Knowledge Primer

CASE STUDY UPDATE: Driving New Investments into Agriculture in Tanzania's Edible Oils Sector

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Objectives of this primer

- To provide results of a 2017 USAID study that is supporting the Tanzanian Government's commitment to drive industrialization, increase domestic edible oils production and reduce agricultural imports

Related documentation / tools

- Original Case Study: Driving New Investments into Agriculture in Tanzania's Edible Oils Sector
- Dalberg Report: Progress Review on Industrialization in Tanzania's Sunflower Sector

Country context

While the local and regional market for edible oils is large and growing, local supply in Tanzania is not keeping up. Given a shortfall of 360K metric tons, Tanzania imports over 60% of the country's cooking oil. This costs USD 250M in palm oil imports every year, making it the sector with the second highest foreign exchange transactions by value.

However, the country has a large and growing refined sunflower oil industry that can substitute these imports. Sunflower oil comprises 83% of total edible oils produced in Tanzania but meets only 30% of demand.

Sunflower farmer in Tanzania

While consumers prefer refined sunflower oil over imported palm oil, they find the cost differential prohibitive (USD 2.2/L vs. USD 1.5/L, respectively). Reducing the cost of refined sunflower oil will help meet local demand. Based on this, the Tanzanian Planning Commission (housed in the Ministry of Finance Planning) asked USAID to help bring industrialization to life and help identify reforms that would catalyze investment to stimulate local production of edible oils.

In response, the USAID/Tanzania Mission found that the country needs to attract investors with an interest in refining local sunflower oil for low-income consumers. Such investors would require USD 10M in start-up capital for a 12,000MT/year capacity plant and a strong aggregation and distribution network. In particular, the team found that large Tanzanian companies are well positioned to make this investment; investors can source raw materials from local SMEs, which would experience higher productivity from rising demand.

The approach

In late 2017, the USAID team designed a three-phase feasibility study for the edible oils sector. The objective of the study was to help the country attract investors with an interest in refining local sunflower oil for low-income domestic consumers. The approach was as follows:

1. Assess feasibility of investment in the domestic edible oils sector
   - A feasibility study was carried out to identify and understand (i) if there was an opportunity to invest in domestically produced edible oils and, if so, (ii) which edible oils segment had the most investment potential
2. Identify the most attractive opportunities for investment
   - For the edible oils segment with the most potential, the team identified and prioritized investment opportunities that were attractive from both a commercial and an 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

Core issues identified and recommendations

The USAID team identified several binding constraints to investment in the sunflower value chain, namely:

Locally pressed oil was not price competitive given the low oil yield. The explicit focus on value addition at smallholder/ community level, had an adverse effect: previously, programming focused on on-farm, community-level pressing, which is by definition mechanical. Mechanical pressing has a ceiling to the amount of oil it can get out of the seeds, leaving a relatively low-value oily seedcake, and ultimately a high retail price of refined sunflower oil relative to refined palm oil imports.

Oil yield could be increased by using solvent extraction. This would make locally grown and processed oil price competitive with imported palm oil (especially given that de-oiled seedcake, a by-product, has value as animal feed for beef).

A lack of quality, affordable inputs resulted in low utilization of existing processing capacity. A lack of technical knowledge and best practices on how to increase yield, and a lack of availability of high-yielding seed varieties led to a low, unpredictable supply for processing.

In response, recommendations were made to 1) Extend Tanzania's 10% import tariff on crude palm oil for three years to give the domestic sunflower oil industry a longer runway to become price competitive with palm oil imports, 2) Implement a three year extension of the 2017 VAT exemption on agricultural processing equipment which specifically covers solvent extraction and refining equipment, 3) Establish a new, temporary (three year) VAT exemption of sunflower seed cake and prioritize and streamline land allocation close to major markets for oily seedcake, commercial farms, and processing sites, and 4) Deliver technical assistance and training for farmers on production, processing, and handling.

Project outputs and outcomes to date

As a result of USAID's analysis and recommendations, the Government of Tanzania (GoT) has addressed several barriers:

POLICY AND REGULATORY OUTPUTS

- **The GoT has increased tariffs on palm oil to address the price differential between sunflower oil and palm oil.** This has favored the sunflower oil industry but has negatively impacted the palm oil industry, resulting in job losses*
- **The GoT implemented a value-added tax (VAT) exemption on agricultural processing equipment** specifically covering solvent extraction and refining equipment to reduce processing costs
- **The GoT implemented a VAT exemption on sunflower seedcake** to reduce input costs

*__Note:__ Anecdotal evidence on the effects of the new duty structure on domestic palm oil refining is mixed. Official statistics suggest that imports of refined palm oil have increased while crude imports have disappeared. Higher imports and higher import duties have boosted tax revenues. The domestic soap industry has been negatively affected. Overall, unmet demand for edible oils points to increased consumption of refined palm oil, but hard data are unavailable.

These outputs have contributed, in part, to building the sector, which has seen the following outcomes:

COMMERCIAL OUTCOMES

- **Inputs:** Private investment in seed multiplication has cut the price of high-yielding hybrid sunflower seed by 60%. In addition GoT programs are seeking improve sunflower seed variety for Tanzanian farmers who previously relied on recycled seed resulting in poor yields
- **Inputs:** The GoT and Tanzanian companies have invested over USD 200K in growing improved seed (both open-pollinated varieties and hybrids)
- **Production:** Since 2017, investments largely have been in mechanical processing facilities by refineries such as KCCL, Nyarusai Ltd., Gilitu Enterprises, PYXUS and Mount Meru, with PYXUS expected to make an additional investment in solvent extraction which would position the company as being highly competitive against those with lower efficiency.

SOCIAL OUTCOMES

- **Increased farmer income through lower costs and improved yield and demand:** high-yielding seed varieties cost half as much as regular seeds, and smallholder farmers can produce almost three times more per acre and earn two times the margin. Coupled with increased demand by sunflower processors, this translates into higher steady profits for smallholder sunflower farmers

The path forward: Challenges and promising signs

While early developments in the edible oils industry in Tanzania are promising, particularly in sunflower oil production, a few challenges have emerged in the value/production chain. These, in turn, present opportunities moving forward:

	CHALLENGES	PROMISING SIGNS
INPUTS	• **Insufficient amounts of affordable, domestically-produced quality seed:** Although hybrid seed availability has improved, with investments still coming online domestic production remains low • **Insufficient amounts of imported quality seed:** High import prices and poor logistics mean insufficient off-season seed imports	• **Private finance:** Further private investment in seed multiplication • **Public finance:** TZ Agriculture Development Bank has developed and is deploying the second half of a USD 20M fund for farmers to buy sunflower seed • **Contract farming:** Some players (e.g., PYXUS) have been proactive in coordinating the supply of raw material from farmers, while others under-invested and have low utilization rates
PRODUCTION	• **Short term underutilization of capacity:** Current lack of seed and working capital means processors are at 45% capacity in-season and 5% off-season. The addition of cheaper imported seed has not been able to make up the production shortfall for processors	• **Upcoming investments:** New processing investments are underway (medium + potentially very large). In sunflower oil and edible oils processing, there are a number of new domestic investors (Nyarusai, Gilitu, Majinja Logistics, CPB), as well as international investors (PYXUS, KCCL), adding capacity as seed production ramps up.
CRUSHING	• **Reduced off-take of seedcake:** Tanzanian feed manufacturers import soy seedcake for poultry and nascent beef sector	• **International demand :** Demand remains strong for de-oiled seedcake (sunflower meal) from Kenya and India
REFINING	• **Competition from palm oil:** Refined palm oil imports have increased despite policy changes, but crude/refined imports are flat at ~885K metric tons • **Low investment in solvent extraction:** Industrial-scale investment in solvent processing that would allow sunflower oil to compete with palm oil has yet to happen. Most entrants mechanically extract	• **Increased production and consumption:** Sunflower oil production and consumption may have risen, but hard data is needed • **First signs of solvent investment**: PYXUS is in the process of making an investment in solvent extraction

Other cross-cutting policy and social challenges and opportunities have emerged:

POLICY AND REGULATION	• **Uncompetitive practices as a response to regulation:** Anecdotal evidence indicates palm oil smuggling has increased • **Import tariff on palm oil eliminating jobs:** A collateral effect of an unintended tariff hike • **Market distortion:** Certain stakeholders claim that larger, longer established processors are receiving VAT exemption for sunflower oil while all other processors pay the full 18% • **Nuisance fees and taxes:** These hike processor costs and hamper SMEs to compete in sunflower	• **Better control of porous borders:** Regulators are planning to seal borders, e.g., procuring speed boats to patrol the Indian Ocean
IMPACT	• **Job loss in domestic palm oil production industry:** import tariffs are having adverse social effects in the palm oil industry. This also affects other industries, e.g., a 27% increase in soap imports in a single year after a long drop in imports • **Higher cost edible oil**: domestic prices will increase while tariffs are in place until the local industry is able to serve the market and tariffs are reduced	• **Improved livelihoods:** Up to 1M sunflower farmers are projected to experience higher demand for their products and up to 2K SMEs will have higher productivity • **Improved health benefits:** 8-12M more consumers will have access to refined sunflower oil, which has less saturated fat than palm oil

The path forward: Recommendations

To continue progress, targeted incentives upstream and downstream should complement trade policies for import substitution. four main policy recommendations and three resource allocation or other non-policy recommendations came out of the stakeholder interviews and analysis.

	RECOMMENDATIONS
POLICY AND REGULATION	1. **Promote further investment in improved sunflower seed multiplication to increase primary production of sunflower seed.** Capturing the improved seed market demand will require USD 1.5m invested by 2025 and USD 3.5m by 2030 2. **Remove VAT by zero rating crude and refined sunflower oil to boost demand for domestic refined sunflower oil.** Refined and crude sunflower oil production would jump by ~30% from zero-rating sunflower oil. Sunflower oil tax revenue would drop in year 1, then be permanently higher from year 2 of the exemption. A VAT exemption would also put refined sunflower oil at a level playing field with crude sunflower oil 3. **Maintain import duties on crude and refined oil, while sealing porous borders.** At the same time, review the impact of tariffs on crude palm oil on both the sunflower sector and Tanzania's economy as a whole as well as on government revenues 4. **Maintain VAT exemption on solvent extraction machinery to continually improve sunflower processing technology.** Primary processors could also potentially be incentivized to upgrade their crushing machinery through other incentives for high-quality mechanical pressing machinery
RESOURCE ALLOCATION OR NON-POLICY	1. **Carry out new agricultural data collection to better inform policy and facilitate new sunflower investments.** Data unreliability is a significant issue that cannot be fully overcome by triangulating multiple data sources 2. **Banks can develop tailored products for smallholders using digitization, mobile money, and alternative credit scoring.** Customized products for smallholder farmers could address farmers' current challenges in accessing finance 3. **Facilitate investment in storage of sunflower seeds and irrigation to increase farmer prices and production.** Storage and irrigation would increase oil production, processors' capacity utilization, revenues, and margins

CONCLUDING THOUGHTS

Following the initial project in 2017, the following takeaways still hold true:

- **An effective way to support an industry post-investment is by carrying out data collection around key industry metrics** to better inform policy, assess impact and ultimately facilitate new (sunflower) investments. Examples of useful information include making investment stages/cycles explicit, and clarifying a project's stage, i.e., facilitation/identification, decision, entry, implementation, aftercare
- **Defining success in terms of new investments made** (not just academic recommendations)—particularly to garner continued public sector support—can focus and align all stakeholders, as was the case in the edible oils engagement
- **Leveraging political will rather than going against it** can help accelerate the process and materialize proposed recommendations
- **Focusing on relatively simple policy reforms** can help drive decisions about potential investments
- **An inclusive growth perspective can crowd in other stakeholders and contribute to multiplying the impact of the engagement.** Stakeholders in the edible oils engagement included smallholder farmer groups, women and youth entrepreneurship programs, and SME associations. This inclusive perspective facilitated a balance between investor priorities and inclusive growth objectives

Given recent developments over the past two years, we also draw the following insights:

- **Transforming an industry is a long-term effort.** While early signs are promising, avoid drawing premature conclusions about the impact of proposed recommendations
- **Policy changes and sector recommendations are intended to favor competitive investors.** Mission staff should be prepared to welcome changes that negatively impact less competitive or inefficient investors/businesses
- **Early signs of progress include investors responding to policy changes.** This was evident in the edible oils case study where a tobacco business pivoted its business model to leverage policy changes
- **The policy work supporting certain potential investments does not end once an investment has been made** but needs to be continued and followed up on throughout the years. Evolving political environments and agendas can affect project outcomes; staying informed and responsive can minimize negative impact.
- **Preemptively assessing potential collateral environmental or social effects from policy changes and investments** can help avoid adverse outcomes
- **Lack of information dissemination is a barrier that needs to be actively addressed**. Given that investors made investments in mechanical processing despite good information to the contrary, more investment promotion work by government should have happened once the policy change had been made
- **The private sector does respond to government incentives**. While investments in hybrid seed development were not a part of the recommendations made, private sector players saw and responded to the opportunity

Sources

This case study update has largely been informed by conversations with key Dalberg Advisors staff involved in the original study and those involved in the elaboration of the December 2019 progress update. Other key inputs include:

- *Dalberg Advisors* – Policy Brief: Sunflower Value Chain Development in Tanzania (2019)
- *Dalberg Advisors* – Progress Review on Industrialization in Tanzania's Sunflower Sector (2019)
- *USAID* – Driving New Investments into Agriculture in Tanzania's Edible Oils Sector: Knowledge Primer (2018)
- *Dalberg Advisors* – Feasibility Study for the Edible Oils Sector in Tanzania (2017)