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## **Linking Mara Fruits and Vegetable Growers to Serengeti National Park Tourist Hotels Market**

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### **Abstract**

Tourism in Tanzania has been on the rise since late 1990s when the markets were fully liberalized. This has created a high demand for horticultural produces from tourist hotels located in Serengeti national park in the northwest of Tanzania. Analysis was carried out to determine supply and demand for horticultural produces in Mara region. The annual requirements for horticulture produces in three Serengeti tourist hotels were about 614 tons. These hotels obtain most of the fruits and vegetables from Arusha, Kenya and South Africa which are very far from the park. Due to long distances and poor roads the hotels obtain high priced, low quality and small quantities of produces. The production of horticulture in Mara region is about 620 tons which is more than what is demanded by the hotels. The major problems hindering horticulture production in Mara region include unstable markets, erratic prices and low demand for horticulture produces. The tourist hotels demand locally produced, regular supply, fresh and medium quality horticulture produces while farmers want regular markets for their produces. The Gross Margin analysis indicated that supplier gross profit and growers' return to labour are high with horticultural crops as compared to other crops. The study recommends that the hotels and growers establish contract agreement to enhance reliable deliveries. To improve production and entrepreneurial skills of the farmers; management support at the beginning of implementation from extension, research, credit and irrigation schemes from local institutions would be necessary.

Keywords: Mara Fruits, Tourism, Serengeti, Tanzania

### **Introduction**

The efforts in crop marketing in Tanzania have risen since early 1990s when the economy was fully liberalized. This has given the opportunity to farmers to sell crops to any interested buyer. It has been realized that investing in increased production alone has limited effect unless markets are identified. New markets for higher-value agricultural and food products could provide small-scale farmers, who make up a large proportion of the poor in developing countries, with a vital opportunity to enhance and diversify their livelihoods (Louw, *et al.*, 2006). One of the objectives of the local governments in Mara region is to raise income levels in rural areas as it is stipulated in the Tanzania Governments' vision 2025 (World Bank, 2005). Different stakeholders operating in the region have been trying to contribute towards this aim of increasing income levels of the local people.

In recent years analyses have been taking a much closer look at the horticultural sector of developing countries, especially in regard to its potential contribution to income generation and export earnings (OECD), 1996; Islam, 1990). Horticulture production

is an important economic activity to farmers in Mara region. It is established that about 65 hectares of land is used for horticulture producing 620 MT annually (Babu *et al.*, 2000). Production is carried out using traditional technologies such as manual irrigation with limited use of pest/diseases control measures. Farming is in small – scale, producing diverse types of fruits and vegetables with small qualities. The markets for horticulture produce in the region are mainly in areas where the population density is high. Deliveries of horticultural products depend on the middlemen because of the poor roads, erratic prices and unstable markets. Few farmers especially neighboring Serengeti National Park supply few products to the hotels and camps. On the other hand hotels in Serengeti need a steady supply of fresh and high quality produces, which are far away from the source of supply (Arusha and Kenya.). High local purchase of required items has a good promotional value in tourist trade. From the farmer's side the main problem observed is that they do not have much experience in organizing a regular supply system and are unfamiliar with contract growing systems.

It was considered that only if private sector parties were completely involved a sustainable delivery system would be possible. Therefore the objectives of the study were to analyze the demand of horticultural produces by Serengeti National Park tourist hotels; to analyze the supply situation of horticulture produce by Mara farmers and the institutional support for this sub-sector; and to match the demand and supply needs to formulate a system beneficial to the producers and buyers.

### Methodology

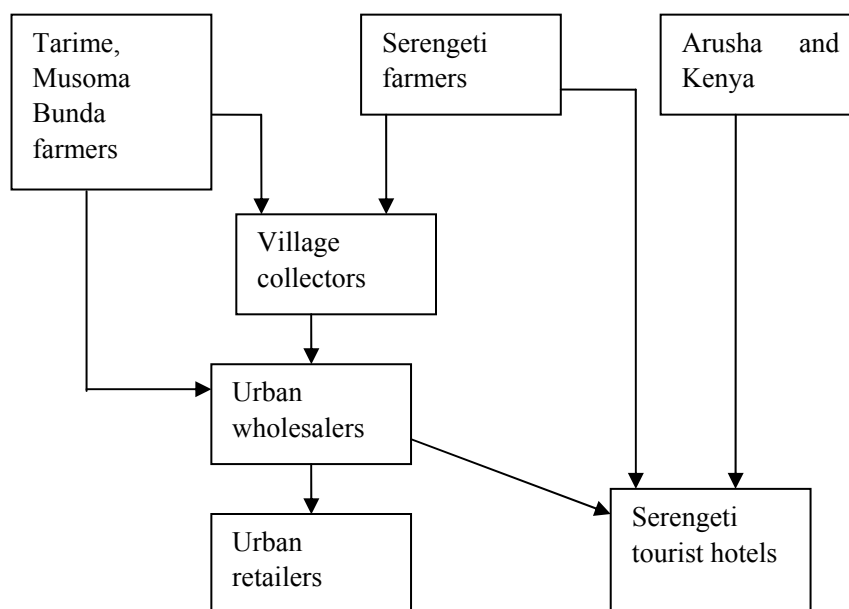
The research was carried out in Mara region in the northwest of Tanzania. The region comprises of four administrative districts namely Musoma, Bunda, Serengeti and Tarime. The demand analysis was conducted with three tourist hotels in Serengeti national park (Serengeti, Kirawira and Seronera). The data collected based on products quality, seasonal calendar on the use, price of the products, and lodges

commitments to the delivery system. The supply analysis was conducted with horticulture farmers and various organizations that could give support to the system. Types, quantities, production calendar, prices, costs and constraints in production and marketing were assessed. The team finished with a matching of demand and supply and advice on the possibilities to start a well-managed delivery system. The data collected were analyzed using SPSS and Excel computer software and finally the report was written.

### Results and discussion

#### *Typology of horticulture in Mara region*

Horticulture production in Mara region is located in highly populated areas i.e. Lakeshores, town center and along highways. The annual production of fruits and vegetables in Mara region is estimated to be 620 tons. Farmers sell the produces from farm gate or village markets whereby traders collect and deliver them to the urban markets (Fig. 1).



**Figure. 1.** Marketing channel for horticultural produces in Mara region  
Source: Babu *et al.*, (2000).

Few farmers especially neighboring Serengeti national park supply few products (20%) to the hotels and camps. The major route (70%) is from producers via two or three middlemen before reaching the consumer. Transport used is mainly bicycle, buses and small trucks. The price fluctuates; high when the supply is low but could be low due to limited access to the market by farmers. The roads in rural areas are bad and thus post harvest losses (10%) are high. The major problems are unstable markets, erratic prices and small demand for horticultural produces.

#### *The demand for horticulture produces by Serengeti hotels*

The demand for fruits and vegetables by Serengeti tourist hotels is high and increasing with the growth of tourism in Tanzania. The annual consumption of horticultural products in three Serena hotels is 614 tons. The hotels have the highest occupation rate during January, July, August and December. They obtain fruits and vegetables from Arusha in Tanzania as well as Kenya and South Africa which are very far

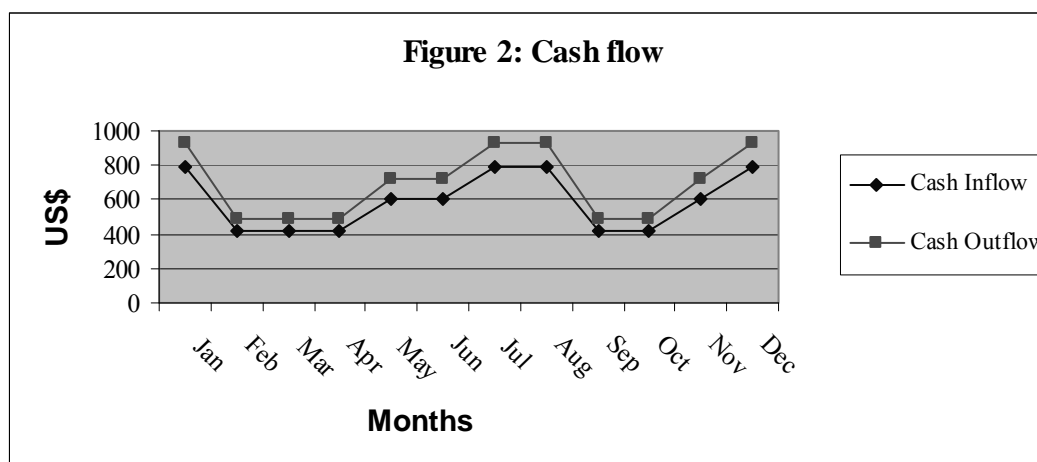
from the park. As a result the supplies are highly erratic and small in quantity.

The hotels demand regular, fresh and good quality produces at the price agreed upon between suppliers and the hotels. They prefer locally produced foods demanded by tourists and also want to shorten supply chain of perishable food items.

#### *Cost-Benefit analysis of the market linkage*

Figure two shows the cash inflow and outflow if Mara farmers will supply the quantities demanded by the hotels. It includes purchasing value of produces at three hotels and transport costs from collection point near farmers to the hotels.

The gross profit level for the organizers of the delivery is about 16% (USD 858) and 19% (US\$1,430) of the turnover during the low and peak seasons respectively. During the intermediate season it is about 12% (US\$600). During the peak season the Gross profit made per trip is US\$ 149 and US\$ 189 during the low and peak seasons respectively.



**Figure. 2.** Cash flow

Source: Babu et al., (2000).

### *Impact on Mara farmers*

The opportunity of Mara farmers delivering horticultural produces to Serengeti hotels tackles two major problems in the sub-sector including inadequate demand for horticultural produce and erratic prices. Farmers and traders operate on the spot markets where prices are the direct reflection of demand-supply conditions. This leads to oversupply and hence low price. Investing in horticulture (to fight against diseases/pests and to guarantee water supply) does not pay off because of low prices and low rewards for quality production. Low prices are also related to the risk of loss during marketing. However the opportunity can only materialize for Mara farmers if they can guarantee supply of a good quality throughout the year as it was pointed out that the management capacity of Mara farmers is still weak to provide this guarantee. Therefore horticulture is seen as a very risky business.

### *Linking Mara horticulture producers to Serengeti tourists hotels*

The option of linkage is suitable for both farmers and hotels. However it is important that marketing groups have to be well developed from the existing farmer groups. Some of the groups were visited; their capacities and constraints assessed. The groups were not strong to produce and supply produces regularly. Few medium-scale farmers were identified in the area. These would help in the collection and transporting produces to the hotels. Private sector is suitable in the implementation (farmers and support organizations) since they are already involved in fruits and vegetable production; only they need to improve their system of production.

The study focused on highly perishable food items i.e. horticulture produces (distance and poor road infrastructure) has high impact on availability and prices. The aim is to create a “win-win” situation where both farmers and hotels would benefit. It also considers the sustainability where producers and buyers are to be linked to each other through private initiatives without constant interference through projects. The study proposed the following organizational structure:

*Conditions for ‘win-win’.* There is a need to develop two lines of supply (covering 2 districts each); whereby two medium scale growers organize take up and deliveries to Serengeti hotels (on contract). The

small-scale growers produce and organize availability of produce at clearly defined points of collection by medium scale growers. The medium-scale growers receive price paid by the hotels and small-scale growers receive that price minus the transaction costs (Figure 3). Increased supply volumes and stable prices would increase their profits (Figure 2). The system could receive management support during the first year of implementation: credit support, extension, research and monitoring from various institutions available in the area.

Areas of technical assistance to the private sector. For the smooth supply system: the farmers should receive knowledge/extension services through training, seed access and farmer visits to the support centers. Selection of a local organization which will assist in setting up the system of deliveries from farmers via transporters to the hotels since contract farming is new to farmers. Farmers should be assisted so that they can practice irrigation, set-up savings and credit schemes and implement research identified by farmers.

However there are expected risks and constraints during implementation. These include high pest and disease incidences due to high prices, limited knowledge on the use and problems in availability of pesticides. Also inadequate water for irrigation since most farmers depend on rainfall which may create problems in regular supply and timely delivery of the right amount of produces.

### **Acknowledgement**

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