

## Policy Options for Revitalizing Banana Value Chain in Malawi

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### Key Messages

- Banana demand in Malawi is higher than the supply from local production and imports.
- We found that banana enterprises are profitable and value chain actors make gross margins of over 30 percent.
- Low yields, Banana Bunchy Top Virus, limited access to finance, and limited processing opportunities are the main challenges limiting banana value chain potential.
- To upgrade the value chain to a stronger competitive position, there is a need to reform the banana seed system to ensure easy access to clean planting materials, initiate capital expenditure on banana intensification through irrigation development, and promote banana commercialization through focused extension programs.

### Introduction

The banana value chain in Malawi contributes positively to the economy by improving livelihoods through diversifying diets, improving income for farmers, and creating employment opportunities. This is part of the reason why the Ministry of Agriculture has given this industry flagship status and why significant donor focus has been aimed at revitalizing this once-thriving value chain. The local demand for bananas is high and rising, and the fruit has great potential for production expansion and modernization. Unfortunately, Malawian banana production has been adversely affected by the spread of the Banana Bunchy Top Virus (BBTV), which was officially confirmed to be present in Malawi in 1997 and has subsequently spread to all major banana-growing regions<sup>1</sup>.

The government of Malawi and its development partners have taken significant steps to revive banana production through the procurement and supply of virus-free planting materials<sup>2</sup>. Such efforts, however, have been insufficient to transform the sector to its full potential. This policy brief identifies policy and investment interventions that can complement the current government efforts, supported by donors and the private sector, to revitalize the banana value chain and synthesize research findings from a body of work called Policy Prioritization through Value Chain Analysis (PPVC)<sup>3</sup>.

The banana value chain was selected as one of three priority value chains in which a collaborative research team has compiled detailed analytics to provide insights on effectively addressing the main issues affecting the banana value chain. The research is informed by a combination of key informant interviews with banana value chain

stakeholders (farmers, traders, policymakers, and development partners), the use of secondary data from the Integrated Household Survey (IHS), as well as the Agricultural Production Estimate Survey (APES) and other datasets.

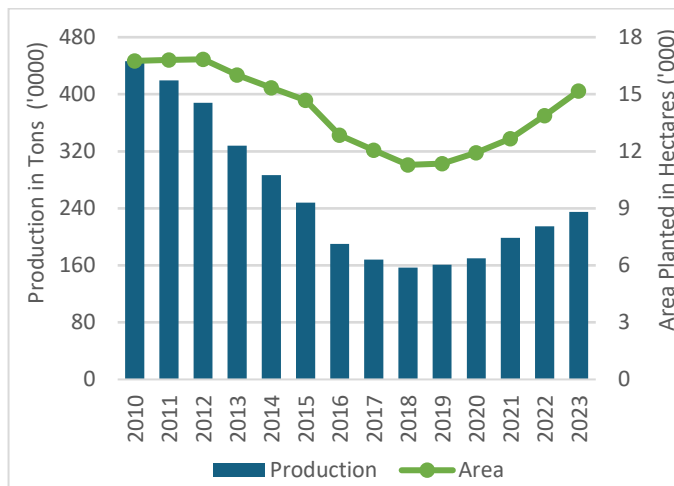
### Banana production in Malawi

A compilation of trends in production provides an indication of the performance of the industry (Figure 1). The declining trend in production volumes and area planted prior to 2018 is mainly a result of the devastating impact of BBTv, whilst the turnaround thereafter is attributed to several efforts to encourage replanting, which are starting to bear fruit as seen by the increase in area planted and production volume. Production volumes are still not close to the 450,000 tons of 2010 but are currently at 235,000 tons and growing.

The banana value chain is largely still an informal one, dominated by smallholder farmers farming a few scattered banana mats with minimal inputs used and traded by informal traders. The value chain is characterized by high levels of waste, poor fruit quality, and persistent issues with disease management, which in turn impacts farm-gate prices received by farmers. Currently, we estimate that around 350,000 farmers participate in banana production, of which 33% of the supply is produced by subsistence farmers (<1ha, not selling), 53% selling smallholders (<1ha), and 7% by small but growing number of progressive farmers (<5ha). The remaining 6% are produced by large commercial farmers growing bananas with intensive and highly capitalized production systems using irrigation.

The local banana supply from these farmers is insufficient to meet the increasing demand in Malawi, resulting in around 18 000 tons of imports

**Figure 1: Banana Production and Area over time**

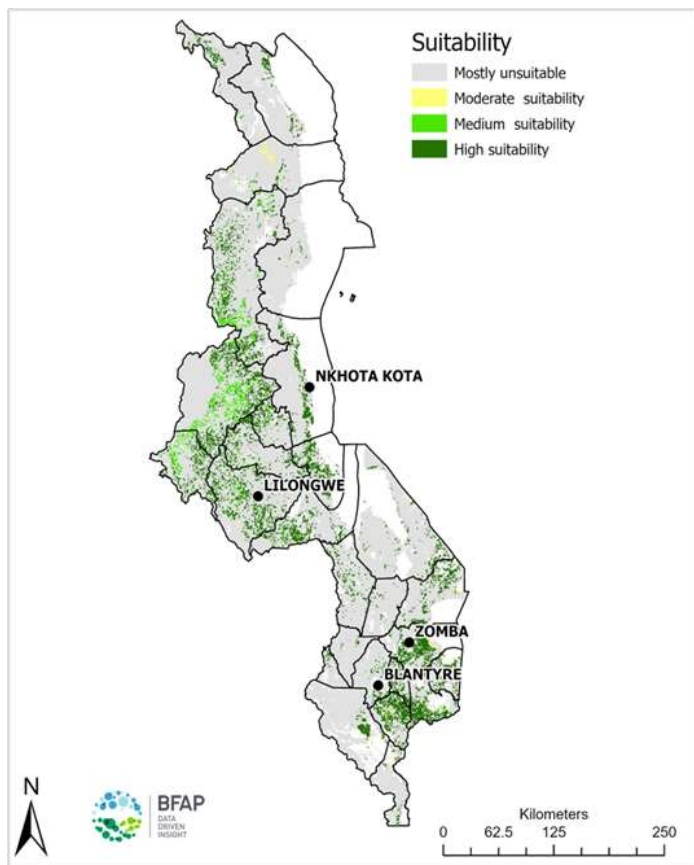


Source: Authors' own computation from APES and other data sources.

in 2023 from neighboring countries Tanzania and Mozambique. There is, therefore, a mismatch between the supply of bananas being lower than the consumption demand in Malawi. Banana demand is growing, with per capita annual consumption at 11 kg per person as of 2023, which is almost 1 kg per person per month, or 2 bananas per week. The growing demand for the fruit is mainly due to population growth, the relative affordability, and the growing suitability in large parts of the country.

Scaling local banana production provides a significant opportunity for import replacement, whilst challenges with low yields and quality should also be addressed. The opportunity to do so stems from the fact that many parts of Malawi have a medium or high climate suitability for growing these subtropical fruits (Figure 2). Based on several agroecological parameters such as rainfall, altitude, temperature, slope, and current land use, the map shows that bananas can be competitively grown and most suitably so in districts such as Mulanje, Thyolo, Nkhata-Bay, Karonga, and Chitipa.

**Figure 2: Banana Suitability Map for Malawi**



Source: Authors' compilation

### Banana Enterprises are Profitable

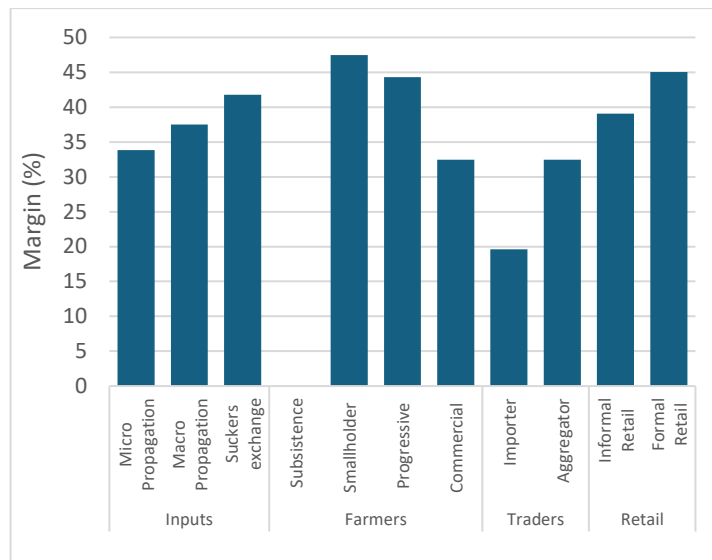
Bananas are a highly profitable enterprise and generate cash incomes to support many businesses within the value chain. Despite competition from imports and the devastating impact of BBTv, the margins (Figure 3) suggest that input suppliers, farmers, and traders all make gross margins of over 30%, except importers, who make a slightly lower return of around 20%. These margins should normally be sufficient to stimulate a supply response to substitute imports in Malawi. However, the current insufficiencies in local supply to meet demand signals other challenges that need to be addressed in the banana sector.

### Challenges facing the Banana Value Chain

The sector faces several challenges, including low

yields, disease management, limited access to finance, and limited processing opportunities.

**Figure 3: Gross margins for different banana value chain players in 2023**



Source: Authors' computation

### Low banana yields

Malawi banana yield is far below the potential yield. Yield for Malawi subsistence and smallholder farmers ranges from 11-19 tons per hectare against a potential yield of 50 tons per hectare. Low yields are associated with insufficient input use and a critical lack of hands-on practical skills in good husbandry practices, including pest and disease management, which are needed to improve productivity among smallholder farmers.

### Disease Management

As already mentioned, diseases such as BBTv are a major culprit in reducing banana production volumes in Malawi<sup>4</sup>. Thousands of hectares of banana production were lost due to its spreading impact, as farmers were required to uproot all infected plants. Government and private sector investments in tissue culture technology and training farmers in macro propagation to mass produce disease-free planting materials have been

significant but insufficient to boost production levels to where they were back in 2010. BBTv is persistently present in some banana fields, compromising productivity<sup>5</sup> and the quality of the fruit.

#### *Limited access to capital finance*

Farmers lamented limited access to capital finance as one of the major challenges limiting their potential to invest in irrigation and other modernized and commercialized production systems. Being a long-term investment, the banana value chain requires high initial capital costs and continued cashflow to buy inputs of which profits only start to be realised in the second season of production.

#### *Limited downstream value chain activities*

Malawi does not currently have a strong processing industry to transform fresh bananas into value-added products such as dried, frozen, or juice which disadvantages banana producers to bargain for higher prices due to perishability<sup>6</sup>. Most banana processing happens in small-scale businesses at the household level, and the bulk of production is consumed as fresh fruit. As a result, between the harvesting and final use of bananas, around 19% of the volume goes to waste.

### **Policy and Investment Options**

The banana value chain in Malawi is recovering from the devastating effects of BBTv. The sector, therefore, requires reforms that aim at boosting production through yield gains, meeting local demand, and substituting imports. The following reforms and policy options are proposed to upgrade the value chain to a stronger competitiveness position:

- *Reform the seed systems to ensure increased and easy access to clean planting*

*materials*. The existing seed systems need to be formalized by implementing certification of approved sucker nurseries and virus indexing. Strengthen local capacity by involving farmers in seed multiplication and discourage sharing of uncertified suckers. There is a need for a solid collaboration between the private and public sectors to maximize efforts against BBTv spread.

- *Initiate capital expenditure on banana intensification through irrigation development and commercial fruit production.* Unlock investment in drip irrigation to promote banana production throughout the year through blended financial models with private banks and/or through existing donor activities to improve the competitiveness of the value chain.
- *Promote banana commercialization through focused extension programs.* Equip smallholder farmers with in-field banana management skills to move from the mat or scattered fields to organized banana orchards. Finance extension services towards banana commercialization to improve productivity and scale production.

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## References

1. Mbewe et al. (2023) Banana bunchy top virus (Babuvirus; Nanoviridae) detected in all banana growing districts of Malawi. *Advances in Sciences and Arts*. 1(1), S011-0006. Accessed online <https://doi.org/10.37872/S001-0006>
2. FAO 2019. Accessed online <https://www.fao.org/farmer-field-schools/news-events/detail-events/fr/c/1187522/>
3. Pienaar, L., Meyer, F., Chadza, W., Gouse, M., Davids, T., Pauw K., Banda, C., Boshomane, D., Delport M. & Thurlow J. Prioritising Policies for Driving Inclusive Agricultural Transformation in Malawi: Value Chain selection.
4. Nyirenda Z., Nankhuni, F, & Brett M (2019). Has Banana Bunchy Top Disease Turned Malawi into a Banana Importing Country, forever? An Analysis of the Malawi Banana Value Chain. Policy research brief. New Alliance Policy Acceleration Support: Malawi Project (NAPAS: Malawi).
5. Mikwamba, K., Dessein J. & Kambewa D. (2019). Fighting banana bunchy top disease in Southern Malawi. The interface of knowledge systems and dynamics in a development arena. *Journal of Agriculture Education and Extension*. 2:163-182.
6. Gebre G., & Eweg R, (2016). Sustainability Assessment of a Banana Value Chain: The Case of Arba Minch, Ethiopia. *Journal of Agribusiness* 34, 2.



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