

Analysis of Markets for African Leafy Vegetables (ALVs) within Nairobi and its Environs and Implication for on-farm Conservation of Biodiversity

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Introduction

- **Production, marketing and consumption of ALVs has potential:**
 - Health
 - Economic
 - Socio-cultural
 - Contribution to biodiversity



Commercialization of ALVs

- However, despite the beneficial attributes there was very low commercialization of ALVs in the mid 1990s
- The situation has since changed and there was need to analyse the driving forces for this change and fill the knowledge gap concerning the state of the ALV market dev in Nairobi and its environs
- Ambiguous role of markets on agro-biodiversity
 - On-farm conservation could be enhanced through provision of markets
 - But farmers are most likely to specialize in a few profitable species as demanded by the market

Objectives

- What are the drivers and/or inhibitors of ALV market development in Nairobi and its environs?
- What is the effect of ALV market development on on-farm biodiversity of ALVs?

Study area and design

- Study conducted in urban and peri-urban Nairobi
- Survey covered formal market outlets only: wholesale and retail
- Qualitative and quantitative surveys

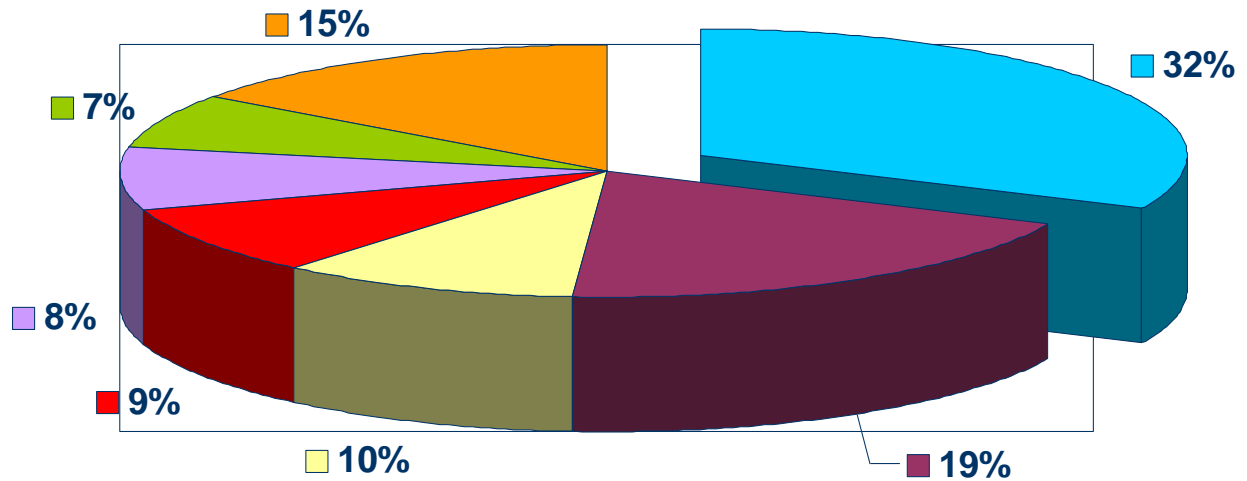


Sampling procedure

- Only Markets with ≥ 5 traders were considered (20% - probability proportional to size sampling)
- Respondents selected using systematic random sampling
- A representative sample of 97 respondents from 12 wholesale and 18 retail markets
- Interviews cut across the entire marketing chain

The traded ALV species

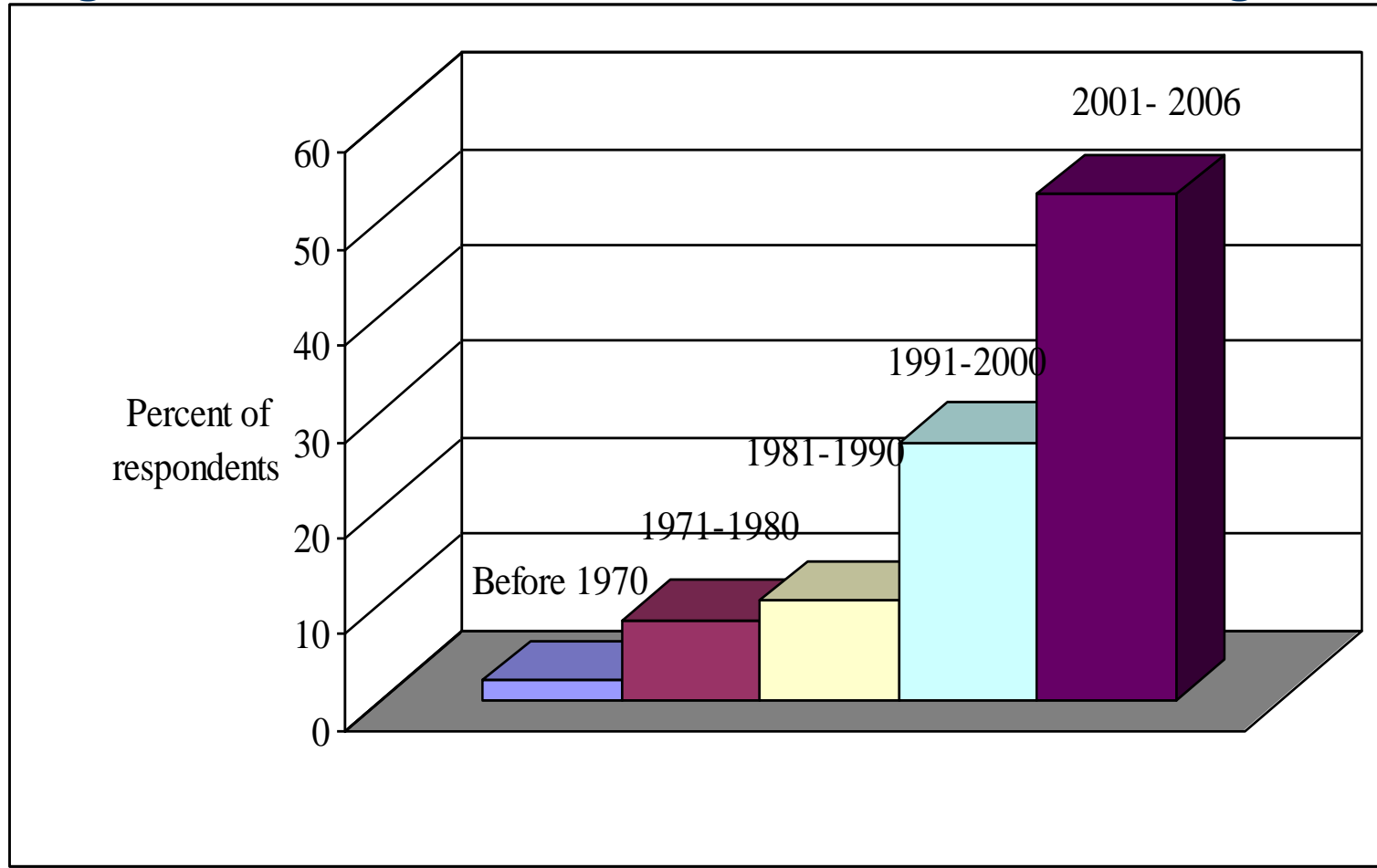
Figure 1: Relative Importance of ALV species in markets within and around Nairobi





Upward growth of market traders

Figure 2: Year when market traders started trading in ALVs



Increased traded volume and species

- Before 2000, only low scale trade existed in open air markets, (38.1% of the traders involved)
 - Recent development picked up within the last 6 years
- No. of species increased by 71.4% between 1996 – 2006
- Increase of traded volumes since 2002 due to participation of supermarkets
- What drove this rapid market development?
 - Demand and supply drivers

Demand drivers of market development

- Promotional activities for the need for ALVs and on how to cook them
- Increased general health awareness and consciousness among Nairobi people
- Improved ALVs presentation in supermarkets and upmarket groceries

Supply drivers of market development

- Production promotion in growing areas
- Provision of external market support to farmers
- Capacity for self organisation (farmers' groups)
 - Trader networks (33.3% of the traders started after being informed through these networks)
- Improvement in communication technology

Quantitative drivers of ALV market dev

Dependent variable: positive change, traded value (Ksh) 2001-2006

Explanatory variables	Coefficients
Constant	7773.9***
AGE of the trader in years	5.552
GENDER (sex of the trader)	-1573.5
EXPERIENCE (no. of years of trade)	2.694
INFRA-STRUCTURE (dummy=1 if any infra-structural problem experienced)	-2832.2*
SOCIAL CAPITAL (dummy=1 if trader a member of any social group- not ALV related)	-1713.6
EDUCATION level of the trader in years	7.58
MARKET type (dummy =1 if whole sale)	766.9
DISTANCE (distance from market in km)	25.2**

Inhibiting factors of ALV market dev

Are mainly factors associated with market and policy failures of the state (government)

- Physical Infra-structural development
 - Poor Roads, lack of market space, storage facilities
- Lack of policy guideline and support from the government
- Lack of capacity to regulate supply
- Lack of value-adding aspects
- Lack of support services (credit, market information, etc.)

Determinants of on-farm biodiversity of ALVs traded in Nairobi

Dependent variables: count index of traded species and subspecies

Explanatory variables	Coefficients for species	Coefficients for subspecies
Constant	0.7851**	0.9455***
GENDER (dummy=1 if trader is male)	-0.4715**	-0.4728**
EXPERIENCE (no. of years of trade)	2.289x10 ⁻⁵	1.215x10 ⁻⁴
Total farm size in acres	-9.093x10 ⁻³	-9.266x10 ⁻³
SUPPORT (dummy=1 if trader was ever supported to find a market by an organisation)	-0.06452	-0.1814
EDUCATION level of the trader in years	0.05112*	0.05244*
MARKET DEVELOPMENT (positive change in traded value (Ksh) between 2001 and 2006)	-1.65x10 ⁻⁶	-9.626x10 ⁻⁶
DISTANCE (distance from market in km)	5.772 x10 ⁻³	5.954x10 ⁻³ *

Conclusions

- Much of the increase of ALVs trade in Nairobi and its environs occurred during the last 6 years mainly due to increased consumer demand, matched with increased supply as a results of key driving factors.
- However, market growth is still inhibited by a number of macro factors and policy failures
- Currently market development has a negative impact on on-farm inter or intra specific biodiversity, though this influence is not significantly relevant

WAY FORWARD

For government:

- Removal of market and policy failures
 - e.g. investment in Infra-structural development
- Continued development of human capital (education): favours both market development and biodiversity conservation

For government and other stakeholders:

- Promotional strategies on both demand and supply sides ought to continue
- Encourage involvement of women as this has a positive influence on both market development and increase in biodiversity
- Keep an eye on the effect of market development in general and external support for markets in particular on biodiversity



End
Thank you

