Urban agriculture is an important economic activity both for poor and commercial urban farmers. Urban agriculture constitutes an important food security strategy for poor urban farming families. Commercial urban agriculture makes a significant contribution to employment and income generation. The role of urban agriculture has become even more critical in Kenya because of the deteriorating urban poverty situation. Kenyan urban poverty is estimated at 50 per cent and it is feared that the situation will deteriorate in the future (Republic of Kenya 2002).

Caleb Mireri

Pig shed at an urban farm in Nairobi

Private Investment

in Urban Agriculture in Nairobi, Kenya

This paper is based on two key case studies: Kenchic Ltd and Farmer's Choice Ltd. These two private companies are important players in the Kenyan poultry and pig industries, respectively. They support successful agriculture in Nairobi city. Discussions were held with Dr Yamo (Kenchic veterinarian) and Mr Kairu (Farmer's Choice pig procurement manager).

Lack of credit is one of the major problems facing the development of urban agriculture in Nairobi, the capital of Kenya. National planning regulations exclude urban agriculture from the formal urban land-use system. Most urban farmers practise on public land (road reserves and river banks) with insecure landholdings. The promotion of credit and investment in urban agriculture will require initiatives specific to the sector.

THE NATURE OF CREDIT AND INVESTMENT SCHEMES

Kenchic Ltd and Farmer's Choice Ltd are two agro-industries that support the development of commercial urban agriculture in Nairobi. They offer material and technical support services to both contract and non-contract farmers. Contract farmers enjoy much greater support, but the non-contract farmers receive enough support to guarantee them success. The companies restrict the number of contract farmers to their production capacity and market requirement. The government has been ineffective in the support of urban agriculture. For example, there is no functioning government's poultry and pig farming extension services in Nairobi.

Kenchic Ltd has 60 contract farmers and supports numerous independent farmers (1,250) within Nairobi. The independent farmers raise between 50 and 25,000 chicks per farm. To qualify for contract farming, the applicant must meet the following requirements: have adequate space for 3,000 chicks; meet the cost of labour, water and electricity; have adequate feeders and drinkers; and raise a minimum deposit of US$ 0.8 per chick. In return, Kenchic offers them a guaranteed market; supply of quality feed and chicks on credit; and free active technical support to farmers. Kenchic also supplies chicks to non-contract farmers and lends some support. This arrangement ensures effective participation of farmers.

The credit and investment scheme in the pig industry is similar to that of poultry farming. Farmer's Choice Ltd is a leading agro-based enterprise in pig farming, processing and marketing. It has 40 contract farmers in Nairobi city and a further 200 farmers within the hinterland of the city. Farmer's Choice offers the following support services to contract farmers: guaranteed market; free technical advice; supply of quality breeding stock and feed at the market rate; collection of mature pigs from the farms; and offers farmers recommendation letters in support of financial credit applications. Farmer's Choice often indicates that a guaranteed market is a strong case for creditworthiness. Contract farmers must raise the required capital to purchase the breeding sows; build a shed; meet the cost of clinical services and supplied feed.

Lack of credit is one of the major problems

Material support constitutes a significant aspect of the cost of farm production. The material support can be received on credit

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Contract farming has inherent weaknessess

(poultry contract farmers) or at market rates (pig farmers). The material support offered to the farmers consists of feed, vaccines, chicks (poultry farms) and breeding sows (pig farms). The materials supplied by agro-based industries conform to the required quality standards that enhance farmers' returns on investment. Contract farmers have better material support than the independent farmers. The poultry contract farmers receive chicks and feed on credit. The support of farmers is part of the business initiatives of the two agro-based industries. This enables farmers to conform to the best production standards that guarantee quality final products. Dr. Yamo noted that the success of poultry farmers is an important means of expanding the market for the chicks. Apart from chicken production, production of chicks is one of the core businesses of Kenchic Ltd. It supplies chicks to both contract and non contract farmers.

Urban farmers, like any other enterprise, can source investment capital from the credit market. Farmers can seek credit from conventional financial institutions such as Barclays Bank, Kenya Commercial Bank and National Bank of Kenya. This favours middle- and high-income farmers who can raise initial capital from their own savings or have the required collateral security to obtain credit from the financial institutions. Since there are no special credit schemes for urban farmers, commercial urban farmers can seek credit from the commercial and agro-based financial institutions. The high cost of borrowing and the stringent collateral requirements of the financial institutions make credit access a major problem in the promotion of urban agriculture.

THE ECONOMIC IMPACT OF THE CREDIT AND INVESTMENT SCHEMES

The technical and material support offered by the agro-based industries enables contract farmers to undertake successful urban agriculture. However, the agro-industries supporting urban agriculture cannot cope with the enormous popular demand for contract farming – long waiting lists exist that far outstrip the capacity of the existing agro-industrial private enterprises. These industries restrict contract farming to their production capacity and the prevailing market situation. As urban agriculture is not officially recognised in the Kenyan urban development policy, critical support services are lacking in the city. In addition, the existing credit and investment support services mostly favour farmers with initial capital, adequate and secure landholding. Such farmers can source the critical technical services, quality feed and other inputs needed, and can adopt efficient farm management systems.

Nevertheless, contract farming has inherent weaknesses that put the farmer at a greater risk than agro-based enterprise when farming or marketing problems occur. If there is a major decline in the demand for the final product, the enterprise will most likely reduce the rate of production causing financial loss to the farmer.

Non-contract urban farmers are furthermore at a disadvantage in several ways. They have no access to the necessary technical services. It is not possible, for example, for Kenchic to visit the independent poultry farmers regularly because they are too many. However, the company does normally deal with problems reported by farmers within 24 hours. Apart from technical support problems, the farmers must contend with marketing problems. Independent (small) farmers cannot individually effectively undertake the critical aspect of marketing, particularly when a "ready" market is non-existent. This problem could be overcome if farmers were to organise a marketing cooperative society.

Our case study survey reveals that commercial urban agriculture plays an important role in the urban economy. It is an important source of income and employment. The resource persons state that urban farming is a profitable venture and guarantees a quick return on capital. The investment capital is comparatively low for both pig and poultry farming and one can get a good return within a period of two to three years.

Each pig that matures after 6 months earns a net profit of US $27 (US $1 = Kenya shilling 75). A chick matures within six weeks and each chick earns a net profit in the range of US $0.2 and 0.6, depending on the management system. Therefore a contracted poultry farm can earn a net profit of about US $1333 with-

Approximate initial capital requirement to establish viable economic units of urban agriculture, was calculated. The following estimates are based on the current prices and excludes the cost of land.

An economically minimum viable small-scale poultry farm requires 300 chicks either for laying eggs or chicken. Each poultry unit requires a 0.09m^2 space amounting to 27m^2 space for the 300 chicks. It is estimated that a farmer requires an initial capital of US$ 980 and 1870 for chicken and eggs production respectively. This would cover all the required inputs and operational expenses for a 300 unit poultry farm up to the initial sale. It is much cheaper to undertake chicken production because it requires only 6 weeks for chicks to mature for meat, while chicks require 6 months to start laying eggs. Each mature chicken generates a net profit of about US$ 0.4 amounting to a total profit of about US$ 120 from 300 chicken after every six weeks. This indicates that a poultry farmer (meat) can get a return on his capital within 18 months.

Pig farming requires much higher initial capital outlay than poultry farming. To be able to undertake viable pig farming involving a minimum of 5 breeding mothers, a farmer requires an initial capital of about US$ 2933. This would cover all the required inputs and operational expenses for a five breeding mothers' pig farm up to the initial sale. Five breeding mothers is the minimum viable economic pig farming unit. Each pig requires 30cm-wide feeding space, so a space of about 29.7m^2 can support pig farming. The feeding mothers are expensive (US$ 187), but each mother delivers about 10 piglets 2.5 times a year. A pig matures after 6 months, so within one year a farmer can get 100 mature pigs from 5 breeding mothers. Each pig earns a net profit of US$ 27. Therefore a pig farmer with 5 breading mothers can earn a net profit of US$ 2667 per year. According to this estimate, a pig farmer gets a return on his investment within a period of 18 months.


René van Veenhuizen

Profitable farming can be practised on small parcels of land


Caleb Mireri

Viable pig farming involves a minimum of five breeding sows

in six weeks, which translates into about US $9,333 per year. In addition, urban agriculture is an important source of direct and indirect employment. Apart from family labour, low skilled labourers are employed by the commercial urban agriculture and the agro-based industries that supply it.

Furthermore, profitable farming can be practised on small parcels of land in the urban areas. Although most poor families rarely have sufficient space for profitable farming within their homesteads, a sizeable proportion of middle- and high-income families have adequate land for urban agriculture. Many households in periurban Nairobi have relatively better access to land and could be active participants in commercial agriculture.

POLICY OPTIONS FOR SUSTAINABLE DEVELOPMENT OF COMMERCIAL URBAN AGRICULTURE

The case study results show that commercial urban agriculture is a viable economic activity in the city of Nairobi. It is an important source of income and employment; for example, a contract poultry farming family earns a net profit of about US $1,000 per month. Also, urban agriculture is an important component of food security for poor urban farming families. Urban agriculture includes both crop (horticulture) and livestock (poultry, dairy and pig) production. However, the sector has limited credit and investment opportunities that cannot effectively spur its growth and development. The existing support systems are by far inadequate to meet the enormous demand.

The government has an invaluable role to play in the promotion of urban agriculture. The integration of urban agriculture in the urban land-use system and the creation of a favourable policy environment are critical steps in the development of the sector. Furthermore, there is a need to form farmers' associations and marketing cooperative societies. A strong farmers' association can articulate and lobby for necessary government recognition and general development of the sector. Marketing of cooperative societies can effectively address marketing problems, thus enhance the profitability of urban farming. Also, urban farmers lack critical information on the best farming practices and available support services. Through an appropriate urban farmers' association, avenues can be created to disseminate important information to farmers on the available support services.

Our case study survey showed that urban agriculture can lead to a return on capital within a short period of time (between 2 and 3 years). An effective management of a temporary lease agreement on public and private land can enable urban farmers to undertake investment and earn income from farming. Temporary lease agreement will create some order and security among the most vulnerable (poor) urban farmers. These farmers could then source technical and material support.

Savings and Credit Cooperative Societies can be effective means of mobilising resources for the development of commercial urban agriculture. This can only succeed in an organised urban farming system. The formation of a savings and credit cooperative society is a long-term commitment that would favour long-term urban farmers operating on their own land.

The government has an invaluable role to play

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