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## Tegemeo Institute of Agricultural Policy and Development

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**IMPROVING KENYA'S DOMESTIC HORTICULTURAL PRODUCTION AND  
MARKETING SYSTEM: CURRENT COMPETITIVENESS, FORCES OF CHANGE,  
AND CHALLENGES FOR THE FUTURE**

**VOLUME II: HORTICULTURAL MARKETING**

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## LIST OF ACRONYMS

CIDA	Canadian International Development Agency
COMESA	Common Market for Eastern and Southern Africa
EAC	East African Community
EU	European Union
FAO	Food and Agriculture Organisation
FPEAK	Fresh Produce Exporters Association of Kenya
GDP	Gross Domestic Product
HCDA	Horticultural Crop Development Authority
IBR	Institute for Biotechnology Research
ICIPE	International Centre of Insect Physiology and Ecology
IFAD	International Fund for Agricultural Development
IGAD	Inter-Governmental Authority
JKUAT	Jomo Kenyatta University of Agriculture and Technology
KARI	Kenya Agricultural Research Institute
KBS	Kenya Bureau of Standards
KEPHIS	Kenya Plant Health Inspectorate Service
KFA	Kenya Farmers' Association
KFU	Kenya Farmers Union
KRA	Kenya Revenue Authority
KSC	Kenya Seed Company
MoALD	Ministry of Agriculture and Livestock Development
MRLs	Maximum Residual Levels
NCPB	National Cereals and Produce Board
NGOs	Non-Government Organizations
OPVs	Open Pollinated Varieties
PTA	Preferential Trade Area
QDS	Quality Declared Seed
SADC	Southern African Development Community
TAMPA I	Tegemeo Agricultural Monitoring and Policy Analysis
TFC	Tanzania Fertilizer Company
THRC	Thika Horticultural Research Centre
THRI	Tengeru Horticultural Research Institute
TOSCA	Tanzania Official Seed Certification Agency
TSC	Tanzania Seed Company
UK	United Kingdom
UNDP	United Nations Development Programme
USAID	United States Agency for International Development
WV	World Vision

## Executive Summary

Kenya's horticultural sector (defined here to include fruit and vegetable production and marketing, but not flowers) has received a great deal of attention over the past decade due to the rapid and sustained growth of its exports to Europe. This impressive growth has undoubtedly contributed to increased rural incomes and reduced rural poverty in Kenya. Yet despite this growth, exports remain a small fraction of Kenya's overall horticultural sector. For the past decade, over 90% of all fruit and vegetable production was consumed domestically, and the domestic market accounted for over 90% of the total growth in quantity of fruit and vegetable production. While over 90% of smallholder farmers in all but the arid regions of Kenya produce horticultural products, fewer than 2% do so directly for export.

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 Kenya. Such a focus implies also the need to assess the competitiveness of local production and marketing against that of neighboring countries such as Tanzania and Uganda. This paper explores these key issues in three Volumes. The overall objectives of the three Volumes are to provide a broad diagnostic overview of the horticultural sector, to identify specific constraints that limit the system's performance, to make suggestions for selected policy and programmatic changes, and to identify key research that needs to be done to guide further investments to improve sector performance. Volume II– the present volume – focuses on horticultural marketing, including the share of domestic production going to domestic and international markets, market channels within the domestic market, the import share of selected FFV crops, and costs within the domestic marketing system and resulting competitiveness of Kenya produce with that from neighboring countries. Volumes I and III focus, respectively, on horticultural production in Kenya, and on technical research and regulatory issues.

The paper is organized as follows. Chapter 1 provides background and briefly discusses the data and methods used in the report. Chapter 2 estimates the share of domestic FFV production going to international and domestic markets. Chapter 3 identifies the structure of horticultural marketing channels, estimates the share of production flowing through “traditional” and “modern” marketing channels, and quantifies the imports from Tanzania and Uganda of two vegetable and two fruit crops. Chapter 4 develops marketing cost budgets for these same four crops. Finally, Chapter 5 presents conclusions, recommendations, and suggestions for further research.

***International and Domestic Market Shares*** Using data from various sources for 1997-2001, we estimate that at least four- to five times more horticultural produce, by value, was sold in domestic markets than in international export markets. If produce consumed on the farm is included, the domestic share rises to 7-8 times that of the export market. Value added in domestic markets (post farm gate) was at least three times that in the export sector.

***Marketing Channels and Regional Trade Patterns:*** The traditional marketing system, including urban wholesale markets, continues to play the dominant role in FFV (fresh fruits and vegetables) marketing in the country. Based on retail price relationships between the traditional system and supermarkets, and patterns seen in Central and South America, where supermarket development began earlier, we estimate that the supermarket share of the FFV

market in Nairobi is below 10%. Direct survey evidence for Nairobi reinforces this conclusion, suggesting a market share of 4.4% in late 2003. Outside of Nairobi, it would certainly be lower. The two major chains – Uchumi and Nakumatt – each carry upwards of 80 horticultural products in their Nairobi stores, and each has ambitious expansion plans. Uchumi and Nakumatt are attempting, with uneven success, to bypass the wholesale markets in favor of direct procurement with an assortment of contracted commercial farmers and some organized small- and medium-sized farmers. Based on an assessment of key demand- and supply-side factors, we conclude that supermarket FFV shares will grow over time, but will remain well below 20% for the foreseeable future; traditional retail outlets served by public wholesale markets will continue to dominate the sector.

At the present time, traditional wholesale markets are unattractive to buyers concerned with assuring high quality and food safety while reducing procurement cost. New information is needed about options for designing investment programs to facilitate continued smallholder participation in fruit and vegetable value chains, while reducing overall marketing costs and prices to final consumers.

Banana and tomato imports from the region are estimated to have no more than a 7-8% share of the Kenyan market. Orange imports (nearly all from Tanzania) may exceed 20%, while the onion import share (also nearly all from Tanzania) may exceed half. Kenya exports almost no produce to regional markets.

***Regional Competitiveness:*** Collecting wholesaler budgets are consistent with these observed trade patterns: trader profits per unit of bananas and tomatoes are higher for Kenyan produce than for imports, profits per bag of oranges are higher for the commodity from Tanzania but returns to capital are comparable, and both profit per bag and returns to capital are higher for imported onions.

***Conclusions, Recommendations, and Further Research:*** Fresh fruit and vegetable production and marketing value chains are becoming increasingly important to a broad array of Kenyan consumers. These also hold potential market opportunities for important segments of the smallholder farming community. But investments are needed to upgrade marketing infrastructure and facilitating services for traditional participants in the system. Important forces of change include the entry of supermarkets into the domestic horticultural market. Both major supermarket chains indicate that they are moving towards direct procurement through “preferred grower” programs. Because the chains’ current market share is very low (4% in Nairobi, lower elsewhere) and is likely to grow only to a level of 10-20% over the next decade, the risk that they pose is not that smallholders and small traders will be excluded from the FFV market. Rather, the risk is that supermarkets may extend the dualism currently seen between export and domestic systems into the domestic system itself. The traditional system – and the small farmers and traders who primarily supply it – may be increasingly confined to the low income portion of the market, with low value added, high costs, and limited profits, while commercial farmers and a small number of organized smallholder farmers dominate the smaller but more profitable direct procurement system of the supermarket chains. How to avoid this entrenched dualism, with its negative implications for smallholder incomes, rural poverty reduction, and the quality of the urban food supply, is a key public policy issue over the next five to ten years. Initiatives which help reduce this dualism will also be likely to increase the domestic system’s competitiveness in regional markets.



Expanding domestic and regional markets for Kenyan horticultural produce and integrating the country's smallholder farmers into profitable supply chains that satisfy these markets will require investment in three key areas: technical production constraints, "hard" and "soft" market infrastructure, and the legal and regulatory environment. The high level of investment needed means that active partnering by government with donors and private sector will be crucial.

This volume focuses on horticultural marketing. In this regard, traditional wholesale markets should be the central but not exclusive focus of investments in three key types of hard and soft market infrastructure. First, improved logistical efficiency, especially for loading and unloading, is needed to reduce costs and improve hygiene in the markets. Second, improved hygiene combined with logistical improvements will make these markets more attractive options for a broader range of retail outlets. Third, improved grades and standards, and more easily available information on prices and volume by grade of product, will increase market transparency and further attract customers.

Achieving these improvements will require that wholesale market management take on a business orientation while recognizing that it is providing a partial public good by integrating smallholder farmers into a more dynamic and competitive system while providing poor consumers with higher quality produce at competitive prices. Active partnering between government, private sector and donors will be crucial to mobilize the needed financial resources and knowledge to make these improvements. Government and donors could also play an important role partnering with supermarkets to reduce the cost to them of dealing directly with smallholder farmers. Improvement in secondary and tertiary roads is also key to modernizing the sector.

To help guide investments to relieve bottlenecks in the production and marketing system, further applied research needs to be done in several areas, and used to develop extension messages as appropriate:

**Urban Retailing,** especially market shares for the full range of retail outlet types, the costs and standard operating procedures of each retailer's procurement system, and key bottlenecks that, if relieved, could reduce costs and increase quality.

**Product quality:** Understanding the degree and specific mechanisms of quality differentiation in the traditional system is fundamental to designing a more formal system of grades and standards that is workable and that can increase transparency and create a dynamic of constant quality improvement. Improved packaging would make an contribution to improved quality over time.

**Urban Wholesaling:** The behavior and performance of urban wholesale markets affects costs, prices, and the distribution of benefits throughout the production and marketing system. Identifying specific investments to improve logistics, hygiene, and market information requires applied research in close collaboration current and potential users.

**Links between urban markets and rural producers:** To design programs that link small farmers more closely to market outlets, one needs to know more about the system wide "price discovery" process. One would also want to establish how many small farmers sell through associations, what cost and other marketing advantages these associations provide, and what

if any price premia these organized farmers receive. Finally, it is important to know what the share of smallholder farmers vs larger commercial farmers is for the main horticultural crops.

**Rural marketing:** We anticipate that many rural households will be net buyers of horticultural produce. If this is true, then the performance of the rural marketing system, including rural retailing, will affect the real incomes of net sellers and net buyers.