

Policy Brief

Improving Tanzania's competitiveness of avocado ('green gold') value chain and exports: A case for targeted regulatory, policy and institutional reforms

Key messages

- Driven by dynamics in a global surge in prices and demand for 'green gold', the cultivation and trading of avocado is rapidly gaining traction among the farmers in Tanzania. Commercial avocado farming provides an avenue to successfully diversify Tanzania's portfolio of horticultural crops, thereby enhancing the value of the horticultural industry.
- The avocado value chain reveals palpable capacity challenges all the way from the input procurement to farming, processing, packaging, retailing and marketing as well as product quality standards. Overcoming these challenges requires keeping up with the constantly changing agribusiness ecosystem.
- To capture the emerging opportunities in the sector there is an increasing need for innovatively refreshing perspectives to enhance the productivity and competitiveness for all value chain actors as well as improve the product quality to meet export requirements.
- Rationalisation of overburdening and redundant regulations, targeted policy and institutional reforms are required to support competitiveness, value chain upgrading and export diversification of the sector.

Overview

This policy brief explores the opportunities and potential of avocado production in Tanzania with special focus on the Northern Export Corridor. It discusses key production, trade and regulatory constraints undermining the competitiveness and diversification of avocado value chain actors. It provides recommendations and strategies to enhance the competitiveness of the sub-sector. It is based on both desk research and field visits to northern Tanzania undertaken between May and July 2017.

The policy brief is part of the EU's targeted support to REPOA and Zanzibar Ministry of Trade, Industry and Marketing to Increase Competitiveness of Primary Producers and Diversify the Export Base in Light of the Trading Opportunities with the EU, being implemented within the framework of the ACP-EU TradeCom – II Programme.

Avocado (also called *Persea American* and originated in Mexico) is highly valued for its abundant nutritional content. It is higher in protein than any other fruit, provides fibre, potassium and

This publication was produced with the financial support of the European Union, through the EU-ACP TradeCom II Programme, as part of the 'Targeted Support to REPOA and Zanzibar Ministry of Trade, Industry and Marketing to Increase Competitiveness of Primary Producers and Diversify the Export Base in Light of the Trading Opportunities with the EU' project implemented by Landell Mills Ltd. Its contents are the sole responsibility of the Technical Assistance Team and do not necessarily reflect the views of the European Union, the EU-ACP TradeCom II Programme, REPOA or Landell Mills Ltd.

The Member States of the European Union have decided to link together their know-how, resources and destinies. Together, they have built a zone of stability, democracy and sustainable development whilst maintaining cultural diversity, tolerance and individual freedoms. The European Union is committed to sharing its achievements and its values with countries and peoples beyond its borders.

vitamins and is high in plant-based fat that is cholesterol free. It helps the body absorb fat-soluble nutrients. Globally, in the fruit sector, avocados are the fifth most important traded product after bananas (US\$23 billion), grapes (US\$17 billion), apples (US\$15 billion) almonds (US\$10 billion) and avocados (US\$ 9.1 billion), lending it a name of 'green gold'. In the five years since 2012, the global market value of avocados has increased more than twofold from about US\$4.1 billion in 2012 to about US\$9.1 billion in 2016; while the quantity of traded avocado increased by about 70% from 2.2 million tonnes to 3.8 million tonnes over the same period. Despite the global increase in the cultivated area, global production of avocados has failed to keep pace with the rising demand, resulting in higher global prices of avocados. As such, the avocado industry creates vast opportunities for countries with potential to upscale production, including Tanzania.

The major avocado producing and exporting countries are: Mexico, Peru, Chile, Netherlands, Spain, USA, New Zealand, Kenya, South Africa and France; while major importers are USA, Netherlands, France, United Kingdom, Japan, Germany, Spain, Canada, China and Australia. The European market for avocados is huge and characterised by high prices because of low supplies from Peru, South Africa, Mexico and Chile. Spain is not only the main gateway for avocados into Europe, but it is also a major re-exporter of them in Europe. Avocado consumption is rising rapidly in Europe at the rate of 1–2 kg per capita per year. Prices in some European countries range between €11 and €13.50 per box. Specifically, in the case of the Netherlands, avocado prices are ever-rising at about €13 for 'green' avocados, €12 for 'Hass' avocados and €14.50 for the 'Ready-to-Eat' variety. Hass avocados (compared to other varieties) sell fast and exporters can barely meet their schedules, partly due to the shortage in supplies from Peru, South Africa, Tanzania and Kenya.

Major exporters in Africa include South Africa followed by Kenya, which has the potential for both production and export, especially for Hass variety, thanks to improvements in the areas of production and logistics. Kenya's export markets include inter alia: Russia, Egypt, Spain, the Middle East and Europe. Fieldwork suggests sizeable cross-border trade in fruit and vegetables between Kenya and Tanzania. South Africa produces avocados for industrial consumption and its export volumes have recorded an increase from 49,000 tonnes in 2015 to 58,000 tonnes in 2016.

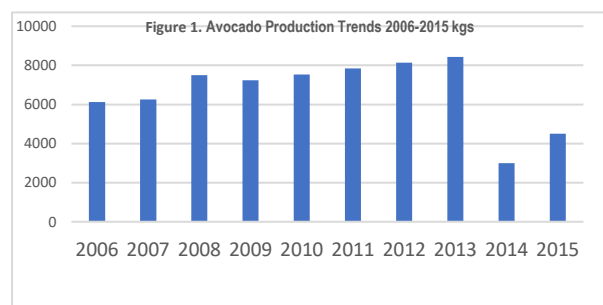
Findings

Similar to most horticultural crop supply chains in Tanzania, an analysis of the avocado value chain reveals palpable capacity challenges all the way from the input procurement to farming, production processing, packaging, retailing and marketing as well as product quality standards. Overcoming these challenges requires keeping up with the constantly changing agribusiness ecosystem, including strategic navigation of the policy reforms and institutional regulations towards gaining competitiveness and compliance traction.

Commercial avocado farming provides an avenue to successfully diversifying Tanzania's portfolio of horticultural crops, thereby enhancing the value of the horticultural industry. However, production (especially in the Northern Export Corridor) is far below its geographical potential. Tanzania's Northern Export Corridor faces a combination of challenges related to production and trade capacity, capacity to attract viable agribusinesses and ability to retain and expand such agribusinesses; a capability to develop entrepreneurship skills and inability to meet market product quality standards. To remedy the situation, drastic changes in policy towards enhancing productivity and competitiveness, value chain upgrading and export diversification as well as improving the standards and quality of the crops are required. The good news is that the avocado fruit crop appears to exhibit a dynamic value chain with a policy landscape responding to the shifts in customer behaviour and consumer preferences. Field interviews in the Northern Export Corridor established that the avocado supply chain comprises growing, sourcing, processing, packing, exporting and retailing.

The avocado production node: based on the enormous production potential in the different agro-ecological zones, Tanzania can supply avocados to the global market for nine months during a calendar year. The main production regions of avocado are Kilimanjaro, Iringa, Mbeya and Njombe. An avocado orchard takes at least 3 years to reach commercial quantities and 7–10 years to reach profitability.ⁱ The main processes during production node include planting, irrigation, protection from damages caused by animals and the sun, pruning, pest and disease control, maintenance, and fertiliser application in some cases. Tanzania is a relatively low-cost avocado producer compared to other global competitors

such as Australia, New Zealand, the Netherlands and USA where farmers receive high farm gate prices. Though currently a small player in the global avocado industry, over the last decade Tanzania has recorded sustained growth in avocado production, except in 2014 when production fell by over 50% (see figure 1). Tanzania's avocados are predominantly grown for the fresh market and are supplied largely to export markets.



Commercial production is concentrated around a small number of large-scale avocado growers who are thinly spaced across the growing regions. However, cultivation and trading of avocado is rapidly gaining traction among the small-scale farmers on account of a significant increase in domestic awareness about the global opportunities. Currently, much of the smallholders'

Njombe – the untapped potential for avocado production. Njombe region in southern Tanzania is one of the most suitable regions having huge potential to develop the avocado sub-sector. This is due to its good climate and soils, land availability, enterprising population and proactive regional and district authorities. A UNDP study showed that Njombe region produced 5,000 tonnes in 2013. MITI and TAHA look forward to constructing collection centres for avocado and other horticultural crops.

Based on primary data collected between June and August 2017, avocado production in northern Tanzania was found to be facing productivity, quality and value chain bioprocessing challenges. **As said, avocado orchards take 3 years to mature but 7–10 years to be profitable during which it still requires maintenance** (irrigation, protection from animals, and disease control among others). Small-scale farmers cannot afford to wait this long. Tanzania's export corridors also face challenges related to capacity to attract viable agribusinesses; ability to retain and expand such agribusinesses; and finally, a capability to develop entrepreneurship skills.

Harvesting, processing and packaging: Avocados are harvested/picked by hand using ladders, picking poles and, where slopes permit, hydraulic picking platforms. Post harvesting value

Africado Ltd – the state-of-the art avocado processing, packaging and exports. Africado Ltd constructed a state-of-the-art processing,¹ cold-chain and packaging facility to export avocados grown and packed on site for export via the Mombasa port. Africado is located in Siha district, Kilimanjaro, and was incorporated in 2007. It focuses on growing Hass avocados for export to the EU and the Middle East. Africado has invested in industrial fruit processing agribusiness that closely follows the Israel model. The construction of a pack house has enhanced its competitiveness (as against when packaging used to be done in Kenya). As a Global-GAP (Global Good Agriculture Practices) certified agro-enterprise, it currently cultivates 135 ha of land, amounting to 12 ha of avocados and 75 ha of coffee. In just six years from 2011 to 2015 its sales to EU jumped from 5 tonnes in 2010 to 2,580 tonnes in 2015. Its proximity to Mombasa and labour availability make the production, processing and export of avocados a profitable agri-business enterprise. Africado also operates a pilot small-scale farmer out-grower scheme on western Kilimanjaro. Through its effective out-growers scheme, Africado Ltd provides value-added services such as training and agricultural product quality assurance. One of the successful value-added initiatives is the Grace Avocado Hair and Body Gardener,² which also heals skin diseases and dry scalp problems and there are plans to expand through 3,200 small-scale out-growers. Mature avocados and avocado oil are used, of which 64% and 69% will be sourced from the out-grower scheme respectively. It currently operates a pack house, with equipment for carton assembling, pre-grading machine, sizer, packing tables and cold store machines.

Sources: <https://www.trademarka.com/news/press-release-the-magical-avocados-of-tanzania/> and visit to Africado Ltd by the Programme TAT.

avocado production concerns the traditional varieties (small size) which are unsuitable for export markets. Domestic market distribution and consumption is also constrained by the perishable nature of avocados; excess supply in the northern corridors; and low incomes and dietary habits of the population. New initiatives and plans are ongoing towards planting new trees in suitable agro-ecological regions, which will further make the industry more mature and leverage regional agro-ecological advantages in competition for the global market share.

chains include handling in the packing shed, chemical treatment, drying and polishing, grading and packing. Avocados are processed into avocado salsa, guacamole blend, avocado pulp, spicy guacamole and drinks. So far, processing is carried out by a few privately owned foreign companies. This involves selection of best fruit, followed by cutting, de-seeding, peeling and putting into a mixer with other ingredients, such as onion, chilli pepper, fruit concentrate. The resulting product is vacuum packed and sealed into co-extruded five-layer bags that are blast frozen in a blast-freezer.ⁱⁱ However, Tanzanian avocados are mostly exported as whole fruits rather than in a processed form.

Global demand for avocados outpaces supply hence export markets for good quality avocados are readily available. The vast majority of Tanzania avocado exports are managed directly by two major producers (Africado Ltd in Kilimanjaro and Rungwe Avocado Company in Njombe) who have significant development partner investment in their operations, processing and marketing. The minimum product requirements of avocado before exportation is that the fruits must be clean (free from adhering soil and insects); mature (i.e. not ripe or soft, but at the stage that will allow the fruits to ripen normally and arrive at the market with the optimum degree of ripeness); be of similar varietal characteristics (shape, texture and skin colour); and be well trimmed. In addition, there are increasing numbers of voluntary and involuntary standards, mainly regarding chemical usage and the control of pests for access to foreign markets.ⁱⁱⁱ Tanzania exports 90% of its avocado produce to the EU (Italy, Germany, Greece, Belgium, Spain and Switzerland. Strategic partnerships with other European companies through business-to-business are being sought to bring fresh, ripe avocados to the European and other export markets. Efforts are also under way to promote the 'From Field to Fork' approach and its innovative cold chain management systems.

Global Good Agricultural Practices (GAP) is a private sector body that sets voluntary standards for the certification of agricultural products around the globe. The aim is to establish one standard for GAP with different product applications capable of fitting to the whole of global agriculture. The standard is primarily designed to reassure consumers about how food is produced on the farm by minimising detrimental environmental impacts of farming operations, reducing the use of chemical inputs and ensuring a responsible approach to worker health and safety as well as animal welfare.

Field evidence suggests that quality management is the major export challenge for Tanzania producers, especially the small-scale operators. Introduction of the Global Agricultural Practices (GAP) has widened the scope of every segment of value chain actors, especially farmers and primary producers, many of whom are learning about GAP for the first time, and finding it challenging to fully harness the benefits of these developments and market responses. Individual household farmers have limited capacity to apply the GAP; namely meeting the cost of yearly GAP inspections, facing a dearth of local certifiers and often having to consult those in neighbouring countries.

Serious institutional and logistical barriers continue to hamper the efficiency of the avocado value chain and exports. The challenges faced by the Northern Export Corridor include inter alia poor transportation and logistics facilities, epileptic electricity supply, quality management and safety assurances, financial constraints, inadequate market support, lack of production and market information, limited land availability due to uncondusive laws guiding land and property acquisition, ownership and compensation. Because of the perishable nature of avocados, logistics huddles – such as limited cold room handling facilities at the two main ports, and fewer shipping lines in Tanzania, which means export bookings tend to be few in a month –exposes exporters to high risks in the event of uncertainties. These may be cancelled or delayed shipment, high insurance premiums because of associated risks. Furthermore, haulage-related non-tariff barriers (NTBs) seriously affect export competitiveness of the avocado sub-sector.

Regulatory overloads of the agribusiness are choking the avocado sub-sector in the Northern Export Corridor. Over the years, the breadth and depth of regulatory reforms have increased in Tanzania's agribusiness landscape. According to Trademark East Africa (TMEA), Tanzania ranks the worst of the EAC and SADC member states for trade barriers and over-regulation. Some of these regulatory requirements focus on agricultural inputs such as pesticides and insecticides, food safety, immigration and labour regulations, land policy and management to name just a few. In some cases, there is duplication of regulations, repeated testing, multiple certification requirements (by both the Tanzanian Standards Board (TBS) and the Tanzania Food and Drug Administration (TFDA)), levies, permits, registrations, unlimited taxes or fees. Where the regulatory demand is seemingly unreasonable, both productivity and competitiveness are hampered. If the primary producers fail to pass the cost of regulations on to consumers, the farmers are forced to bear the increased regulatory costs.

Recommendations

As the Tanzanian avocado industry blossoms, there is a need for smart policy and capacity-building interventions and regulations to promote competitiveness and diversification of the sub-sector, create jobs and generate wealth and economic development. Some specific measures towards addressing the identified constraints in the sector and enhancing its capacity and competitiveness include:

- Rationalise and reduce the redundant

regulations faced by avocado farmers in particular, and horticultural growers and investors in general. It is crucial to ensure that the agricultural regulatory system is fair, open, transparent, accountable, and takes economic impact into account. Regulatory reforms should be evidence-driven, and efforts should be made to minimise compliance costs, administrative work and other related burdens, to maximise the net benefits to operators.

- There is a need for close coordination between agribusiness-related line ministries, including the Ministries of Agriculture, Industry Trade and Investment, Environment, and their concerned agencies such as the TBS, TFDA, Tanzania Revenue Authority to improve the regulatory environment.
- Introduce innovative ways to enhance the production and trade capacity of avocado value chain actors. There is need for mentoring assistance for entrepreneurs, decoding trade certifications, business development, access to finance, research and innovation, networking and linking micro, small

and medium enterprises with established operators to assist them penetrate regional and international markets.

- Improve transport and logistical support to facilitate fast movement of goods along the export corridors and promote compliance with standards through certification.
- Development partners should reinforce a strategic partnership between MITI, MALF, SIDO, REPOA and TAHA to establish basic services' centres along the Northern Export Corridor for the various value chain actors.
- For sustainability, initiatives such as the University of California (UC) Global Food Initiative – a programme designed to bring the UC expertise to Tanzania to help local enterprises become more self-sufficient and prosperous – should be scaled up by engaging European-based universities and research centres in deploying the best research and extension practices to address the key challenges in the avocado value chain.

References

Match Maker Associates. (2017). Mapping of Production of Fruits and Vegetables in Tanzania, Phase 1. Study commissioned by the Embassy of the Kingdom of Netherlands.

Siani.se. (2017). 'How can avocado improve the livelihoods of smallholders in Tanzania? (online) Available at <http://www.siani.se/news/how-can-avocado-improve-livelihoods-smallholders-tanzania> (accessed 20 August 2017).

ⁱ <https://agribiz.info/agriwiki/article/avocado-value-chain/#Variety>

ⁱⁱ <http://www.itfnet.org/v1/2016/05/avocado-post-harvest-processing/>

ⁱⁱⁱ The Business Daily (2017) reports that: 'Kenya has been ranked the 13th on the watch-list by the EU, which imported the bulky of the country's Sh102 billion worth of horticultural produce. Between April 2016 and April 2017, at least 46 interceptions have been made in respect to horticultural goods failing the phytosanitary test at various EU entry points, according to the Kenyan's Horticultural Crop Directorate.' Business Daily. 2017. Rising EU blockage worries Kenyan fresh produce exporters. (online) Available at <http://www.businessdailyafrica.com/economy/Rising-EU-blockage-worries-Kenyan-fresh-produce-exporters/3946234-3981724-8cpt9vz/index.html> (accessed 27 August 2017).



REPOA

157 Mgombani Street, Regent Estate
P. O. Box 33223 Dar es Salaam Tanzania
Tel: + 255 22 2700083 Cell: +255 75 409 1677 Fax: + 255 22 2705738
Website: www.repoa.or.tz Email: repoa@repoa.or.tz

©REPOA 2014



The findings, interpretations, conclusions and opinions expressed are those of the authors and do not necessarily reflect the views or policies of REPOA. Nor do they reflect the views of Landell Mills Ltd. or TradeCom II.