Republic of the Philippines
Department of Agriculture
Upland Development Programme in
Southern Mindanao (UDP)

A MARKETING EFFICIENCY STUDY ON

ABACA

IN BARANGAY PITU, MALALAG, DAVAO DEL SUR

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 abaca in Barangay Pitu, Malalag, Davao del Sur was evaluated through the deconstruction of existing marketing margins. Recommendations to improve marketing efficiency are herein offered.

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Farmers:	*Assemblers*:	*Assembler-shipper:*
Martinez Tuzan	Florentino Rosario	Alberto "Boy" Mante
Margarito Lino	Emerissa Aradani	
Tagawa Angos	Bernardo Aranda	
Luis Tungon		
Donio Takas		

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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.
Hired labor	-	the cash expense for engaging the services of farm laborers.
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.

ABACA

INTRODUCTION

1. The abaca plant (*Musa textilis nee*) of the Musacea family is known worldwide as Manila Hemp. It is indigenous to the Philippines with the country's favourable climatic condition and volcanic soils that are suited to its cultivation.

2. The Philippines is the world's largest source and supplier of abaca fiber. It is used in the manufacture of cordage for many years now. While abaca fiber is also used for pulp in specialty paper manufacture, it only came into commercial use in the 1930's.

3. In the Philippines, there are three regions that produce abaca in commercial quantity, namely: Mindanao, Visayas and Bicol. Each of these regions supplies different varieties and hybrids of abaca.

4. Compared to a banana, the abaca plant has more slender stalk, narrower and pointed leaves and a more pronounced dark line on the right hand side of the upper surface of its blade. Its fruits are smaller, non-edible and contain many seeds.

5. It propagates itself through suckering, or the growing of shoots from the roots. When all the leaves have been formed from the stem, flower buds develop, at which time the plant has reached maturity and is then ready for harvest.

6. Under normal conditions, the first harvest is done from 18 to 24 months after planting. Stalks are considered mature and are then harvested when the flag-leaf appears. The period of good fiber recovery extend for more than one month from flag-leaf to early inflorescence.

7. Harvesting of abaca involves mainly the cutting down of the plant. There are two stages in the harvesting process, namely topping and tumbling. In topping, the leaves are cut at the base of the petiole with the use of a knife or sickle fastened at the end of a bamboo or wooden pole. While in tumbling, the topped stalks then tumbled down with the use of a bolo knife.

8. In Barangay Dalupan, Don Marcelino, abaca production has become a major agricultural activity next to coconut production. Each farmerhas an average of 1.8 hectares planted to abaca, with an average yield of 100 kilograms per harvest.

9. The marketing efficiency study for abaca in Barangay Dalupan, Don Marcelino was conducted in March 12, 2001.

Objectives

10. The main objective of the study is to assess the impact of existing marketing systems of abaca vis-à-vis income of the farmers.

11. Specifically, the study aims to determine the levels of participants in the marketing chain of abaca;

12. Determine the marketing practices involved in terms of storage, handling, pricing, delivery systems and terms of payment;

13. Determine the percentage of consumer price that the producer receives through the deconstruction of marketing margins of abaca at each level in the system, exclusive of production costs;

14. Identify strengths and weaknesses of the existing marketing system of abaca; and

15. Determine appropriate marketing interventions needed to improve economic efficiency of abaca in Barangay Dalupan, Don Marcelino.

Methodology

16. From the initial agribusiness profile of UDP- Davao del Sur, 20 abaca farmers were identified, five of which come from Barangay Dalupan, Don Marcelino. Complete enumeration of the Dalupan abaca farmers was done for the interview.

17. The farmers were asked about their production and marketing practices, production and marketing costs of abaca. They were also asked on available market information with emphasis on how to improve their production and marketing practices to increase the farmer's income.

18. The respective buyers of abaca from each farmer were then traced accordingly.

19. The traders were, in turn, asked about their marketing, costs, and the problems and constraints they have encountered in the marketing of abaca.

20. The marketing margins (MM), or the total value added to the abaca per kilogram as it moves along varying marketing channels, were then deconstructed and the profitability of each marketing participant was analysed. The Net Farm Income (NFI) of the farmers was determined. An NFI greater than zero (0) would mean that the production and marketing activities of the abaca farm is profitable, whereas an NFI less than zero (0) would mean that the farm is at a loss.

21. The Return on Investment (ROI) of the trader was compared with the opportunity cost of capital, pegged at the current savings interest rate. An ROI higher

than the opportunity cost of capital would mean that marketing abaca is more profitable than just saving the trader's money in a bank. While an 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 abaca.

22. The percent share to the consumer 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) against the final buying price of the consumer. This indicates the proportion of the final buying price that goes to each marketing participant for abaca.

23. 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.

24. 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

25. Upon interview, it was observed that the farmers only recalled past production level, income, farm tools and equipment used as there were no records kept of their operations. Thus the cost and return that were analysed were only estimates. The Return on Investment (ROI) was excluded on the analysis of the farmer's income due to the ambiguity of the values arrived at, as some factors on capital investment were properly quantified. 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).

26. To represent the marketing activities, the respondents interviewed were the middlemen identified by the farmers. Most also based their answers on their memories since they too did not keep records of their marketing operations.

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

28. Lastly, the size of the abaca market, specifically, the estimation of demand was not included in the study.

Margin of Error

29. Aside form the UDP Agribusiness Profile, there are no other available data on the population size of abaca 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.

MARKETING SYSTEM OF ABACA

Marketing Channels

30. The marketing participants involved in the abaca commodity system in Barangay Dalupan, Don Marcelino are as follows:

a. Farmer

A person or entity involved in the production, post harvest and marketing of the produce to the traders.

b. Assembler

A person or entity who purchases the abaca produce from the farmers and sells it to the assembler-shipper. There are three assemblers found in the area. One is the barangay-assembler found in Barangay Dalupan, the other in the neighboring Barangay Nueva Villa and the third one is the municipal assembler from the Poblacion market.

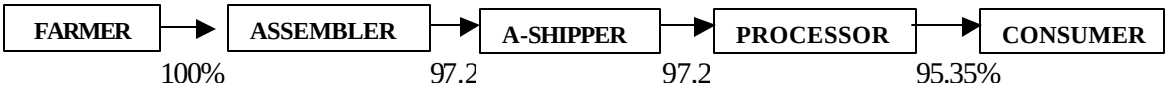
c. Assembler- shipper

A person or entity who purchases the abaca from the assembler and ships it to the processing plants in Iligan, Manila and Davao City.

Boy Mante as an assembler – shipper monopolizes the buying of abaca fibers in Davao del Sur. With the abaca-trading centre in Malita, he buys his abaca fibers at an average of P24/kg from Davao del Sur and other areas of Southern Mindanao. Mante did not divulge his selling price on the processing plants because he considers it a trade secret.

31. Abaca marketed from the producers was traced from the farms to the retailers and the product flow is established.

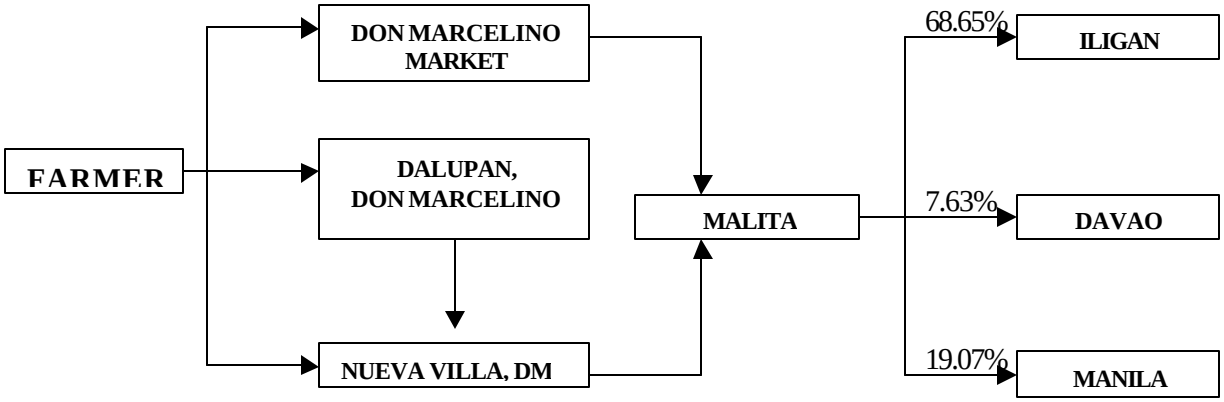
Figure 1. Product flow of abaca, Dalupan, Don Marcelino.



32. The product flow of the abaca fiber begins at the producer then is passed on to the assembler, assembler-shipper and processor successively. The processor would transform the fiber then sells the finished product to local and international markets. This study however would only focus on the farmer to assembler-shipper level.

33. As shown in Figure 1, one hundred percent (100%) of farmer's production was sold to the assembler. But, before reaching the assembler, a 2.8% loss was incurred during grading and transporting of the produce. The assembler then forwards 97.2% of the total farm produce to the assembler-shipper, incurring a marketing loss of 1.85%. Then the assemblers-shiper would transport the fiber to Malita, then direct it to the processing plants in Iligan, Davao City and Manila.

Figure 2. Geographical flow of abaca.



Marketing Practices and Costs

34. Upon harvesting of the pulps, hired *hagoteros* would strip and refine the fibers. The fibers are then hanged to sundry. Dried fibers are then classified accordingly:

- Class A for white fibers
- Class B for yellow fibers
- Class C for fibers with black spots or speckles.

36. Final grading classification is done in the trading areas.

37. Farmers, who have financing tie-ups with an assembler, direct their produce to the financier. Farmers who have no tie-ups with the assembler are paid in cash.

38. Farmers transport their produce to the trading center either on foot or on a horse because poor road conditions make it inaccessible to motorized vehicles.

39. The assembler purchases an average of 100 kilogram of abaca from each farmer for P20 per kilogram then sells it for P24 per kilogram of the assembler-

shipper. The assembler performs trimming and gradin g of the abaca to increase profit. The assembler hires a jeep to transport his produce to the trading centre of the assembler-shipper.

40. The main participation of the assembler-shipper is to collect all the abaca from the assembler and ship it to the processing plants.

41. Table 1 summarizes the marketing costs for each market level.

Table 1. Marketing costs at different levels of abaca (P/kg).

ACTIVITY	FARMER	ASSEMBLER	ASSEMBLER-SHIPPER
Peeling	2.11	*na*	*na*
Stripping	2.03	*na*	*na*
Drying	2.34	*na*	*na*
Bundling	2.16	*na*	*na*
Transportation	1.00	0.75	1.00
Labor	*na*	0.32	0.5
Fees and payments	*na*	0.42	*na*
Supplies and Materials	*na*	*na*	0.02
Non-Cash costs	*na*	0.42	0.56
TOTAL	9.63	1.91	2.08

42. Results showed that the farmer incurred the highest marketing cost at P9.63 per kilogram accounting to a high post harvest activity cost. With a relatively higher transportation cost, the assembler-shipper incurred a P2.08 per kilogram marketing cost. The assembler, on one hand, only has P1.91 per kilogram marketing cost.

Price Formation

43. Local prices of fiber are dependent on the world-market prices. However, prices of abaca have become consistent and fluctuations that may occur are only minimal.

44. In Barangay Dalupan alone, abaca prices at the farmer level range from P19 per kilogram to P20 per kilogram. The assemblers on the other hand are priced at P24 per kilogram and P32 per kilogram for the assembler-shipper.

Marketing Margins

45. Shown below is the tabular weekly margins and Net Farm Income (NFI) for abaca at different levels.

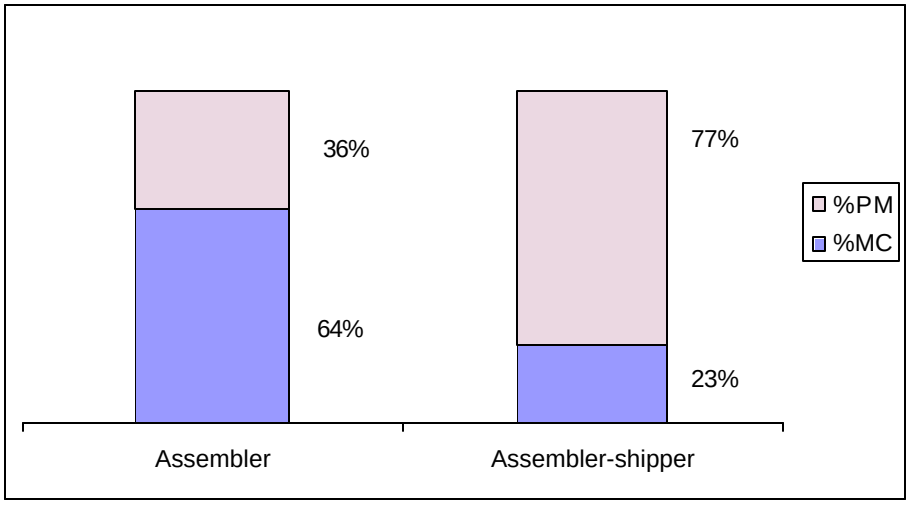
Table 2. Marketing margins and NFI for abaca at different levels.

	FARMER	ASSEMBLER	ASSEMBLER-SHIPPER
Selling Price	20.00	23.00	32.00
Buying Price	*na*	20.00	23.00
Marketing Margin	*na*	3.00	9.00
Marketing Cost	9.63	1.91	2.08
Profit Margin	*na*	1.09	6.92
Net Farm Income (NFI)	(6.12)	*na*	*na*
MC as % of MM	*na*	64	23
PM as % of MM	*na*	36	77
%ROI	*nil*	1.65%	15.77%
Opportunity Cost of Capital	*na*	8%	8%

46. This indicates that the marketing margin from the farmer to the assembler is P3.00 per kilogram, with the buying price at P20.00 per kilogram and selling price of P23.00 per kilogram (Table 2). From the assembler-shipper to the processing plant, the marketing margin is P9.00 per kilogram.

47. Graphically, Figure 3 illustrates the marketing margins of abaca.

Figure 3. Marketing margins of abaca.



48. Illustrated in Figure 3, the assembler-shipper obtains a higher profit margin as compared to the assembler.

STRENGTH AND WEAKNESSES

49. The greatest strength of abaca is its established market for fiber such that the industry is always assured of buyers.

50. However, one weakness identified is the existence of monopoly in the marketing structure. This limits the choices of the farmers on who to sell to. Since the farmers are forced to sell to one assembler-shipper, the assembler-shipper could dictate the buying price of abaca.

51. In addition to this weakness is low abaca prices since local prices depend on the world price. This low price discourages farmers and traders alike to venture in into abaca production and marketing.

CONCLUSION

52. Results showed that the farmer is not gaining any profit with its Net Farm Income of negative P6.12 per kilogram Appendix A). This means that the abaca farmers in Barangay Dalupan, Don Marcelino are producing inefficiently.

53. In assessing the cost efficiency at the trader level, the percentage of the marketing cost and profit margin in the marketing margin. It was determined that the assembler-shipper has a higher profit margin of 77% than the assembler with only 23%. Data showed that a higher percentage of the marketing margin for the assembler goes to the marketing cost at 64%.

54. Since the percentage of the assembler's marketing cost is higher than that of the assembler-shipper, this signifies that the assembler has no power in increasing the selling price of his fiber. It is therefore concluded that the assembler is performing inefficiently. Moreover, the assembler-shipper is performing efficiently accounts to the low marketing cost.

55. Another way of examining the efficiency is through the ROI. Table 2 shows that the ROI of the assembler is less than 8%, while that of the assembler-shipper is greater than 8%. This verifies that the assembler is performing inefficiently and the latter is performing efficiently.

RECOMMENDATION

56. Results of the study show that production of abaca is costly. Studies to lessen the cost of production should also be considered such as Partial Budget analysis on mechanization of the farm.

57. Economies of scale in production should be established to reduce the cost of production. Farmers should increase their production in order to lessen the cost thus increasing its profit.

58. Transfer of technology about the processing of abaca would help the farmers gain other markets for their processed abaca. Livelihood projects should be introduced to the farmers to increase their markets thus increasing their income.

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APPENDIX A. Cost and returns per unit of Abaca in Barangay Dalupan, Don Marcelino.

ITEM	P/kilogram
RETURNS	
Cash	
Sales	20.00
Total Cash Returns (A)	20.00
Total Non-cash Returns (B)	0
TOTAL RETURNS (C)	20.00
COSTS	
Cash	
Planting material	7.31
Land Cost	0.68
Hired Labor	13.92
Transportation	0.59
Total Cash Cost (D)	22.50
Non-cash	
Unpaid family and/or exchange labor	0.45
Depreciation	0.64
Losses/Shrinkage of produce	0.71
Opportunity cost of capital	1.82
Total Non-cash Costs (E)	3.62
TOTAL COSTS (F)	26.12
Net Returns Above Cash Costs (C-D)	(2.50)
Net Farm Income	(6.12)

APPENDIX B. Breakdown of costs per unit of Abaca in Barangay Dalupan, Don Marcelino.

ITEM	P/kg
I. Production Cost	
Land	0.68
Depreciation	0.64
Corms	7.31
Own Labor	6.21
Hired Labor	7.33
Total Production Cost	16.17
II. Marketing Cost	
A. Peeling	
Own Labor	0.06
Hired Labor	1.64
Loses/Shrinkage	0.12
Subtotal	1.82
B. Stripping	
Own Labor	0.06
Hired Labor	1.63
Loses/Shrinkage	0.17
Subtotal	1.86
C. Drying	
Own Labor	0.06
Hired Labor	1.63
Loses/Shrinkage	0.14
Subtotal	1.83
D. Bundling	
Own Labor	0.06
Hired Labor	1.63
Loses/Shrinkage	0.16
Subtotal	1.85
E. Transportation	
Hired labor	0.06
Transportation	0.59
Losses/shrinkage	0.12
Sub-Total	0.77
Total Marketing Cost	8.13
III. Opportunity cost of capital	1.82
TOTAL COSTS	26.12