

Analysis of marketing systems on traditional bananas and plantains in

Peru



Lisandra Martínez*, Ulrike Grote* and Hildegard Garming**

* Institute for Environmental Economics and World Trade; ** Biversity International



Introduction

- Project to improve commercialization of bananas and plantains (Musa) in agroforestry (AFS) systems in Peru
- Small farmers produce Musas using low inputs in traditional mixed cropping systems

Objectives

- To assess the impact of Musa cultivation on small farmers' income
- To identify and compare value chains (VC) for Musa
- To identify and analyse transaction costs in order to evaluate their impacts on small producers' profits
- To find potential markets through chain upgrading strategies

Data & Methodology

➢ Data collected between Sep. – Oct. 2010 through interviews with agents from the VC:

- 39 farmers from two production areas: Pichanaki and San Luis
- Intermediaries (4 rural gatherers, 7 semi-wholesalers, 4 truck drivers, 17 wholesalers)
- 14 retailers and 48 consumers from final markets

➢ Conceptual framework

- Value Chain Analysis and transaction cost approaches
 - To analyze the value chain and to describe TC of the sector
 - Linear regression analysis on the household's profit

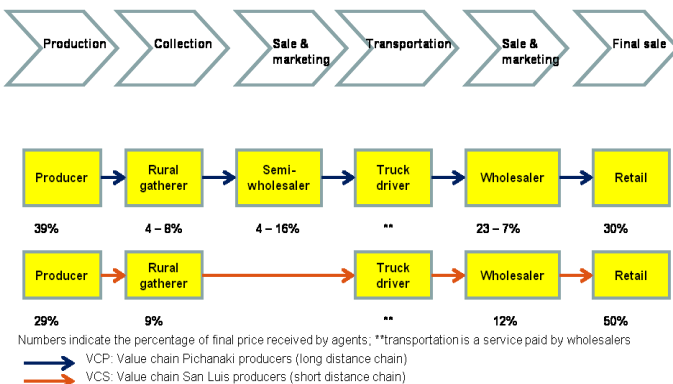
Results

The role of traditional Musa for small producers

- 100% have a mixed cropping system: 82% coffee + Musas and the other 18% citrus + Musas
- Six different varieties are produced
- Musas are consumed by the household
- 88% answered that Musas are important because they are constant income to maintain the household
- For 77% of the producers, income from Musa amounts to less than 25% of the income from crops and are secondary crop, and for 23% it is more than 25%

Value chain analysis of Musa

Figure 1: Value chains map of traditionally produced Musas



Transaction costs (TC) in the banana and plantain sector

Transaction cost	Indicator	Relevance
Transportation costs	Roads condition	Most important cost
	Distance in travel time	Remote areas with often bad roads
Information and search costs	Farmer time to search for information	Farmers are price-takers and do not invest much time in looking for prices
	Access to price information	Price information published for wholesalers
Negotiation and bargaining costs	Number of buyers available to farmer	Variable between villages and seasons
	Years of relationship between farmer and buyer	Possible trade-off between long-term relationship and negotiating prices
	Quality agreement during sale	On retail and wholesale level these costs are higher
Monitoring and enforcement costs	Time of payment to the farmer	For producers this costs might be low or high depending on the moment of payment.
	Terms and conditions on volumes, quality, and delivery time and prices	At wholesale and retail level this costs are higher. On farm level this prices are low

Linear regression analysis on the household's profit

Variables	Coeff.	Std. Error	t	Sig
(Constant)	0.508	0.037	11.875	0.000
Well being (1= if producer is better-off)	0.087	0.026	3.356	0.002*
Gender (1= if male)	-0.111	0.032	-3.514	0.001*
Roads (1= if problems with transport)	-0.150	0.033	-4.587	0.000*
Buyers available to producer (1=just one)	-0.049	0.026	-1.862	0.072
Time of the relationship (years)	-0.003	0.001	-2.976	0.006*
Moment of payment (1=immediately)	0.065	0.065	1.337	0.026*

Dependent variable: Total profit per Kg of sold Musa

R-square=0.730 Adjusted R-square=0.672 F=13.959*

*Significant at 5% level ; N=38

Upgrading options

- Volumes appropriate to commercialize and a better negotiation position of producers through collective action (Horizontal coordination)
- Selling more directly to high value markets (supermarkets) might be profitable (Functional upgrading). Supermarkets are interested in buying more directly from producers.
- Promotion of traditional varieties (Product upgrading) indicating origin and production techniques
- Enhance production of traditional varieties that have better prices demanded by retailers (process upgrading)

Conclusions

- The monthly sale of Musa contributes to maintain the household's income between the annual harvest of the main crop
- Transaction costs in the Musa Peruvian VC differ depending on the level of the chain
- Selling in the long distance chain (VCP) is more profitable for farmers
- Producers' profits decrease with poor road infrastructure and a small number of buyers visiting the communities
- A long term relationship between producer and buyer results in lower profits since farmers trade-off prices for a secure sale
- Higher profits are obtained by producers that are paid right after the transaction