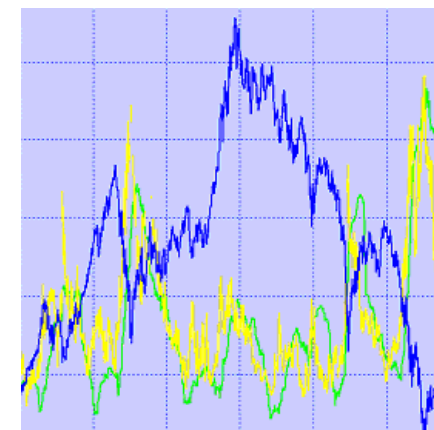




Uganda Coffee Supply Chain Risk Assessment



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Agricultural and Rural Development
The World Bank



Kampala, Uganda
27 August, 2010



Definitions: Risks & Constraints

Risk	Constraint
Event	Condition
Uncertainty	Certainty
Losses	Sub-optimal performance

Coffee Supply Chain Risk Assessment

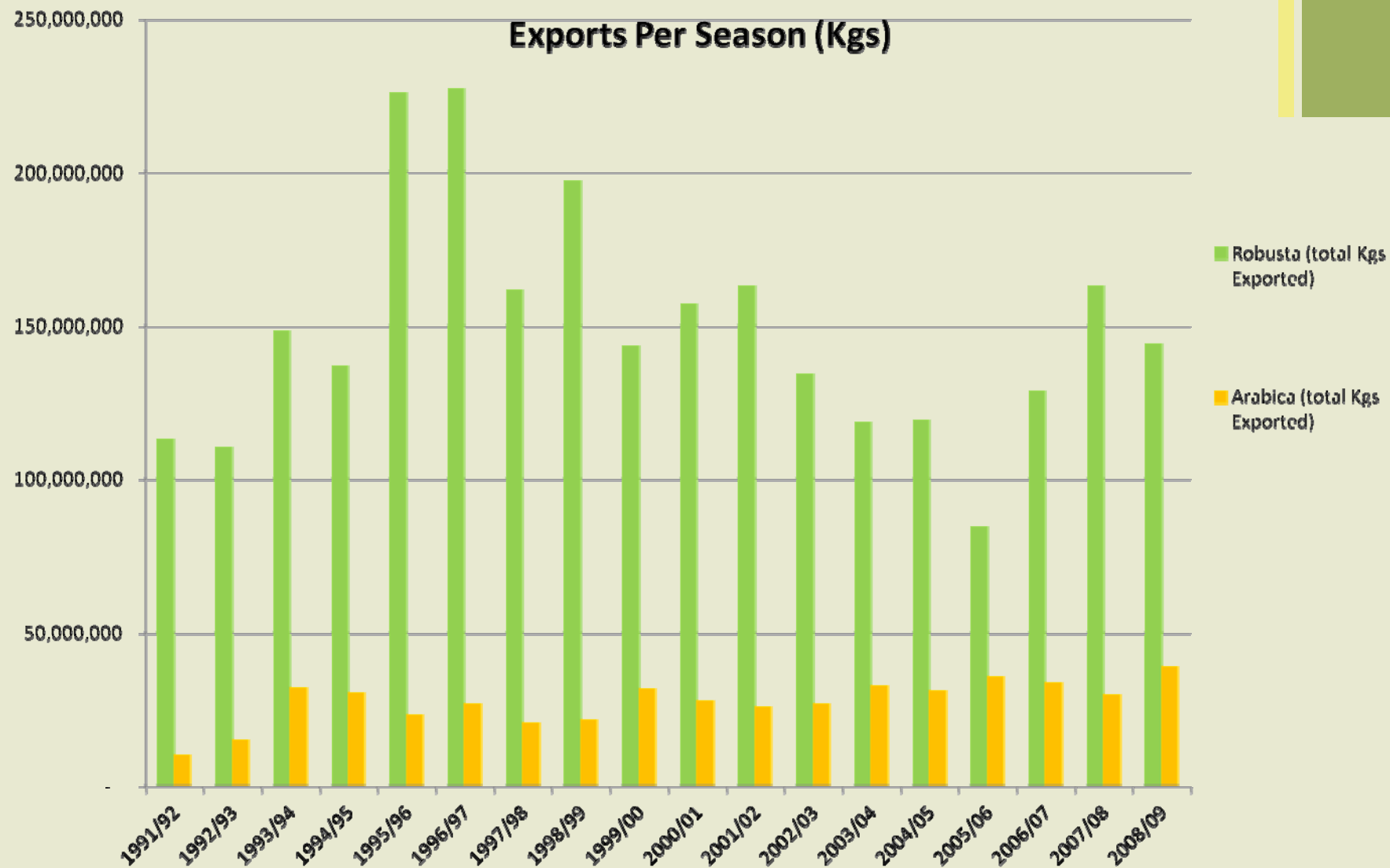
Stakeholders Visited:

- 6 Exporters (Kampala)
- UCDA Head Office
- Roaster Association
- Coffee Roasters
- Nucafe
- Café Africa
- UCTF
- UCDA Extension
- UNEX
- 2 Organic Organizations
- UBOS
- Ministry of Agriculture
- NAADS
- Input Suppliers
- Multiple Traders
- Multiple Farmers
- Farmer Associations
- UEPB
- BoU
- Coffee Cooperatives
- UNADA
- Multiple Banks
- Washing Stations
- Multiple Processors
- Collectors
- Extension Officers

Coffee Producing Districts Visited:

- Mityana District
- Jinja District
- Sironko District
- Kasese District
- Mbale District
- Bushenyi District
- Maska District
- Kaliro District
- Mpigi District

Coffee exports: Significant Volatility



Source: UCDA

Farmgate Prices: Significant Volatility

Farmgate Robusta \$/Kg



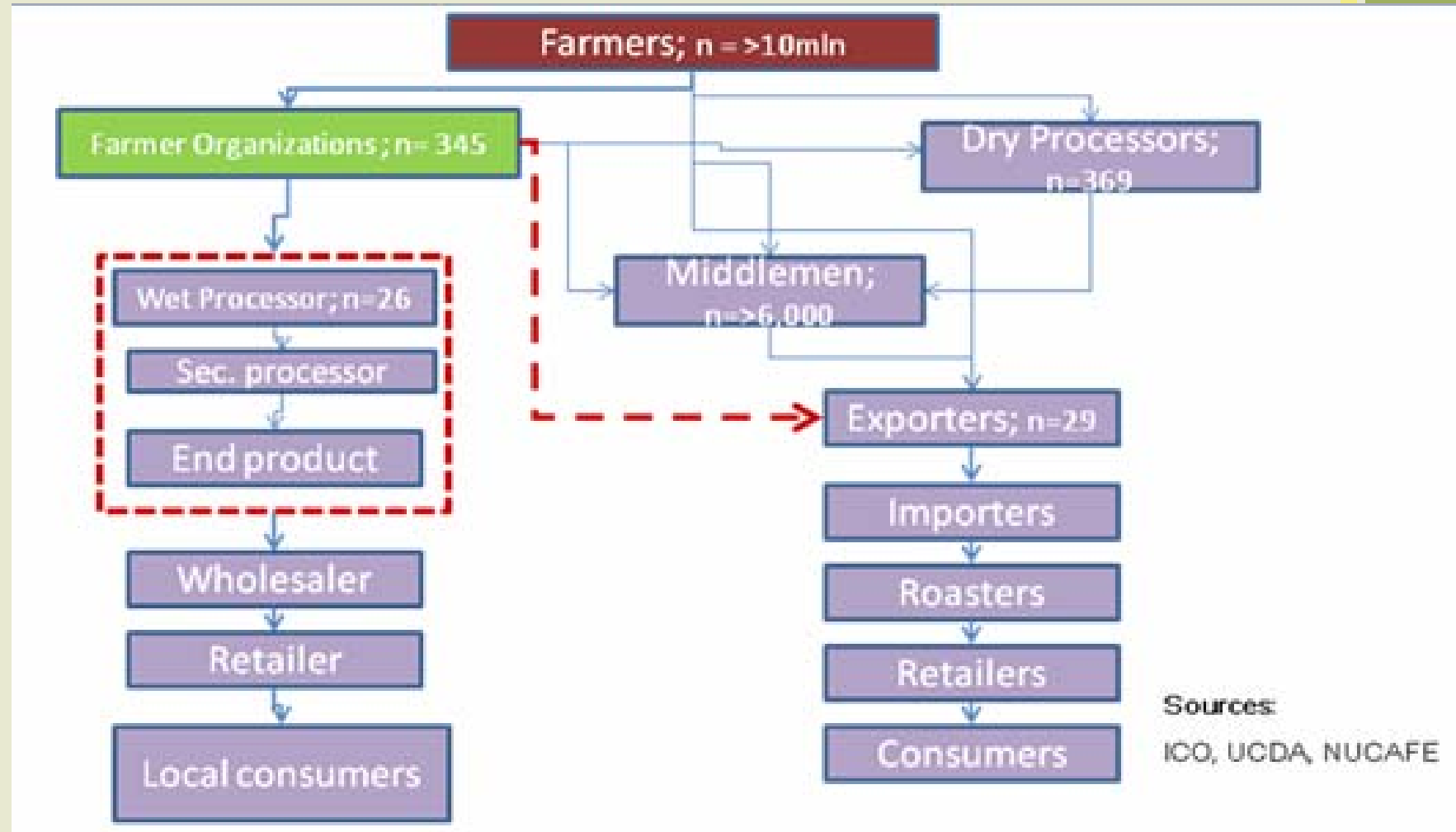
Major shocks and their impact

Year	Event	Impact(s)
1991	<p>Coffee sector liberalization:</p> <ol style="list-style-type: none"> 1. Loss of plant protection support (pesticide spraying) 2. Loss of farm extension 	<ul style="list-style-type: none"> • Decline of cooperatives resulting in reduced farmer organization • Increase in farm-gate prices and price volatility • Proliferation of private sector operators (collectors, traders, processors, exporters) • Reduced input utilization in coffee sector.
2000-2003	Coffee Crisis – Period of Exceptionally Low Prices	Reduced farmer income, some migration to other crops, reduced focus on coffee farm management.
2000 onwards	Disease – Spread of Wilt Disease	Up to half Uganda's Robusta trees killed – sharp decline in yields. Estimated \$800m loss over 10 year period (Uganda National Coffee Platform).

Farmers' coping strategy

Strategy	Activity
Crop substitution	Cutting down of coffee trees and replacement with other food or commercial crops (e.g. sugar in Jinja, Vanilla elsewhere)
Partial abandonment	Attention to coffee trees limited to harvesting cherries (resultant pest and yield implications)
Marginalization of coffee plantation	Investment (time and financial) of farmers shifted to other agricultural commodities with little or no attention to coffee trees
Management of coffee plantation	Ineffective management of coffee plots

Coffee Export Supply Chains Map



Source: Robert Waggwa Nsibirwa

Major Constraints in Uganda's coffee supply chain

National Constraints

- Lack of sector strategy, coordination & regulation
- Limited coffee research & extension capacity and resources
- Fragmented supply chain and limited trust along the chain
- Quality deterioration due to negative incentives

Farmer Level Constraints

- Limited access to finance and high cost of finance
- Progressively smaller average farm sizes
- Low levels of farmer organization
- Low Yields at farm level
 - Ageing trees (and farmers)
 - High cost of farm inputs and very limited usage of inputs
 - Very limited access to on-farm extension services
 - Poor management of coffee farms

Major Constraints in Uganda's coffee supply chain

Trader Level Constraints

- Limited access to, and high cost of, finance / credit
- Insufficient volumes to generate sufficient profits
- Frequent defaults on deliveries

Smaller Sized Exporters

- Limited access to, and high cost of, finance / credit
- Quality issues
- Exchange rate volatility
- Lack of access to hedging tools and price risk management knowledge

Larger Sized Exporters

- Difficulties securing sufficient volumes of high quality coffee

Coffee Supply Chain Key Risks

Identified Risks	Who suffers the most?
Production risk	
Pest and Disease Outbreaks (wilt, coffee borer, coffee leaf rust, others)	Farmers
Climate / Weather (irregular rains, drought and excess sunshine)	Farmers
Major Volume Decline (Robusta)	All
Declining Quality (Robusta)	All
Competition from more Profitable Farming Enterprises	Traders & Exporters
Market risk	
Price – Prolonged Price Depression	Farmers
Intra-Seasonal Coffee Price Volatility	Traders & Exporters
Severe Currency Appreciation	Farmers & Exporters
Logistics (single export channel, imp/exp imbalance)	All
Reputational Risk (fake inputs, quality, wet coffee)	All
Enabling environment risk	
Inadequacy of Research/Extension Reaction to Coffee Sector Challenges	All
Escalation of Theft, Fraud & Adulteration	All

Expected Loss Ranking

		Negligible	Moderate	Considerable	Critical	Catastrophic
Probability of Event	Highly probable		Intra-seasonal Price volatility (A/R)	Climate & Weather (A/R)	Extension/Research (A/R)	Pest & Disease (A/R)
	Probable		Declining Quality (R)	Severe Currency Appreciation (A/R)		
	Occasional			Major decline in volumes (R) Theft, Fraud and Adulteration (A/R)	Prolonged price decline (A/R)	
	Rare			Logistics (A/R)	Competition from more profitable crops (A/R)	Reputational Risk (A/R)
	Improbable					

Vulnerability matrix

	(-) -----Capacity to Manage Risk ----- (+)				
Expected losses	1	2	3	4	5
High	Prolonged Price Decline (A/R)	Pest/Disease (A/R) Severe Currency Appreciation (A/R)	Major Volume Decline (R) Reputational Risk (A/R)	Logistics (A/R)	
Medium	Competition from more profitable crops (R)	Climate / Weather (A/R)	Declining Quality (R) Extension/Research (A/R) Theft, Fraud &		
Low			Adulteration (A/R)	Intra-seasonal Price volatility (A/R)	

Priority Measures for Risk Management

Identified Risk	Current Mitigation	Proposed Mitigation
Prolonged Price Depression	None	<ul style="list-style-type: none"> • Improve coffee yields • Reduce costs / improve efficiency • Strengthen and promote sustainable coffee production and trade (e.g. increase certified coffee exports) • Create long-term commercial relationships.
Pest & Disease	<ul style="list-style-type: none"> • Limited Research and Extension Capacity • Some partnerships with external experts (e.g. CABI, CIRAD) • Limited Coordination between Research and Extension • Some Communication to Farmers (e.g. radio, press) 	<ul style="list-style-type: none"> • Establish Early Warning System and Sanitation Response Plan • Strengthen the structure, staffing and funding of research and extension • Promote information exchange • Expand access to international expertise e.g. TACRI, CABI, CIRAD, ASIC, CRF, CATIE and others • Expand information dissemination e.g. regular radio programs

Priority Measures for Risk Management

Identified Risk	Current Mitigation	Proposed Mitigation
Severe Exchange Rate Appreciation	<ul style="list-style-type: none"> • Current Monetary Policy Interventions 	<ul style="list-style-type: none"> • Develop appropriate response mechanisms based on effective agro-sector monitoring systems • Improve coffee yields and productivity
Competition from more profitable farm enterprises	<ul style="list-style-type: none"> • None 	<ul style="list-style-type: none"> • Advisory services to assist farmers in identifying appropriate alternative crops / enterprises and transition in a sustainable manner • Improve coffee productivity to raise profitability to compete with other enterprises
Climate and Weather	<ul style="list-style-type: none"> • None 	<ul style="list-style-type: none"> • Promote sustainable farming practices based on recommended mitigation and adaptation measures • Promote monitoring, adaptive research and information exchange (investigate the possibility of irrigation) • Investigate appropriateness and feasibility of crop insurance - introduce crop insurance where appropriate

Priority Measures for Risk Management

Identified Risk	Current Mitigation	Proposed Mitigation
Major decline in volumes	<ul style="list-style-type: none"> • Development of tissue culture • Promotion of mass tree re-plantings • National Coffee Production Campaign 	<ul style="list-style-type: none"> • Monitor success rates of tree re-planting and adapt re-planting program accordingly • Increase and improve on-farm extension delivery and improve associated research to significantly increase yields • Improve access to appropriate inputs and provide technical advice on application (control fake inputs) • Enhance coordination and cooperation amongst coffee stakeholders
Reputational Risk	<ul style="list-style-type: none"> • UCDA's Export Quality Control • Training of Quality Controllers • International promotion of Uganda's coffee via participation in trade fairs 	<ul style="list-style-type: none"> • Institute and enforce proactive quality management and promote quality awareness along the entire value chain • Extend regulatory regime as appropriate (e.g. wet coffee)

Next Steps

- **Discuss and share**
- **Build consensus (enhance coordination and collaboration)**
- **Develop and Implement a Uganda National Coffee Strategy**
- **Generate resources**
- **Execute**

Let's Discuss

		Negligible	Moderate	Considerable	Critical	Catastrophic
Probability of Event	Highly probable		Intra-seasonal Price volatility (A/R)	Climate & Weather (A/R) Extension/Research (A/R)		Pest & Disease (A/R)
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