BTC TRADE FOR DEVELOPMENT

ORGANIC KIDNEY BEANS:

POTENTIAL FOR CERTIFIED PRODUCERS IN TANZANIA

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CONTENT

1. Introduction

Strong growth of European and US organic markets has urged organic cultivation all over the world. Supported by non-governmental organisations (NGOs) and other development partners, farmers try to improve their incomes by tapping into the opportunities that these expanding organic markets offer. Many farmers in developing countries (DCs) already produce organically by default, making it relatively easy to convert to certified organic agricultural practices.

TOAM plans to support farmers to commercially grow Kidney beans and assist in working towards organic certification. Kidney beans were chosen for their export potential, outside Africa. However, at least in the short run, these farmers will not be able to meet the stringent international standards. Therefore, this report examines the potential of organically certified Kidney beans on the local and regional markets.

To do this, existing literature was studied and field research was conducted by visiting and interviewing key players in the conventional beans sector as well as the organic sector. Chapter 2 provides an overview of the conventional (Kidney) beans market to identify supply side characteristics, distribution channels and consumer preferences. To provide an overview of potential buyers of certified organic Kidney beans, chapter 3 outlines the organic sectors in Tanzania, Kenya (as being the most relevant regional market) and other international markets. Subsequently, based on the chapter 2 and 3 and findings from field research, the potential for certified organic Kidney beans is identified in chapter 4, followed by a number of concluding remarks in chapter 5.

2. Kidney beans in Tanzania

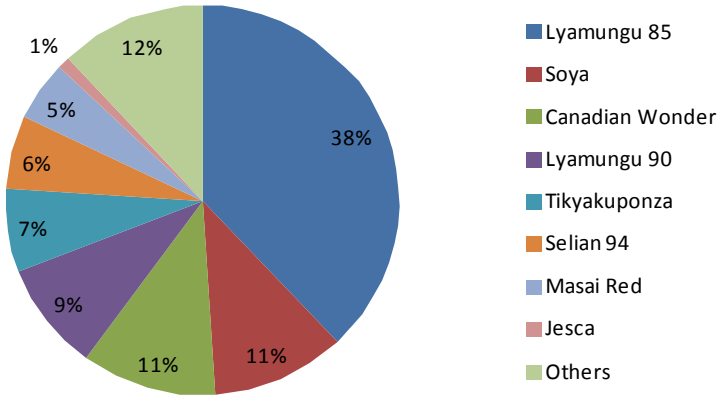
2.1. From production to end-markets

2.1.1. Production

Although beans are a non-traditional crop in Tanzania, they are widely produced. After maize and cassava, beans are the third largest produced crop in terms of area planted. The common bean (*Phaseolus vulgaris L.*) is by far the most important pulse crop for food security and as a source of farm income[1]. Main production areas are in the Northern Zone (particularly Arusha, Kilimanjaro and Manyara region), the Great Lakes region in the West and the Southern Highlands. Production levels have been growing gradually between 2006 and 2010, and reached 950 thousand tonnes in 2010[2]. This growth is driven by growing domestic demand, due to population growth. Furthermore, regional trade in common bean is projected to increase. Tanzania is the lowest cost producer of common bean in the region and therefore well placed to increase export to neighbouring countries, especially Kenya.[3]

The common bean includes many different varieties of beans and Tanzanian production includes both local and improved varieties. They differ by colour, shape, size and properties such as cooking time and digestibility. Generally, the Lyamungo 85, large red/brown Calima type is the most common variety grown. It is popular because of its high market preference in Kenya. Other important varieties include Soya[4&5], Canadian Wonder, Lyamungo 90 and Tikyakuponza[6]. Canadian Wonder refers to a wide variety of Kidney beans. They are also commonly known as Dark Red Kidney beans.[7] Data are very difficult to find and these are shares from 2004. Currently, shares have probably changed somewhat, however, figure 2.1 still provides a good overview of important common bean varieties.

Fig 2.1: Distribution of common bean varieties in Tanzania



The cultivated varieties vary from one region to the next and even from one district to the next. Based on interviews in the field in Songea (rural) district, most grown variety is said to be Canadian Wonder, also called dark red Kidney bean (variety Uyole 96), followed by the Soya and Yellow bean. In Mbinga district, also in Ruvuma region, Soya beans are by far the leading type and the production of red Kidney beans limited.

[1] Mishili, Temu, Fulton and Lowenberg-DeBoer, 2009.
[2] FAO, 2012.
[3] CIAT, 2009.
[4] Not to be mistaken with soy bean (*Glycine max)*, which is the oilseed.
[5] Soya comes with many names. In Dar es Salaam it is mosty called Soya or Mbeya beans, named after the region it was first introduced. In Ruvuma region, Kablanketi bean is most common, although in some parts (Mbinga) they are called Njugu beans. In the North of Tanzania Maharage soya is often used. For clarity reasons, in this study the term Soya will be used.
[6] CIAT, 2009.
[7] Dr. Mandata, 2012.

On the other hand, in the North of Tanzania, in Arusha and the neighbouring regions of Kilimanjaro and Manyara the 'Rosecoco' variety was found dominantly in local shops and markets. It is an improved variety developed by the Selian Agricultural Research Institute (SARI), which is based in this region. Yellow and Kablanketti beans were said to be relatively new to the region, but both are gaining market share as they are competing with or even considered to have superior taste to 'Rosecoco'. Red Kidney beans were hard to find.

Uyole 96

Canadian Wonder is also commonly known as Dark Red Kidney beans and both names can be used interchangeably. Whereas the Americans and Canadians call them Dark Red Kidney Beans the English call them Canadian Wonder. Under these group names there are many varieties/types of Kidney beans.[8] In Tanzania, different types of Kidney beans are being distinguished. The traditional 'Matengo type' or 'Masai type' is small and light red, while the Uyole 96 has a dark red colour. The latter is a bigger and improved version of the Matengo type and was developed by breeders at Uyole Agricultural Research Institute. Another variety is a greenish yellow Kidney bean, which is only produced in small quantities.

Bean production in Tanzania is dominated by small-scale farmers, mainly women, that consume part of the beans they produce and sell the surplus. There are relatively few commercial farms producing beans in Tanzania. Most small-scale farmers have limited entrepreneurial skills and knowledge of market requirements and prices. Often, they only know what variety of beans is preferred at their local market and give priority to grow these[9]. Traders set their prices according to quality, variety, season, and their marketing costs, but also often take advantage of farmers' information gap and their need for instant cash. Other constraints that small-scale farmers generally face include[10]:

- Low input-use levels;
- Use of poor quality seeds;
- Weather dependency;
- Limited mechanical inputs
- Limited post-harvest handling skills;
- Inadequate storage facilities;
- Lack of a reliable market;
- Inadequate extension services.

Often, bean seed companies and seed banks are absent or farmers are not well informed about the importance of quality seeds. They (re)use recycled seeds and mix seeds in the same plot. Subsequently, these farmers produce mixed beans, which are commonly found in Tanzania. This constrains farmers to produce larger volumes of single variety beans.

Most beans are grown under multi cropping systems. The quick maturity and shade tolerance have made the crop popular to cultivate besides, for example, maize, banana, roots and tubers, sorghum and millet[11].

Although most places in Tanzania have two production cycles per year, some have only one and others three. In Songea district, for example, they plant in October/November for harvesting in December/January, March/April for harvesting in May/June and July for harvesting around October. There can be some overlap in planting and harvesting intervals. Normally, the beans harvested around May/June have the best quality. They are harvested during the onset of dry season as a result of which the beans can be properly dried. When beans are not dried properly farmers encounter bean spoilage for example due to discoloration.

[8] Dr. C. Madata, 2012.
[9] African Crop Science Society, 2005.
[10] WFP, 2011 & Lattice Consulting Limited, 2006.
[11] CIAT, 2009.

Recently, in 2011, some areas in Tanzania had food shortages, due to droughts. While production levels of beans (and other major grain crops) in the Southern Highlands and the South Eastern areas have been normal to above normal, production levels in the Central areas, Lake Victoria areas and North Eastern areas have been below normal. Furthermore, transport costs have been increasing and demand from neighbouring countries has been high (also affected by the droughts), which resulted in continuing high bean prices.

2.1.2. Distribution to end-markets

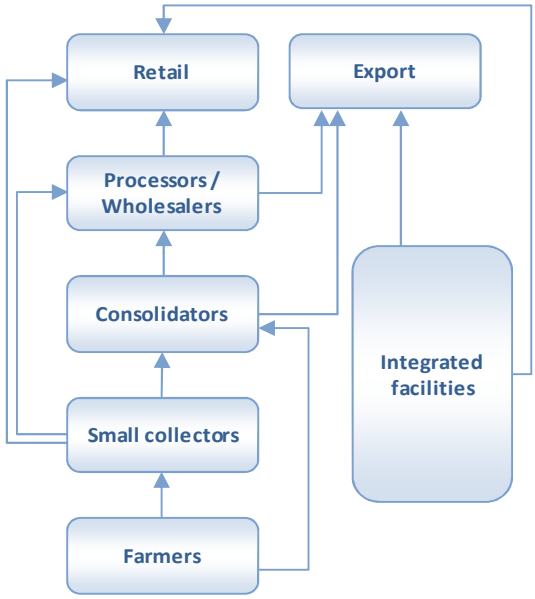
Rural markets are dominated by individual traders that gather beans from small-scale producers to sell to larger scale traders in urban areas. Middleman/consolidators also play a role in distributing beans to the market. Often, they act on behalf of a processor/wholesaler.

The different harvesting and drying seasons strongly influence the volumes traded and market prices. Farmers usually sell their beans right after harvest and drying. Availability of (Kidney) beans at that time is better and farmers have little knowledge on market prices and hardly any negotiating power. This results in farm gate prices that farmers usually consider too low[12]. Farmers could get better prices if they were able to hold on the beans somewhat longer until availability of beans declines. However, most farmers have no proper storage facilities and their financial needs are too pressing. Farmers in Songea area, however, have three production seasons and therefore cannot hold to their crops longer as harvests may overlap, which would result in even more beans available and lower prices. The farmers are therefore forced to sell at very low prices.

Local market

Figure 2.2 provides an overview of how (Kidney) beans are generally distributed throughout Tanzania. Rural markets are dominated by small-scale individual traders that gather beans from small-scale producers to transport them to regional towns for consolidation. The consolidators, based in these regional urban areas often act on behalf of a company or several companies outside the region. These could be processing, wholesaling and exporting companies or retailers. Processing of (Kidney) beans in Tanzania is generally limited to drying, cleaning and sorting. Drying is mostly done by the farmers themselves. There are only few processors and they generally engage in cleaning and packing. Some general processors requirements are presented below. Processors generally supply supermarkets. There are no canning companies in Tanzania involved in Kidney beans. There is only one company involved in canning white beans.

Fig. 2.2: Distribution chain of beans



Tabel 2.1

Processors requirements:
- No stones, dust and plant remains
- Not broken
- Colour representative, no discolouration
- Single variety
- Not infested by insects
- Not from previous season

The beans are transported to urban areas outside the region and distributed to different markets and retailers or are exported.

Like other commodities, beans are primarily sold to consumers at the traditional open markets. At the markets beans are predominantly sold in dried form. A small part of the beans is also sold fresh.

The beans are transported in large re-usable raffia bags that can hold 90 -

[12] World Food Programme Tanzania, 2011.

100 kg of beans. To explain what costs are typically included in the distribution of Kidney beans from the field to Dar es Salaam, a Songea based beans trader described how the price of his Kidney beans was structured. He indicated that his beans arrive in Dar es Salaam at an indicated 798-868 Tanzanian Shilling (Tsh). Please note that some costs strongly fluctuate throughout the year. Farm gate prices are considerably higher (Tsh. 1,000 - 1,200) when harvest is not good or at the end of the season. Furthermore, transport costs depend on road conditions, fuel prices, negotiating skills and other factors. Table 2.2 is not necessarily complete and prices can only be used as indications.

Table 2.2 Price structure Kidney beans, 2012.

	100 kg.	1 kg.
Farm gate price	Tsh. 65,000 - 70,000	Tsh. 650 – 700
Transport to Songea (±50 km)	Tsh. 3,000	Tsh. 30
Packaging bag	Tsh. 500	Tsh. 5
Consignment levy	Tsh. 1,000	Tsh. 10
Loading charges	Tsh. 300	Tsh. 3
Consolidators fee	Tsh. 2,000	Tsh. 20
Transport to Dar es Salaam	Tsh. 8,000 - 10,000	Tsh. 80 – 100
Total	**Tsh. 79,800-86,800**	**Tsh. 798-868**

Kidney beans are also bought by other type of buyers, like government institutions such as schools, hospitals and prisons, as they are relatively cheap. Another important player is the United Nations World Food Programme (WFP). The WFP purchases large volumes of food, including (Kidney) beans, for distribution in emergency, recovery or developmental programmes. The P4P (Purchase for Progress) initiative is the core of WFP's efforts to apply market-based instruments to meet the basic needs of those in hunger, while using the organisation's purchasing power to support agricultural and market development[13] (see box).

P4P purchases through KADERES

KADERES is a local NGO based in the Kagera Region which was formed to support farmers in their attempt to get fair prices for their produce. The WFP chose to channel P4P purchases through KADERES, amongst others, because the organisation could facilitate the management of contracts and obtain greater quantities of good quality beans.

When KADERES receives an order from the WFP, the organisation will start collecting beans through farmers' cooperatives. KADERES will set a price, which is usually a better price than the middlemen's price, and provides the management of the cooperatives with cash, so they can start gathering from the local farmers. Once collected, KADERES will arrange transport for the beans to the WFP warehouses.

Export markets

A significant share of the Tanzanian Kidney bean production is eventually exported[14]. According to UN Comtrade (2011), formal exports of Kidney beans and White Pea beans together amounted to approximately 4,4 thousand tonnes in 2010, reaching Tsh. 1.1 billion (€593 thousand). Tanzania mostly exports Kidney beans to international markets outside the African continent. Europe is the predominant export destination, in particular the Netherlands, Belgium and France. From these countries the Kidney beans are often further distributed throughout Europe. Other export destinations for Tanzanian Kidney beans are India and China. Formal exports of Kidney beans fluctuated strongly in the period 2006-2010. Formal international trade mainly concerns larger scale Tanzanian processing and export companies.

Similarly, formal exports of Kidney beans and White Pea beans together to regional markets, such as Kenya and Zambia, also fluctuated strongly[15]. While regional exports reached 276 tonnes in 2006 (to Zambia) and 25 tonnes in 2008 (to Kenya), there were no formal exports of Kidney beans reported in 2010. Kenyan imports of Kidney beans and White Pea beans together also fluctuated considerably in recent years. Tanzania has played a minor role in these imports. Important suppliers have been Uganda, South Africa, the Netherlands and the USA. Formally traded Kidney beans end up at the larger retailers or at Kenyan based processors and exporters.

However, (Kidney) beans are also informally traded to regional markets, such as Kenya (mostly via Tanga and Arusha based traders), Mozambique (via Mtwara based traders) or Zambia. Informal cross-

[13] World Food Programme Tanzania, 2011.
[14] Lattice Consulting Limited, 2006.
[15] UN Comtrade , 2011.

border trade is dominated by smaller scale companies or individual traders, either from Tanzania or from the destination markets. Informally traded beans typically end up at regional open markets or at the smaller scaled mini-supermarkets. The extent to which common beans are traded informally is not very clear. CIAT reports that the bulk of Tanzanian beans reach the reach the local and regional market through the informal sector. The Famine Early Warning Systems Network (FEWS NET) reported that around 3.4% of the beans traded within East Africa[16] between October and December 2011 concerned informal trade[17]. FEWS NET also reports that informal cross border bean trade to Malawi amounted to 2.1 thousand tonnes in the period April-November 2011. In the same period, informal exports of beans to Zambia amounted to 2.0 thousand tonnes. Especially the latter was a considerable increase compared to previous years.[18]

Because informal trade puts pressure on the availability of beans on the formal market, prices come under pressure. Therefore, the Tanzanian government has intensified its efforts to prevent illegal food traders to move to districts close to Kenya[19]

2.2. Market characteristics and consumer preferences

Beans are an important part of the diet of both rural and urban Tanzanians. They are a relatively inexpensive alternative source of protein compared to meat or fish. Common beans, including Kidney beans, are used almost entirely for human consumption. However, before they can be consumed, the beans require processing to degrade the toxic compound. Although the fresh beans are most preferred, they are difficult to keep. Therefore, beans are mostly consumed as cooked or boiled dry grains, prepared in a wide range of recipes[20].

2.2.1. Local market

Bean varietal preferences vary by region and ethnicity. Generally speaking, many consumers prefer large brownish/purple or reddish colour seeded beans. Also, in Tanzania, varieties with soft grain when cooked, and thin skins are more preferred, because beans are commonly consumed as boiled dry beans. Varieties with thin skins are associated with shorter cooking time and give soft gravy[21].

Factors influencing bean preferences:

- Colour
- Size
- Flavour
- Form of preparation
- Single grain or mixed
- Cooking time
- Flatulence

According to research of the African Crop Science Society executed in 2005, consumers in the Northern Tanzania prefer Soya, a local medium-sized, purple bean, to other varieties. Soya's popularity stems from its relatively short cooking time, sweetness and low flatulence.

The same research identified a preference for Canadian Wonder by Swahili and Muslim communities in coastal areas of Tanga, Zanzibar and Dar es Salaam. They are especially used often during the month of Ramadan. Also Tanzanian institutions, like schools, hospitals, prisons and other government departments, appear to have a preference for Canadian Wonder, due to its relatively low price.

Another study from Perdue University in 2009, found a preference for Soya beans by Dar es Salaam consumers. Especially for low income households, this is explained by its low average cooking time which saves money in an area where cooking fuels are expensive[22].

In high income areas in Dar es Salaam beans are much less consumed. A retailer at Oysterbay indicated that the high-income inhabitants of that area are not traditional bean consumers.

[16] For this source East Africa includes Ethiopia, Somalia, Kenya, Uganda and Tanzania.
[17] FEWS NET, 2012.
[18] FEWS NET, 2011.
[19] RATIN, 2011.
[20] CIAT, 2009.
[21] CIAT, 2009.
[22] Mishili, Temu, Fulton & Lowenberg-DeBoer, 2009.

Most beans are sold at the traditional open markets, where they are predominantly sold in dried form, without being packed. The required amount is weighed on the spot and handed over to the customer. Beans are also sold fresh, only amounts are limited. Prices for dried Kidney beans paid at the open market in Arusha ranged from Tsh. 1,250 to Tsh. 1,300 per kg. Other types of beans, eg. Soya, Red Coco and Yellow type, were sold at an average price of Tsh. 1,500 / kg.

A limited share of Kidney beans is sold at supermarkets and mini-supermarkets. The beans are sold dried and packed. Packaging mostly concerns transparent polythene bags, labelled with company name and contact information. Beans at supermarkets are far more expensive than the ones sold at the open market. The type of bean that was dominant in supermarkets was the Soya. As shown in table 2.2 Soya fetches higher prices than Kidney beans.

Canned beans are normally only sold at larger supermarkets. Uchumi sells around 5 cartons of 20 cans of Kidney beans per month. Kidney beans are sourced locally, but also imported due to a lack of availability of canned Kidney beans. The imported beans are from American Garden, Tom Food and other brands. It also sells a mixture of Kidney beans and broken grains of maize of Ndula Products, a local food processor, for the preparation of *Makande* (a local dish popular to some ethnic groups and prepared in some institutions). Other beans sold are white, yellow and soya beans. Soya is the most popular.

Table 2.2: Retail prices of Kidney and soya beans

Supermarkets	Kidney beans	Soya beans
Shoprite (Arusha)[23]	Tsh. 1,900/ 0.5 kg Tsh. 3,000/ 1 kg Tsh. 5,900/ 2 kg	 Tsh. 3,700/ 1 kg Tsh. 7,500/ 2 kg Tsh. 17,800/ 5 kg
Shrijee's (Dar es Salaam)	Tsh. 2,500/ 1 kg	-
Uchumi (Dar es Salaam)	Out of stock	Tsh. 17,250/ 5 kg

The Kenyan retail giant Nakumatt recently opened a store in Moshi and will soon open in Dar es Salaam. Nakumatt has found good business in canned beans, especially among high-income consumers. In Moshi, for example, canned beans include: white beans, rose coco, butter beans and dark red Kidney beans. They are imported from the UK, Kenya and other countries. On a monthly basis the store sells around 24 cartons of 20 cans of baked beans (Kidney beans and other types). Based on what was seen on the shelves, around 10% of the cans contained dark red Kidney beans. The Kidney beans are of the US Heinz brand, but imported from the UK. According to Nakumatt management, baked Kidney beans cannot be sourced locally. Nakumatt also sells attractively packed dry Kidney beans and other types. They are all imported from Kenya.

2.2.2. Regional and other international markets

From Tanzania's neighbouring countries, Kenya is the most relevant market for organically certified Kidney beans. Of the other international markets, Europe is most important.

Kenya

In Kenya, an enormous amount of common bean seed types exist. According to a 2009 study executed by the International Centre for Tropical Agriculture (CIAT), there are six types, in three categories most preferred:

- Red and red/purple mottled: locally known as Roseccoco, Nyayo, Wairimu, Kitui;
- Purple/grey speckled: locally known as Mwezimwoja;

[23] Shoprite in Dar es Salaam was out of stock at the time of research.

- Pinto sugars: locally known as Mwitemania.

Rosecoco and the Canadian Wonder varieties used to be the most widely grown as they were high yielding. However, they need heavy rain and high soil fertility. Due to increased problem with soil fertility and associated diseases in Kenya, these types are losing area to types like the large Pinto sugar bean (locally known as 'Surambaya') and red haricots, which grow much better in poor soil conditions[24].

The 2005 study of the African Crop Science Society also found the Nyayo bean to be the most preferred variety. Another important variety is supposedly ´Karanga´.

Although Kenyan consumer preferences are influenced by the same factors, generally, Kenyans have a wider preference compared to Tanzanians. Common beans are typically produced with low inputs and this favours the spread of small to medium-sized varieties of beans. Especially, the red or red mottled varieties are preferred for making traditional *Githeri* (beans and maize mixed and boiled together).[25]

Other international markets

Although Kidney beans are among the most popular pulses in Europe, production by European farmers is predominantly focussed on peas and broad and horse beans[26]. Therefore, Europe is largely dependent on imports of Kidney beans[27]. The largest importers of Kidney beans are Italy, the UK, Spain, France and the Netherlands.

A clear North-South division can be distinguished in Europe regarding the consumption of beans. Mediterranean countries, like Italy, Spain, France, Greece and Portugal, account for the majority of human bean consumption, because beans are traditionally part of the Mediterranean diet. While consumption habits are also slowly changing in these countries, beans maintained their place in the daily diet. Generally, South Europeans are less open to adopting new food than North Europeans.

Another interesting difference between North-European and South-European food preferences is that North Europeans increasingly favour convenience food products. Therefore, beans and other pulses are increasingly being sold canned or jarred. In the Mediterranean countries dried beans are still popular.

[24] CIAT, 2009.
[25] CIAT, 2009.
[26] FAOSTAT, 2012.
[27] EUROSTAT, 2012.

3. Organic sector

3.1. Local organic sector

In Tanzania, around 85,366 farms, mostly smallholders, were active in certified organic farming in 2009. After Uganda and Ethiopia, it has the largest number of organic farms in Africa, and ranked fifth in the world. Total organic agricultural land in Tanzania amounted to 72,188 hectares, signifying that only 0.21% of the total agricultural land is organically certified[28].

Products organically produced in Tanzania include coffee, tea, herbal tea, essential oils, pineapple, cocoa, cotton, cashew nuts, several vegetables, (dried) fruit, rubber and several spices. The lion's share of the certified organic produce is exported. The total value for the nine most exported products (cocoa, cashews, coffee, tea, spices, sesame, pineapple, cotton and vanilla) was estimated to be almost € 10 million in 2009[29]. Cocoa, cashew and coffee are the most exported products in volume terms, while in terms of value, cocoa, cashews, vanilla and tea are the most important export products, representing 55% of the total organic export value[30].

Although still very small, Tanzania also has a growing domestic organic market. There is increasing awareness of the benefits of quality food. Foreigners, expatriates and tourists account for around 90% of the demand of certified organic products. However, demand from urban Tanzanian elite and middle class is increasing.

Currently, there is no production of organically certified Kidney beans taking place in Tanzania. Other types of beans are also not organically produced locally, at least not certified. There is some produce that is claimed to be 'non-certified organic'. Other terms often used in the local organic sector are 'based on organic principles' and 'organic by default'. However, these claims do not give any guarantee that production is what is internationally recognized as organic produce.

3.1.1. Distribution channels

The distribution chains in the organic sector tend to be shorter compared to conventional products. Organic products reach their end-markets in various ways. Figure 3.1 provides an overview of how organic food products are distributed from farm to consumer.

Organic processors play a central role in the distribution of organic products. They collect, process, pack and distribute the products to their final destination. Most farmers (associations) make agreements with processing companies, which buy their crops. These processors often provide training on organic practices and assist with inspections and certification. Processors/exporters are generally not sure of the conventional or organic export price when buying from the farmers. They only know the price that other (conventional) buyers in the same region are offering farmers. Usually they offer the farmer a premium of 10% to 25% over this price, but premiums need to be higher when quality requirements are higher[31].

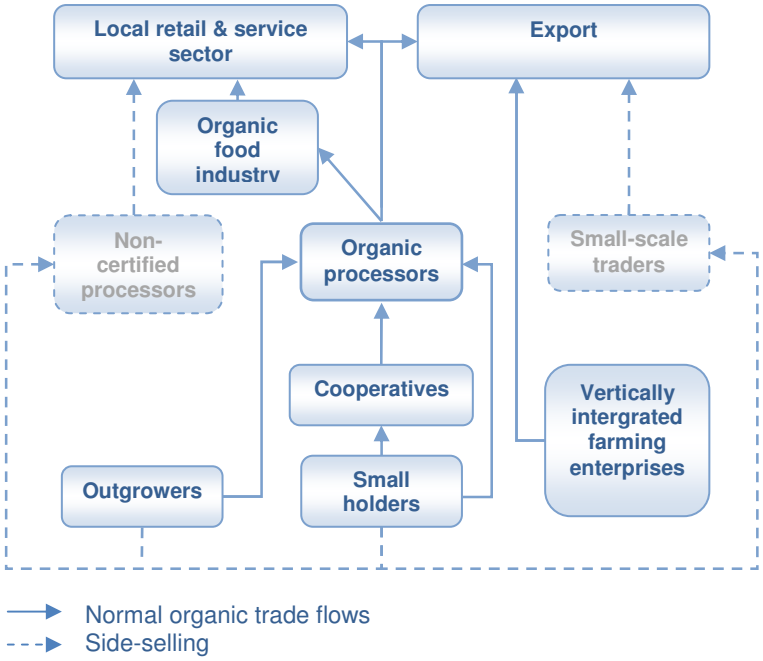
Many farmers sell organic produce on the side to conventional traders. This occurs regularly when organic prices are low or conventional prices high. The difference between the 'organic-by default' and certified organic production is not yet recognized by most conventional buyers. Small scale traders also trade informally. Often they buy lower quality products, unsorted and ungraded, at low prices. Both channels do not pay an organic premium and the Kidney beans loose their formal organic status. They just replace conventional beans in times of scarcity. Nonetheless, farmers engage in this side-selling, because it offers them instant cash. However, it is harmful to the availability of good quality certified products, posing supply problems for organic exporters.

In the local market, there are three types of end-markets for organic products[32]:

[28] FiBL and IFOAM, 2011.
[29] TOAM and field data Kledal 2010.
[30] FiBL and IFOAM, 2011.
[31] Agro Eco BV and grolink aB, 2008.
[32] Agro Eco BV and grolink aB, 2008.

- The organic premium market;
- Specialty products in the conventional market;
- The conventional market, where the lower quality of conventional products is improved by mixing it with higher quality organic products or due to scarcity on the conventional market replaces conventional products.

Fig. 3.1 Organic distribution channels



Opportunities in the organic market are different from the conventional market. Sales of organic food-stuffs rely on integrated and transparent chains with a relatively slow turnover but a high quality profile. Relevant local markets for organic products are specialty shops, supermarkets and integrated tourist operations.

Specialty shops

Specialized organic shops commenced in 2002 when Mum's Kitchen opened its doors. It was quickly followed by others, like Vitality shop. These efforts were joined much later by MAC Shopping Centre (organic products) and Lutoni Shop. MAC Shopping Centre, Mum's Kitchen and Lutoni are located at a shopping place, known as Morogoro Store in Oysterbay area, near Masaki area where Vitality shop and Garden Market are found. Bio-Shop Tanzania Ltd recently opened at Slipway and Food Dell Ltd is located in Oysterbay area near the beach and away from Morogoro Store area. Customers include health conscious consumers, who can afford organic prices.

Mum's kitchen

Mum's kitchen is a small shop for organic food products. The main focus is supplying organic vegetables (carrots, cabbage, tomato etc), fruits and juices, but also sells other products, such as honey and cheese. The company mentioned that the biggest challenge is continuity of supply from growers and processors, as customers get disappointed when visiting the shop only to find the products they are looking for are out of stock. When the shop was visited during the research, no vegetables were available due to a lack of supply. Lack of supply limits any efforts for the shop to aggressively promote or expand business. Word of the mouth e.g. in meetings is the only method used by the company to advertise.

Garden Market

The 'Garden Market' is a small shop targeting customers looking for organic products. The shop was established in April 2011 and was satisfied with business growth so far. The shop stocks dried beans, fresh fruits, vegetables and rice. The suppliers of fresh vegetables are organic farmers from Lushoto in

Tanga region. Fruits are supplied from domestic production as well as imports. Dried red Kidney beans sold at Garden Market were purchased from the open market and not organically certified.

MAC Shopping Centre
MAC Shopping Centre is a small shop selling organic products and handmade souvenirs targeting the touristic market. The shop has been in operation for two years and very keen on promoting Tanzanian organic products. If the company sells any foreign products, they originate from within the regional market (EAC). The company also offers opportunities for new suppliers to bring their products to the shop to test the market. It will only buy from the new suppliers after their products have been accepted by consumers. MAC Shopping Centre also advises suppliers on quality requirements and how it wants packaging to be.

According to the manager, the business was good as customers looking for organic products are already familiar with the shop and satisfied with quality and price of the acquired products. The major cited challenge was packaging, which constrains many potential local organic producers from getting orders from the shop. Some stocked items were packaged in paper bags which cannot protect content from moisture and air, factors that damage the product. Shelf-time is therefore very limited.

Bio-Shop Tanzania Ltd
The organic shop recently opened in January 2012 at Msasani Slipway. The shop mainly targets tourists, diplomats and other foreign community and high income Tanzanians. The shop aims to stock a wide range of certified organic products – fruits, herbs, spices, juices, tea, coffee, honey, eggs and more.

Food Dell Ltd
Situated at Oysterbay shopping centre, this mini-supermarket is a very strategic compound with other shops and restaurants. The shop stocks domestic and imported food items as well as non-food products.

Lutoni Shop
Lutoni shop mainly sells handmade souvenirs, but also sells some organic food products.

Envirocare
One of the first specialty shops has now moved to another, odd location, on a dusty road. When the shop was visited for this research, the shelves were dusty and empty, except for some honey, herbal soap and some bottles of moringa oil. When asked about the situation of the shop, the response was that they have lack of supplies and that the little supplies they get are delivered at people's homes.

Vitality shop
Vitality shop used to sell organic/natural products that come from South Africa, mostly medicinal products. At the time of research the shop was not located. Therefore, an update on its current activities cannot be given.

Supermarkets

There are about five supermarket chains in Tanzania: The South African chain – Shoprite (with two stores in Dar es Salaam and one in Arusha), the Kenyan chain – Uchumi, entered the Tanzania market in 2011, Shoppers Plaza and Shrijees Supermarket. All these are located in very strategic areas. Recently, the Kenyan retail giant Nakumatt opened a store in Moshi, its first in Tanzania. Opening of a store in Dar es Salaam will soon take place.

Supermarkets increasingly provide opportunities for sales of organic products, but have higher requirements in terms of quality and supply capacity. Similar to the specialty shops, supermarkets mainly focus on organic fruit and vegetables. Supermarkets often seem to refer to products cultivated organically by default.

Dell
Dell supermarket is eager to engage in organic products. The management needs to see the samples and price list of available products. Additionally, products should meet high quality standards (such as those accepted by Tanzania Bureau of Standards (TBS)), well packed and properly labelled. Provided that locally available organic products conform to quality standards, Dell would prefer local supplies. The management insisted that these products should look clean and physically attractive. Otherwise they would rather go for imported commodities. They also mentioned that organic products should carry a

certificate and preferably carry the logos of outlets like Dell. However, they only referred to TBS certification and not mentioned Kilimo Hai, EAOPS or other organic certificates. Although Dell seems to be the best located and organised supermarket for selling organics, there seems to be an awareness gap, which currently prevents a larger range of organic products.

Nakumatt
Although Nakumatt in Moshi does not sell any organic products at the moment, in Kenya some stores have designated special sections for certified organic food. Management of the Moshi store has indicated to be interested in organically certified food. Although the Moshi market might not be the most interesting market for organics, opportunities arise when the Dar es Salaam market is targeted.

Hotels

The Dar es Salaam Serena Hotel (former Royal Palm Hotel), New Africa Hotel and Hyatt Regency Dar es Salaam (The Kilimanjaro) claim to be eager to buy organic foodstuffs. However, local availability seems to be an issue. Furthermore, it was noted during our research that relevant hotel staff were not really aware of organic certification and sometimes did not know it existed at all.

The Sea Cliff Hotel has subcontracted its restaurants. The Western, Indian and Chinese restaurants were all anxious to work with organic products, but were unaware of organic certification. Some of their supplies come from the Masifio Estate in Iringa region, which produces top end vegetables, herbs and fruits, but is not organically produced.

Some eco-lodges also claim to serve organic foodstuffs. However, this mainly concerns organic by default products. Hotels seem to use 'organic' food as marketing instrument, but have not shown real commitment to certified organic foodstuffs yet. There are probably some tourist outlets that do serve certified organic food. However, they are scarce and not identified during the research period.

3.2. International markets

3.2.1. Regional markets

Kenya, in particular the metropolitan area of Nairobi, is considered to be the most interesting regional market for organic food products due to a relative high purchasing power and large expatriate community.

Kenya
The Kenya Organic Agriculture Network (KOAN) estimated the size of the organic market to be close to 30 million Kenya shillings (€270 thousand) in 2009, representing 4.6% of the total turnover of the organic sector. Growth of the Kenyan organic market was estimated to be 40% annually. Driven by a relatively large expatriate community, the premiums for organic produce have been ranging from 30 to 40%. Around 27 organic certified enterprises supplied the domestic market in 2009. An additional nine organic export oriented enterprises also sell a small percentage of their products locally.[33]

Kenya's demand for organic products from other East African countries is relatively high. Several organic outlets sell branded products from Tanzania, for example dried fruits, juices, herbal teas, spices, vanilla and honey. The organic market is centred on the metropolitan area of Nairobi. A weekly organic farmers' market has been established near one of the up-market estates at the River Garden Centre in Nairobi. A wide variety of organic products are sold there, including some pulses. Organic products are also sold through three large supermarket chains in the country; Nakumatt, Uchumi, and Chandarana supermarkets (six stores). Furthermore, there are also six specialty food shops. Some of the traders are operating a basket delivery systems to consumer's homes or workplaces. In 2009, 185 consumers were being supplied.[34]

Most of the organic products supplied have gone through third party verification

[33] KOAN (2009)
[34] KOAN (2009)

system and carry the Encert certification mark and/or Kilimohai Mark. Other products are branded and are in different stages of certification.

Table 3.1 Summary of some key organic outlets in Kenya, potentially, 2010[35].

Outlet	Organic products	Location
Uchumi Supermarkets	Fruits and vegetables, honey, herbal pharmaceuticals	Key cities, including Nairobi, Mombasa and Kisumu
Nakumatt Supermarkets	Fruits and vegetables, honey, herbal pharmaceuticals	Key cities, including Nairobi, Mombasa and Kisumu
Healthy U at Sarit Centre	Porridge oat, honey and sunflower.	Nairobi
Zucchini Green Grocers at ABC Place	Organic salad vegetable (lettuce) and other greens	Nairobi
Green Dreams Organic Shop		Nairobi
Organic Green Grocers at the Mobil Plaza	Salad vegetable and other conventional green groceries	Nairobi
Green Corner	Fresh fruits and vegetables, dairy, eggs, frozen meats, dried and canned items, spices.	Nairobi
Juja Organic Market	Fresh fruits, dried fruits, vegetables, herbs, spices, tubers, squash, and vegetables, nuts, porridge powders, Chapati flour, herbal teas, body care products, honey, arrowroots, oranges, amaranth grains, garlic, ginger and sweet potatoes.	Juja Town
Bridges Organic Health Restaurant	Fresh vegetable and fruit juice cocktails, dietary fibre, vitamins, minerals, oils, vegetable soups, and traditional Kenyan dishes made with whole grain and organic ingredients.	Nairobi

Currently, there is no production of organically certified Kidney beans reported in Kenya. There is some produce which is claimed to be 'non-certified organic' by the local organic sector and sold as 'based on organic principles' and 'organic by default'. There is some production of other unspecified certified pulses.

3.2.2. Other international markets

The European market and the US market are the largest organic markets in the world, but only the European appears to be relevant to Tanzanian exporters of Kidney beans. Despite the economic downturn in recent years, overall organic markets have proved to be fairly resilient and continued growing, although at slower pace.

European organic sales amounted to € 18.4 billion in 2009. Germany is the largest organic market, accounting for almost a third of organic sales in Europe. Germany is also an important distributor of organic products to other European markets. The Netherlands has a medium-sized domestic market for organics, but is more important as a trader and distributor of organic products. Switzerland and Denmark have the highest organic food market penetration and highest per capita consumption of organic food[36]. The European organic market is continuously expanding its assortment of available organic food products.

Important obstacles to enter the European market are stringent legal and non-legal market requirements. The minimum requirement of European buyers would be at least compliance to food safety regulations and reliable supplies of constant quality. European buyers are not interested in exporters who are unable to deliver these primary requirements. Organic products can only be imported if they are certified through third party certification. Approval of certification bodies requires compliance or equivalency with the requirements of the importing countries. At the time of writing, the East African Organic Products Standard (EAOPS) and Participatory Guarantee Systems (PGSs) do not comply with European standards. Also claims as 'non-certified organic', 'based on organic principles' and 'organic-by default'

[35] UNECA (2010)
[36] FiBL & IFOAM (2011)

have no value and are not allowed. Market access requirements and information on certification systems can be found in Annex 3 and 4.

Certified organic Kidney beans are locally produced, but many certified organic Kidney beans are imported from China. Tanzanian exporters of organic Kidney beans would need to be competitive with the pricing and quality requirements of these other supplies. In addition, Tanzanian traders would have to prove that they can be reliable suppliers of organic Kidney beans.

4. Potential for organic Kidney beans

4.1. Local market potential

As mentioned in the previous chapter, the Tanzanian organic market is centred in Dar es Salaam. People that buy certified organic products are mostly expatriates and some high-income Tanzanians and tourists. Most of them are not traditional beans eaters. They do not consume as much beans as most Tanzanians do. Organic consumers buy their organic foods at specialty shops that focus on selling 'natural' and 'organic' products and the larger supermarkets.

Specialty shops

From interviews held with owners of specialty shops it became clear that there is general interest in selling organic certified Kidney beans.

The **Garden Market** is the only specialty shop that is currently selling Kidney beans. The shop sells some small quantities of dried as well as fresh conventional Kidney beans. Due to the absence of pre-packed Kidney beans, they are sold loose.

The Kidney beans are sourced at the Tandale market in Dar es Salaam. Garden Market then adds a 40% mark up and sells the Kidney beans at Tsh. 2,000 per kg. This means they are sold at the market for around Tsh. 1,430 per kg. Currently, the shop sells on average around 30 kg of dried and 3 kg of fresh Kidney beans a month. Soya beans, however, are more popular. Around 50 kg. are sold monthly.

The shop owner claims to be interested in certified organic Kidney beans and apparently consumers have already requested this product. She is willing to pay suppliers a bit more for the fact that the beans are certified. As the Garden Market focuses on fresh food products, it is particularly interested in fresh certified Kidney beans, but dried ones are also interesting. Indicated volumes are similar to what the shop currently sells: 30 kg of dried and 3 kg of fresh certified organic Kidney beans.

Also the other interviewed owners of specialty shops were especially interested in fresh certified Kidney beans. At **Mum's Kitchen** they are willing to buy 5 kg to test the market. At **MAC Shopping Centre** and **Bio Shop Tanzania Ltd.** they could not specify on volumes. Since fresh Kidney beans cannot be supplied all year round, the shops are also interested in dried certified Kidney beans but they expect volumes to be small.

The product requirements mentioned at the different specialty shops were quite similar. They are assembled in the table 4.1.

The owner of the **Bio-Shop Tanzania Ltd.** did not specifically ask for red Kidney beans, but will follow consumers' preference. She normally pays the price that the supplier is asking, because she is committed to pay fair prices for locally produced organic products. To cover for operational costs, normally, 30-40% is added to reach selling price.

The owner indicated that she prefers to sell the certified Kidney beans in clean, simple packaging that is insect resistant and airtight.

Table 4.1: General product requirements

General requirements:	
Appearance	Red colour and of uniform size
Form	Fresh, also dried
Packaging	Pre-packed in 0.5 kg or 1 kg packs

As mentioned in the previous chapter, **MAC Shopping Centre** offers suppliers free opportunity to test the market for their products. If consumers are interested the shop will start buying from the suppliers. Like the other shops, MAC Shopping Centre is mainly interested in fresh certified beans. The owner explained that its mostly prosperous customers (many diplomats) are used to eating canned beans, because dried beans require substantial cooking time which they do not have.

The director of MAC Shopping Centre is willing to talk to suppliers on price modality. Two options are available. Either the supplier puts trust in the shop to sell on the supplier's behalf or the shop takes beans at a negotiated price. In the beginning this price will be lower to attract customer interest.

At **Mum's Kitchen** they believe there is a market for organic Kidney beans. However, its director fears that consumers might not value the difference between certified and non-certified organic Kidney beans. While the foreign community more often uses baked beans instead of locally available beans, this foreign community and emerging middle class which is increasingly health conscious are potential customers. The director suggests promotional activities to stimulate consumer awareness and interest.

The owner of **Food Dell Ltd.** indicated, however, that she was not interested in fresh kidney beans as she generally does not stock fresh produce. She is interested in certified dry beans but she did not have time to further elaborate on requirements.

Supermarkets

Although most supermarkets claim to sell organic food products, most are not certified. However, it does indicate they are open to the added value of 'sustainable' production methods and that there is a market for it. It is important that these potentially interested players and their customers become much better informed about why organic certification is important.

Both Uchumi and Nakumatt have shown real interest in certified organic Kidney beans. Nakumatt is eager to work with new suppliers and is ready to receive some samples of dried red Kidney beans. They would also be interested in certified Rose coco beans, since that variety is more popular in Moshi. Although Uchumi did not specify on requirements, Nakumatt is quite specific. The beans should be certified by a recognized body and have a TBS (Tanzanian Bureau of Standards) mark. Consistent supply is very important for Nakumatt. An agreement of acceptance has to be signed and becomes binding. The selling price is determined in consultation with the supplier, based on his/her production costs. When production costs increase Nakumatt and the supplier can sit together to review the price. Furthermore, the general terms of payment have to be accepted. Cash payments are not acceptable. Payments are done 15, 30 or even 60 days after delivery.

Table 4.2

Nakumatt requirements:
- Organic certification
- TBS mark
- Consistent supply
- Overview of production costs
- Accept terms of payment
- Good packaging

Packaging is very crucial. The beans should be well packaged with production and expiry dates. The dry beans found in the store, all of them imported from Kenya, were better and more attractively packaged than the local beans found in Shoprite or Uchumi supermarkets. They are in transparent polyethene bags with bright coloured label and seemingly corporate colours.

Although Nakumatt claims to target all classes of customers, many high-income customers, foreigners and high-end hotels shop at Nakumatt. It is this group of customers that are most likely to buy organic food products.

It is Nakumatt's policy to contribute to areas where it is operating. For instance, Nakumatt tries to source locally as much as possible and cooperates with farmers to get better prices.

Hotels

Although hotels claimed to be very interested in serving organic food, they haven't shown real commitment and are not well informed about organic certification. Therefore, they are most likely not willing to pay extra for certified beans. They might buy certified organic beans when conventional prices are high, but that does not make them reliable buyers.

During the research period, no hotels were identified that serve organically certified food. Most probably there will be some hotels/eco-lodges that are committed to source certified food and could be interesting buyers of certified organic Kidney beans. However, required volumes/ demand will be small.

Local potential

Overall, there seems to be potential for organically certified Kidney beans. While supermarkets are mostly interested in dried beans, specialty shops have also shown interest in selling fresh certified Kidney beans. Despite the interest, volumes will be limited, as most consumers of organic food are not traditional bean eaters. This make it all the more important to satisfy retailers and their customers with reliable supply of good quality beans, in packaging that serves their needs best.

Processing and packing of beans needs to be taken up by farmers cooperatives or otherwise organized farmers groups or by actual processors. During the research period, conventional beans processors have not shown real interest in taking up organic produce. Organic processors, currently involved in other products, might consider taking up certified kidney beans. Once certified organic production of Kidney beans is realized and some processors show interest, their requirements are expected to be similar to the conventional processors requirements as shown in chapter 2, plus additional requirements concerning organic growing, handling, storing, packing and transporting of beans. Another option could be to involve a packer who is able to pack according to organic standards. This means that all processing should be organised by farmers groups.

Opportunities for organic Kidney beans can also be found in the conventional market. It can be difficult for companies to source beans of very good quality. Certified Kidney beans could be of interest to them, not specifically for their organic status, but for their good quality. Buyers could range from restaurants to export companies. For example, Export Trading Company, one of the largest conventional traders in Tanzania, indicated to have a ready export market and asked for samples and prices.

Another company, Enterprising Alliance Limited (EAL) received an order from an Italian company of 10 to 50 containers of high quality red kidney beans, which can be spread out over several seasons. The Kidney beans are ordered to supply Italian canning companies. EAL is also looking for good samples.

4.2. Regional market potential

Since the Kenyan organic market is more developed than the Tanzanian organic market, it is interesting to identify the potential for organic Kidney beans on that market. The Kenyan organic market is centered in and around Nairobi, but also in Mombasa there is a small organic market. Generally, the Kenyan market seems to appreciate certification better than the Tanzanian market. As explained in chapter 2, Kidney beans are not the most preferred variety of beans. Nevertheless, there seems to be potential for certified organic Kidney beans.

Nakumatt indicated that there is good potential for certified organic Kidney beans in Kenya. Considering that Nakumatt Nairobi is around ten times larger than the Moshi store and has around ten times as much customers, Nakumatt could be a very strategic buyer to target.

Zucchini Green Grocers and Organic Green Grocers do not stock any beans, but they both believe there is some potential for certified Kidney beans. The Green Dream Organic Shop once tried to sell brown and white beans, but this was not successful. The manager believes this has to do with their location. Many customers are UN staff, most of whom do not consume beans. However, he also believes there is potential for certified Kidney beans.

The Juja Organic Market and Organic Farmers Market could not be reached during the research period. A wide variety of products is sold at both markets by the farmers themselves. They could be interesting locations for some trial sales of certified Kidney beans if it is possible to find someone to go there.

The Bridges Organic Health Restaurant currently has no beans on its menu, but expressed interest in the idea and will consider it for the future.

Healthy U was the only outlet that became more specific during interviews. The Manager is interested in dark red Kidney beans. She indicated that she can handle around 100 kg of dried beans monthly. She requires that the beans are certified and approved by the Ministry of Agriculture, meaning that it should comply with Sanitary & Phytosanitary requirements. The beans do not have to be packed in consumer packaging as customers' desired amounts will be weight in the shop.

Like the Tanzanian market, also the Kenyan organic market seems to offer potential for suppliers of certified organic Kidney beans. Again, however, volumes will probably be small. Healthy U seems to be the place to start, as they have become the most concrete. Nakumatt should also be a priority, especially if Nakumatt in Moshi has approved the samples they requested. That would be the moment to see if Nakumatt Nairobi is actually interested and if they are willing to become more concrete.

There is, however, the risk of competition from Kenyan organic farmers. If certified organic Kidney beans prove to be profitable, it is relatively easy for local farmers to start planting Kidney beans alongside other organically grown crops. For that reason, it is very important to build a good relationship with buyers. The certified Kidney beans will have to be of good quality and supply has to be consistent.

5. Conclusion

Expanding organic markets, especially in Europe and the US have triggered organic produce all over the world. Also Tanzanian farmers are increasingly involved in certified organic production methods. Most of their produce is exported while only a small part is consumed locally. Nevertheless, the Tanzanian organic market is growing, due to increased awareness among middle- and high-income Tanzanians and the presence of a considerable expatriate community.

Based on interviews with important players in the organic market, it can be concluded that there is interest for certified organic Kidney beans. However, considering the fact that most consumers which buy organic food stuffs are not typical beans eaters, the volumes sold are expected to be small. Interest from the Kenyan market is not that much different. Nevertheless, the Kenyan organic market is somewhat more developed than the Tanzanian organic market and it can be worthwhile to follow up on leads and further explore the market.

Because the market potential is limited, buyers need to be satisfied by offering good quality, reliable supply and suitable packaging. As indicated by some specialty shops, promotional activities will also be necessary to attract consumer awareness and interest. Attractive packaging can also attract consumer interest. As Nakumatt insists on attractive packaging anyway, it can be worthwhile to put extra effort into packaging design.

Since good quality and reliable supply are key, it is important to organise processing and packing well and establish close cooperation between farmers groups and potential processors or packers. Furthermore, it will be of crucial importance that farmers are assisted in dealing with the constraints that most bean farmers face. Besides guidance in the organic certification process, farmers need access to good quality bean seeds and need to improve their farm management and post-harvest handling skills. To be able to supply all year round, adequate storage facilities are needed.

Another important factor will be farmers' access to loans or credits. Organic farmers often engage in side-selling to small-scale traders right after harvest, in order to meet their pressing financial needs. Often the farmers will be able to sell their products for a better price if they are able to hold on to their crops some time longer. At the same time it will not compromise reliable supply to existing buyers.

Finally, most Tanzanian retailers, even specialty shops, are not well informed about the importance of organic certification. Often, the difference between organic-by-default and certified organic is not recognized. To improve the potential of certified organic Kidney beans, but also of the entire organic market in Tanzania, it is key that retailers and consumers, but also the service sector, are better informed about organic produce and certification. TOAM can play an important role in this. To seriously upgrade the Tanzanian organic sector, TOAM should seek collaboration with research institutions to bring research closer to the farmers, with organisations, like TanTrade, to better link with the local market and export markets and other relevant players.

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Interviews have been conducted with the following companies/organisations:

Company Name	Name (position)	Contact details
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Monaban Trading & Farming Co.Ltd	Mr. Gabriel Laizer (Operations Manager)	P.O Box 11809 Arusha Tel: +255 7670515992 / 783051992 Mobile: +255 756 778 836 Office No: +255 27 2 545 053 Fax: +255 2545053 Email: inquiries@monabangroup.com Website: www.monabangroup.com
Ndula Products	Mrs. Janeth Mlopwe (Director)	Cell: +255-754 528292 Email: ndulaproduct@yahoo.com Website: www.ndulaproducts.blogspot.com
Garden Market	Ms. Carrie (Owner)	Masaki P.O Box 80463 Dar es Salaam Cell: +255 787 842000 Shop: +255 782 427336
Bio – Shop Tanzania Ltd	Ms. Silke Königsmann (Owner)	Msasani P.O Box 80491 Dar es Salaam Tel: +255 684111950 Email: info@organic-tanzania.com Website: www.organic-tanzania.com
Pulses and Agro Commodities (T) Ltd (PACT)	Mr. Rakesh Vohora (Managing Director)	P.O Box 192 Arusha Tel: +255 27 2549591/2 Fax: +255 27 2544663 DL: +255 732972331 Mobile: +255 784397416 Email: ricky@cybernet.co.tz
Enterprising Alliance Limited (Farming and Sales of Farm Crops)	Dr. Danstanl N. Kabialo (Managing Director)	9/1 Mandela Road, P.O Box 41063 Dar es Salaam Tel: +255 255 22 2861069 Mob: +255 713276561 / +255 785842445 / +255 753562778 Email: info@eal.co.tz, kabialo@yahoo.com , Website: www.eal.co.tz
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NAKUMATT TANZANIA LTD	Mr. Africk. A. Milimo (Branch Manager)	Kaunda Street next to Kahawa House, Along Station Road

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Uchumi Supermarket	Isac James (Head of Department - Grocery)	Tel: +255 653907293
Mum's Kitchen	Jacqueline Maleko (Managing Director)	Tel: +255 716303993/ 754303993
MAC Shopping Centre	Adroph Rwelamira (Managing Director)	Tel: +255 755 268686 / 655 268687 – Managing Director Email: adroph@yahoo.com
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Zucchini Green Grocers at ABC Place		ABC Place, Waiyaki Way, Westlands, Box 39584-00623 Nairobi, Kenya Tel:+254204448919
Green Dreams Ltd	Mr. Zak (Owner)	Nairobi, Kenya. Contacts: Kendi: 0724 781 971 Zak: 0722 562 717 Emails: baskets@organic.co.ke; info@organic.co.ke or info@greendreams.co.ke
Organic Green Grocers		16503-00620 Mobil Plaza, Nairobi, Kenya Phone +254-203754939
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ANNEX 2. Market access requirements

General legislation

Codex Alimentarius adopted an international Code of Hygienic Practice for Spices and Dried Aromatic Plants in 1995 (CAC/RCP 42-1995). This code establishes hygienic requirements in the production area, in the company's facilities, for personnel hygiene, for hygienic processing requirements and product specifications, including ginger, chillis and vanilla, and is available at: http://www.codexalimentarius.net/standard_list.asp.

EU legislation

The code is used as a basis for EU legislation; General Food Law (Regulation (EC) 178/2002), laying down general principles and requirements of food legislation, establishing the European Food Safety Authority and laying down procedures in matters of food safety and traceability.

In the field of food safety, relevant regulations discuss;

- Maximum Residue Levels (MRLs) (Regulation (EC) 396/2005, (EC) 178/2006 and (EC) 149/2008)
- Microbiological contamination (Regulation (EC) 2073/2005)
- Contaminants (Regulation (EC) 1881/2006). Regarding the contaminant ochratoxin A in pepper, paprika, **chillies**, allspice, nutmeg, **ginger**, turmeric and mixtures containing one of these spices the current level of 30 µg/kg will be tightened to 15 µg/kg in 2012.
- Irradiation (Directive 1999/2/EC, 1999/3/EC)

EU organic legislation is laid down in Regulation (EC) 834/2007, Regulation (EC) 889/2008 and Regulation (EC) 1235/2008. Here, the EU establishes requirements on the production and labelling with which an organic product of agricultural origin must comply, in order to be marketed in the EU as "organic".

Swiss legislation

Switzerland makes continuous efforts to harmonise its food law to EU food law to eliminate barriers to trade. Imported spices have to comply with the requirements of Swiss food legislation. The basis for enforcement and implementation of food legislation is formed by the Swiss Food Act (*Lebensmittel- und Gebrauchsgegenständeverordnung* SR 817) and further related ordinances. These provisions apply to the manufacture, treatment, storage, transportation and delivery of food, for the marking and advertising of food, as well as for agricultural food production. In addition to the Swiss Food Act and the Ordinance on Food, the most important ordinances applicable to exporters of (processed) herbs and spices are:

- Ordinance on indication of country of origin of foodstuffs, ingredients and raw materials used in foodstuffs (817.021.51)
- Ordinance on food hygiene (817.024.1)
- Ordinance of Foreign and Inherent Components in Food (817.021.23)
- Ordinance on food labelling (817.022.21)
- Ordinance on soups, spices and vinegar (817.022.103)
- Ordinance on beverages (mostly tea, herbal tea, coffee, fruit juices, syrups and soft drinks) (817.022.111)

Imports of organic products, both unprocessed and processed, from countries outside the EU into Switzerland are regulated by means of equivalence requirements: production, inspection and certification and labelling of organic products in emerging markets and markets in transition must conform to conditions that are equivalent to those contained in the Swiss Organic Farming Ordinance (SR 910.18 and SR 910.181).

Full legal texts are solely available in German, French and Italian. Only a small selection of Swiss acts and ordinances is available in English at present. For more legislation and further information, please refer to: http://www.admin.ch/ch/e/rs/suggestions_communications.html and consult the sources indicated below.

- The Federal Authorities of the Swiss Confederation for full legislation texts at: http://www.admin.ch and select 'Documentation'. An introduction in English is given, but further elaboration is only given in German, French and Italian.
- Rentsch & Partner provides an introduction to Swiss food law in English at: http://www.industriallaw.ch. The most relevant provisions regarding Swiss food law are also listed in this website, but they are only available in Germany, French and Italian: http://www.industriallaw.ch/?sub_id=87&leng=1

In addition, the European Spice Association (ESA) has set minimum quality requirements for spices, supplementing the EU legislation on spices and herbs. ESA's Quality Minima Document can be found under 'Documents' at: http://www.esa-spices.org. Although originally an American standard, the American Spice Trade Association (ASTA) standard is the most important reference for quality and food safety in the global spices business. ASTA Cleanliness Specifications can be found at: http://www.astaspice.org/i4a/pages/index.cfm?pageid=3360.

US legislation

Regulations and guidance on certification, production, handling, and labeling of USDA organic products are laid down in the National Organic Program (NOP). Information on organic standards, certification and compliance can be found at:
http://www.ams.usda.gov/AMSv1.0/ams.fetchTemplateData.do?template=TemplateA&navID=NationalOrganicProgram&leftNav=NationalOrganicProgram&page=NOPNationalOrganicProgramHome&acct=AMSPW

Organic regulations can be found at:
http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&sid=3f34f4c22f9aa8e6d9864cc2683cea02&tpl=/ecfrbrowse/Title07/7cfr205_main_02.tpl

Annex 3. Certification

In April 2007 the East African Community adopted the East African Organic Products Standard (EAOPS), with the purpose of having a single organic standard for organic agriculture production under East African conditions[37]. EAOPS certification can be realized through both the Participatory Guarantee Systems (PGSs) or through third party certification.

Most small scale spice farmers in Tanzania follow the GPS system. According to the IFOAM (International Federation of Organic Agriculture Movements), the PGSs (also called self-evaluation systems) are 'locally focused quality assurance systems that certify producers based on active participation of stakeholders and are built on a foundation of trust, social networks and knowledge exchange and are adapted to local markets and short supply chain'. In Tanzania, this system is supervised by TOAM, TanCert and the local agricultural extension officers.

Companies that want to export to Europe, the US or other international markets, they need to comply to EU legislation, Bio Suisse standards, the NOP (National Organic Plan, for the US) or JAS (Japan's Agricultural Standards) and need to be certified through the third party certification system. International third party certifiers working in Tanzania include IMO, Bio Suisse and CERES. Third party certification can also take place through the Tanzanian Organic Certification Association, TanCert. However, TanCert can only offer these services with interference of an international recognized certification body.

At the time of writing, TanCert certification is not yet recognized in the EU market. However, TanCert has filed application for IFOAM recognition. The Ugandan Certification body UgaCert, recently received recognition in the second half of 2011.

Linked to EAOPS certification is the East African Organic Mark. The Kilimo Hai label is owned by the national Organic Movements in Kenya (KOAN), Tanzania (TOAM) and Uganda (NOGAMU).The East African Organic Mark can be used by all certified to the EAOPS, both in PGSs and third party certified systems. Also products certified to other recognized standards as the EU-regulation, the NOP and JAS and organic products imported to East African countries can carry the Kilimo Hai label.[38]

[37] The EAOPS can be found under: http://www.ifoam.org/partners/projects/pdfs/EAS%20456-2007_Organic%20products%20standard_w_cover.pdf
[38] Global Organic Market Access, 2011. http://www.goma-organic.org/hamonization-tracker/the-east-african-organic-products-standard/