



Republic of the Philippines
Department of Agriculture

Upland Development Programme in
Southern Mindanao (UDP)

**A MARKETING EFFICIENCY STUDY
ON**

COFFEE

**IN BARANGAY PAMINTARAN,
MARAGUSAN, COMPOSTELA VALLEY**

MAY 2001

PREFACE

This report is one of a series of market efficiency studies conducted in the UDP-covered areas for selected commodities. The marketing efficiency of coffee in Barangay Pamintaran, Maragusan, Compostela Valley was evaluated through the deconstruction of existing marketing margins. Recommendations to improve marketing efficiency are herein offered.

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Institutional Buyer:

Nestle Philippines, Corp.

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DEFINITION OF TERMS

Cash costs	-	costs where actual money is involved.
Cash returns	-	the earnings, where actual money is involved, from the sale of the farm produce.
Depreciation	-	the expense brought about by the wear and tear of a piece of equipment, building or tool used in an enterprise for a given period of time.
Exchange labor	-	the value, non-monetary in nature, of the work (in man-days) put in by neighbors, friends or other laborers in exchange for the farmers help with similar farm activities in their respective farms.
Given away	-	the value, non-monetary in nature, of the farm produce given out by the farmer to others without any monetary payment.
Hired labor	-	the cash expense for engaging the services of farm laborers.
Home consumption	-	the value, non-monetary in nature, of the farm produce consumed by the farmer and his family.
Losses/shrinkage of produce	-	the value, non-monetary in nature, of the damages and spoilage sustained by the produce.
Market information	-	basic information on prices and quantities traded of major commodities, from all markets—assembly, wholesale and retail.
Marketing channel	-	the inter-organizational system composed of interdependent institutions tasked in moving the product from production to consumption.
Marketing efficiency	-	the maximization of the input-output relationship where inputs refer to resources (land, labor, capital) used in moving the products from point of consumption to the point of production and output referring to consumer satisfaction on goods and services made available in the market.
Marketing margin	-	the difference in prices between the different levels of the marketing system.

Marketing	-	series of services performed in moving the product from the point of production to the point of consumption.
Net farm income	-	returns of the use of capital and labor. The overall profit of the farm after all the expenses, cash and non-cash, have been paid off.
Non-cash costs	-	costs items used in the production process wherein no direct outlays occurred or the costs incurred are not monetary in nature.
Non-cash returns	-	the value, non-monetary in nature, of the farm produce consumed by the farmer and his family or those given away.
Opportunity cost of capital	-	the price of foregone opportunity in the use of the capital invested in the enterprise. It is usually pegged at the current savings interest rate.
Point of consumption	-	last sale of the product.
Point of production	-	point of first sale.
Profit margin	-	the return to the middlemen for their entrepreneurship, the risks and the cost of money.
Return on investment	-	measures the amount of cash that the entrepreneur gets from the capital investment after first paying the opportunity expenses on the value of family labor and management. It also determines how much money the producer got in return for every one peso invested.
Unpaid family labor	-	also called own labor. The value, non-monetary in nature, of work (valued in man-days) by the farmer and his family.

COFFEE

INTRODUCTION

1. Coffee is one of the most preferred beverages in the Philippines (Nestle Phils.), particularly the Robusta variety (*Coffea robusta*), is used in producing instant coffee.
2. Robusta coffee has become increasingly popular due to its many advantages over the other varieties as it is more resistant to disease; it matures faster, and could produce fruit in two to three years. Furthermore, it provided multiple crops each year. Robusta flourishes at altitudes below 1000 metres and is ideal for tropical climates.
3. Robusta is the predominant variety of coffee in Barangay Pamintaran, Maragusan. Each farmer in the area has an average of 2.66 hectares planted to coffee and harvests an average of 122.13 kilograms of coffee beans per hectare every year. The Maragusan municipality is said to have the largest coffee production in the province of Compostela Valley.
4. The months of October to March cover the fruiting season for coffee in Maragusan, Compostela Valley. It is during this period that the ripe coffee berries are picked from the tree on two-week intervals for a period of four (4) months. It is also during this time, that coffee marketing takes place.
5. The marketing efficiency study for coffee in Barangay Pamintaran, Maragusan was conducted last March 19, 2001.

Objectives

6. The main objective of the study is to assess the impact of existing marketing systems of coffee vis-à-vis income of the farmers.
7. Specifically, the study aims to determine the levels of participants in the marketing chain of coffee;
8. Determine the marketing practices involved in terms of storage, handling, pricing, delivery systems and terms of payment;
9. Determine the percentage of consumer price that the producer receives through the deconstruction of marketing margins of copra at each level in the system, exclusive of production costs;
10. Identify strengths and weaknesses of the existing marketing system of coffee; and
11. Determine appropriate marketing interventions needed to improve economic efficiency of coffee in Barangay Pamintaran, Maragusan.

Methodology

12. From the initial agribusiness profile of UDP, Barangay Pamintaran was identified to have the most coffee producers among the UDP areas in Compostela Valley. Purposive sampling was done and of the 29 identified coffee producers in the area, nine (9) or 31% come from Barangay Pamintaran. The nine (9) Pamintaran farmers were interviewed for the study.
13. The farmers were asked about their production and marketing practices, monthly volume and value of sales, production and marketing costs of coffee. They were also asked on available market information with emphasis on what they need to know to improve their production and marketing practices, thereby increasing the farmers' income.
14. The respective buyers of coffee from each farmer were then traced accordingly.
15. The traders were, in turn, asked about their marketing, costs, volume, value of sales and the problems and constraints they have encountered in the marketing of coffee.
16. The marketing margins (MM), or the total value added to coffee per kilogram as it moves along one marketing channel to another, were then deconstructed and the profitability of each marketing participant's enterprise was also analysed. In the case of the farmers, the Net Farm Income (NFI) was determined. An NFI greater than zero (0) would mean that the production and marketing activities of the coffee farm is profitable, whereas an NFI less than zero (0) would mean that the farm is at a loss.
17. On the part of the trader, the Return on Investment (ROI) was compared with the opportunity cost of capital, pegged at the existing current savings interest rate of eight percent (8%) per annum. An ROI higher than the opportunity cost of capital would mean that marketing coffee is more profitable than just saving the trader's money in a bank, while a ROI less than the opportunity cost of capital would mean that it would be more profitable for the trader to invest his money in a bank rather than spend it on marketing coffee.
18. The percent share to the processor's peso of each marketing participant was also determined by getting the percentage of the marketing participant's selling price (in the case of traders, less their buying price) relative to the final buying price of the consumer. This indicates the proportion of the processor's buying price that goes to each marketing participant for coffee.
19. Moreover, focused group discussions (FGDs) with key informants and selected farmers were conducted to probe into the importance and the demand for market information in each province. This provided rapid feedback on the available market information and the information dissemination strategies existing in the area.

20. Also, key informants such as the Municipal Agriculturists and the Agricultural Technicians were interviewed to obtain an overview of the local agriculture industry.

Limitations and Constraints

21. During the interviews, it was observed that the farmers relied on their memories in recalling their past production level, income, farm tools and equipment. There were no record-keeping practices. Thus the cost and return that were analysed were only estimates. The Return on Investment (ROI) was excluded on the analysis of the farmer income due to the ambiguity of the values arrived at. This is mainly due to the fact that some factors on capital investment were not properly quantified in the study. For instance, land valuation was excluded because none of the farmers hold titles to the land that they cultivate. Land, therefore, was not considered a fixed investment in this enterprise and was merely considered as an expense through the credit of land cost (land tax if owned, rent if tenanted).

22. In the marketing aspect, the respondents interviewed were the middlemen named by the farmers. Most of who also based their answers on their memories since they do not keep records regarding their marketing operations.

23. On the analysis of the marketing efficiency on the part of the farmers, only the Net Farm Income (NFI) analysis was utilized since the available data only allow for this kind of analysis and not the more complicated input-output efficiency analyses.

24. Lastly, the size of the coffee market, specifically, the estimation of demand was not included in the study.

Margin of Error

25. Aside from the UDP Agribusiness Profile, there are no other available data on the population size of coffee producers in the area. The margin of error on the analysis, therefore, cannot be established since the formula requires not only the sample size, but the population size as well.

THE MARKETING SYSTEM OF COFFEE

Marketing Channels

26. The marketing participants involved in the coffee marketing system in Barangay Pamintaran are as follows:

a. Farmer

A person engaged in coffee farming for commercial purposes. They sell all of their produce to municipal assemblers based in the Maragusan poblacion;

b. Municipal assembler

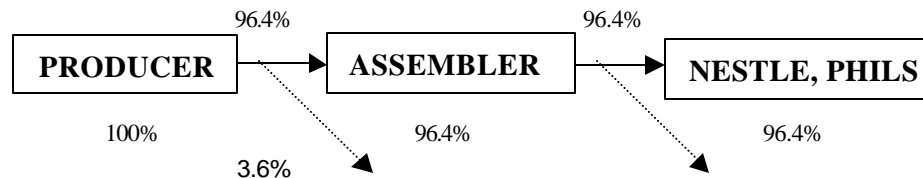
A trader based in the Maragusan poblacion and who buys coffee from the whole of Maragusan. The coffee assembled is transported through trucks to the buying station of Nestle, Phils., in Davao City. At present, there are six (6) Municipal assemblers in Maragusan, all of which sell the coffee to Nestle, Phils.

c. Nestle, Phils.

The end-buyer of the coffee beans. With buying stations in key coffee-producing areas, they purchase and assemble bulk volume of coffee in the buying stations (several of which are located in Davao) and transport it to the processing plant in Cagayan de Oro city, where the ground coffee beans would be processed into instant coffee.

27. Based on farmer interviews in the area it was determined that, of the total 2,961.25 kilograms of coffee harvested during the last planting season, 2,919 kilograms were sold by the farmers. This study traced this amount from the farm to the retailers and the following product flow was established:

Figure 1. Product flow of Coffee, Pamintaran, Maragusan.



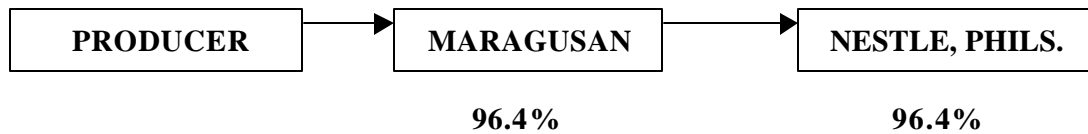
Selling price (P/kg):

Farmer	Assembler
27.28	31.25

28. All of the coffee sold by the farmers went to Nestle Phils., However, 3.6% of the coffee were lost during transport from the farm to the municipal assemblers. This loss is due mainly to the loose packing of the coffee beans such that some spill out from the sacks during brief 4-kilometer motorcycle or truck ride to the Maragusan poblacion. The assemblers also incur minimal losses during the transport of the coffee beans from their warehouse to the Nestle buying station.

29. Similarly, Figure 2 illustrates the geographic flow of the potato from the farm to the end marketing channel.

Figure 2. Geographical flow of Coffee, Pamintaran, Maragusan.



30. The farmers/producers in Barangay Pamintaran sell their produce to Maragusan poblacion-based assemblers, who, in turn, transport the assembled coffee beans to the Buying station of Nestle Phils. in Davao City.

Marketing Practices and Costs

31. The coffee berries undergo several processes before sale and, in most cases, follows two distinct processing paths. The first processing path after harvest of the coffee berries is presented below:

?? Sorting- the separation of the good, ripe berries from the unripe, the stinker, moldy and other adulterants. This is done during harvesting, the berries are picked and sorted simultaneously;

?? Depulping-the process of pulp removal, from fresh berries, using an individual pulper;

?? Manual grinding of the fresh coffee beans -using a local, indigent grinding apparatus;

?? Drying-sun-drying for 3 to 4 days or oven drying for 24 hours during the rainy season. Ideal moisture content (MC) is 14%; and

?? Sacking-coffee is packed in a sack at 75 kilograms per sack

32. Another way of processing coffee beans is by reversing the order of the processes such that the beans are dried first after sorting, which usually takes one week if sun-dried. Then the dried unshelled beans are ground manually or put into a huller where the dried pulp, now called the hull, is removed. Sacking of the coffee then follows.

33. Farmers have a choice in bringing the produce to the poblacion through agents, who get a commission of P1-2 per kilogram or P75-150 per sack, or by themselves, which entails hiring transportation at a fee of P15 per sack. Either way, the coffee is loaded onto a motorcycle and brought to the poblacion, which is about 2 kilometers from the barangay center.

34. Post-harvest activities in coffee are very labor intensive. Whereas, the assemblers have merely to test the coffee for its moisture content and grade upon purchase. This is done to determine the corresponding price of the coffee) and haul

the sacked coffee either to the warehouse or to their trucks for transport to Davao City.

35. Table 1 shows the breakdown of marketing costs for coffee in Barangay Pamintaran, Maragusan.

Table 1. Marketing costs for different marketing levels of coffee (P/kg).

ACTIVITY	FARMER	ASSEMBLER
Cleaning	0.61	<i>na</i>
Grading/Sorting	1.65	<i>na</i>
Drying	2.44	<i>na</i>
Grinding	3.04	<i>na</i>
Transportation	1.53	0.28
Labor	<i>na</i>	0.03
Non-cash costs	<i>na</i>	1.82
Utilities and other fees	<i>na</i>	0.14
TOTAL	9.27	2.27

Price Formation

36. Nestle, on the other hand, base its buying price on the world price of coffee. On lean months, however, they offer a slightly higher price than in the world market so as to encourage assemblers and plantations to sell the coffee to them rather than export it to other institutional buyers overseas.

37. The buying price of Nestle, at the buying stations, ranges from P30-35 per kilogram, depending on the quality and grade of the coffee. The grades and their corresponding prices are as follows:

- ?? M1:8-12% bad grains, stinkers, moldy grains, black and other adulterants, 14% MC (P34/kg);
- ?? M2:13-18% bad grains, stinkers, moldy grains, black and other adulterants, 14% MC (P31/kg) and
- ?? M3:18-25% bad grains, stinkers, moldy grains, black and other adulterants, 14% MC (P29/kg)

38. Incentives or increase in the buying price are given on grains with a moisture content between 12% and 14%, while price deductions are given on grains with greater than 14% to 16% MC.

Marketing Margins

39. Presented below are the marketing margins for the assemblers and the Net Farm Income for farmers (which is shown in detail on Appendix A).

Table 2. Marketing margins and income for coffee at different marketing levels.

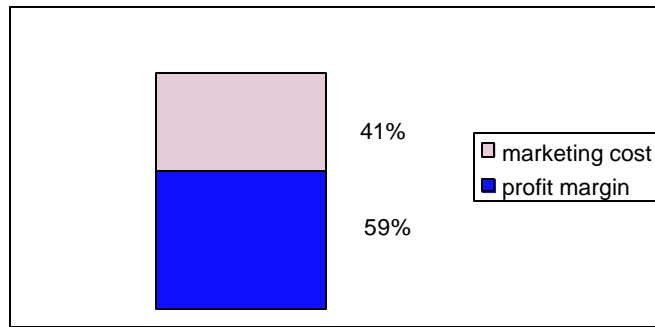
ITEM	Farmer	Assembler
Selling Price (P/kg)	27.38	31.25
Buying Price (P/kg)	<i>na</i>	27.38
Marketing Margin (P/kg)	<i>na</i>	3.87
Marketing Cost (P/kg)	9.27	2.27
Profit Margin (P/kg)	<i>na</i>	1.60
Net Farm Income (NFI) (P/kg)	11.47	<i>na</i>
MC as % of MM	<i>na</i>	59%
PM as % of MM	<i>na</i>	41%
% ROI	<i>nil</i>	62.64%
Opportunity Cost of Capital	<i>na</i>	8%

40. The Net Farm Income (NFI) of the coffee farmer indicates that coffee production and marketing in Barangay Pamintaran is profitable.

41. Meanwhile, the marketing margin of the assembler is P3.87 per kilogram, P2.27 (59%) and P1.60 (41%) of which are the marketing cost and profit margin, respectively.

42. To illustrate the marketing margin of the assembler, Figure 3 shows the percentage of the marketing cost and the profit margin relative to the marketing margin.

Figure 3. Marketing margin of a coffee assembler, Barangay Pamintaran, Maragusan.

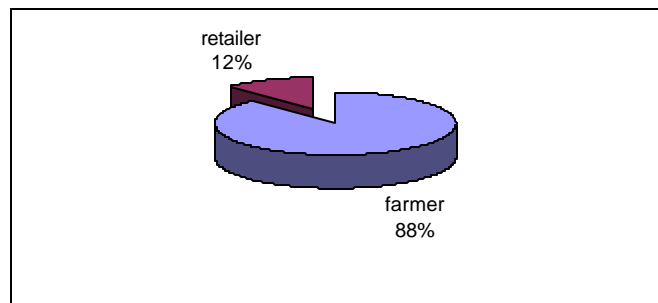


43. The percentage of the institutional buyer peso is indicated on Table 3 and illustrated in Figure 4.

Table 3. Percentage share to the institutional buyer peso.

MARKETING LEVEL	SELLING PRICE (P/kg)	% SHARE
Farmer	27.38	88
Assembler	31.25	12

Figure 4. Percentage share of the institutional buyer peso.



44. This means that 88% and 12 percent of the final buying price (P31.25/kg) goes to the farmer and the assembler, respectively.

STRENGTHS

45. One of the strengths identified in the marketing system of coffee is the presence of a sure buyer for the coffee beans, which is, in this case, Nestle, Phils. The

strong presence and activity of Nestle in the coffee industry eliminates the problem of the farmers in looking for buyers.

46. This strength is compounded by the proximity of the Nestle's Sasa buying station from Maragusan. This allows for the assemblers' transportation costs to be minimal, thereby increasing profit.

WEAKNESSES

47. Nestle Phils., dictate the local prices of coffee. Farmers, therefore are price-dependent on Nestle, which, in turn, depends on world prices. It is possible therefore, that coffee prices would still be low despite a relative local supply deficiency if the world market price were low.

48. While the presence of Nestle Phils. is considered a strength, the price dependency of the farmers on Nestle renders the marketing system of coffee inefficient since the farmers do not have any bargaining power in terms of negotiate for a higher far-gate price of coffee.

49. Lastly, it was observed that farmers do not put much importance in grading the coffee beans and that they complain of the assemblers' "too strict" grading system which consequently lowers the value of their coffee as the farmers produce coffee with a higher moisture content than what is required b the buyers. This indicates a grading standards deficiency between the farmers and the buyers (assemblers and Nestle).

OTHER KEY FINDINGS

50. On a national scale, the country is already in a deficit situation. Nestle Phils., alone, is importing 15,000 metric tons of coffee yearly (Dumon, 2001). This importation is used to augment the local shortage of coffee beans since Nestle is only able to locally source 20,000 metric tons out of their 45,000-metric ton annual requirement.

CONCLUSION

51. An analysis of the Net Farm Income (NFI) of the farmer show that the P11.47 per kilogram NFI of the farmer means that coffee production and marketing in Barangay Pamintaran, Maragusan is profitable.

52. On the side of the traders, an analysis of the marketing margins of coffee as it was transferred from one marketing participant to another was done to determine which among the cost and the profit have the most share in the marketing margin (Table 2). Results show that 41% of the price mark-up is attributable to profit and that the actual cost of the product is 59% of Nestle Phils.' buying price.

53. Further ROI analysis show that since the ROI is higher than the opportunity cost of capital, the marketing activities of the assembler is efficient.

RECOMMENDATIONS

54. On the matter of price dependence on Nestle, Phils., it is recommended that alternative buyers for coffee be sought. Possible buyers may be the local processors of ground coffee beans who have the local, urban-based supermarkets and coffee houses as clients. Other possible buyers are Consolidated Foods Corporation (Universal Robina Group-*Great Taste* and *Blend 45*), Commonwealth Foods Corporation (*Café Puro*), and General Milling Corporation (*Kaffe de Oro*). A feasibility study on the marketing of coffee through these channels should also be made to compare the projected Net Farm Income (NFI) with that of the existing NFI of the farmers with Nestle as the end buyer.

55. It is also recommended that trainings on proper grading and its importance should be given to farmers to resolve the grading standards deficiency between farmers, assemblers and Nestle. Specifically, knowledge on the moisture content and quality requirements of Nestle would aid the farmers in producing better-priced coffee.

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APPENDIX A. Cost and returns per unit of coffee in Barangay Pamintaran,
Maragusan.

ITEM	P/kg
RETURNS	
Cash	
Sales	27.38
Total Cash Returns (A)	27.38
Non-cash	
Home consumption	0.25
Given away	0.14
Total Non-cash Returns (B)	0.39
TOTAL RETURNS (C)	27.77
COSTS	
Cash	
Fertilizers	0.85
Hired labor	11.37
Transportation	0.35
Land cost	0.15
Total Cash Costs (D)	12.72
Non-cash	
Unpaid family and/or exchange labor	0.89
Depreciation	0.40
Losses/Shrinkage of produce	1.27
Opportunity cost of capital	1.02
Total Non-cash Costs (E)	3.58
TOTAL COSTS (F)	16.30
Net Returns Above Cash Costs (C-D)	15.05
Net Farm Income	11.47

**APPENDIX B. Breakdown of costs per unit of coffee in
Barangay Pamintaran, Maragusan.**

ITEM	P/kg
I. Production Cost	
Land cost	0.15
Depreciation	0.40
Fertilizers	0.85
Own labor	0.63
Hired labor	3.98
Total Production Cost	6.01
II. Marketing Cost	
A. Cleaning	
Own labor	0.10
Hired labor	0.51
Sub-Total	0.61
B. Drying	
Own labor	0.13
Hired labor	2.31
Sub-Total	2.44
C. Grading/sorting	
Own labor	0.03
Hired labor	1.62
Sub-Total	1.65
D. Grinding	
Hired labor	2.78
Losses/shrinkage	0.26
Sub-Total	3.04
E. Transportation	
Hired labor	0.17
Transportation	0.35
Losses/shrinkage	1.01
Sub-Total	1.53
Total Marketing Cost	9.27
III. Opportunity cost of capital	1.02
TOTAL COSTS	16.30
