

# Business case

## Passion Fruit Contract Farming

### Migori County, South West-Kenya

East African Growers (EAG)  
Myawwa Passion fruit farmer group  
Ack Development Services (ADS-Nyanza)  
M-Farm



Annemarie Groot Kormelinck – Wageningen UR Centre for Development Innovation  
Inger Janssen – Agri-ProFocus

May – August 2012



## Foreword

This report contains a business case description of passion fruit farming in Kenya – in particular between East African Growers (EAG) and the Manywwa passion fruit farmer group, with intermediate actors ACK Development Services - Nyanza (ADS-Nyanza) and M-farm. The business case is part of an action research process in which a series of business cases are analysed on the topic of *firm-farmer relations*. Hence, this report forms one of the business cases that are looked at.

Analysing, facilitating and learning from firm-farmer relations is part of one of the five Agri-ProFocus<sup>1</sup> tracks '*Organized farmers as partners in agri-business*'. For 2012, efforts in this theme focus on 'the provision of economic services to members of producer organizations' and the topic that this manual is part of: firm-farmer relations. Wageningen UR Centre for Development Innovation (WUR-CDI) and the Royal Tropical Institute (KIT) facilitate the work on these topics, in close collaboration with Agri-ProFocus' head office and its Agri-Hubs.

The field research for this Kenyan passion fruit case was conducted in Migori County, Suba East Division, South-West Kenya, between May and August 2012. We want to thank all the persons that have invested their time and energy to talk to us, gave interviews and help us thinking through the business case. In particular, we want to mention Vincent Orwa Alila from ADS-Nyanza, Nicholas Ambanya and his colleagues from East African Growers, Jamila Abass from M-Farm, and the farmers of the Manywwa passion fruit farmer group in Migori. A special thanks to Vincent, thank you so much for your hospitality and enthusiasm, for all the efforts that you put into our visit, and for all the information that you gave us.

*Annemarie Groot Kormelinck – Wageningen UR Centre for Development Innovation*  
*Inger Janssen – Agri-ProFocus*

---

<sup>1</sup> Agri-ProFocus is a partnership organization with Dutch roots that promotes farmer entrepreneurship in developing countries.

# Table of contents

- Foreword ..... 1**
- Table of contents ..... 2**
- 1. Introduction ..... 3**
- 2. Agriculture in Kenya ..... 4**
  - 2.1 Background..... 4
  - 2.2 Characteristics Kenyan agriculture ..... 4
  - 2.3 Kenya’s agriculture strategy ..... 4
- 3. Passion fruit farming..... 5**
  - 3.1 Introducing the passion fruit ..... 5
  - 3.2 Seeds and planting ..... 5
  - 3.3 Passion fruit production ..... 5
  - 3.4 Harvest and post-harvest activities ..... 6
- 4. Passion fruit farming in Kenya ..... 7**
  - 4.1 Kenyan passion fruit history ..... 7
  - 4.2 Kenyan passion fruit ..... 7
  - 4.3 Trade in passion fruits ..... 7
  - 4.4 Passion fruits in Migori ..... 7
- 5. Methods ..... 9**
- 6. The actors in this business case ..... 10**
  - 6.1 East African Growers ..... 10
  - 6.2 Manywa passion fruit farmers group ..... 10
  - 6.3 ADS-Nyanza ..... 11
  - 6.4 M-Farm ..... 12
  - 6.5 Other actors..... 12
- 7. The business case ..... 13**
- 8. Statement list ..... 14**
- References ..... 17**

# 1. Introduction

This business case describes a contract farming relation between the horticulture and fruit exporting company *East African Growers (EAG)*, the *Manywwa passion fruit farmer group* in Migori, software solution and agribusiness company *M-Farm*, and development NGO *ADS-Nyanza*.

The business case focusses on the topic of contract farming between EAG and passion fruit farmers, and is part of an action research programme of Agri-ProFocus: *“Firm-Farm Partnerships and Contracting: Taking Market Linkages to the Next Level”*. With looking at firm-farmer relations we aim to look beyond general discussions, focussing on learning from challenges in existing contract farming relations between firms and farmers, and – where possible – kick-starting a facilitative relation between firms and farmers.

When looking at firm-farmer relations, there are many aspects that can be thought of. As a starting point, firms and farmers are considered to have opposed interests: Farmer suppliers want to have the highest price for their product, whereas sourcing firms look for the lowest possible price. Such opposed interests are normal, given the different mandate in which both actors operate. Yet firms and farmers depend on final consumers to buy their end product, and hence it requires a form of cooperation and coordination between firms and farmers. Except for the different starting point or rationale, issues of trust, mutual understanding, and dealing with risks, contracts and prices can be thought of.

In March 2012, a workshop was organized in Kenya to kick-off the topic of firm-farmer relations. Next to Kenyan Agri-Hub representatives of Agri-ProFocus, an interesting group of business, farmer and NGO representatives were present. It was through the Agri-ProFocus’ Agri-Hub Kenya website<sup>2</sup> that we got in contact with Vincent Orwa Alila, head of economic projects of ADS-Nyanza. Through this contact we started a three-day field research on this case where passion fruit farmers conduct contract farming with EAG, with a facilitating role for ADS-Nyanza.

The information in this report is based on interviews and group discussions with company (EAG), the Manywwa passion fruit farmer group, and representatives from ADS-Nyanza and M-Farm. These results will be supplemented with results from the challenge list ‘it takes two to tango’, which contains statements – divided among a number of challenge areas – that both farmers and firm employees have to answer. The challenges are formulated in a way that aims to grasp the current perceived status of the firm-farmer relation, focussing on the challenges that actors are (possibly) facing in this relationship.

This business case report is structured as follows. Chapter two describes the current agriculture situation in Kenya in general. Chapter three focusses on the different aspects of passion fruit farming, followed by information on Kenyan passion fruit farming in chapter four. Chapter five shortly elaborates on the methods used in this business case study, followed by an elaboration of the actors and the business case in chapters six and seven, and the formulated statement list in chapter eight.

---

<sup>2</sup> <http://apf-kenya.ning.com/>

## 2. Agriculture in Kenya

### 2.1 Background

Agriculture is the mainstay of the Kenyan economy directly contributing 26 per cent of the GDP annually, and another 25 per cent indirectly. The sector accounts for 65 per cent of Kenya's total exports and provides more than 70 per cent of informal employment in the rural areas. Therefore, the agricultural sector is not only the driver of Kenya's economy but also the means of livelihood for the majority of Kenyan people.

Sustained agricultural growth is critical to uplifting the living standards of the Kenyan people as well as generating rapid economic growth. However, in spite of the importance of the agricultural sector, farming in Kenya has for many years been predominantly small scale, rain fed and poorly mechanized. In addition, institutional support and infrastructure have been inadequate.

### 2.2 Characteristics Kenyan agriculture

Kenya's agriculture is predominantly small-scale farming mainly in the high-potential areas. Production is carried out on farms averaging 0.2–3 ha, mostly on a commercial basis. This small-scale production accounts for 75 per cent of the total agricultural output and 70 per cent of marketed agricultural produce. Small-scale farmers produce over 70 per cent of maize, 65 per cent of coffee, 50 per cent of tea, 80 per cent of milk, 85 per cent of fish, and 70 per cent of beef and related products. However, adoption of improved inputs such as hybrid seed, concentrate feeds, fertilizer, safe use of pesticides and machinery by small-scale farmers is relatively low. There is huge potential for increasing productivity for these farmers with adoption of modern farming practices.

The cooperative movement has played an important role in agricultural development and in the Kenyan economy. Agricultural cooperatives have helped in procurement of inputs, production, value addition and marketing.<sup>3</sup> Agricultural cooperatives form 46 per cent of all cooperative societies in the country. They have 3 million members out of a total membership of 7 million in the entire cooperative movement. The Government has emphasized the need to revitalize the cooperatives sector to play a more significant role in reviving the economy through improved governance and management capacity.

### 2.3 Kenya's agriculture strategy

In 2010, the government of Kenya has developed a new 10-year Agricultural Sector Development Strategy (ASDS). Besides ensuring food and nutritional security for all Kenyans, the strategy aims at generating higher incomes as well as employment, especially in the rural areas. Moreover, it is expected to position the agricultural sector as a key driver in achieving the 10 per cent annual economic growth rate envisaged under the economic pillar of Vision 2030.

The overall development and growth of the Kenyan agriculture sector is anchored in two strategic thrusts: (1) increasing productivity, commercialization and competitiveness of agricultural commodities and enterprises; and (2) developing and managing key factors of production.

---

<sup>3</sup> In addition, in the financial sector the cooperative movement through savings and credit cooperatives (SACCOs) has helped mobilize savings and provide credit to producers.

## 3. Passion fruit farming

### 3.1 Introducing the passion fruit

Passion fruit is a (sub) tropical fruit, originating from southern Brazil. It is a perennial vigorous vine, which flowers and produces fruits within a year. The vine is shallow rooted, woody, climbing by tendrils. The fruit colours range from dark – purple with faint white specks to light yellow. Within an estimated 500 species of *Parsiflora* species, there are two distinct forms, the purple passion fruit (*Parsiflora edulis*) and the yellow passion fruit (*Parsiflora Edulis var. Flavicarpa*).<sup>4</sup> Passion fruit flavour is appealing, musky, guava-like, sub-acid to acid. The fruits are eaten fresh but the processors are the main commercial outlets.

### 3.2 Seeds and planting

Passion fruit vines are usually grown from seeds. With the yellow form, seedling variation provides cross-pollination and helps overcome the problem of self-sterility. If planted soon after removal from the fruit, seeds will germinate in 2 to 3 weeks.<sup>5</sup> Cuttings should be well rooted and ready for setting out in 90 days. Grafting is an important means of perpetuating hybrids and reducing nematode damage and diseases by utilizing the resistant yellow passion fruit rootstock.

In crossing the yellow and purple passion fruit varieties, it is necessary to use the purple as the seed parent because the flowers of the yellow are not receptive to the pollen of the purple, and an early-blooming yellow must be utilized in order to have a sufficient overlapping period for pollen transfer. In plantations, the vines are set at various distances. Spacing of purple passion fruit in Kenya has been 3m between vines and 1.8 m between rows.

### 3.3 Passion fruit production

Passion fruit is round or oval, 4-6 cm diameters. Vines commence cropping at 6 months of age and reach full bearing in 18 months. Vines have a productive life of 3 to 4 years. New plantings should be made on a continuous 3 year rotation to maintain production.

#### *Climate & soil conditions*

The purple passion requires a warm, subtropical climate, a certain amount of rainfall and protection from wind.<sup>6</sup> Passion fruit vines are grown on many soil types but light to heavy sandy loams, of medium texture are most suitable. Passion fruit plants have a vulnerable root system. A healthy soil, teeming with worms and microbes and organic matter is best.

#### *Water & nutrition*

Regular watering will keep a vine flowering and fruiting almost continuously. Water requirement is high when fruits are approaching maturity. If soil is dry, fruits may shrivel and fall prematurely.

Fertilizer should be applied at the rate of 1.36 kg per plant 4 times a year, under normal conditions. In addition, passion fruit growing involves extensive use of fungicides and some insecticides. Passion fruit vines should always be watched for deficiencies, particularly in potassium and calcium, and of less importance, magnesium.

---

<sup>4</sup> The yellow form has a more vigorous vine and generally larger fruit than the purple, but the pulp of the purple is less acid, richer in aroma and flavour, and has a higher proportion of juice.

<sup>5</sup> Cleaned and stored seeds have a lower and slower rate of germination. Seeds are planted in 1.25 cm deep in beds, and seedlings may be transplanted when 25cm in high.

<sup>6</sup> The most optimal altitudes and amount of rainfall differs per type of passion fruit, and local climate and is – hence – for each situation different.



### *Weeding & disease control*

Injuries to the base of the vine, which allow entrance of disease organisms, can be avoided by hand-weeding or the application of herbicides around the main stems. These practices will also protect the shallow root system.

Root-pruning should precede transplanting of seedlings by 2 weeks. The soil should be prepared and enriched organically a month in advance if possible. Grafted vines must be planted with the union well above ground, not covered by soil or mulch; otherwise the disease resistance will be lost. After a vine of either the yellow or purple passion fruit attains 2 years of age, pruning once a year will stimulate new growth and consequently more flower and fruit production.

Finally, passion fruit growing involves intensive use of labour throughout the year. Labour is needed for disease and pest control, fertilising, harvesting and packing over a 10-month period.

## **3.4 Harvest and post-harvest activities**

### *Harvesting*

Many factors influence the yield of passion fruit vines. Yet, well managed vines can produce 20 to 30 kg, or 2 to 3 cartons, per vine each year. Ripe fruits fall to the ground and will roll in between mounded rows. They do not attract flies or ants but should be collected daily to avoid spoilage from soil organisms. For juice processing, the fruit is allowed to attain a deep-purple colour.

### *Storage*

The fruits should be collected in lugs or boxes, not in bags which will cause 'sweating'. If not sent immediately to processing plants, the fruits should be spread out on wire racks where there will be good air circulation.

Under ripe yellow passion fruits can be ripened and stored at 20° C with relative humidity of 85 to 90%. Ripening is too rapid at 30° C. Ripe fruits keep for one week at 2.°-7. ° C. Coating with paraffin and storing at (5° to 7° C and relative humidity of 85 to 90%, prevents wrinkling and preserved quality for 30 days.

### *Food Uses*

The fruit is of easy preparation. One needs only cut it in half lengthwise and scoop out the seedy pulp with a spoon. Mechanical extractors are, of course, used industrially. The resulting rich juice, which has been called a natural concentrate, can be sweetened and diluted with water or other juices (especially orange or pineapple), to make cold drinks.

Passion fruit juice can be boiled down to a syrup which is used in making sauce, desserts, ice cream, etc. The flavour of passion fruit juice is impaired by heat preservation unless it is done by agitated or "spin" pasteurization in the can. The frozen juice can be kept without deterioration for 1 year at -17° C and is a very appealing product. The juice can also be "vacuum-puff" dried or freeze-dried. Commercial processing of the yellow passion fruit yields 36% juice, 51% rinds, and 11% seeds.

## 4. Passion fruit farming in Kenya

### 4.1 Kenyan passion fruit history

Commercial culture of purple passion fruit was begun in Kenya in 1933 and was expanded in 1960, when the crop was also introduced into Uganda for commercial production. In both countries, the large plantations were devastated several times by easily-spread diseases and pests. It became necessary to abandon them in favour of small and isolated plantings which could be better protected.

Focussing on Kenya, over time production moved from Kisii highlands, which were producing for processing in Sotik Passion Fruit Factory to Central Kenya, which has been the main supplier for fresh exports by exporters and also for processing by Kenya Fruit Processors in Thika among other processors. Recent new production areas include the North Rift districts of Uasin Gishu, Keiyo and Nandi. Smallholder farmers have for long produced the crop.

### 4.2 Kenyan passion fruit

The most important passion fruit variety in Kenya is the purple passion fruit – *Parsiflora edulis* grafted on yellow passion fruit or Maracuja. Passion fruit grows well in cooler temperatures at an elevation of between 1200m – 1800m above sea level east of the rift valley and up to 2000 m above sea level west of the Rift Valley. More specifically, purple passion fruit does well in the upper midland to upper Highland zones (1200-1800m) while yellow passion fruits do well in lower midland to lower lowland zones (up to 1200m).

The fruit does well in optimum temperatures for the production of purple passion and yellow passion are between of 18°C to 25°C and 25°C to 30°C respectively. A well distributed rainfall of 900 mm to 2000 mm per year is suitable for passion fruits production. Excess rainfall causes poor fruits set and encourages diseases. Passion fruits plant will grow on a wide variety of soils, which should be reasonably deep and fertile. A pH range of 6.0 to 6.5 is the best. In high rainfall areas, the soil should be well drained.

### 4.3 Trade in passion fruits

Currently, large quantities of passion fruits are eaten fresh locally processed and are also exported fresh. Kenya is a large supplier of fresh purple passion fruits to the European markets like UK, Holland, France, Germany, and Belgium. Some are to export to United Arab Emirates.

In these markets Kenya competes with Brazil, Columbia, Nigeria, Zambia, Zimbabwe and Uganda. There is a large international market as well for passion fruit concentrate, which Kenya has not exploited. The volumes of passion fruits exported have not had a stable trend. There have been positive and negative growths over the years. The negative growth can be attributed to stringent market requirements especially the Maximum Residual Limits (MRLs).

### 4.4 Passion fruits in Migori

Migori – a town in Nyanza Province, in South-West Kenya – is the central place in this business case. Migori is the capital of Migori district, where the passion fruit farmers group conduct their contract farming with EAG. Soils in Migori are well drained and tending loamy for passion fruit farming. Migori lies at 1322 meters, hence falling under the lower midland. While this is typically more favourable to yellow passion, most farmers initially produced the purple passion – with relatively good yields.



Temperatures around Migori are between 18°C to 20.1°C. Averages rainfall is 1200mm. The area receives a double maxima rainfall pattern which means passion fruits can be grown productively both in the long and short rains. Trees that the passion fruit farmer group in Migori use for passion fruit production come from a tree nursery in Eldoret – about 100 kilometres from Migori.

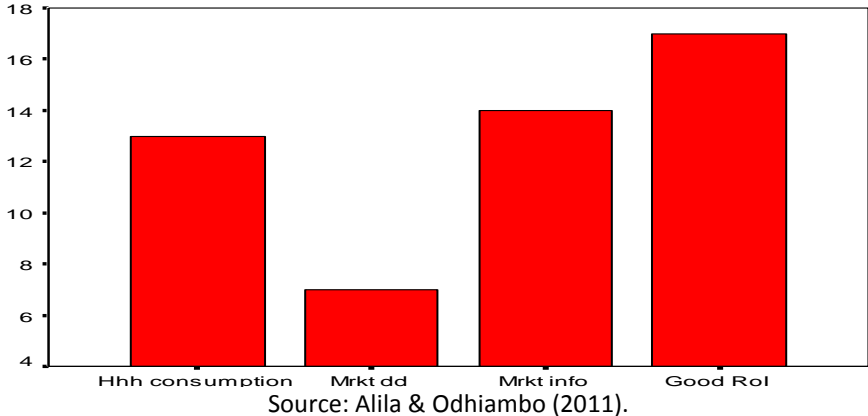
The farmer group under study uses green trees to plant, whereby the purple passion fruit grows from it. The trees need six months in the tree nursery to grow. When planted in the farmers’ fields, the trees need another six months before the first passion fruits are mature. One passion fruit of the Migori group weighs around 35 grams. One passion fruit tree can produce three good years of fruits, in total 1.6 tons of passion fruit on 0.25 hectare. After three years, the trees need to be replaced – preferably planted on a different piece of land.

*Farmer characteristics*

Results from a feasibility study on passion fruit farming, conducted by ADS-Nyanza in 2011<sup>7</sup>, reveal characteristics of Migori’ farmers. The following information is derived from interviews and questionnaire results from a group of 50 farmers (randomly drawn from a sample of 200 farmers).

On average the total land holding by the individual farm household interviewed was 3.9 acres while 2.7 acres are put into crop production. 66.7% of these farms had horticultural enterprises mainly pineapples which they produce for cash. Only 26% of the households are currently doing passion growing business while 70% had previous experience in passion fruit production. It is evidenced that most of farmers in Migori are practicing horticultural production most of which are done as cash crop though in small scale. Farmers have adequate pieces of land that can be put into new horticultural ventures.

The feasibility study also investigated the farmers’ preparedness, ability and interest to undertake passion fruits production. Results show that farm household are driven by various factors to invest into production. During this exercise farmers were asked to state what was the motivation of growing passion fruits. The figure below depicts response gathered from the households. 32% of farmers went into passion fruit due to anticipated good returns on investment. 40% stated market information and demand from other players in the market. Other farmers practiced production for farm household consumption.



Even though greater percentage of farmers went into passion fruits production anticipating good returns, this was however not realized due to inadequate prior market arrangement. If market system is put in place farmers are still willing to invest into passion fruits business.

<sup>7</sup> Alila, V., B. Odhiambo. 2011. Passion Fruits feasibility study and sub-sector analysis. Ack Development Services Nyanza

## 5. Methods

This chapter describes the methodological steps that are undertaken for this business case analysis. The first step in analysing this passion fruit business case was to understand the issues prevalent in the relation between EAG and the passion fruit farmers, and – to a lesser extent – with ADS-Nyanza involved in the relation.

First, different interviews and informal discussions were held with Vincent Orwa Alila – head of economic projects of ADS-Nyanza, who has a crucial role in facilitating this firm-farmer relation. Subsequently, interviews and (focus) group discussions were held with members of the Manywwa passion fruit farmer group in Migori. In Nairobi, a joint interview was held with Jamila Abass from M-Farm and Nicholas Ambanya from East African Growers. The interview was closed by an extensive tour in the East African Growers factory.

These interviews and discussions were *semi-structured*; meaning that it were informal, yet guided conversations with broad questions around a predetermined topic. A checklist with topics and possible challenge areas thereby formed the basis of the conversations. This casual form of gathering information allowed flexibility resulting from the discussions. These interviews and discussions were completed by field visits to (amongst others) farmers' fields, the passion fruit collection place, and the factory of East Africa growers. The interviews and field visit took place between 29 and 31 May 2012.

Second, during the field visit *secondary documents* of ADS-Nyanza were collected, including a passion fruits feasibility study, an example contract between EAG and the farmers, and a public-private partnership facility document. These documents were studied during the field visit and used as input and for triangulation during the interviews and group discussions. Upon analysing the business case in the Netherlands, information from the field visit was supplemented with *data and literature* that was found on the internet. The latter documents are used as input for chapter two, three, and four.

Based on the collection of this information, this first draft business case report is constructed. The information gathered led to the formulation of *challenge areas and the statement list 'two to tango'* – which can be found in chapter seven.

Formulating challenge areas and the statement list is core of this action research on firm-farmer relations. The idea of looking at firm-farmer relations through a statement list that both firms and farmers have to score is developed by pilot cases undertaken in the beginning of 2012. In each business case, challenge areas and statements are formulated that can be answered the firm, farmers, and a mediating NGO (or other actor).

In each business case these challenge areas and statements are tailored to the specific business case characteristics. At this way, the collected data is very relevant to the particular business case, and measures prevalent challenges in the firm-farmer relation. It is thereby important to notice that we don't aim for a scientifically sound statement list or survey. Rather, it aims to be a practical and case-specific tool for concrete firm-farmer relation.

At this moment, the challenges and statements in this business case are formulated. Subsequently, they can be applied at EAG staff, the identified farmer groups, and ADS staff. An excel sheet is prepared in which statements results can be entered and analysed – leading to the results section of this business case. The results will lead to finalizing this business case, and forms input for facilitating the business relation between EAG, passion fruit farmers and ADS-Nyanza.

## 6. The actors in this business case

### 6.1 East African Growers



East African Growers is the company that is central in this firm-farmer business case. It is a grower, processor, packer and exporter of vegetables, fruits and flowers to premium markets within (mainly) Europe, the Middle-East, South and West Africa. East African Growers started in 1995 with supplying fresh product to the UK, and has now a list of clients in almost 40 countries worldwide.

The East African Growers website<sup>8</sup> describes that the company is committed to continuously meet the expectations of retailers and consumers – who are increasingly making their choice based on commitment to food safety, quality standards, and high ethical, social and environmental responsibility. East African Growers thereby indicates to incorporate aspects of corporate social responsibility, such as working with fair trade, staff welfare, and educating and training farmers. East African Growers also focusses on traceability, what they see as an important factor in today's fresh produce industry.

East African Growers describes to practice an all-inclusive Integrated Farming Practice – incorporating eco-friendly agricultural practices, working on improved soil fertility for sustained farming, plans for environmental conservation, research on organic pest management, and efforts to increase efficiency and improve quality standards. East African Growers is a 50 million \$ operation, with 3500 staff directly employed across all units. East African Growers produces some crops on their own, whereas they also work with contract farming through outgrower schemes.<sup>9</sup>

Concerning passion fruits, East African Growers' export capacity is 20 tons, of which 100 per cent is outgrown. East African Growers sees it as its obligation to trade with the Kenyan community by engaging farmers in trade. They started the contract farming relation with the passion fruit farmer group under study in 2011 – hence we talk about a fairly young contract farming relation.

Focussing on this business case, East African Growers has a contract farming relation with the Manywaa farmer group, and thus guarantees them a market and a competitive price. It sees their main role as providing market linkages, inputs and logistics to the passion fruit farmers. In doing so, they offer technical advice and train passion fruit farmers on the right equipment, pesticide use and quality requirements for export markets. East African Growers demands 16 tons weekly delivery of passion fruits of the Manywaa passion fruit group, whereas the contracted farmers can supply only 200kg per week.

### 6.2 Manywaa passion fruit farmers group



Chapter four already elaborated characteristics of the Manywaa passion fruit farmers group in Migory county – which were investigated through the ADS-Nyanza' passion fruit feasibility study of 2011. This section continues to zoom in on the passion fruit farmer group, especially focussing on their passion fruit production.

Requirements that are set for the Manywaa passion fruit farmer group is that they have at least 0.25 hectare that can be used for passion fruit

<sup>8</sup> <http://www.eaga.co.ke/>

<sup>9</sup> The percentage of own production versus contract farming is different for each crop.

production.<sup>10</sup> Farmers were selected by ADS-Nyanza for this contract farming project based on their willingness, and the level of investment that they could put into passion fruit farming. So, farmers were screened on what they could contribute to the project. Currently, 100 farmers are part of the passion fruit project, which will be scaled up to get more farmers involved in the near future. The first hundred farmers play a role in this upscaling, since each farmer needs to involve 2 additional farmers by paying back the initial subsidies from the project.

Farmers have been trained by representatives from East African Growers, M-Farm and ADS-Nyanza on a wide range of aspects related to passion fruit farming – from production to quality standards, and from contract negotiations to marketing and export. The passion fruit farmers are, for example, helped by M-Farm to link them to the market by their SMS market information system. Farmers can send text messages to the collection point where they have brought their passion fruits. They can also inform the system how much their harvest per week.

At the moment, the passion farmers face difficulties in producing the pre-arranged 4 tons per week. The hundred farmers collectively produce around 1 ton per week, whereas EAG's capacity is 16 tons per week. Scaling up production is planned beginning from August 2012. Besides scaling up in production volumes, and scaling up in number of farmers involved, there are plans to improve the marketing system and to build an IT centre for (market) information flows.

### 6.3 ADS-Nyanza



ACK Development Services - Nyanza (ADS-Nyanza) is a faith based organization serving vulnerable communities within Nyanza province, irrespective of their religion, political affiliation or ethnic background. Since their establishment in 1997, ADS-Nyanza, operating under the name IDCCS- Nyanza, has been involved in interventions that mitigate vulnerability of partner communities in various development spheres in Nyanza province. Their strategic goal is to increase access to secure and sustainable livelihood and economic opportunities through integrated and participatory community development, capacity building and economic empowerment programs.

ADS-Nyanza's main mandate is to improve economic livelihood of small scale farmers in Nyanza Region. With improved incomes, farm household are able to improve food security, access better health care, improve housing conditions and pay school fees. This passion fruit farming project falls under ADS-Nyanza's pillar 'Economic Empowerment', focussing on facilitating the formation of producer groups and marketing associations, linking producer groups to business development service providers and financial institutions, facilitating market access, etc.

ADS-Nyanza's main role in this passion fruit project is to build the capacity of farmers and to facilitate and collaborate with other value chain supporters and partners. So, ADS-Nyanza mainly plays a mediating role between all actors, and also checks whether all actors are playing their role. It also supplies the farmers with technical advice, and supports them with several things, such as fertilizers and inputs. Staff from ADS-Nyanza pays regular visits to the farmers group, and their agronomist visits the farmers and gives advice where needed.

---

<sup>10</sup> Interview results indicate that land is not a challenge in the Migori area. Farmers have on average 1 acre.

## 6.4 M-Farm



M-farm Ltd is a software solution and agribusiness company. It was launched in 2010 by three Kenyan women after winning a competition focussing on web/mobile start-up businesses. M-Farm wants to give farmers a voice by connecting them with each other in a virtual space.

M-Farm focusses on three services. It: (1) enables farmers to inquire current market prices of different crops from different regions and/or specific markets ; (2) aggregates farmers needs/orders and connects them with farm input supplies ; and (3) enables farmers to sell collectively and connect them with a ready market. Hence, it creates solutions that empower farmers to work and communicate in new and innovative ways.

M-Farms' main product is a transparency tool for Kenyan farmers. By sending an SMS to 3535 they can get the latest information about the retail price of their products, buy their farm inputs directly from manufacturers at favourable prices, and find buyers for their produce. The price information that M-Farm provides is collected on 42 crops, and comes from major markets in Kenya (Nairobi, Mombasa, Kisumu, Eldoret, Kitale).

M-Farm has also played a role in this business case. Where ADS-Nyanza is the overall aggregator of the firm-farmer relation, M-Farm has contributed to contract facilitation between EAG and the passion fruit farmer group. They create market linkages between farmers and buyers, and provide information to the farmers. M-Farm is also occupied with providing the ICT platform that facilitates coordination of production and marketing activities. And with their mobile phone based market information system, farmers can have access to latest market price information.

M-Farm formulates their main role in this project as *'ensuring good prices from buyers for farmers. We negotiate and try to empower the farmers at the bottom of the pyramid by enriching them with knowledge'* (Jamilla Abass, M-Farm). M-Farm also conducted trainings on contract farming, and on marketing and export. M-Farm also plays a mediating role; they come in when things might go wrong between the farmers and East African Growers.

## 6.5 Other actors

Other actors in this passion fruit project are:

- ❖ The *Ministry of Agriculture*. This Ministry offers trainings and extension services to farmers on all aspects of passion fruit farming – from agricultural practices to value addition.
- ❖ The *Ministry of Cooperative Development and Marketing*. They can give trainings on marketing cooperatives.
- ❖ The *Horticultural Crop Development Authority (HCDA)*. The Authority is an authorized organization that can help facilitating the relation between East African Growers and the farmers. And they certify tree nurseries and passion fruits.
- ❖ *Dutch interchurch organization ICCO*. ICCO has provided financial and technical support (trainings) on value chain development.
- ❖ *Equity Bank* gives financial backstop in the project. They give farmers financial services and financial literacy. According to ADS-Nyanza, they are not playing that role at the moment – it is their supposed role.
- ❖ *USAID KHCP*, which is running a horticultural competitive project, whereby passion fruit one of the crops is that they are promoting. They have good experiences with passion fruit farming in Eldoret, but have no direct interventions in this business case.

## 7. The business case

ADS-Nyanza started with the idea for this passion fruit farming project in 2009, when it evaluated a pineapple farming project they conducted. Evaluation findings showed the potential for passion fruit – which was seen as a high value crop that could be introduced in Migori County. Before ADS-Nyanza started working on pineapples they already had done some analysis on passion fruits. This was followed by conversations with research institutions and the passion fruit feasibility study that ADS-Nyanza conducted in 2011.

This was combined with survey results from the Kenyan Ministry of Agriculture in 2010, whereby a priority was indicated for cash crops. Based on the survey, the idea for passion fruit farming was prioritized. Passion fruit has a potential: it is not labour intensive, and gives good returns on investment coupled with a relatively shortened payback period. In addition, passion fruits farming have demonstrated ability to address food security and poverty due to its ability to increase farm household income and unmet market demands. Farmers in the Migori area had tried passion fruit farming before, but this never became commercially viable, due to a lack of good market opportunities. ADS-Nyanza started looking for a formal market, and passing passion fruit information to farmers.

The next step was the recruitment of farmers. Important aspects thereby were farmers' motivation and willingness to start passion fruit production, and their ability to invest in passion fruit production. It proved difficult for farmers to afford seedlings. The Manywa farmer group originally consisted of 23 members. The original members gathered non-members and identified common interest among farmers for passion fruit farming. They installed a formal registration through (1) following constitutions and regulations, and (2) farmers had to pay a fee of 1050KSh.<sup>11</sup> The application forms were discussed in the community, ADS-Nyanza looked at the interest and motivations, and whether they would fit in the community.

Subsequently, the farmer group formed a network, and solicited for any organization who could organize training to the farmer group. That is where ADS-Nyanza came in again, and ADS-Nyanza linked the farmers to the Ministry of Agriculture. Moreover, a relationship got established with Coca Cola (through its CSR policy), and with some funding from the Bill & Melinda Gates Foundation the project could start. The project also got funded by the Dutch interchurch organization ICCO. In addition, M-Farm got on board to link to contract farming and East African Growers, and they will help installing the phone based market information system.

The main objective of the project is to increase income levels of passion fruits small scale farmers through facilitation of market access, strengthen producer organization, micro-enterprise development, creation of strategic partnership along the chain and linking producer groups to Business Development Services Providers.

The goal of the project is: 3000 passion fruits rural agribusiness entrepreneurs with 40% Increment in income levels (more than 1 dollar a day) and food secure (afford 3 meals a day with required nutrients) through Passion fruits production promotion, market access, business skills development, linkage to BDS providers and strategic Public –Private partnership in Nyanza Region by 2015

---

<sup>11</sup> 9,99€. (Retrieved at [www.xe.com](http://www.xe.com) at 24/08/12).



## 8. Statement list

The interviews and group discussion results have led to an identification of eight challenge areas. Per challenge area, between seven and nine statements have been formulated. In the coming weeks, this statement list will be filled in by staff of East African Growers, as well as by the Manywa passion fruit farmer group, staff from ADS-Nyanza, and – possibly – from M-farm. Results of this statement list will be incorporated in the final version of this business case.

Statements		Scores			
		0	1	2	3
		<i>Strongly disagree</i>	<i>Disagree</i>	<i>Agree</i>	<i>Strongly agree</i>
		☹☹	☹	☺	☺☺
<b>1 Production</b>					
1.1	Farmers have sufficient trees and seedlings available for passion fruit farming				
1.2	Farmers have sufficient fertilizers and chemicals available for passion fruit farming				
1.3	Farmers have sufficient know-how on passion fruit farming				
1.4	Farmers are able to produce sufficient volumes for the market				
1.5	Farmers produce passion fruits consistently throughout the year				
1.6	Farmers deliver good quality passion fruits				
1.7	Climate is a big challenge for passion fruit farming, especially in dry periods				
1.8	Farmers have the sufficient means to prevent and treat diseases in their passion fruit production				
<b>2 Functioning farmer group</b>					
2.1	I agree with the way the farmers are selected for contract farming				
2.2	I agree that farmers sell passion fruits as a group, not as individual farmers				
2.3	The farmers are very devoted and work hard on their passion fruits				
2.4	The farmers stick to their tasks and responsibilities as defined in the contract				
2.5	The farmer group has a well-functioning collection point and storage facility				
2.6	The farmer group is well governed by good leaders				
2.7	The farmer group is responsible for good record keeping of their produce				
2.8	The farmer group leaders always represent the common interest of the farmers				
2.9	The farmer group needs to be expanded with new farmers				
<b>3 Contract</b>					
3.1	All farmers understand everything that is in the contract				
3.2	Farmers can always negotiate the contract with EAG				
3.3	Farmers always stick to the agreements of the contract				
3.4	EAG always sticks to the agreements of the contract				
3.5	EAG explains the contract very well to new farmers				
3.6	The contract is flexible, it can always be discussed for changes				
3.7	The roles and responsibilities for EAG and farmers are very clear in				

	the contract				
3.8	It is good that the contract forbids side-selling of farmers to other suppliers				
<b>4</b>	<b><i>Relation with other actors</i></b>				
4.1	I am satisfied with the functioning of the farmer group				
4.2	Farmers are very loyal to EAG				
4.3	I am satisfied with the functioning of EAG				
4.4	EAG should invest in farmers by giving them inputs				
4.5	EAG should station an agronomist with the farmer group				
4.6	I am satisfied with the activities of ADS-Nyanza in this case				
4.7	Farmers are too dependent on funds, input and training from ADS-Nyanza				
4.8	I am satisfied with the activities of M-Farm in this case				
4.9	Farmers are too dependent on services from M-Farm				
<b>5</b>	<b><i>Markets &amp; Finance</i></b>				
5.1	The demand for passion fruits is high				
5.2	Farmers have sufficient funds for passion fruit farming				
5.3	Farmers need credit before they can scale up to more volumes of passion fruits				
5.4	I am satisfied with the services of Equity Bank				
5.5	Equity bank should give farmers start-up loans				
5.6	EAG gives farmers a good price for their passion fruits				
5.7	EAG pays the farmers at the right moment				
5.8	If market prices go up, EAG should change the contract and start paying farmers more				
5.9	Farmers have sufficient access to up-to-date information on market prices				
<b>6</b>	<b><i>Quality standards and record keeping</i></b>				
6.1	Farmers follow good agricultural practices				
6.2	Farmers need more assistance from agronomists on passion fruit farming				
6.3	Farmers have sufficient know-how about quality standards for international export markets				
6.4	At collection points, grading and crating takes place on raised tables				
6.5	At collection points, people wash their hands with water and soap				
6.6	The company staff at collection points follow the hygiene standards				
6.7	The farmer group correctly files the collection overviews provided by the company				
6.8	Farmers have a good record keeping of their produce				
6.9	Farmers trust the delivery records by the company				
<b>7</b>	<b><i>Responsibility, loyalty and risks</i></b>				
7.1	Passion fruit production is very risky for farmers				
7.2	Farmers and EAG feel equally responsible over the passion fruit contract farming				
7.3	Farmers feel more responsible about their passion fruits than EAG				
7.4	EAG has the responsibility of safely transporting the produce to Nairobi				
7.5	It is clear who is responsible for the risk of safely transporting the produce to Nairobi				
7.6	It is clear who is responsible for climate risks, leading to a bad				

	produce				
7.7	Farmers will never sell to other sellers				
7.8	Farmers are very loyal to EAG				
7.9	EAG is very loyal to farmers				
<b>8</b>	<b><i>Costs / benefits of contract farming</i></b>				
8.1	Passion fruit farming is profitable compared to growing other crops				
8.2	Passion fruit farming provides the farmers with a steady income				
8.3	Passion fruit farming increases the income of farmers				
8.4	Farmers invest the money earned from passion fruits in their family				
8.5	The money from passion fruit farming is the most important income for the family				
8.6	Farmers expect too much benefits from passion fruit production				
8.7	Passion fruit farmers are starting other income generating activities				
8.8	Farmers earn the costs of starting passion fruit production back with the income they receive				

## References

### Literature

Dirou, J.F. 2004. Passionfruit growing: what you need to know. NSW Center for Tropical Horticulture, Alstonville. Agnote 1/082, 3<sup>rd</sup> edition 2004. Retrieved at 20/08/12 at

[http://www.dpi.nsw.gov.au/\\_data/assets/pdf\\_file/0009/119691/passionfruit-growing.pdf](http://www.dpi.nsw.gov.au/_data/assets/pdf_file/0009/119691/passionfruit-growing.pdf).

Government of Kenya, 2010. Agricultural Sector Development Strategy. Republic of Kenya. Retrieved at 14/08/12 at [http://www.kilimo.go.ke/kilimo\\_docs/pdf/ASDS\\_Final.pdf](http://www.kilimo.go.ke/kilimo_docs/pdf/ASDS_Final.pdf).

Morton, J. 1987. Passionfruit. In: Fruits of warm climates. Julia F. Morton, Miami, FL: P320-328.

Retrieved at 14/08/12 at <http://www.hort.purdue.edu/newcrop/morton/passionfruit.html>

Muendo, K.M., D. Tschirley. 2004. Improving Kenya's domestic horticultural production and marketing system: current competitiveness, forces of change, and challenges for the future. Volume 1: Horticultural production. Tegemeo Institute of Agricultural Policy and Development, Egerton University, Nairobi. Retrieved at 14/08/12 at <http://www.aec.msu.edu/fs2/kenya/wp8a.pdf>

### Secondary documents ADS-Nyanza

- ❖ Ack Development Services Nyanza. 2011. Farming agreement EAG.
- ❖ Ack Development Services Nyanza. 2012. Facility for Sustainable Entrepreneurship and Food Security. A public private partnership facility. Concept Notes.
- ❖ Alila, V., B. Odhiambo. 2011. Passion Fruits feasibility study and sub-sector analysis. Ack Development Services Nyanza

### Interviews

- ❖ Multiple interviews and informal conversations with Vincent Orwa Alila from ADS-Nyanza4
- ❖ Individual and group interviews with members of the Manywa farmer group
- ❖ A joint interview with Jamila Abass from M-Farm and Nicholas Ambanya from East-African Growers

### Documents firm-farmer relations

- ❖ Schrader, T., A. Groot Kormelinck, I. Janssen. 2012. 'Firm-farmer relations: Taking market linkages to the next level. Analysing farm-firm business cases with the tool it takes two to tango'. MANUAL.
- ❖ Schrader, T. 2012. Organized farmers as partners in agribusiness. Newsletter March 2012.

### Links

- ❖ ADS-Nyanza: <http://www.facebook.com/pages/Ack-Development-Services-Nyanza/162323777149762?sk=info>
- ❖ East African Growers: <http://www.eaga.co.ke/>
- ❖ M-farm: <http://mfarm.co.ke/>