

# Farmer Response to Urban Pressures on Land, the Tamale experience

**Over the last two decades, land use in Tamale has been changing from predominantly agricultural (for cropping and animal husbandry) uses to non-agricultural uses, such as provision of residential and recreational space, transportation facilities, waste disposal and industrial production, mainly dictated by the urbanisation phenomenon.**

This change has been driven by such factors as economic demands, consumption patterns and lifestyles (Heilig, 2002). Since land is now needed for uses besides agriculture and forestry in the urban centre, its value has shifted from a consideration of its fertility and other favourable bio-physical characteristics to that of its functions. This has resulted in the acquisition of some of the most suitable agricultural lands for residential developments, particularly those near the centre. There is a consequent decline in the farmed area and an increasingly limited access to the natural resources on which the livelihoods of the poorest depend. Nonetheless, urbanisation also presents a growing market. Tamale in Northern Ghana is a fast-growing city and has a population density of 326 persons per km<sup>2</sup> - the highest in the region (Ghana Statistical Service, 2000). Agriculture is the main occupation of most people in the metropolis, particularly those in the periurban areas (employing about 70% of the indigenous people). As agriculture keeps getting squeezed out of land use in the city, farmers find different ways of coping with the situation. Two main strategies can be identified that farmers have adopted in Tamale. These include changes in the land use pattern and joining forces with other individuals and groups.

## CHANGING LAND USE

Adapting to urbanisation, farmers use the land in the urban and periurban areas for

multiple purposes, like economic, educational or recreational. Vegetable production has now gained significant prominence as an income-generating activity. Farmers are taking advantage of the changing lifestyles of urban dwellers and the growing market to produce more exotic vegetables such as carrots, lettuce and cabbage. In Tamale, there are a number of water sources around which production activities are carried out on



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## Farmers now produce exotic vegetables for the urban market

open spaces. These include Builpela, Water Works, Zagyuri, Sognayili, Kpeni and Sangani. However, a common feature of all these locations is the dwindling size of land available for production. Apart from Sangani, farmers at the other areas cannot farm year-round, because landowners (who are also farmers) take back their lands in order to grow their own maize or sorghum crops (the main staples) during the rainy season. This is because crop farming is mainly rain-fed and these cereal farmers also have lost most of their farmlands to urban development and thus are compelled to use the same plots of land for their annual cereal farming. There is therefore a rotation of vegetable and cereal production each year on the same pieces of land. This arrangement among the farmers enhances the economic value of the land because it is never left fallow. The yield of the cereal crops is also

improved as the crops benefit from the soil improvement materials (e.g. compost and chemical fertilisers) vegetable farmers apply on the land.

At Sangani, students of the Faculty of Agriculture of the University for Development Studies have been doing research in the last few years with the farmers in vegetable production and have in turn introduced the farmers to organic farming. Due to its proximity to the city centre the Sangani fields also provide recreational services to tourists. These functions have survived the encroachment pressure largely because of the availability of water sources, which are believed to be sacred and are being preserved as a cultural heritage.

## JOINING FORCES

Next to changing land use an emerging phenomenon is the formation of commodity-based associations and networks of farmers. These groups are not highly developed but it is common to come across loose groups of producers that can rally together for social or economic interests (URBANET-N/G, 2005). Such groups have existed for some time now mainly for social reasons, such as attending weddings and funerals. However the trend now is towards the pursuit of more economic interests like securing credit, market access, etc. This serves as a good starting point for the development of viable farmer movements/coalitions for advocacy purposes.

The Urban Agriculture Network – Northern Ghana (URBANET-N/G) is a coalition of farmer associations, NGOs and government agencies (including research and training institutions). URBANET-N/G started as a pressure group called Tamale Urban Agriculture Working Group (TUAWG) to influence development of urban agriculture in Tamale in 2000. At a dissemination workshop held in 2003 on the findings of a study (The Potentials of Agriculture in Tamale) commissioned by ActionAid Ghana in 2000 participants decided to formalise the network as URBANET-N/G. The land issue is seen as a priority area for advocacy.

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## IMPLICATIONS FOR PLANNING AND POLICY MAKING

Realising the fast disappearance of farmlands in the metropolis, the Tamale Metropolitan Assembly indicated in its Medium Term Development Plan for 2001-2004 that it would reserve some green spaces in the city. However, this has yet to take shape. It is necessary for the city authorities to better integrate urban agriculture into physical planning and ensure secure land tenure for urban farmers. Multiple land use in the city has a high potential of contributing to the food security of urban dwellers as well as the social and environmental management of the city. The city authorities should therefore consider making strategic investments for food security and urban agriculture. These may include strategic investment plans (e.g. for micro-credit, technology, etc.) and participatory budgeting to promote good governance at the metropolitan level.

## CHALLENGES

The real contribution of urban agriculture to food security is not quite clear to many stakeholders, especially metropolitan authorities and traditional authorities who control the acquisition and use of land. This may be a major contributing factor to the low commitment to implement plans even when an attempt is made to incorporate urban agriculture into metropolitan management. All stakeholders (farmer coalitions, advocacy organisations, city authorities, traditional authorities, etc.) will need to work together to ensure that urban agriculture is not only included in metropolitan planning but also as an element in the multiple use of land and in environmental protection (Cabannes et al, 2001).

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# Multifunctional Land Use in a Small Urban Agricultural Community in Lagos

**Land use reflects the functional activities assigned to a particular piece of land. In the past fifty years of Nigerian National Agricultural Development Planning, urban agriculture has not been promoted as a feasible urban land use or activity. Its contribution to urban food security and employment has not been acknowledged yet because food production is often perceived as a rural-based activity.**

However, with increasing urban population growth, accelerated rural-urban migration, and food insecurity, the high cost of housing, traffic congestion and delays and a high unemployment rate, informal land use allocation for urban agriculture has become a common feature in the past twenty years. There are land use changes and multifunctional uses of informal urban agricultural land in Lagos. This paper investigates the functional linkages in land use types in urban agricultural land and the implication for urban food production using a case study approach.

## STUDY AREA

The study area, Alapere farm, covers 66.45 hectares, lies between latitude 06° 35' and 06° 36' and longitude 03° 23' and 03° 24' and is situated on the mainland portion of Lagos metropolis. It is one of the three cells within Kosofe agricultural block, which is one of the ten agricultural blocks delineated by the Lagos State Agricultural Development Authority. This enclave encompasses a small

farming community, where farmers share a common interest but cultivate and take decisions individually about what affects them collectively. This site was purposely selected because it is one of the vibrant commercial vegetable production areas in Lagos metropolis and it is typical of other agricultural areas in the study area.

## METHODOLOGY

Arc view GIS was used to map the enclave. The landuse classes used for the classification of Alapere Farm Enclave are: Agriculture (Market Gardening), Housing, Recreation, Commercial (Market), Refuse Dump, Religious Use, and Transportation. The proportion occupied was calculated using the GIS functions. IKONOS image with 1m spatial resolution acquired in 2004 was used for the mapping because it was the most recent image available. A questionnaire survey, informal discussions and observation methods were used to collect socio-economic data as well as other information on reasons for land use systems in the enclave.

## RESULTS AND DISCUSSIONS

The study revealed that large numbers of farmers are male and earn about US \$53.50 a month with little or no formal education. Women and children provide labour and marketing support to their husbands and fathers, and over half of the farmers belong to the Hausa- Fulani ethnic group, which migrated from the northern parts of Nigeria for dry season farming. There are farm owners who only coordinate farming activities, farm labourers and farmers who coordinate and who also perform cultivation activities.

The land was formally owned by the state government but has been sold to private individuals and organisations. Various types of land use activities take place at

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the agricultural enclave of Alapere farm. As indicated in figure 1, agricultural land use constitutes 43.56 hectares (65.56%) of the total area of the Alapere farm enclave. This is followed by housing which covers 8.07 hectares (12.23%), recreation on 4.47 hectares (6.72%), commercial activities occupying 3.07 hectares (4.62%), the refuse dump site 2.57 hectares (3.87%), and transportation on 2.57 hectares (3.87%). Religious activities (both Muslim and Christian) occupy the least space within the enclave with 2.14 hectares (3.22%). The most common



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**Uncompleted building used as a residence by farmers**

crops include both exotic (letus, spring onion, Parsley, Dheal, Radish and India spinage) and local (Water leaf, Amaranth spp, Ewedu C Oliferus, Bitter leaf, Fluted pumpkin, Tomatoes and Okra) vegetables.

Prior to the present developments, land use in Alapere was mainly for informal agriculture and landfill, but with the transfer of ownership to private individuals and organisations, land development for residential housing, religious activities, recreation and commercial activities has increased rapidly; and this has affected land use for food and food production related activities. For instance, the area of cultivated land within the Alapere farm enclave decreased from about 63 hectares in the 1970s to 43.56 hectares in 2004. Based on these changes, it can be deduced that multifunctional land use is due in part to a lack of proper planning, poor implementation and inefficient monitoring of the urban activities.

Other incentives for a multifunctional land use system include poor socio-economic status of the farmers, the perceived low cost of informal agricultural land, traffic delays and congestion that are common in Lagos, as well as the constant attention needed by cultivated vegetables. For these reasons farmers choose to construct and live in

wood and corrugated sheet buildings close to their crops or occupy uncompleted buildings that dot the farming landscape. For instance, the building in the photo houses over sixty farmers.

The findings also revealed that farmsteads act as centres where farmers socialise, entertain visitors and meet for discussions and deliberations on issues that enhance the social and economic development of the farming community. The enclave also acts as a location where food vendors, sachet water vendors, seed and fertiliser hawkers, as well as buyers of farm products can meet and trade. Islamic religious groups among farmers have common prayer areas, where other Alapere community members also worship. The farm enclave also serves as a domestic landfill for residents and farmers within the community.

#### IMPLICATIONS FOR MUNICIPAL POLICY AND REGULATIONS

This multifunctional use of the land in the Alapere farming community has both positive and negative effects. It shows that living and farming in the same environment enhances sustainable socialisation and the community togetherness necessary for peaceful coexistence in a multi-ethnic society such as Lagos.

It further facilitates the close attention required to tend vegetable crops, reduces crop theft and also enables farmers to react promptly to pest and insect infestations. Multifunctional land use within an urban farm environment saves time that would otherwise be wasted due to traffic congestion and delays that are common in Lagos, thereby increasing productivity, raising income, improving nutrition and health and alleviating poverty. This is particularly true now that the Lagos government has intensified its efforts to ensure food security and to increase the socio-economic statuses of the urban poor. Multifunctional land use allows poor urban households access to cheap and affordable land for accommodation, which makes living in the city affordable and possible for them (Oyeleye, 2001).

However, because Alapere lies within the unplanned areas, it (like other farming enclaves) lacks sanitation and sewage

facilities and waste is dumped intermittently with farming activities. This combined with the use of pesticides and other chemicals, and the pooling of water can present risks to those living in this environment (Birley et al 1999; Zeeuw, 2000). Women and children are particularly exposed to health and environmental threats as children play around the contaminated areas unprotected. The negative impact of the situation could undermine efforts by the urban poor to increase the food supply for the growing Lagos population. Thus official support, acknowledgment, proper planning and services, among other steps, are necessary to improve the agricultural system in the study area.

#### RECOMMENDATIONS

- Policy issues should be geared towards reducing sudden ejection of farmers from urban land used for cultivation as it has been shown that agricultural activities enhance the livelihood status of the urban poor.
- A plan for urban agricultural land use should be encouraged to boost sustainable urban agriculture in the cities.
- Urban agricultural activities should be integrated into government programmes aimed at reducing poverty, creating income and employment opportunities and improving local economic development.
- Public awareness campaigns should be initiated on the relevance of urban agriculture for urban food security, employment and income generating activities.
- Farmers should be educated on the health-related problems associated with farming activities to increase needed precautionary measures.
- Research should also be encouraged by both government and private individuals to allow greater availability of data and create opportunities for further research and interventions.

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