Case Study: Driving New Investments into Agriculture in Tanzania’s Edible Oils Sector

Objectives of this Primer
• Share an example of a successful USAID program that is supporting governments’ commitments to drive industrialization, increase domestic agricultural production and reduce agricultural imports

Related documents:
• Case Study: Improving the Investment Climate for Agriculture in Ethiopia (Knowledge Primer)

Country Context: Tanzania

• Tanzania’s agriculture sector constitutes 30% of the country’s GDP\(^1\) and employs nearly two-thirds of the population.\(^2\) The primary cash crops are tobacco, cashew nuts, coffee, tea, cloves, cotton and sisal.\(^2\)

• The local and regional market for edible oils is large and growing – but local supply is not keeping up. In 2016, there was a shortfall of 360,000 metric tons, which was filled by importing palm oil at a cost of USD 250 million per year.\(^3\) Imported palm oil also crowds out other imports due to the limited amount of foreign exchange available overall.

• Due to the opportunity to replace palm oil imports with increased local production of edible oils, the government of Tanzania has prioritized the development of the edible oil industry under their Agriculture Sector Development Plan.

• Based on this, the Tanzanian Planning Commission (housed in the Ministry of Finance & Planning) asked USAID for help in “bringing industrialization to life” and to help identify reforms that would help catalyze investment to stimulate local production of edible oils.

USAID’s Approach

Understanding that success would be measured by the number and amount of new investments in the edible oils sector, the USAID team focused on developing clear business cases for investors as well as identifying policy changes that would address the specific barriers that were preventing potential investments from being viable.

Program Objectives

<table>
<thead>
<tr>
<th>Program Objectives</th>
<th>Key Partners</th>
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<tr>
<td>• Assess the feasibility and market potential for increasing domestic production of edible oils</td>
<td>• Tanzania Ministry of Finance &amp; Planning</td>
</tr>
<tr>
<td>• Identify the most attractive investment opportunities within the edible oils sector</td>
<td>• Tanzania Private Sector Foundation</td>
</tr>
<tr>
<td>• Identify the public policies that inhibit new investment in the edible oils sector and develop recommendations on how to reform them</td>
<td>• Ministry of Agriculture</td>
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To achieve the program objectives, USAID designed a three-phase approach:

1. Assess feasibility of investment in the domestic edible oil sector
   • A feasibility study was carried out to identify and understand (i) if there was an opportunity to invest in domestic edible oils and, if so, (ii) which edible oil segment had the most investment potential

2. Identify the most attractive opportunities for investment
   • For the edible oil segment with the most potential, the team identified and prioritized investment opportunities that were attractive from both a commercial and impact perspective

3. Map the barriers limiting investment and develop recommendations
   • For the selected investment opportunities, the team mapped the main barriers preventing investment and recommended reforms necessary for catalyzing new investment
The USAID team worked closely with both the national government and private sector to analyze the potential investment opportunities around increasing local production of edible oils through a two-step process.

### A

The USAID team first prioritized the most promising segments of the edible oils market by analyzing the potential for impact as well as the opportunity for commercial investment. The analysis compared market sizes, existing in-country capabilities and linkages to other industries and identified the sunflower, palm oil, and cottonseed oil industries as most promising.

### B

The team then determined the most attractive segment – sunflower oil – by comparing the investment cases for each segment. While there was not a big gap in local sunflower oil demand vs. supply, the team found that sunflower oil could replace imported palm oil and that production costs could be lowered significantly through the use of improved-yield seeds. In addition, given that there are 1 million smallholder farmers in Tanzania who grow sunflowers, this segment can plug into existing in-country capabilities and infrastructure.

### Table: Investment Analysis

<table>
<thead>
<tr>
<th></th>
<th>Palm Oil</th>
<th>Cottonseed Oil</th>
<th>Sunflower Oil</th>
</tr>
</thead>
<tbody>
<tr>
<td>Domestic Supply</td>
<td>4,000</td>
<td>11,400</td>
<td>177,000</td>
</tr>
<tr>
<td>(MT, 2016)</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Domestic Demand</td>
<td>370,000</td>
<td>10,600</td>
<td>172,000</td>
</tr>
<tr>
<td>(MT, 2016)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Investment</td>
<td>Replace imported palm</td>
<td>Improve quality for existing niche market</td>
<td>Substitute for imported palm oil; regional export</td>
</tr>
<tr>
<td>opportunity</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Existing</td>
<td>Low</td>
<td>Low</td>
<td>High</td>
</tr>
<tr>
<td>capabilities</td>
<td>Production limited to north of country</td>
<td>Production limited to west of country</td>
<td>Production throughout country</td>
</tr>
<tr>
<td>Investment</td>
<td>High</td>
<td>High</td>
<td>Medium</td>
</tr>
<tr>
<td>needed</td>
<td>Dependent on large land parcels and long-term financing</td>
<td>Dependent on seed cotton production trends</td>
<td>Dependent on high-yield seeds and crushing technology</td>
</tr>
<tr>
<td>Conclusion</td>
<td>Medium-term opportunity due to production and distribution barriers</td>
<td>Most viable short-term opportunity</td>
<td>Most viable short-term opportunity</td>
</tr>
</tbody>
</table>
## Identify the most attractive opportunities for investment

After identifying sunflower oil as the highest potential segment for investment and impact, the team looked at four specific investment opportunities and worked with potential investors to determine their feasibility and attractiveness. The team analyzed each opportunity by looking at the predicted revenues, costs, investment required and level of interest from investors. Within the sunflower oil sector new investments in solvent extraction technology stood out at the highest potential opportunity.

<table>
<thead>
<tr>
<th>Description</th>
<th>Vertical integration for crude processing</th>
<th>Contract farming for crude processing</th>
<th>Solvent extraction</th>
<th>Organic production and processing</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Description</strong></td>
<td>Produce crude oil by sourcing seeds through vertical integration; the crusher owns plantations directly</td>
<td>Produce crude oil by sourcing seeds through contract farming; crusher offers inputs and extension services to farmers in exchange for guaranteed supply</td>
<td>Produce refined oil using solvent extraction technology from oily seedcake (a byproduct from the crushing process)</td>
<td>Produce organic oil by sourcing seeds either through contract farming or vertical integration and limiting use of chemical inputs</td>
</tr>
<tr>
<td><strong>Revenue model</strong></td>
<td>Medium Selling wholesale crude oil to refineries</td>
<td>Medium Selling retail crude oil to the domestic market for consumption</td>
<td>High Selling refined oil to domestic and regional markets, and also a production by-product (de-oiled seedcake) as animal feed</td>
<td>Medium Selling organic oils at a premium price in global niche export markets</td>
</tr>
<tr>
<td><strong>Cost model</strong></td>
<td>High Requires significant capital cost for land; operating costs are high due to maintenance costs for crushers</td>
<td>Medium Capital costs are low but operating costs are high because of transport and procurement costs</td>
<td>Medium Capital costs to acquire land are medium but operating costs are low-medium due to the simple supply chain, and also because a production by-product (de-oiled seedcake) can be resold</td>
<td>Variable Capital costs can be variable depending on the mode of seed production, but operating expenditures will be high to maintain organic processing standards</td>
</tr>
<tr>
<td><strong>Investment potential</strong></td>
<td>High</td>
<td>High</td>
<td>High</td>
<td>Medium</td>
</tr>
<tr>
<td><strong>Investor interest</strong> (based on their risk-tolerance and capabilities)</td>
<td>Medium</td>
<td>Medium</td>
<td>High. The team validated this interest by asking a potential investor to co-invest in the research stage to show commitment.</td>
<td>Low</td>
</tr>
</tbody>
</table>
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Map the barriers limiting investment and develop recommendations

After identifying new investments in solvent extraction in the sunflower oil sector to be high potential, the USAID team analyzed the top barriers for investment and then proposed solutions for how to mitigate them.

What were the primary constraints to investment?

- High retail price of refined sunflower oil relative to refined palm oil imports
- High processing costs due to inadequate infrastructure for efficient extracting and refining (i.e., there was only one large solvent extraction plant in the country)
- Unreliable supply of key inputs (oily seedcake)
- Lack of technical knowledge and best practices on how to increase yields

What were the recommendations?

- Extend Tanzania’s 10% import tariff on crude palm oil for three years to improve the price of local sunflower oil relative to palm oil imports
- Implement a three-year extension of the 2017 VAT exemption on agricultural processing equipment which specifically covers solvent extraction and refining equipment
- Establish a new and temporary (three-year) VAT exemption of sunflower seed cake
- Prioritize and streamline land allocation close to major markets for oily seedcake commercial farms and processing sites
- Technical assistance and training for farmers on production, processing and handling which is specifically focused on increasing yields

What are the project outcomes to date?

New Investment

- Two investors have committed to building new sunflower oil production facilities. One investor has committed more than USD 10 million and could invest up to USD 100 million. The work has also generated interest from other investors.
- The project methodology is serving as a template for work in other value chains. Agro-processors in other sectors want to replicate the approach to find other investment opportunities.

Policy Reforms

- The Tanzania government has already approved a few policy recommendations:
  - Continuation of the import tariff on palm oil (10% for crude palm oil and 25% for refined palm oil)
  - VAT exemption on agricultural processing equipment which specifically covers solvent extraction and refining equipment, and;
  - VAT exemption of sunflower seedcake

Projected Impact

- Improved livelihoods. Up to one million sunflower farmers are projected to have higher demand for their products, and up to 2,000 SMEs will have higher productivity.
- Improved health. 8-12 million more consumers will have access to refined sunflower oil, which has 80% less saturated fat than palm oil.
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Concluding thoughts

- **Defining success in terms of new investments made (and not just academic recommendations)** focused and aligned all stakeholders. Investor involvement in the project from Day 1 helped prioritize the analyses that were most relevant for making investment decisions and facilitated conversations with the government.

- **Leveraging political will – and not going against it – helped to accelerate the process.** The USAID team harnessed the strong interest from the government in edible oils to both develop and implement recommendations.

- **Focusing on relatively simple policy reforms helped to drive decisions about potential investments.** While the USAID team identified a range of policies that inhibited investment, many of which affected multiple industries, the ultimate proposals were focused on what was immediately achievable and would drive immediate investment in the edible oils sector specifically.

- **An inclusive growth perspective crowded in other stakeholders such as smallholder farmer groups, women and youth entrepreneurship programs and SME associations.** This inclusive perspective facilitated a balance between investor priorities and inclusive growth objectives.

Sources

1. *Agriculture, forestry, and fishing, value added (% of GDP)*, World Bank Databank, 2017
2. *Tanzaniainvest.com*, accessed August 23, 2018
4. *One Acre Fund Web site*, accessed August 28, 2018