial period and general forces of modernisation which are likely to introduce new agricultural technologies such as cash crops, hybrid seeds and farming equipment.

Furthermore, these evolutionary changes are likely to bring forth new perceptions towards the usage and ownership of land (Kajoba, 1994), and therefore, future proposals for the reform of the surviving customary or communal land tenure systems which aim at transforming the African peasantry (Hyden, 1986), and empowering both men and women with secure tenure will have to be formulated in the context of this conceptual background. In the same vein, efforts aimed at promoting agricultural sustainability in sub-Saharan Africa will need to promote and incorporate indigenous agronomic and cropping practices into market production in order to broaden the food base and ensure household and national food security.
REFERENCES


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