The SAVE FOOD Mango Project

A practical approach to reduce food loss in Kenya.

Challenges and success factors along the value chain.

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Sonja Mattfeld, Partner, africon GmbH
Facts and figures showed challenges and opportunities in Kenya.

Mango production; 550,000 MT

Loss of mangoes; 300,000 MT

2015 36%

93% Domestic market

2 % Export

5% Processing

2015

1,295%

0.20 € / 1 kg fresh mangoes

2.59 € / 100 g

Sales price farm

Sales price at shop

Source: Kenya Investment Authority (2012); www.canda.com; Mango buying price at farm, GIZ Agribusiness (2010); www.seeberger.com; http://in-ere.t.com; www.nieuwoudt-farm.com
A study based on qualitative interviews with players inside and outside the project revealed that the entrepreneur is the key success factor.

Entrepreneur

Project organisation / research

Project-related factors
- Geographical position
- No target group-oriented support
- Short project duration
- Cooperation
- Project idea
- Private company
- Budget

External factors
- Changing society
- Entrepreneurship
- Political stability
- Corruption
- Political instability
- Language, culture
- Laws/Rules

Successful development project

Source: International School of Management, Dortmund (Lina Schonebeck)
The entrepreneur

Tei Mukunya, founder and CEO of Azuri Health Ltd.
Initial research and learnings

The local research concentrated on key areas within the Kenyan mango value chain.

Cultivation

Processing

Sales & Marketing
Before the final definition of the core project team the co-ordination was quite challenging in order to find the right partners.

<table>
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<tr>
<th>Project component</th>
<th>Partner</th>
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<tbody>
<tr>
<td>Cultivation, Capacity Building and Logistics</td>
<td>Approx. 100 different approaches and conversations</td>
</tr>
<tr>
<td>Processing and Packaging</td>
<td>Approx. 150 different approaches and conversations</td>
</tr>
<tr>
<td>Sales and Marketing</td>
<td>Approx. 70 different approaches and conversations</td>
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Local project partner

With Azuri Health, an innovative and already established company could be identified as local partner in Kenya.
In order to increase their output, Azuri needed to find a new location to set up a new processing and packaging facility.
Construction phase

Specific architectural plans were developed and the construction began.
The new Azuri factory was inaugurated in February 2017 with over 80 people in attendance.
Farmer’s engagement

Azuri doubles its farmer network and engages them on best practices for production of the best variety of mangoes.
Mango handling

The logistics as well as storage have been improved significantly with the new built facility.

**Delivery**

5,000kgs of mangoes are delivered to the factory twice a week.

**Storage**

Azuri has capacity to store 10 tonnes of fresh mangoes at any given time.

**Ripening**

Mangoes take 3-5 days to ripen. The ripening can also be accelerated using natural agents.
The mangoes go through the process of pealing, slicing and are then put in a biogas-solar drier for the drying process.

**Peeling**
- A team of 20 staff members peels 1,000 - 1,200 mangoes in 1 hour (average weight of one mango is 0.5kg).
- 50% of the mango is stone and peel, 80% of the flesh is water.

**Slicing**
- A team of 20 staff members slices 1,000kgs of mango flesh in 1 hour.
- Plans for automation are underway.

**Drying**
- The dryer has a capacity of 1 ton per load every 2 days not using nights.
- A more automated process could reduce the drying time to 10 hours since loading will be faster and work in shifts.
Azuri has adopted new and efficient ways of drying mangoes to improve output and hired 23 new workers.
Packaging and shipping preparation

With high hygienic standards and technologies from SAVE FOOD partners, packaging gets easier and convinces also overseas buyers.

Japanese buyer on a quality check visit
The new state of the art design by SAVE FOOD increased sales and gives Azuri an outstanding position in the local market.

New WIPF pouches
Thanks to the support of the SAVE FOOD initiative, Azuri could develop considerably and can be considered as ‘bankable’ project.

**Summary**

- Birth of project idea: Oct. 2013
- Final definition of project and partners: July 2014
- Contract: June 2015
- Inauguration of new factory with 23 new jobs: Feb. 2017
- Additional investment through German investor: Feb. 2018

- Market research in Kenya
- Identification and evaluation of local partners
- Formation of core working group of SAVE FOOD members
- Legal and administrative clarifications
- Fundraising of 55,000 €
- Intensification and deepening of networks in Kenya
- Project implementation at local pace:
  - Issue-related payments
  - Overall management
- Local sales collapse
- Technical hurdles
- First export inquiries
- New strategic set-up
Next steps

Azuri continues its journey of growth at a moderate and sustainable pace and looks optimistically towards the future without forgetting its origin.

1. Invest in capacity building for process optimization, production management and quality control.

2. Increase working capital for buying enough quality mangoes during the peak season.

3. Get necessary certificates (HACCP, Global GAP etc.) and start export of dried mangoes as bulk ware.

4. Regain the local consumers after collapse of supermarket chains in Kenya.

5. Discover new market segments with products, e.g. fruit leathers, for the BOP consumers.
Questions?

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