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Sustainable spice trade

The Tanzania case

Mini conference

'Spices in Africa: new opportunities on an old continent'

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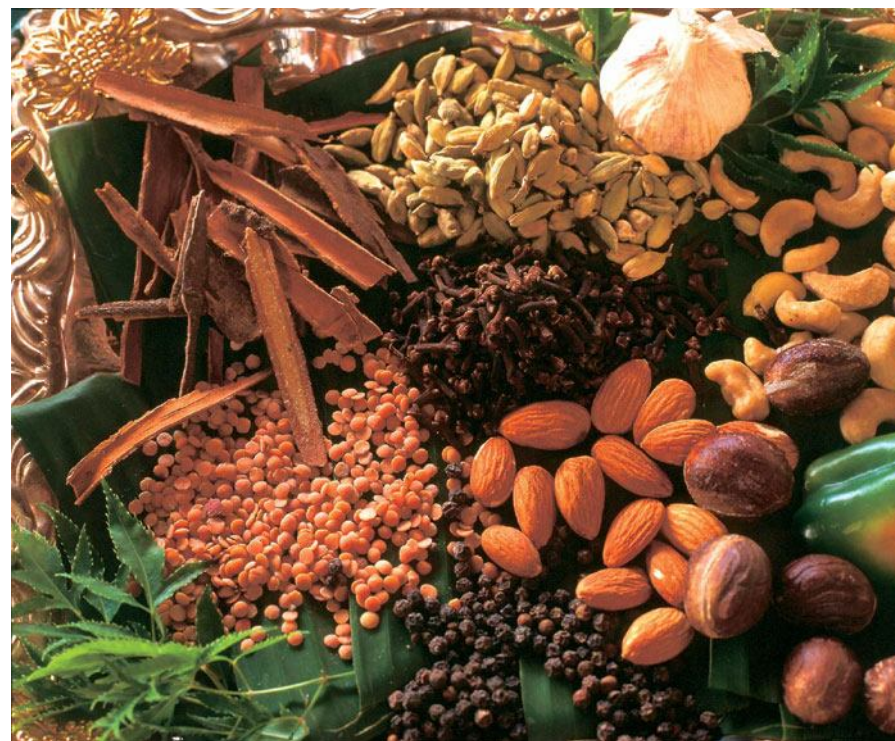
2 December 2009

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1. *Study background*

Context

Increasing domestic demand in Asia and demand for diversification of sources in the industry.

Tanzania was selected as business case to learn about local opportunities and challenges for developing a stable and sustainable spice source in Africa.

Methodology

Primary and secondary research (By Hebron Mwakalinga)

- Desk research: surveys and market data
- Focus group discussion with farmers (Tanga)
- Interviews with traders, certifier, government agencies, NGOs



2. Economic sustainability

1. Production figures
2. Market trends
3. Quality management
4. Competitiveness





2.1 Production and supply

- High diversity of crops but productivity is low (20%)
- Spice production: 12.000 mt or 5% of LDC export
- Spice export USD 11.2 million or 0.6% of total export
- 18 Exporters of which 3 exporters 95% (mainly cloves, pepper, vanilla)
- Third largest African exporter (next to Comores and Madagascar)

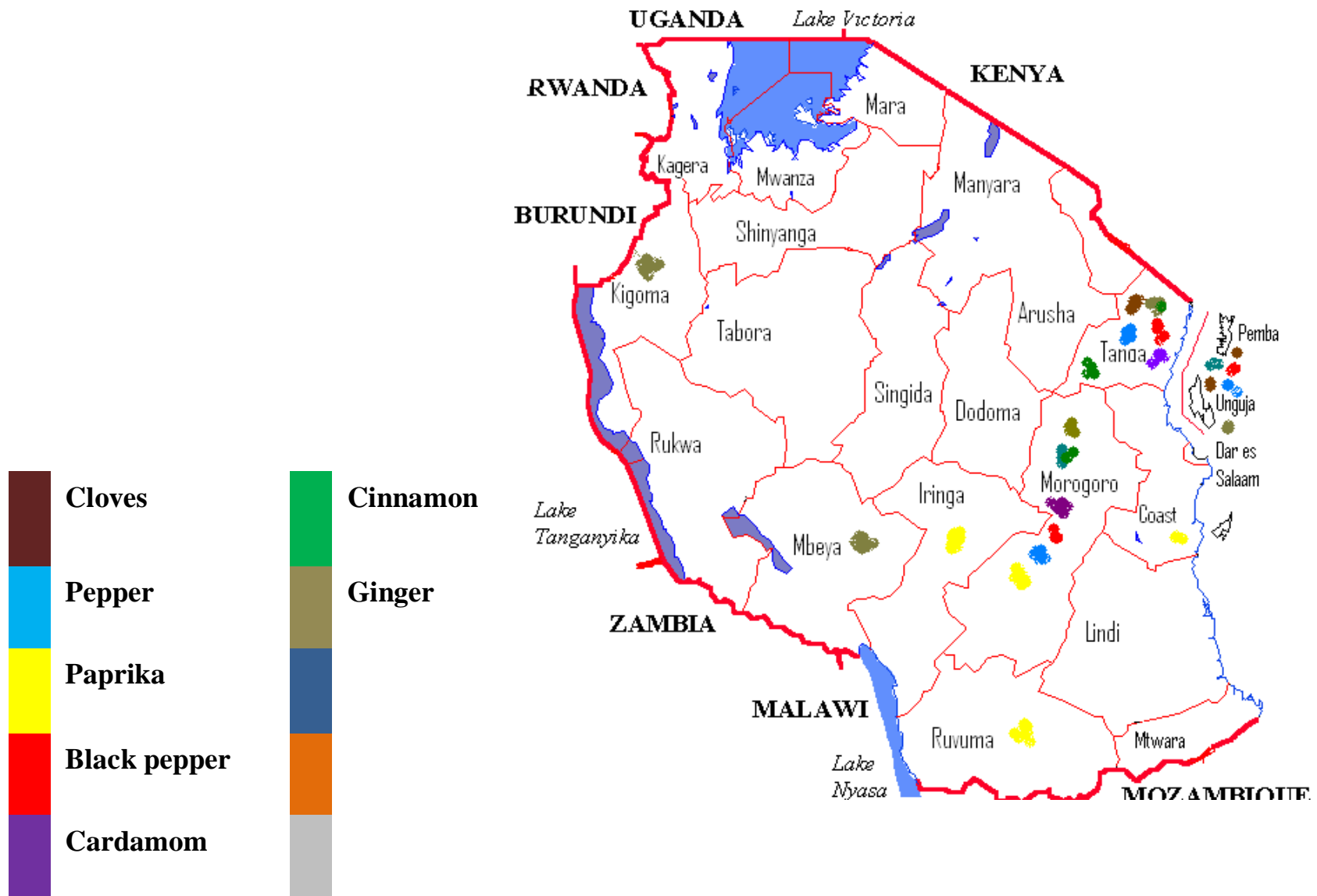
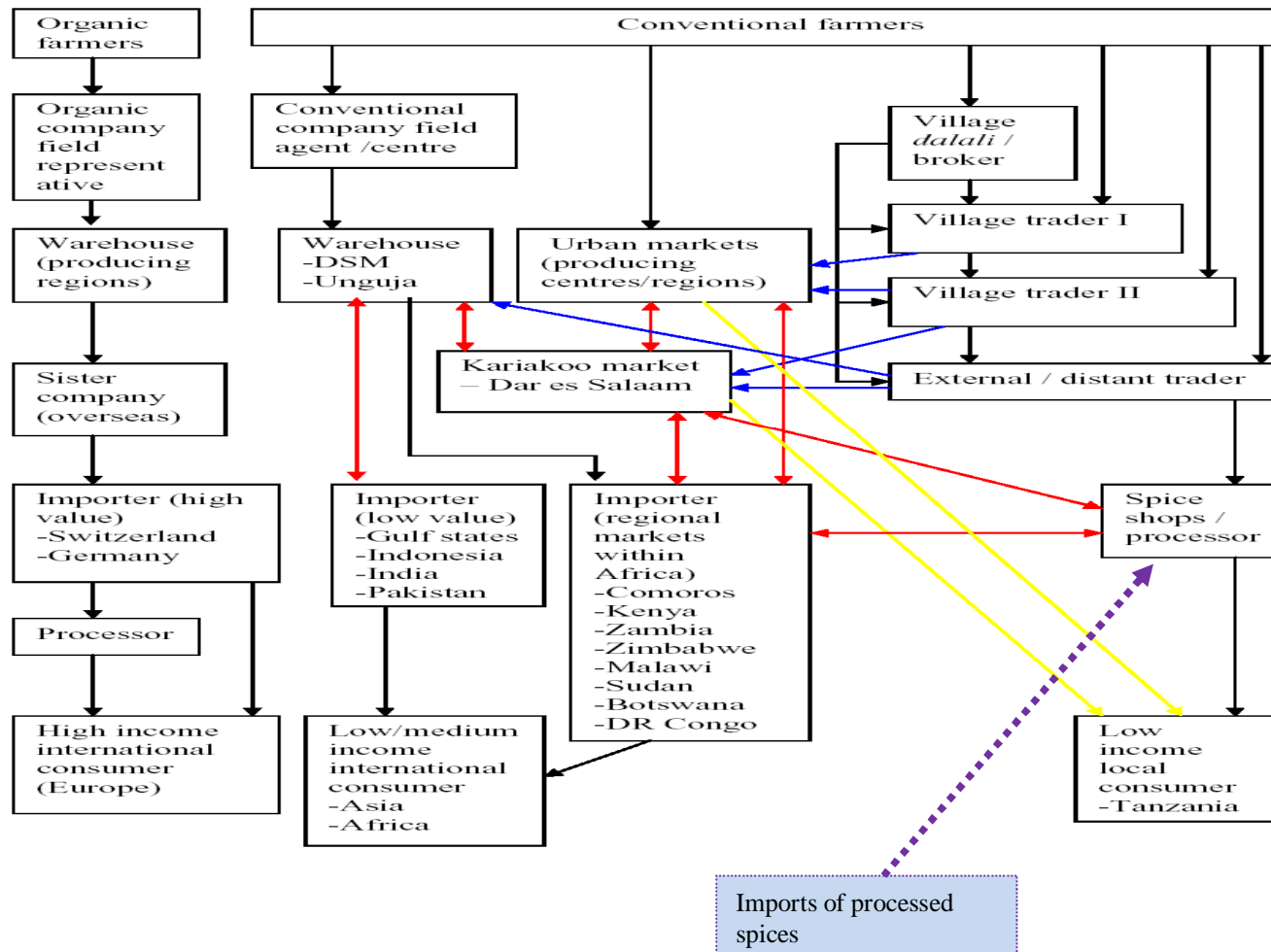




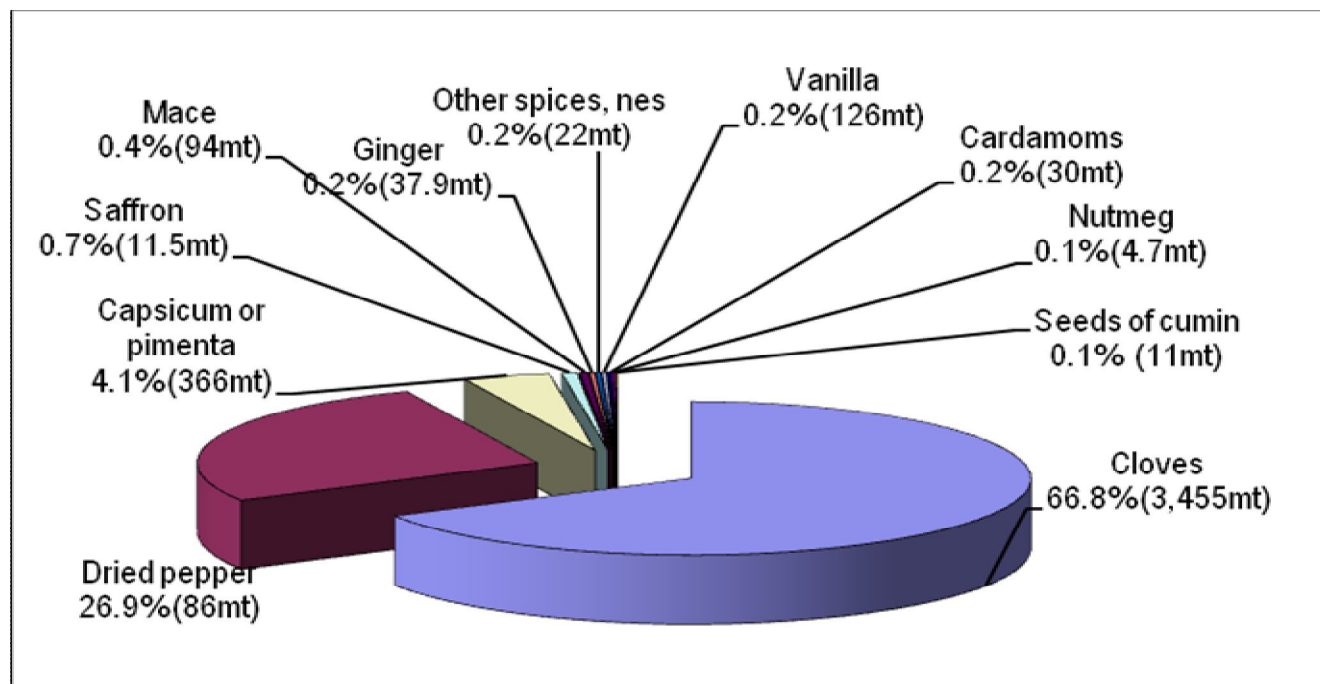
Figure No.5 The Tanzania Spice Supply Chain



Source: Akyoo and Lazaro, 2007. (With minor adaptation on imports)



Figure No.2 Tanzania Spice Export Basket in 2008 by Percent of Export Value and Metric tones



Source: TRA –Customs Department



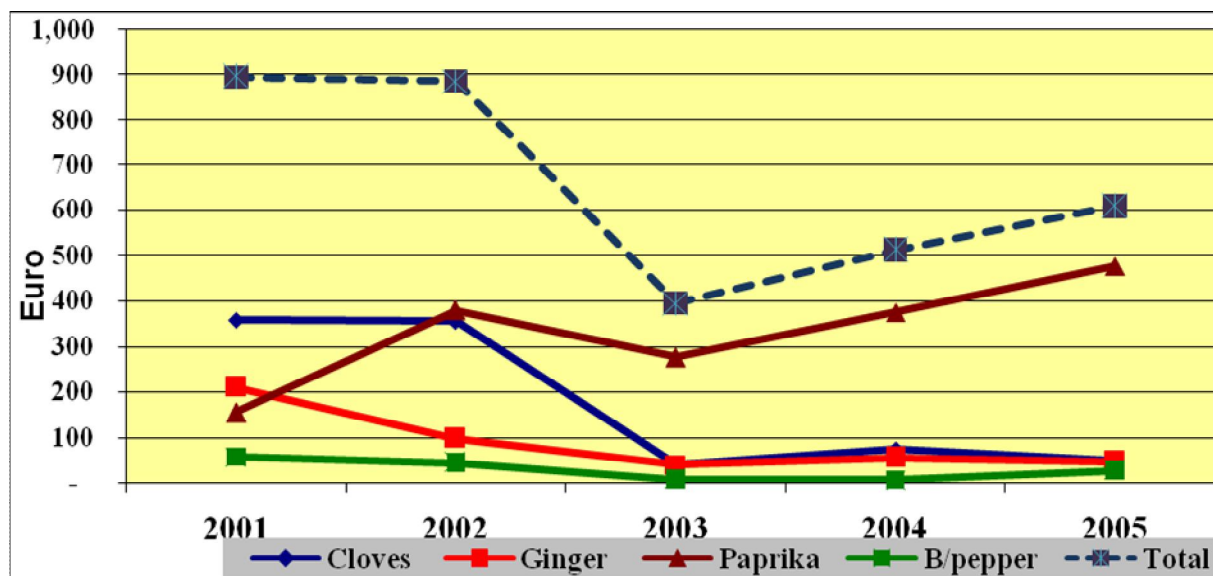
2.2 Market trends

- Volatile market but growing global demand (8.5%)
- 18 Exporters of which 3 exporters 95% (mainly cloves, pepper, vanilla)
- Diverse markets: EU/US, far East, regional markets
- Largest markets: India (30%), Singapore (24%) and Saudi Arabia (21%)
- EU market: 4.6% (mostly vanilla and pepper) (without cloves the EU market is 56%)
- EU market 2% growth per year

Destination Country	Value in USD	Percent
Spain	241,911	1.74%
Germany	250,330	1.80%
Netherlands	66,171	0.48%
Belgium	68,831	0.50%
United Kingdom	17,791	0.13%
<i>Sub-total EU</i>	<i>645,034</i>	<i>4.6%</i>
India	5,199,035	37.46%
Singapore	4,030,262	29.04%
United Arab Emirates	3,383,839	24.38%
Kenya	99,428	0.72%
Pakistan	88,822	0.64%
Japan	163,859	1.18%
United States	82,672	0.60%
Sub-total other major importers	13,047,916	94.01%
Minor importers	185,810	1.34%
Total	13,878,760	100.00%



Figure No. 4. Trend of EU Imports of Spices from Tanzania in Quantities (20001 – 2005)





2.3 Quality management

- In general low quality: 50% of production is therefore sold locally
- Traders/exporters apply ISO, ASTA standards, HACCP, Global Gap and GMP
- No chemicals used (pest, herbi, fungi-cides) and no heavy metals
- In general lack of local knowledge on quality
- Local standards for black, white pepper, chilies and capsicums, cardamom, curry, ginger, cloves and turmeric through Tanzania Bureau of Standards
- Inefficient local labs (public and private authorities)
- Quality is being improved through increased organic certified production
- 1 local organic certifier: TanCert



2.4 Competitiveness

- High diversity of spices
- Organic production + certifier
- Support for capsicum production and Zanzibar spices

Yet.....

- Low quality products and lack of knowledge on quality management
- Small Scale
- High labor costs as compared to Asia (spice production is labor intensive)
- Local labs not sufficiently equipped
- Little governmental support in the mainland (except capsicum)



3. *Social sustainability*

1. Livelihoods
2. Empowerment
3. Equality/non discrimination

Note: No information on labor conditions nor child labor





3.1 Livelihoods of farmers

- Small scale farmers: 64% less than 2 ha.
- Farmers produce multiple crops e.g. cassava, banana, maize
- Spices are cash crop and no threat for food safety
- Intercropping systems (citrus, coconut, banana)
- Land competition in high lands (not in lowlands: ginger, paprika, turmeric)
- Black pepper cultivation: average 0.58 ha per farmer
Added value black pepper hh: turnover USD 373 and costs USD 280 (mostly labor costs)
- Side selling: cause no incentives for (organic) contract farming





Table No. 3. A comparison of prices between organic and conventional at different stages

Crop	Producer Price Paid by	Organic farmers Tshs	Convent. farmers Tshs	Premium in percent
Chilli	Conventional company for dried produce	1,950.00	1,986.67	(1.85)
Black pepper	Village traders for fresh produce	225.00	229.41	(1.92)
Black pepper	Village traders for dry produce	1,268.75	1,104.76	14.84
Chilli	Village traders for dry produce	1,500.00	-	-
Black pepper	Distant traders for fresh produce	366.66	221.53	65.51*
Black pepper	Distant traders for dried produce	1,207.69	1,154.84	4.58
Chilli	Distant traders for dried produce	1,912.50	1,972.73	(3.05)
Black pepper	Organic company for dried produce	1,190.48	1,225.00	(2.82)
Chilli	Organic company for dried produce	2,000.00	2,000.00	-
Black pepper	Organic company for fresh produce	248.00	233.33	6.29



3.2 Empowerment

- No integrated supply chains
 - Supply chains instead of value chains
- Lack of market information and technical information (e.g. quality management) at the upper end of the supply chain
- Not many producer/farm organizations
 - Farmers hardly involved in decision making
 - Lack of credits and other services (seeds and training)

Companies provide services, but problems with side selling

Development organizations (Cordaid, USAID) have started to support setting up farmer groups



3.3 Equality

- Involvement of women in production is only 20% but is growing
- Women do not own land and therefore have little decision making power in what to grow
- Women prioritize food safety and men growing cash crops (=spices)
- Majority of workers in processing (sorting, packaging) are women



4. Ecological sustainability

1. Waste: chemicals use
2. Water protection and management
3. Natural resources and biodiversity
4. Energy use
5. Land: soil conservation





1. Waste: little waste
 - Spices organic by-default cause no access to chemicals
 - Little diseases
2. Water : not a critical factor
 - Managed by National Water Policy waterbodies
 - Mostly rain-fed production
 - Sufficient access to fresh water sources
 - No water born diseases mentioned
3. Biodiversity
 - Intercropping cause high risks in mono culture.
 - Agri forestry systems beneficial for spice production
 - Farmers in organic chains trained in good farming practices
4. Energy
 - Farmers level only sun drying
 - Processing: one company uses wood fired dryer. Aims at more dryers to reduce transportation.



- 5. Land: degradation in high lands, less in low land (21%)
 - Population growth high land: 72% of the poor land shortage
 - Generally little land degradation in spice areas: cloves, black pepper and cinnamon positive for soil conditions
 - Generally little soil conservation techniques in Tanzania

Table No. 5. Main method used in protecting soil

	Contour	Grass Strips	Trash Lines	Cover Crops	Mulching	Terraces	Fanya Juu	Avoid Fire	Total
Better Off	26	22	4	4	9	9	4	22	100
Less Poor	24	14	17	14	3	17	0	10	100
Poor	14	0	0	14	0	43	0	29	100
Average	22	12	7	11	4	23	1	20	100

Source: BCS, Household Economy Survey for Nguru South – Eastern Arc Mountains



5. SWOT

Strengths

- Diversity of spices: less risks for farmers
- Paprika, vanilla, ginger and turmeric production growth in low lands
- Availability of 18 traders
- Growth in organic production
- Organic certifier + testing units available
- Special aroma for Zanzibar spices: strong brand name
- Government support in Zanzibar and capsicum sector

Weaknesses

- Fractured supply chain, side selling, quality management, access to information and services
- Sector dominated by cloves (67%) : other crops small scale
- Shortage of land in high land areas (where cinnamon, pepper is produced)
- Position of women in production
- No value added activities (e.g. because in EU entry barriers!)
- No benefits for farmers/traders to sell to EU
- Little support from government



Opportunities

- Increasing productivity per ha and expanding land use for spices
- EU market (non cloves)
- Global market growth (8.5%) and growing domestic consumption in Asia
- NGO supporting programs: USAID, Cordaid, DAI PESA, TRI
- Linking up with governmental support organizations
- New policies for agriculture sector development

Threats

- Compliance with health and safety standards (both producers, traders and testing units)
- Competition (artificial vanilla)
- Economic shocks





6. Recommendations

- Setting up integrated value chains of suppliers and (EU) buyers with local support from NGOs and banks
- Improving/setting up farmer organizations/trade houses to increase scale and prevent from side selling + to access services (e.g. finance)
- Strengthening capacity of farmers to increase productivity and improve quality management
- Setting up a spice sector platform for producers /traders/support organizations
- Promoting policy development: a national policy for spice export promotion
- Investing in infrastructure: labs



7. Discussion

Discussion about....

- Main obstacles for diversifying markets in Africa?
- Minimum requirements for developing integrated supply chains in Africa? What support is needed?
- Diversifying in which markets? Is Africa an option?



KIT involvement in 2010

General services

- Facilitation of value chain development in the South
- Assisting of European companies in sustainable procurement
- Investing in sustainable business ventures in the South
- Generation of knowledge on farming systems, diversity, smallholder systems, services to farmers, agronomic knowledge

Spice activities 2010

- Participation through Annona sustainable investment fund in Elephant Pepper in Mozambique (chilies Colombia and Kenya in the pipeline)
- KIT 100 year: Spice conference (October 2010)
- Potential involvement in sustainable spice development IDH project



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