

Introduction

Rwanda's horticulture sector is characterized by an ideal climate, fertile soil and an abundant, hardworking labor force. The potential to develop a vibrant horticulture industry in Rwanda is undoubtedly on the move. Rwanda's horticulture exports increased from US\$5 million in 2005 to \$US25 million in 2018 (NAEB 2020).

Rwanda has several favorable conditions for horticulture production such as a mild climate, sufficient water, sufficient labour, growing demand due to growing middle class and urban population. This provides opportunities in the value chain such as the development of added value products and services in areas such as processing, cold chain logistics and infrastructure (e.g. cold stores, packaging).

Most of Rwanda's vegetables and fruits are sold and consumed in fresh form. However, processed horticulture/value-added horticulture products are emerging. Processed horticulture exports include pineapple juice, dried pineapple, mango juice, passion fruit juice, dried and canned vegetables, and pastes like tomato and strawberry jams. A significant amount of loss occurs at every step in the horticulture value chain, from the farmer to the market (harvesting, handling, transporting, sorting, packaging, storage etc). A joint assessment carried out in 2017 by the University of Rwanda (UR), Rwanda Agriculture Board (RAB), and National Agriculture Export Development Board (NAEB) showed that about 40 per cent of fruits and vegetables was lost before reaching the end user. Other challenges reside in lack of packaging materials for processors and poorly organized value chain players.

Some values of the horticulture products



Horticulture guarantees health: Fruits and vegetables play a significant and crucial role in a balanced diet thus contributing to reducing stunting and malnutrition. For most rural households, home-produced fruits and vegetables provide an important source of the micro-nutrients necessary for a healthy balanced diet. More than half of households (58%) have a vegetable garden (National Horticulture Policy and Strategic Implementation Plan, 2014)

Horticulture creates employment: Due to its high labor intensity, horticulture has the potential to create employment throughout the value chain from production to processing

Horticulture fosters market integration and creates new market opportunities: the diversification of the local markets creates business opportunities for new products based on horticulture.

Horticulture empowers women: Horticultural production, marketing, processing and consumption not only leads to nutritional and economic benefits for those involved, but also behavioral changes are observed. The production, handling and marketing of horticultural crops can provide safe and rewarding work for women and girls. In many cases, their engagement in the production and sale of fruits and vegetables has enabled women to take up a more self-confident role in their families and communities. Especially the opportunity to become entrepreneurs rather than being laborers can empower women in their communities. Because female household income is spent to a much bigger proportion for family matters, for instance for improved diets and supporting the school attendance of the children, especially permitting the education of girls, horticulture has a significant effect on female empowerment.



Problem statement

Rwanda's horticultural sector has received a great deal of attention over the past decades due to the rapid and sustained growth of its exports. This impressive growth has undoubtedly contributed to increased rural incomes and reduced rural poverty in Rwanda. Rwanda's horticultural exports are mostly exported to regional and European markets.

According to NAEB (2021), in 2020-2021 horticulture exports – vegetables, fruits and flowers – generated combined revenue of over \$28.79 million; slightly higher than the \$28.7 million that the agriculture sub-sector generated in the previous fiscal year. However, vegetables registered poor performance in 2020-2021 when Rwanda exported over 9.4 million kilogrammes of vegetables which generated \$13 million. This represents a 24 percent drop compared to over \$17 million that was generated from exporting 22.4 million kilogrammes of vegetables in the previous financial year.

Horticulture share to GDP remains small. Vegetables represent an estimated 2% of total GDP and about 7% of total agricultural output in 2013, while only accounting for 3% of total cultivated land (USAID Rwanda 2015). Horticulture constitutes a small share (around 2.4%) of non-traditional exports (GrowAfrica 2018). Moreover, nearly all of Rwanda's horticulture products are consumed fresh and are sold in local market (MINAGRI 2014). This overwhelming dominance of the domestic market, combined with slower growth experienced in the export sector over the past decade, the challenges that smallholders face to continue participating in the export sector, and the possibility of more rapid growth in domestic demand, all argue for a more active focus on the potentials and constraints of domestic horticulture in Rwanda. Such a focus implies also the need to assess the competitiveness of local production and marketing against that of competing countries.

During a policy dialogue jointly organised by Oxfam Rwanda and the Economic Policy Research Network on November 17th 2021, the following challenges facing businesses in horticulture include:

- Limited access to technologies and inputs that are high quality, locally adapted, (seed, fertilizer, pesticides, micro-irrigation, ICT)
- Low productivity and high cost of raw material: Low production percent area in our country in comparison to horticulturally advanced countries, is one of the major factors leading to high cost of raw material
- limited knowledge of food safety aspects;
- Lower quality of raw material (low in soluble solids) in our country leads to requirement of comparatively rawer material for production of equivalent quantity of finished products, thus resulting in higher cost of production
- Limited availability of cost effective technologies for processing and packaging of fresh and processed products.
- Lack of infrastructure for post-harvest management, cool chain and cold storages.
- High cost of packaging material, higher taxes and excise duties.
- Low capacity utilization in food industries.
- Inadequate farmer-processor linkage; leading to dependence on intermediaries.
- Limited of strategies for utilization of processing industries waste (pomace, peel, core, stones/seed) for value addition.
- Limited of R&D in food processing sector and its linkage with the food industry.



Opportunities in horticulture sub sector

The following have been recorded as key opportunities in the horticulture sub sector:

- *Clear Market Opportunity Strong Natural Assets:* Rwanda is well placed to serve growing global, regional and local demand for horticulture. Producers have free access to key markets under EBA, AGOA, COMESA & EAC agreements
- *Strong Natural Assets:* Rwanda is well placed to serve growing global, regional and local demand for horticulture. Producers have free access to key markets under EBA, AGOA, COMESA & EAC agreements 1 2 3 4 5 5 reasons to invest Rwanda's abundant rainfall and natural water sources, diversified agro-climatic zones combining high, middle and low altitudes offer ideal conditions for growing a wide range of fruits, vegetables and flowers throughout the year
- *Ambitious Vision & Government Commitment:* The Government of Rwanda has a clear vision for transforming agriculture through private investment, and has set itself ambitious investment and export targets for horticulture
- *Strong Investment Enabling Environment:* Producers have free access to key markets under EBA, AGOA, COMESA & EAC agreements, abundant rainfall and natural water sources, diversified agro-climatic zones combining high, middle and low altitudes offer ideal conditions for growing a wide range of fruits, vegetables and flowers throughout the year

Policy Recommendations

This policy brief summarise key recommendations emerged from the policy dialogue held on November 17th, 2021:

No	Policy Recommendation	To
1	There is more support needed in addressing climate change related challenges by using more adaptable and more affordable techniques, like simple irrigation system/tools;	MINAGRI, INGOs
2	More Investment in post-harvest handling facilities (Cold room, adequate transport facilities, etc.) are needed	NAEB, PSF
3	There is need to develop alternative energy sources that would replace electricity as Electricity has shown to be limited especially for small-scale processors;	MININFRA
4	Government to consider enhancing /increasing subsidies related to transportation costs of the produce to international markets;	NAEB, RDB
5	There need of specific mechanisms to help youth and women led enterprises with specific provisions in economic recovery measures during the period post-covid-19	MINECOFIN
6	There is need of awareness raising to SMEs in rural/remote areas on available supports and opportunities (markets, certification, incentives, etc.)	MINICOM, INGOs
7	Support in availing made in Rwanda packaging materials and at affordable prices	MINICOM
8	There is still more support needed to tackle SMEs challenges like managerial, technical as well as compliance with standards and more especially access to capital/finance (capacity building/coaching, technical support, etc.)	MINCOM, RSB
9	Revisit the costs of certification and quality checks for agri-business SMEs as they are claimed to be high	RSB
10	There should be a formation of a working group (task force) to follow up issues faced by agro enterprises in horticulture sub sector; and advocate for them at concerned institutions; and play a role of disseminating available opportunities	MINAGRI OXFAM
11	Researchers and policy analysts have been advised to formulate more policy briefs on horticulture sector opportunities and challenges	EPRN, ACADEMIA

References

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