

**GROWING PAINS** THE TANZANIAN AGRICULTURE SECTOR ENABLING ENVIRONMENT FOR KEY VALUE CHAINS IN 2022



Foreign, Commonwealth & Development Office





# Introduction

Tanzania's credentials as a stable investment jurisdiction – from a safety, security and geographical perspective, complete with a long coastline and status as a transit route for several landlocked neighbours – have drawn large-scale investors to the country across a variety of sectors. Specifically, Tanzania's diversified economy sees large-scale investment, across a myriad of sectors including agriculture, oil and gas, mining, manufacturing, telecoms, logistics and tourism.

Agriculture remains one of the most important sectors of Tanzania's economy, responsible for approximately 25% of GDP and 85% of exports. It is estimated that agriculture is the main economic activity for 70% of Tanzanian households and 75% of all Tanzanian jobs are within the agricultural sector, with up to 80% of all agricultural produce being produced by smallholder farmers. As such, robust and inclusive growth in the agriculture sector is critical for Tanzania to achieve economic transformation and poverty reduction, with the sector's benefits able to reach the lowest income and most vulnerable groups in rural areas.

This white paper is intended to help investors, policy makers, donors and other market intermediaries better understand the current agriculture enabling environment in Tanzania and thereby support increased investment in the sector. It provides an impartial, evidence-based overview of the enabling environment for the agricultural sector as a whole and undertakes a deep dive into five key value chains: domestic horticulture, export horticulture, semi-perishables (with a focus on potato and ginger), poultry and maize seed. Throughout the white paper, key cross-cutting challenges and opportunities are also highlighted. A series of recommendations to a broad range of stakeholders are offered to help improve the investment environment for agriculture and through this, to improve the lives and incomes of millions of farmers in agricultural value chains across the country. Agriculture remains one of the most important sectors of Tanzania's economy, responsible for approximately 25% of GDP and 85% of exports

## Macroeconomic and political overview

Tanzania's diversified economy has proven resilient despite external shocks. As other countries grappled with the effects of the global pandemic, Tanzania's economic rebound was relatively swift. GDP growth of 4.7% is expected in 2022, improving to 5.3% in 2023. However, the country still has to manage high unemployment rates, rapid population growth, and rural to urban migration.

The war in Ukraine is importing cost inflation into Tanzania's economy via higher fuel and fertiliser costs, placing pressure on the cost of living. For local agribusinesses, higher inflation will erode margins for any company with costs or borrowings that are largely USD-denominated and revenues that are TZS-denominated, whereas agribusinesses focused on global export markets will be less affected.

Tanzanian agribusinesses targeting regional export markets face policy uncertainty, linked to geopolitics and unpredictable trade relations. This uncertainty places a partial handbrake on firm-level investment in Tanzania into commercialization, agro-processing and structured trade.

## Agriculture political economy

Agriculture remains the core of Tanzania's economy, the government's new transformation agenda aims to unlock agricultural growth of 10% per annum by 2030. This '30/10' agenda is backed by proposals for:



A new agricultural development fund to subsidize agricultural inputs when prices rise;



Reduction of loan interest rates for agricultural borrowers to single figures;



Creation of land banks to attract more commercial farming investors;



Increase in the number of agricultural extension officers from 8,000 to 21,000



Reform of the irrigation commission to ensure every district is covered;



Boosting arable land with irrigation from 2% to 50% (600k to 10m hectares);



Creation of a common use facility for packing, sorting and grading of horticultural products;



Improved government capacity to promote Tanzanian produce in regional export markets;



Investments into agricultural research (focused on seed quality in maize, sorghum, wheat, tobacco, rice and round potatoes) and better market access to quality inputs;



Major VAT exemptions for domestic fertilizer manufacturers, imported refrigerated trucks, yoghurt processing plants and domesticallyproduced edible oil.



Efforts to protect domestic production in key value chains from unfair/exploitative foreign competition and/or untaxed imports.

To achieve this ambitious agenda, budget allocations and actual agricultural spending needs to be significantly increased, for example, the Irrigation Commission will have to scale up drastically from its current geographical reach of 25 offices to cover each of the country's 169 districts, in a way that is efficient and without excessive expenditure and bureaucracy.

Furthermore, the government's agricultural policy agenda should provide a conducive environment for the private sector in key value chains, for example, the proposed changes to Tanzania's Cashew Nut Industry Act (2009) which would centralise money-generating levies will affect local authorities and industry stakeholders. The agriculture ministry has proposed that 50% of the current levy be used to subsidise inputs for all crops whereas under the previous system, 35% of levies went to the government, while the remaining 65% was reinvested in cashew production under local government direction.

Fiscal policies also need to be considered, for example the announcement of a cap on loan interest rates – while popular with farmers – will in practice reduce lending volumes to agri-SMEs as banks ask for higher fees and higher collateral to compensate for being unable to engage in risk-based loan pricing.



Finally, Tanzania needs to urgently adopted digitized agricultural technologies at the same pace as its peers, given that Tanzania has relatively competitive connectivity infrastructure and high mobile and mobile money penetration rates. Interviewees however cited three major bottlenecks:

- very low ability and willingness to pay for agri-tech solutions outside of the small commercial agriculture sector;
- (ii) the presence of more fundamental priorities such as the need to invest in enabling infrastructure and
- (iii) mistrust over tech-enabled new business models.

# Value Chain Analysis

### a) Domestic Horticulture

The supply chain for vegetables produced for local markets and consumption – including tomato, pepper and onion – benefits from strong and growing domestic demand, in addition to inclusive SME-led growth in production and distribution. The subsector's distinctive characteristics include relatively fast cashflows, small land requirements, and stronger margins than for traditional staples, all of which make it attractive to educated youth who may be unable to get formal employment elsewhere. For the same reasons, there is strong potential for increased involvement of women in the value chain.

On the consumption side, positive impacts include strong nutritional benefits from dietary diversification versus traditional reliance on starchy staples. Moreover, from a macroeconomic standpoint, substituting horticultural imports for increased domestic production will not only create rural jobs but also boost climate resilience and food security through shortening of supply-chains (a key focus area since the pandemic-induced market shock), in addition to improving the trade balance.

Our recommendations for value chain interventions revolve around the opportunities for prosperity partnerships to upgrade the sector via improved market linkages, the passage of key enabling policies, and increased adoption of agritech in seed systems, micro-irrigation, crop protection, greenhouses, post-harvest cold chain, processing and packaging.

## Specific Recommendations - Domestic Horticulture

- Identify entry points in the value chain to provide assistance to small-scale farmers to increase access to finance, quality inputs, and larger/urban markets.
- > Explore opportunities for capacity-building targeted at improved post-harvest practices and storage, in order to reduce post-harvest losses.
- > Design an ambitious 'value chain integration' programme that aims to reduce fragmentation in the production and vendor segments of the domestic horticulture chain through the launch of marketplace platforms.
- Establish informal working group of horticulture company executives under the TAHA umbrella to input directly into the design of new largescale, donor-led development programmes focused on horticulture (ensuring that companies with first-hand experience of business environment challenges are directly involved in the design).
- Conduct a scoping and data-collection study to assess informal trade flows in order to understand the specific drivers of informality and tax avoidance in domestic horticulture.
- > Develop a clear communication and implementation strategy from central government to local government to ensure produce cess tax is no longer implemented.
- > Develop and implement a clear advocacy strategy, spearheaded by TAHA, to communicate the industry's concerns around the current VAT system to the TRA.
- Improve efficiencies at logistics bottlenecks with priority to perishable and semi-perishable goods, alongside a clear communication strategy to agencies from central government in relation to their mandate at these bottlenecks;
- > Support continued improvement of strategic road infrastructure in rural locations to enable access to markets at a local level, especially in the northern and southern highlands
- > Advocate on land and water rights to build investor confidence regarding tenure land

#### b) Export Horticulture

Export horticulture in Tanzania – defined as produce (fruits and vegetables) grown for regional and global export markets – began in the 1950s with the export of bean seeds to the Netherlands. The sector has since diversified and grown. Tanzanian produce is currently exported to the Middle East, Europe, and numerous other African countries, with key products including avocado, green beans, and berries. The subsector enjoys strong comparative advantages due to Tanzania's favourable climate, soil conditions, and land availability – especially so for tree crops. This, in turn, drives interest from foreign investors – both global food and agriculture conglomerates and development finance institutions.

There is high potential for continued growth in export horticulture, which is key in generating higher incomes for produce farmers as well as providing critical foreign exchange for Tanzania. Less than 10% of Tanzania's horticulture produce currently serves the export market, highlighting the untapped potential. Tanzania's avocado production has experienced the fastest growth of any export crop despite only being introduced in 2009, and the country is now the third largest producer of avocados in Africa with total exports reaching 12,250 mT in 2021. The main export markets are the Netherlands (acting as a hub for European distribution), UK, and France, although Tanzanian avocados are also beginning to reach Asian markets. In May 2022, Indian importer IG International received its first batch of avocados from Tanzanian company Avo-Africa Tanzania.

More than 10,000 farmers now produce avocado, with an increasing number of larger agri-businesses such as commercial farms, processors and packers entering the subsector. However, there is a long way still to go in professionalizing the value

chain: Tanzania currently averages 4 mT of avocado production per hectare, compared to the continental benchmark of 47 mT per hectare in South Africa. To improve productivity through access to improved planting material, the government has begun to provide subsidies for the avocado seedling varieties targeted towards export.

Key barriers to accelerated growth across all horticultural export crops include:

- i. Lack of export-oriented infrastructure for fresh produce, including reliable cold chain logistics.
- ii. Logistical and regulatory barriers to cross-border trade, including time-consuming testing and certification procedures.
- iii. Difficulty meeting required quality, testing and certification standards.
- iv. Higher barriers to entry compared to domestic horticulture, as firm-level investment needs are greater in order to produce high value produce to the quality and volume criteria of overseas end-buyers.

Post-harvest losses are a less significant challenge for export horticulture, which experiences losses of 10% compared to 40% for produce meant for domestic consumption. This is because Tanzania's export-focused horticulture market is dominated by larger commercial farms – mainly clustered around the Arusha-Meru axis in northern Tanzania – that can meet the quality, quantity, and production compliance standards required by export markets, though some of these farms do utilise smallholder outgrowers.

### Specific Recommendations – Export Horticulture

- > Develop certified nurseries to supply high quality seedlings and planting material, e.g. cuttings.
- Refine and expand the remit of TAHAFresh and GREENCERT, the recently created revenue-generating subsidiaries of the Tanzania Horticultural Association (TAHA) that work directly with exporters to assist with logistics and obtaining certification.
- > Develop demonstration farms and provide farmer capacity building to help improve yields.
- > Provide technical assistance to ensure that regulatory authorities in Tanzania are up to date in terms of testing requirements for Tanzania's key export markets.
- Provide concessionary project financing (and/or risk guarantees) to construct cold storage facilities at additional logistics nodes such as the port of Dar es Salaam and Tanga Port.
- > Support Ministry of Agriculture to enact express corridors through major logistics flashpoints, to give priority export to perishable and semi-perishable products.
  - Including support a TPA, TRA, and the Open Government Data initiative to improve efficiencies in the Tanzania Electronic Single Window System to allow regulatory authorities to make export approvals concurrently, as opposed to consecutively.
- > Pilot sea-freight transportation schemes for selected horticultural crops, to achieve a positive demonstration effect and drive wider industry switching away from air-freight,.
- > Support Arusha-headquartered TAHA to increase its footprint in Dodoma and Dar es Salaam, as well as its relationships with counter-part associations in Kenya.
- Streamline certification requirements with importing countries, with a particular focus on harmonisation between Kenya and Tanzania. This would remove fees, reduce delays and open up export opportunities for small firms currently deterred by costly processes.
- > Provide companies with further assurances of what is, and what is not, subject to VAT, in the export horticulture sector and allow for a speedy and impartial appeals process.

### c) Semi-perishables

Tanzania's semi-perishables sector is dynamic and growing, in particular the potato value chain where new seed producers and seed potato varieties are performing well. The ginger and onion value chains also show promise.

Regional exportation is key for Tanzania's semi-perishable goods, with Kenya cited by respondents as the major market for export, alongside landlocked neighbours whose urban centres are reliant on food imports such as DR Congo and South Sudan. Tanzania's competitive advantage in the semi-perishable space comes largely from the country's pre-existing regional trade networks, although these vary depending on trade relations at any given time.

Potatoes are a relatively new crop in Tanzania. However, growth has been swift in recent years and in 2017, SAGCOT confirmed Tanzania as the sixth largest potato producer on the continent with production of 1.7m mT annually. Potatoes are grown predominantly as a commercial crop and are more profitable for producers than traditional staples. As such, they are an increasingly popular crop choice to gain additional cash income (versus beans, maize or rice). The potato growers' market is also easily accessible due to its similarities to growing other staples and the relatively small land required, making it accessible to women and youth. The growing season takes place twice a year in each rainy season from February to June and September to January, thus allowing for twice-yearly income.

In the ginger value chain, whilst China and India are the main producers worldwide, there is a major growth opportunity in Tanzania, not only in domestic sales but as an international export crop. In 2020-2021, European imports alone totaled over 150,000 tonnes, with year-on-year growth in import volumes of 8%. We therefore identify a real opportunity for emerging ginger producers in Tanzania to take advantage of increasing demand and prices in global markets.

Faster growth in potato and ginger production is primarily constrained by limited access to affordable and quality inputs. 90%+ of potato farmers save seed from previous crops rather than purchasing improved seed. With poor seed quality, the requirement for crop protection chemicals is higher to safeguard crops from disease. Limited crop varieties also limit the potential for value adding processing. For example, current potato varieties are unsuitable for crisps.

Another challenge is post-harvest losses which stand at 40% in the potato sector. Businesses cited a lack of adequate storage facilities as the main issue. In ginger, storage must also be managed carefully, especially to comply with export standards. Crops must be stored in a cool facility but with a particular level of humidity to ensure an appropriate moisture content, which requires machinery and technology unaffordable for most smallholders on an individual basis.

### Specific Recommendations – Semi-perishables

#### **Potatoes:**

- > Capacity building for loan officers/loan units within Financial Institutions or Microfinance Organizations that have well-established agricultural loan portfolios in Tanzania (e.g. NBM Bank) to familiarize with the economics and risk-return profile of the nascent potato industry.
- > Comprehensive marketing strategy for the potato value chain.
- Advocate at the highest levels of government for re-instatement of a similar independent program to that of the successful Mbeya-based CD-PIT to ensure that adequate inputs, extension services and capacity building are available to sector participants.
- Explore low-cost, technology-enabled anti-counterfeiting measures to boost farmer trust in sales of approved seed varieties.
- > Establish working group led by private sector to engage with high-level officials to co-develop a strategy for value addition in the potato value chain (e.g. crisp production).

> Advocate for TOSCI to become more proactive in fast-tracking registration and certification of new potato seed varieties that have already undergone trials regionally.

#### Ginger:

- > Increased access to cold chain storage and post-harvest processing to optimize the supply chain for crops for export and to minimize domestic losses.
- > Review of taxes, fees and levies relating to the export of ginger to ensure the sector is profitable and predictable from a regulatory perspective.

### d) Poultry

Tanzania's poultry sector is centered around domestic consumption of meat and eggs. Breeds of chickens in Tanzania include broiler (for meat), layer (for eggs), hybrid dual purpose (for both meat and eggs), and indigenous. Large companies generally breed and supply day-old-chicks (DOCs) along with chicken feed and other inputs provided to small-scale as well as medium-scale commercial poultry farmers, who then rear the chickens in order to produce eggs and meat.

Strong market demand is fueling on-going investment into commercial broiler, layer and hybrid 'Sasso' production. Much of this investment is locally-raised and SME-led, as Tanzanian entrepreneurs and employment-seeking youth are attracted by the sector's 'fast' cashflows and relatively high margins. The sector provides good opportunities for women and has notably small land requirements. End-products also have strong nutritional benefits, they are produced with lower environmental than red meats, and are relatively affordable for low-income groups (eggs, cheaper cuts).

Our recommendations for value chain interventions revolve around opportunities for partnerships to fast-track market development via increased adoption of improved feed formulations/premix, housing, reduced antibiotic usage, increasing vaccine outreach, management technologies, processing, cold chain, packaging, and retail solutions.

### Specific Recommendations - Poultry

- Large suppliers of DOCs and feed should continue work closely with donors to reach smallholder poultry farmers with education and extension services.
- > Private firms that feel the July 2022 ban on importation of DOCs has negatively affected their sourcing model should form a working group to advocate collectively for policy change to address the ban's negative impacts.
- > Partner with large DOC suppliers to finance pilots of brooder units for smallholder poultry farmers, to reduce mortality rates.
- > Additional programmes to decrease vaccine hesitancy would assist in the fight against Newcastle Disease, including ongoing information campaigns.
- > Provide catalytic funding for developers of thermostable vaccines, alongside advocacy with key state institutions to build support within government for this new product category.
- > Pilot mobile slaughterhouse facilities to address the lack of processing capacity and provide access to more formal processing options for smallholders.
- Increase competitiveness in the inputs market by removing paperwork and red tape associated with the importation of feed.
- > Increase lines of communication between the NFRA and the sector to ensure that there is awareness of the price trajectory of maize, as a key component of poultry feed.

### e) Maize Seed

Maize is Tanzania's most important staple crop for domestic consumption and regional exports. Tanzania's maize seed system is therefore critical for increasing yield, quality, climate resilience and food security at household and regional level.

Up to 80% of maize is produced by smallholders, and the starchy carbohydrate is responsible for roughly 40% of all calorific consumption in Tanzania. Although other staple crops such as millet may be more resilient in low rainfall conditions, dietary preferences favour maize. Maize is also relatively easy to grow in varied geographies compared to rice, another favoured staple. Maize covers c.70% of the land planted with arable crops, compared to that of rice which covers c.17%.

Widespread cultivation of maize has naturally led to high demand for seed maize, which has been estimated at 25kg per hectare, with overall annual demand of 151,700 mT. Three types of maize seeds are used: hybrid, open pollinated varieties (OPV), and local (subsistence or small co-operatives 'farm saved' seed). Hybrid seeds need to be purchased by farmers for each growing cycle, while OPV and 'farm saved' seed can be saved from the crop harvest and replanted.

Yields per hectare of planted maize in Tanzania are currently much lower than global benchmarks. Access to betterperforming maize seed varieties is currently limited, as it is estimated that only 9.2% of maize seeds are purchased through formal suppliers in some regions of the country. Of that 9.2%, 7% are distributed by NGOs and subsidy systems, with only 2% of farmers actually buying maize seeds unaided from private suppliers. The vast majority of Tanzanian maize is therefore grown from local seeds 'recycled' by smallholders and cooperatives, leading to lower yields.

### Specific Recommendations – Semi-perishables

### **Potatoes:**

- Explore programming that delivers greater access to finance/pre-finance at a farmer and cooperative level in order to boost smallholder purchasing of hybrid maize seeds already available in the Tanzanian market (versus farmers relying on lower quality recycled seed).
- Assess feasibility of creating more structured group seed purchasing arrangements for aggregations of farmers/farmer groups/cooperatives.
- > Invest in capacity building in relation to the benefits of different seed uses at an aggregated farm level, including demonstration plots;
- > Explore potential for deeper private sector partnerships with the public sector Agricultural Research Institutes (ARIs) that play an important role in producing pre-basic maize seed.
- > Conduct field research to identify whether there are new, high performing hybrid maize seed varieties that are registered and in-use elsewhere in the EAC or SADC regions that could be introduced into the Tanzanian market if registration barriers were removed/reduced.
- > Build evidence base and a coalition of support for market-oriented reforms to Tanzania's Agricultural Seed Agency (ASA), focused on partnerships/licensing agreements with credible private sector seed firms.





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