

# DRIVING A SUNFLOWER VALUE CHAIN IN MALAWI: CHALLENGES AND OPPORTUNITIES

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## EXECUTIVE SUMMARY

This policy briefing seeks to explore the potential for developing a domestic sunflower value chain (VC) in Malawi. It examines the different but interconnected roles that various stages of the VC play in driving the sunflower industry as a whole in Malawi, highlighting current bottlenecks and positive developments. The briefing first gives an overview of the sunflower crop and its VC, placing this within the context of sunflower production and processing in Malawi. It then examines the constraints that both domestic producers and processors face in forming cost-effective relationships. It ends with recommendations to improve sunflower's contribution to agriculture and industrial development in Malawi, emphasising the need for existing stakeholders in Malawi's domestic sunflower VC to collaborate in creating awareness of and providing information on sunflower production techniques and processing uses.

## INTRODUCTION

Agriculture is central to the Malawian economy and individual livelihoods, contributing 30% to Malawi's gross domestic product and providing the single most important income source for 85% of Malawian families.<sup>2</sup> The major cash crop

## RECOMMENDATIONS

- 1** The processors currently invested in Malawi should work together to promote the benefits of growing sunflower, along with the government, extension officers, NASFAM and FUM.
- 2** Sunseed Oil should actively market the new margarine factory in Malawi to alert producers and processors to the potential of sunflower as a consumer product.
- 3** Processors, farmer organisations and Pannar should coordinate to create awareness of the use of certified sunflower seed through utilising available advances in ICT such as video clips and SMSs.
- 4** The OSTWG, NASFAM and FUM should collaboratively provide information on the domestic use of sunflower cake in poultry feed and the optimal ratios for feed mills.

in Malawi is tobacco, but most farmers produce maize at subsistence levels, on an average 0.8ha.<sup>3</sup> General challenges facing the Malawian agricultural industry include ineffective transport, lack of irrigation and quality inputs, and other productivity and capacity constraints. The 2016 National Agricultural Policy<sup>4</sup> rightly notes that for agriculture to drive economic growth and poverty alleviation, it is important to stimulate commercial development and industrial agro-processing linkages while reducing dependency on a small number of crops.

In order to diversify from its traditional crops, Malawi's 2013 National Export Strategy (NES) prioritises the development of four oilseed crops: soybean, sunflower, cotton and groundnut. All four crops are suitable to Malawi's climate and allow smallholder entry. However, it is necessary to first strengthen domestic oilseed VCs to make it possible to export competitively. Hence the Oilseeds Technical Working Group (OSTWG) has been established under the Ministry of Industry and Trade, targeting specific aspects of oilseed development such as support for research, extension, marketing and processing. The OSTWG works in conjunction with a donor project funded by the UK Department for International Development called the 'Malawi Oilseeds Sector Transformation' (MOST), which creates opportunities for private sector investment in oilseed industries through a facilitative approach<sup>5</sup> and de-risking mechanisms aimed at inducing systemic change in the market system.

Of the four oilseed crops, MOST has given primary attention to soybean because of the significant growth of the poultry industry in Malawi and Southern Africa. Soybean oil cake is a key input in poultry feed. There are now a growing number of poultry feed processors in Malawi that receive soybean from local farmers.<sup>6</sup>

Sunflower, on the other hand, has perhaps the least developed VC of the four target crops, and therefore the most scope for growth. This briefing explores this potential by examining challenges and opportunities along the sunflower VC in Malawi, emphasising those that hinder the establishment of viable buyer–supplier relationships between local producers and processors.

### SUNFLOWER VC CHARACTERISTICS

The sunflower VC can be broken down into three stages: developing/procuring inputs (seed, fertiliser, etc.);

planting the crop; and selling to end markets (this briefing focuses primarily on the end market of local processors).

**FIGURE 1** SUNFLOWER VALUE CHAIN



Source: Author

Sunflower is favoured by smallholders because it requires few inputs and has a short planting cycle. It is ideal for rotation with maize and can be planted late in the season as a back-up crop. Sunflower is also more drought tolerant than soybean and fares better in Malawi, where 90% of all agricultural production is still rain-fed and irrigation is rarely available.<sup>7</sup>

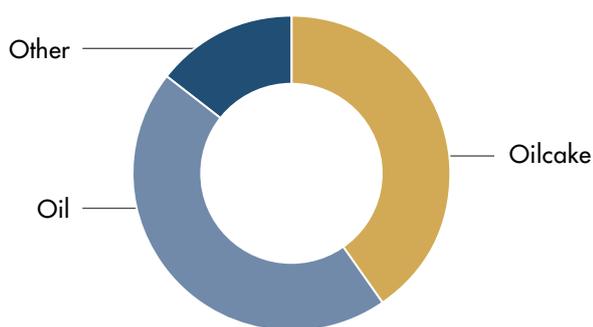
A strong case can be made for sunflower's potential contribution to industrial development, given that it is rarely consumed raw in the region and has a lower density than other oilseeds (a higher density increases transport costs and is thus a major incentive to locate processing facilities close to production sites).<sup>8</sup> Sunflower's most valuable processing opportunities come from its input into animal feed and use as an edible oil. In terms of use, 40–50% of the product can be used for edible oil production, while 40% can be used to produce oilcake.<sup>9</sup> However, sunflower cake is high in fibre and low in protein, which makes it a less attractive input in the poultry industry. As a result, the VC is predominantly driven by its properties as a cooking oil. It is also healthier than soybean and palm oil and is therefore preferred by Southern Africa's growing middle class. Yet cheaper palm oil still presents significant competition in low-income consumer markets in countries such as Malawi.

### SUNFLOWER LANDSCAPE IN MALAWI

Sunflower production in Malawi peaked in the 1990s, but the industry collapsed after the only significant buyer left the market and prices plummeted.<sup>10</sup> This history still informs a lingering pessimistic attitude around sunflower production to this day.

Sunflower production was 15 736 metric tonnes (mT) in 2016,<sup>11</sup> produced primarily by rural smallholders for small

**FIGURE 2** SUNFLOWER PROCESSING USES



Source: South Africa, Department of Agriculture, Forestry and Fisheries, 'A Profile of the South African Sunflower Value Chain Market', 2015, <https://www.nda.agric.za/doaDev/sideMenu/Marketing/Annual%20Publications/Commodity%20Profiles/field%20crops/Sunflower%20Market%20Value%20Chain%20Profile%202015.pdf>, accessed 4 November 2018

community crushers, who sell the unrefined oil to local communities. Smallholder linkages to local processors or direct export are limited owing to productivity and marketing challenges, with the latter perhaps the biggest reason why sunflower production has not taken off in the same manner as soybean. In comparison, soybean production reached 132 417mT in 2016.<sup>12</sup> While Malawi's two commodity exchanges, the Agricultural Commodity Exchange for Africa (ACE) and Auction Holdings, can help to provide markets, sunflower volumes are often too small to make use of these options in a cost-effective manner.

However, there is increasing demand for sunflower in the country. The sunflower trade balance is -\$2,894,000 in Malawi, with other edible oils also showing negative balances,<sup>13</sup> reflecting a net overall deficit of edible oil production domestically. Foreign exchange is limited in the country, which has driven processors to seek sunflower from local producers. A combination of these dynamics has led to sunflower's inclusion in the NES and its support programmes.

There are three major edible oil processors in Malawi: Sunseed Oil and Capital Oil Refineries are both domestic companies, while Tanzanian-based Mount Meru set up operations in Malawi in 2016. However, insufficient domestic volumes and the lack of cost-competitive sunflower production have forced these companies to

primarily import unrefined oil from the rest of the region for further processing.

### VALUE CHAIN BOTTLENECKS

Malawian farmers believe that there is not a consumer market for sunflower. This is a major barrier to motivating farmers to produce the requisite volumes to stimulate the VC. However, the net negative trade balance clearly indicates that there is huge demand for edible oil among Malawian consumers.

Part of the problem is the discrepancy between the prices offered by local processors and the costs for producers. As a result, processors often operate at below 50% capacity, while producers hoard stocks and are not motivated to produce more sunflower.<sup>14</sup> This discrepancy stems from bottlenecks to cost-effective production, preventing both parties from achieving decent margins and ultimately from establishing supply relationships.

### CONSTRAINTS TO COST-EFFECTIVE SUNFLOWER PRODUCTION

One of the most significant factors inhibiting agricultural production efficiency is the availability and use of certified seed. Producers cannot grow high-yielding sunflower and will not receive good profit margins without certified seed. In the past, certified sunflower seed was not available in Malawi, which until recently fed policymakers' and industry associations' lacklustre prioritisation of sunflower.<sup>15</sup>

Two additional factors have contributed to this dynamic. Firstly, maize seed is still the primary earner, leading to the neglect of other crops. Secondly, capacity challenges and corruption significantly hamper domestic seed research and government efforts to certify and release seed in the country. This situation acts as a disincentive for seed companies.<sup>16</sup> It is exacerbated by weak intellectual property rights, which stymie the development of new varieties. However, a new Seed Policy was recently released, in May 2018. The Seed Policy will help to address some of these issues and enable the domestication of the SADC Seed Protocol, which will allow seed that has been tested in two other countries to enter Malawi and be multiplied without being re-tested.<sup>17</sup> The policy also improves the government's ability to develop and certify seed varieties.

On a positive note, the MOST programme collaborated with international seed company Pannar to release three

certified seed varieties from South Africa in Malawi in 2014. This promoted better quality sunflower production and is stimulating smallholder producers to enter into sunflower production and processors to explore buying from local farmers.

Yet it is important to continue sensitising farmers to the value of sunflower production and the use of certified seed.<sup>18</sup> Stakeholder interviews confirmed that, despite the release of new seed, there is still a general lack of awareness of its availability, as well as of best farming practices.<sup>19</sup> While donors, industry organisations and private companies involved in sunflower have collaborated to release a training DVD, more can be done to provide certified seed and farming information. For example, the high mobile phone penetration in Malawi can be used as a dissemination platform.<sup>20</sup>

Sunflower is also not included in the Farm Input Subsidy Programme (FISP), which is the major government distribution channel for agricultural inputs. The inclusion of sunflower in the FISP, or even the adoption of an e-voucher system (currently being implemented in Zambia) that allows farmers to choose to which crops the government subsidy will be applied, could boost interest in and improve access to certified sunflower seed and other supporting inputs for farmers.

Additionally, general agricultural extension services are weak and overextended in Malawi, with 80% of farmers receiving extension visits less than once a month.<sup>21</sup> This means that sunflower production gets very little attention, as it has not traditionally been one of Malawi's major focus crops. It is important that off-takers (processors and traders) take the initiative to change unfavourable impressions and disseminate information on good agronomic practices, thereby ensuring high-quality crops that can command better prices. These efforts should be supported by other industry players, such as industry associations (the Farmers Union of Malawi [FUM] and National Association of Smallholders of Malawi), donors, government departments (the Ministry of Agriculture and the OSTWG) and input companies. Targeted efforts to publicise new investments in sunflower processing could be an example of this.

### CONSTRAINTS TO COST-EFFECTIVE SUNFLOWER PROCESSING

Regional edible oil trade dynamics are a major challenge for local sunflower processing efforts. While the inefficient

transport infrastructure in the region is an informal non-tariff barrier to oil imports, sunflower oil from South Africa still reaches Malawi at a cheaper price than local products and is of a better quality.<sup>22</sup> While quality issues are being targeted proactively, in the interim this creates inefficiencies. In addition to formal competition, the edible-oil industry is also faced with corruption, which breeds unfair competition. This primarily manifests in two ways: palm oil is smuggled across the border from Mozambique at a huge discount; and imported refined oil is labelled at the border as crude oil (even when the difference between the two is easily discernible) to avoid the tariff regime for refined oil.<sup>23</sup>

In 2017 the government of Malawi removed value added tax (VAT) on edible oil, which should reduce the cost of local processing and disincentivise corrupt practices of oil mislabelling.<sup>24</sup> However, addressing smuggled palm oil remains a challenge. The growing middle class's preference for sunflower oil over palm oil could help to target this issue over time. Efforts to address these challenges could be assisted by targeted marketing campaigns on the health benefits of sunflower oil and 'buying local' to influence consumer demand.

A consistent market for sunflower cake is also necessary for processors to be profitable. The lack thereof can deter edible oil crushing even when demand exists.<sup>25</sup> Sunflower cake cannot be used in the same volumes as soybean in poultry feed, comprising only 5–10% as filler. However, this does help to bring overall production costs down and there is a clear market for small quantities in poultry feed.<sup>26</sup> Nonetheless, excess sunflower cake must be better marketed in the region, to serve as an input into either poultry feed or other feeds such as for cattle, where its high fibre content is more suitable.

At present some sunflower cake is exported to Zambia and Zimbabwe, where there is less local sunflower processing. This is a useful foundation on which to build.<sup>27</sup> The exploration of sunflower cake markets should be a major focus of donors, the National Smallholder Farmers' Association of Malawi (NASFAM), FUM, ACE and government support programmes in order to help sunflower processors offer better prices to producers. The growing domestic poultry market is a key avenue to be exploited, and more information should be made available on the use of sunflower cake in poultry feed, as well as the optimal ratios. However, this raises the issue of the deficit in market information systems in Malawi.

## INNOVATIVE DEVELOPMENTS IN OFF-TAKING

Ultimately, a domestic VC cannot increase production without investment from processors, who not only provide a market for farmers but also increase domestic value added. Linking farmers to buyers can also drive greater efficiencies further upstream in the VC, as buyers have a stake in providing farmers with inputs and information to improve the quality of the product.

A good example of how market dynamics around sunflower production are beginning to change is the experience of Sunseed Oil, the biggest player in the local edible oil industry. Over the past five years Sunseed has shifted its focus from poultry feed to edible oil production, to take advantage of the untapped opportunities in the industry. In collaboration with the UK Aid/UN Development Programme-funded Malawi Innovation Challenge Fund,<sup>28</sup> Sunseed opened a 'fridge-free' margarine production facility in 2017. This was in response to the lack of refrigeration in many Malawian households.<sup>29</sup> Previously Malawi had imported all of its margarine. The new facility requires 14 000mT of sunflower per year. The government, donors and industry hope that it will not only produce for local consumption but also export to the region. This would fulfil the objectives of the NES, further stimulating efficiency and volumes and ultimately ensuring the sustainability of the entire sunflower VC. This initiative is an example of how policy focus, donor support and private sector investment can combine to stimulate domestic VC development.

## CONCLUSION

Although sunflower has significant potential to support the development of a profitable VC, it requires support from multiple actors. The release of certified seed varieties, removal of VAT on domestic edible oil and investment in margarine processing are key developments in the positive trajectory for sunflower in Malawi. However, it is imperative that policymakers, donors and investors create and disseminate best practice to ensure increased production that can support stronger processor linkages, spur industrial development and develop the export market.

## ENDNOTES

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