



Issues, potential and options for commercialising the rice value chain in Malawi

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Key Messages

- The rice value chain has great potential to become a key export crop and a significant source of foreign exchange for Malawi through appropriate production and market-driven investments.
- Malawi's scented varieties, such as Kilombero, Super Faya and Kayanjamalo, continue to be popular both domestically and across the Southern Africa region.
- Only a small proportion of the rice produced in Malawi is traded internationally. Farm-level productivity and overall production would need to improve significantly to increase the traded share.
- Limited specialised extension workers in schemes hinder support to farmers, slowing the adoption of improved rice technologies and practices.
- Currently, our estimates show that processors realise the highest margins at 83%, followed by intermediate traders at 68% and farmers at 57%.
- There is a need to increase investments and strengthen the rice seed system, extension services, and linkages between producers and processors.
- Additionally, there is a need to strengthen linkages with domestic and regional markets to increase access, competitiveness, and food security.

Introduction

Rice is the second most important staple food crop and a significant cash crop in Malawi.¹ Rice consumption continues to increase because of changing consumer preferences and rising household incomes despite the general increase in its price over time.² Production has also increased, mainly stemming from expansion in the production area and not necessarily productivity.³

The rice value chain faces challenges that hinder sector growth, including limited value addition,

which affects prices; the absence of structured markets; and poor quality due to adulteration. To address these issues and recognise the importance of rice, the Government of Malawi developed the National Rice Development Strategy-2 (NRDS-2) covering the period 2024-2030. The NRDS-2 seeks to support the development of the value chain and to increase the sub-sector's overall production, quality, profitability, and competitiveness, in line with the

national long-term vision, Malawi 2063, and regional and continental goals.

To enhance investments in the rice sub-sector, the Government, through the Ministry of Agriculture, Irrigation and Water Development, with technical and financial support from the European Union (EU), United Nations Development Programme (UNDP), and other partners, has designated rice as a priority value chain under the Ulimi ndi Chilengedwe m'Malawi (UCHI) - Strengthening Agricultural Commercialisation project.

This policy brief summarises the findings of an in-depth assessment of the rice value chain, identifying challenges, evaluating the potential for value chain upgrading, and determining priority investments to unlock that potential. The selected investments aim to support the development of the value chain in line with the aspirations outlined in Malawi 2063's agricultural productivity and commercialisation pillar.⁴

Methodology

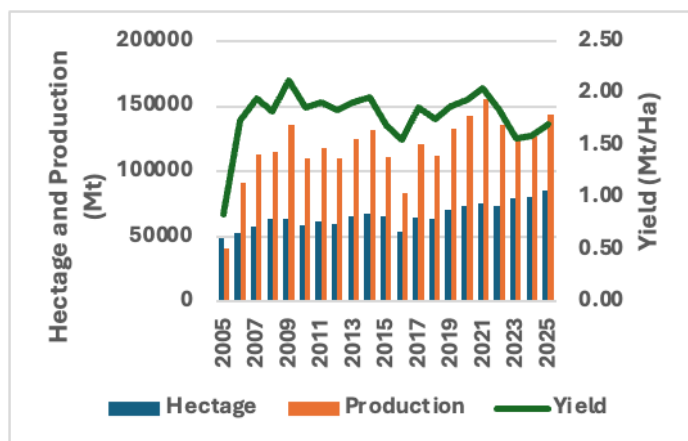
The data collection process involved reviewing the existing literature, assessing relevant government policies and strategies, conducting stakeholder consultations, and collecting primary and secondary data. The stakeholders included public officers, farmers (both individual and group), traders, processors, research stations, non-state actors, and milling companies in the districts of Karonga, Mzuzu, Nkhatabay, Nkhotakota, Salima, Machinga, Mulanje, Chikwawa, Zomba, and Blantyre. Secondary data were obtained from the

International Trade Centre (ITC), FAOSTAT, and the Agriculture Production Estimates Survey (APES), which is collected annually by the Ministry of Agriculture, Irrigation and Water Development.

Rice production and productivity

Rice production in Malawi is primarily rainfed, with approximately 85% of farmers relying on this method. A small percentage of farmers use irrigation (about 5% in floodplains and dambos, and 10% in upland rainfed regions). Overall, the national yield has stagnated at 1.8 metric tonnes (Mt) per ha (Mt/ha), declining from 2021 to 2025 despite an increase in production area (Figure 1). This decline was partly attributable to climatic factors, including erratic rainfall, prolonged droughts, and other adverse conditions. Certified seed is used by about 30% of producers across the country.

Figure 1: Rice production and productivity in Malawi



Source: Agriculture Production Estimates Survey (APES) Data

The most consumer-preferred rice varieties in Malawi are the scented varieties of Kilombero and Super Faya. These are preferred because of their relatively large grain size and aroma. However, their production and productivity are declining because of their relatively long maturity period of at least six months and high water requirements, which affect performance under increasingly water-constrained production conditions.

The farm-level productivity of rainfed rice currently stands at 1.2 Mt/ha, compared to a global average of 4.5 Mt/ha and a potential yield of 7 tonnes estimated at the country's research stations for the highest-yielding varieties currently grown in Malawi¹. In contrast, irrigated rice yields average 4 tonnes per hectare, compared with a potential of 7 tonnes. Adverse erratic rainfall patterns have led to lower yields and overall production. Lifuwu Research Station, the main research centre for rice in Malawi, has developed several scented varieties to mitigate challenges affecting the production of the Kilombero and Super Faya varieties. The varieties include Kayanjamalo, Tambala, and Nanyondo, among others. These require less water, are more yielding, and have a shorter gestation period. The other unscented varieties that have been locally developed include Pusa, TCG 10, Senga 1 and 2, Muchuwabi, Makafaci, Wachangu, Wambone, among others. Nerica is the only rice variety developed for upland rainfed production.

Rice is predominantly cultivated along the shores of Lake Malawi, including Salima, Nkhotakota, Nkhatabay, and Karonga; in the Bwanje and Shire Valley areas, including Dedza, Chikwawa, and

Nsanje; along the Lake Chilwa basin in Machinga, Zomba, and Mangochi; and in upland areas such as Mchinji and Mzimba.

Rice seed system

The rice seed system in Malawi remains underdeveloped and highly centralised. These twin problems hinder the diffusion of improved rice varieties across the country and contribute to chronic seed shortages in many areas, particularly those further south (such as Chikwawa) or north (such as Karonga). Farmers in these areas are consequently forced to recycle grain for seed, contributing to persistently low productivity.

The centralised system currently operates as follows. Breeding new rice varieties and producing early-generation seed (EGS) precede certification and quality assurance activities. Seed multiplication is primarily carried out by the Rice Seed Association (RSA) based at the Lifuwu Rice Scheme in Salima. The RSA does this in close collaboration with the Seed Services Unit (SSU). The SSU's quality assurance activities include registering seed growers, inspecting fields, verifying physical and varietal purity, and testing pre-basic, basic, and certified seed in accordance with International Seed Testing Association (ISTA) standards.

Notwithstanding this institutional structure, the seed distribution network remains underdeveloped, as the country has yet to create a viable market for certified rice seed, a challenge compounded by the fact that rice is self-pollinated and easily recycled.

Centralisation goes beyond distribution to include varietal development. Lifuwu Research Station enables participatory varietal selection by engaging farmers in testing and evaluation and promoting adoption through demonstration plots when a variety is ready. This process, however, is undermined by a structural gap: the absence of specialised rice extension services within the Department of Agricultural Extension Services (DAES) creates a disconnect between research outputs and farmer-level dissemination. This is compounded by farmers' limited understanding of rice agronomy.

Various stakeholders, such as DAES and non-governmental organisations such as COOPI and World Vision Malawi, support the dissemination of improved seeds and technologies. However, limited coordination leaves this support fragmented rather than systematic.

Market demand, marketing and trade

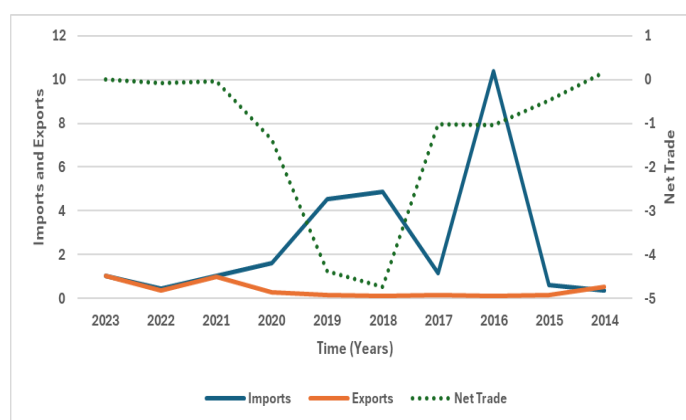
Malawi's total rice consumption is estimated at 135,000 Mt annually, but effective demand for milled rice is estimated to exceed 150,000 Mt annually when accounting for unmet demand, seasonal shortages, institutional markets, and maize substitution effects.¹

Domestically, rice is primarily traded through intermediaries who purchase paddy from farmers, mill it, and sell the milled rice to consumers and retailers. Some traders sell their rice to larger buyers or commercial millers, who add value

through destoning, grading, and packaging before selling to local markets or distributing to other regions. In some cases, traders also supply bulk buyers who may resell locally or export small quantities when market conditions allow.

Our rough estimates suggest that at least 98% of the rice produced in Malawi is consumed domestically. However, in international trade, Malawi imports slightly more (about 3%) than it exports (about 2%). Zimbabwe, Zambia, South Africa, and Mozambique are Malawi's main export destinations, while China and India are Malawi's main import sources for rice varieties mainly consumed by Malawi's Asian community. Therefore, it is unsurprising that Malawi continues to record a negative rice trade balance, with the volume and value of rice imports consistently exceeding those of exports.

Figure 2: Rice imports and exports



Source: <https://oec.world/en/profile/bilateral-product/rice/reporter/mwi?selector1151id=2016>

¹ [Rice Consumption \(Total\) in Malawi | Helgi Library](#)

Quality of rice traded in Malawi

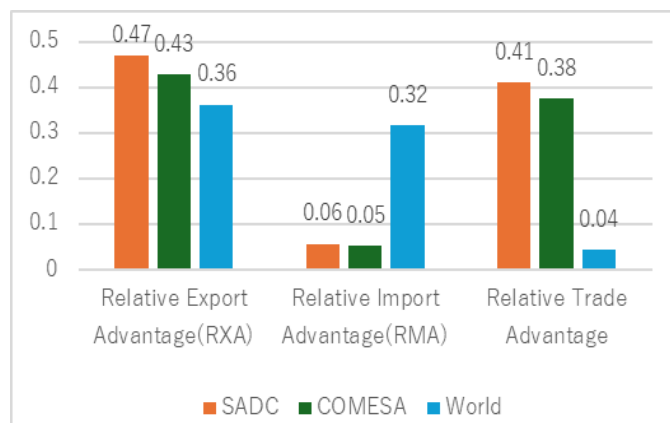
Commercial rice millers consistently report concerns about the low quality of rice supplied to them by middlemen. These stakeholders noted that poor handling during harvest can significantly reduce both rice quality and market price. Much of the rice they receive is broken rather than whole, which reduces its market value. This problem stems mainly from the widespread use of small, non-specialised mills in trading centres and towns. These mills often lack the appropriate technology to prevent grain breakage during milling. Also, rice adulteration is common among small traders. This occurs when different rice varieties are mixed during milling, thereby reducing quality and market value.

In addition to milling challenges, poor agronomic and post-harvest practices, particularly improper harvesting, drying, and handling, contribute to grain breakage and quality deterioration.

Competitiveness analysis

The competitiveness analysis reveals that rice accounts for a small share of Malawi's exports but an even smaller share of the country's imports, particularly relative to trends in the SADC and COMESA regions.

Figure 3: Competitiveness of rice value chain



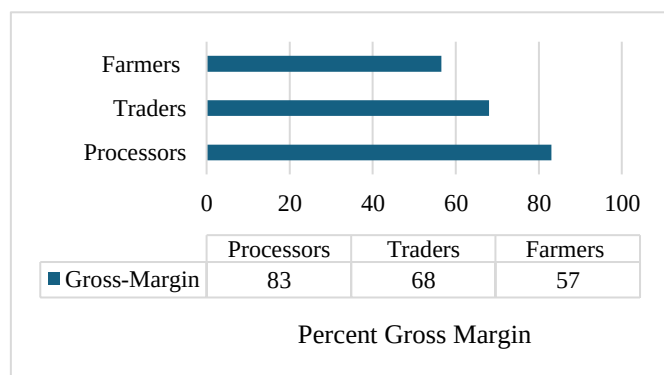
Source: Authors' computations using the ITC dataset

Globally, Malawi's share of rice exports and imports remains small (Figure 3). This means that, although Malawi imports more rice (especially for its Asian community) than it exports, its overall trade structure gives the country a relative advantage in rice compared with the SADC region, COMESA, and the world.

Profitability analysis of the rice value chain

Rice is a profitable crop for all actors involved in the value chain. A comparison of gross margins shows that farmers earn about 57%, while processors realise the highest margins at around 83% (Figure 4). Traders also generate strong returns, with gross margins of about 68%, making rice an attractive enterprise across the chain.

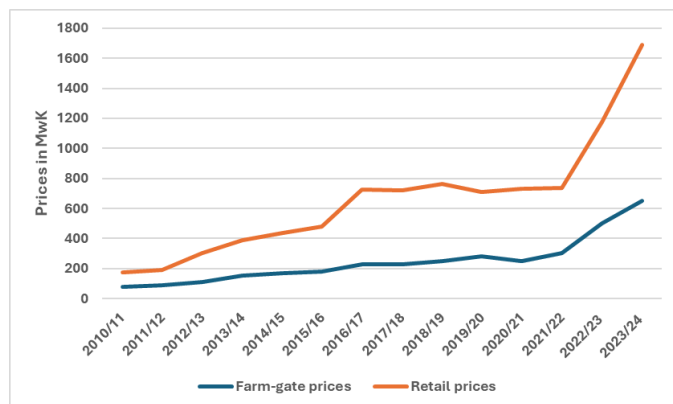
Figure 4: Gross margins of the rice value chain



Source: Authors' computation of the survey data

The relatively low profit margins earned by farmers highlight a key reality in the rice value chain: most of the value is added after the crop leaves the farm. While farmers do the hard work of producing paddy rice, it is the post-harvest processes: milling, destoning, grading, and packaging, that significantly boost the product's market value. Once converted into clean, well-packaged rice, the same crop commands much higher prices on the retail market than it does at the farm gate.

Figure 4: Domestic farm-gate and retail prices of rice



Source: AMIS and WFP retail price data

This disparity clearly illustrates how value addition influences who benefits most within the value chain, as shown in Figure 4 below.

Key challenges facing the rice value chain

The challenges facing the rice value chain can be categorised into seed system, access to extension services, weather, poor soil health, logistics, marketing, and policy.

1. Seed system challenges

The rice value chain faces several challenges with its seed system. These include, among others, limited use of quality seed, a rudimentary seed distribution system, and poor coordination.

i. Limited use of quality seed

Using high-quality, certified seed greatly improves rice yields. However, many farmers rely on recycled grain for seed, which reduces their productivity. Even among farmer organisations, only 30% have access to certified improved seed, mainly due to its high cost, underdeveloped distribution channels, and weak demand. Rice's self-pollinating nature makes recycled grain an easy substitute for certified seed

ii. Insufficient support for seed development

Government investments in rice seed development and production at Lifuwu Research Station are insufficient to produce the required types, quantities, and classes of seed (e.g., breeder, pre-basic, basic and certified) on time.

Our rough estimates suggest that, assuming a 100% penetration rate, Malawi requires 8.8 kg of breeder seed, 0.442 MT of pre-basic seed, and 35.32 MT of basic seed to produce the nationally required 2,800 MT of certified seed.

Second, much of the laboratory work at Lifuwu Research Station that could be automated is done manually due to limited laboratory infrastructure. Third, the SSU section at Lifuwu lacks adequate transportation for nationwide seed inspections and sufficient irrigation infrastructure to mount demonstrations.

Fourth, Coordination between scientists and the Seed Services Unit (SSU) is also weak, affecting the provision of crop varietal descriptors needed for accurate seed inspection.

Fifth, unreliable electricity hampers seed germination during the breeding phase.

iii. Inadequate coordination of the sub-sector

Periodically, poor coordination among breeders, certified seed producers, and farmers results in a shortage of basic seed for seed multiplication. Without this coordination, the market information needed to predict national seasonal demand for certified seed becomes difficult to obtain.

2. High input costs

The high cost of key production inputs, particularly fertiliser, significantly constrains rice productivity by limiting farmers' ability to apply inputs at the recommended rates.

3. Issues with access to extension services

i. High farmer-to-extension worker ratio

A high ratio of farmers to extension workers negatively affects access to extension services. When a small number of officers must serve many farmers, they cannot provide personalised or adequate support. Mobility and housing constraints further limit their ability to deliver services on time.

ii. Inadequate provision of specialised extension services

Most extension workers providing technical support to farmers are not specialised in rice agronomy. This reduces the quality and effectiveness of their support and slows the adoption of improved production systems such as the System of Rice Intensification (SRI) being promoted in the country.

iii. Weak linkages between extension and research services

Weak linkages between research and extension services hinder the diffusion of new rice technologies and undermine efforts to boost productivity. Some new technologies have been developed to address climate change and improve productivity, while maintaining essential qualities valued by consumers, such as aroma and grain size.

4. Weather-related challenges

Unpredictable rainfall patterns harm rice production. Rice depends on flooding conditions, and climate change-induced droughts reduce both

production and productivity, ultimately impacting supply.

5. Poor and declining soil health

Low soil fertility in some areas reduces productivity and the overall paddy supply.

6. Logistical challenges

i. Poor coordination among actors

Poor coordination among producers, millers, and traders has left millers struggling to secure adequate paddy supplies, while producers complain of having no market for their paddy.

ii. Low investment in distribution systems

Insufficient investment in rice seed distribution systems hinders farmers' access to improved seed.

7. Marketing challenges

i. Lack of quality rice

The rice sector faces a shortage of pure, consumer-preferred varieties, such as Kilombero and Super Faya. These varieties are the most sought-after because they are scented and long-grained. Consequently, widespread adulteration occurs, with traders mixing them with less preferred varieties and labelling the blend as Kilombero. This practice reduces quality and prevents the product from meeting international standards. Additionally, farmers' failure to rogue and remove off-type plants during production further contributes to variety mixing, compounding quality issues.

ii. Seasonality of rice supplies

Rice supply in Malawi is highly seasonal. With 85% of production rainfed, the market experiences a surplus at harvest followed by scarcity in the lean season. Only 5% is irrigated, leaving little capacity to smooth supply across the year despite irrigation's potential to stabilise year-round availability. This seasonality disrupts supply to processors, producers of rice-based products, and consumers, driving price volatility and periods of underutilised milling capacity.

iii. Lack of structured markets

The rice value chain suffers from a lack of structured markets for farmers and processors. After harvest, farmers often sell rice to vendors and middlemen at low prices. These intermediaries then sell the rice to processors or other traders who add value, creating a significant price gap between producers and later actors in the chain. This gap persists despite many rice producers being organised into associations and cooperatives, with only about 10% having access to structured markets. Additionally, due to the absence of structured markets, linkages between producers and processors are very poor. Numerous instances exist in which producers complain of a lack of markets for their rice, while processors cannot obtain consistent supplies of the quality of rice needed for their mills.

iv. Insufficient value addition and processing at the lower nodes of the value chain

Most smallholder farmers produce and sell paddy rice rather than processing it themselves.

Malawi's overall processing capacity is estimated at 150,000 MT per annum, yet much lies idle for most of the year due to poor coordination between producers and millers. Producers complain of a lack of markets, while millers complain of inadequate paddy supplies. Many farmers in associations and cooperatives that own rice mills also fail to service them, preferring external repair support, which limits value addition. Further, small mills near rice schemes often have low recovery rates and limited capacity for grading and polishing, while modern integrated milling remains concentrated among a few medium- to large-scale operators.

v. Poor marketing supporting infrastructure

Poor roads and inadequate warehousing infrastructure create high transaction costs for traders and post-harvest losses for producers. High transaction costs and post-harvest losses erode profitability.

vi. Lack of finance and working capital

Rice traders also lack the necessary capital to support their operations, including buying stock during the harvesting period. Access to credit requires collateral, which small traders typically lack, thereby limiting investment in the business.

8. Policy challenges

Rice does not feature prominently in Malawi's development agenda. Key flagship programs such as TRADE, PRIDE, and AGCOM do not directly support the rice value chain, and rice is excluded from the National Export Strategy (NES-II).

Also, trade policy uncertainty and occasional protectionist measures, including import bans, tariff changes, and ad hoc interventions aimed at safeguarding food security or forex reserves, pose risks to producers, traders, and investors. Other challenges include under-resourced research and seed systems, limited extension services, land tenure constraints hindering irrigation expansion, policy biases favouring maize, and insufficient public- and private-sector investment.

Proposed policy recommendations

Based on the study's findings, we provide the following recommendations for authorities to consider to boost the rice sub-sector:

1. Strengthening seed systems by establishing more seed production sites beyond Lifuwu research station. This will ensure improved availability, accessibility, and adoption of rice seed across all key producing areas. The UCHI project can support and strengthen the seed association at Lifuwu as well as initiate similar associations across the main rice production zones, such as Karonga, Nkhatabay, Zomba/Machinga, Phalombe and the Shire Valley area.
2. Enhancing extension services by retooling field officers through specialised training in rice agronomy to improve service quality, boost productivity, and increase the adoption of improved technologies and production methods. This can also be led by the government and supported by partners, such as the UCHI project under UNDP.

3. Improving value addition and market access can strengthen the rice sector by encouraging investments in processing and other value-adding activities. Linking farmers to well-organised and profitable markets will also support fair pricing and increase profits across the entire value chain. The UCHI project can advance this through its private-sector development window.
4. Supporting policy development and coordination, and embedding rice into development plans and flagship programmes would significantly elevate the status of the value chain. Additionally, clearly defined trade policies should be implemented to encourage local production and enhance penetration of domestic and regional markets. The government can lead this activity.

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References

1. Nikiema, R. A., Shiratori, S., Rafalimanantsoa, J., et al. (2023). How are higher rice yields associated with dietary outcomes of smallholder farm households in Madagascar? Food Security, 15, 823–838. <https://doi.org/10.1007/s12571-022-01333-5>
2. World Bank. (2025). Malawi - Agriculture public expenditure review: Synthesis report. Washington, D.C.: World Bank Group. <http://documents.worldbank.org/curated/en/099061125040030235>
3. Government of Malawi. (2024). Malawi's national rice development strategy - 2 (NRDS-2) 2024 - 2030. Retrieved from https://riceforafrica.net/wp-content/uploads/2024/08/malawi_nrds2.pdf
4. National Planning Commission. (2020). Malawi's vision, Malawi 2063: An inclusively wealthy and self-reliant nation. Retrieved from <https://npc.mw/wp-content/uploads/2021/02/MW2063-VISION-FINAL.pdf>
5. Pauw, K., Verduzco-Gallo, I., & Ecker, O. (2015). Chapter 3: Poverty, food prices, and dietary choices in Malawi. In N.-L. Aberman, J. Meerman, & T. Benson (Eds.), Mapping the linkages between agriculture, food security & nutrition in Malawi (pp. [insert page range]). International Food Policy Research Institute. Retrieved from https://massp.ifpri.info/files/2015/05/Mapping-the-linkages_Chapter-3.pdf



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