



Republic of the Philippines  
Department of Agriculture

Upland Development Programme in  
Southern Mindanao (UDP)

**A MARKETING EFFICIENCY STUDY  
ON**

**PEANUT**

**IN SITIO BONG LAWAAN, PALO 19  
TAMPAKAN, SOUTH COTABATO**

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 peanut in Sitio Bong Lawaan, Palo 19, Tampakan, South Cotabato was evaluated through the deconstruction of the marketing margins. Recommendation to improve marketing efficiency is herein provided.

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*Assembler:*

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*Retailers:*

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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.
Economies of scale	-	the economic concept wherein production at a larger scale (more output) can be achieved at a lower cost.
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.
Saved for seeds	-	the value, non-monetary in nature, of the farm produce kept by the farmer for use as planting material in the following production cycles.
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.

# PEANUT

## INTRODUCTION

1. Peanut (*Arachis hypogea* Linn.) thrives in loose, friable, well drained and with a high water retention capacity soil. Also, it grows well in an area with warm climate and no distinct wet and dry seasons (FITS-SMARRDEC). There are two cropping seasons per annum, usually from March to July and October to February.
2. For a capital- and labor-intensive farm, as recommended by the Department of Agriculture and the Farmers Information Technology Services (FITS), a peanut farm ideally yields an average of 1,800 kilograms per hectare.
3. Sitio Bong Lawaan, Palo 19, Tampakan, South Cotabato, was identified as one the UDP-target areas with the most number of peanut farmers. The natural features of Sitio Bong Lawaan, especially its climate, were determined to be relatively appropriate for peanut production.
4. Peanut varieties identified in the area are the locally known Singaporean and Imelda varieties. The respondents' choice of variety is mainly influenced by the availability of planting materials and the price of the seeds.
5. The average yield per hectare of peanut in Sitio Bong Lawaan is only 9.07 sacks or 317 kilograms per hectare. While the average land planted to peanuts is 2.22 hectares.
6. Major crops grown in the area include corn, rice, legume and root crops, most of which are for home consumption and commercial use. Major agricultural trade and transactions, however, are done either in the Palo 19 proper or poblacion Tampakan since the Sitio is approachable only through a 4-kilometer sloping and narrow dirt-path traversed on foot or by draft animals.
7. The marketing efficiency study for peanut in Sitio Bong Lawaan, Palo 19, Tampakan was conducted last March 6, 2001.

### *Objectives*

5. The main objective of the study is to assess the impact of existing marketing systems of peanut vis -à-vis income of the farmers.
6. Specifically, the study aims to determine the levels of participants in the marketing chain of peanut;
7. Determine the marketing practices involved in terms of storage, handling, pricing, delivery systems and terms of payment;
8. Determine the percentage of consumer price that the producer receives through the deconstruction of marketing margins of peanut at each level in the chain, exclusive of production costs;

9. Identify strengths and weaknesses of the existing marketing system of peanut; and
10. Determine appropriate marketing interventions needed to improve economic efficiency of peanut in Sitio Bong Lawaan, Palo 19, Tampakan.

### *Methodology*

11. From the initial agribusiness profile of the UDP, Sitio Bong Lawaan was determined to have the most numbers of peanut farmers in the UDP-target areas of South Cotabato. Purposive sampling was done and of the 19 identified peanut farmers in South Cotabato, five (5) were from Sitio Bong Lawaan. Complete enumeration was done in the sitio and an additional two (2) farmers were identified and interviewed during the survey.
12. The farmers were asked about their production and marketing practices, volume and value of sales, production and marketing costs of peanut. 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.
13. The respective buyers of peanut from each farmer were then traced accordingly.
14. The traders were, in turn, asked about their marketing, costs, sales and the problems and constraints they have encountered in the marketing of peanut.
15. The marketing margins were then deconstructed and the profitability was 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 peanut farm is profitable, whereas an NFI less than zero (0) would mean that the farm is at a loss.
16. 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. A ROI higher than the opportunity cost of capital would mean that marketing peanut 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 peanuts.
17. 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 relative to the final buying price of the consumer. This indicates the proportion of the final buying price that goes to each marketing participant for peanut.

18. 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.

19. 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*

20. 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).

21. 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.

22. 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 could only allow for this kind of analysis and not the more complicated input-output efficiency analyses.

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 could only allow for this kind of analysis and not the more complicated input-output efficiency analyses.

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

#### *Margin of Error*

25. As all of the peanut farmers in the area were interviewed for the study, the margin of error at a 95% confidence level is zero (0). This means that there is a 95% confidence that the real values of the parameters used in this study are the same as those computed for using the data from the respondents.

## MARKETING SYSTEM OF PEANUT

### *Marketing Channels*

25. The marketing participants involved in the peanut commodity system in Sitio Bong Lawaan are as follows:

a. Farmer

A person engaged in peanut cultivation for sustenance or commercial purposes. They usually sell their produce to retailers based in General Santos City but, in a few cases, they also sell to the Barangay assembler-wholesaler;

b. Barangay Assembler

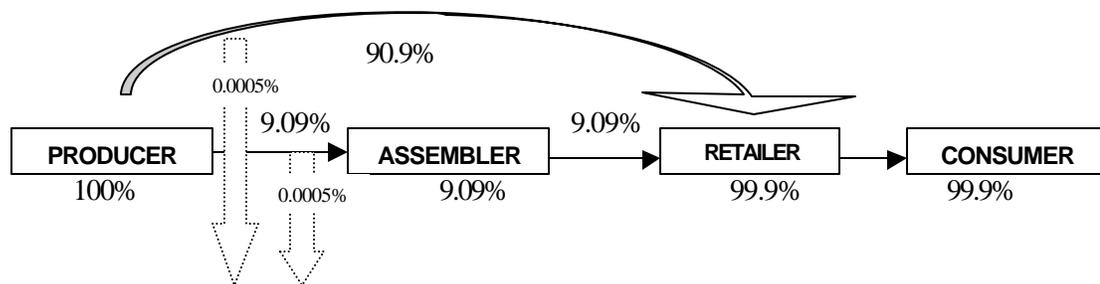
In the person of the Palo 19 Barangay Captain, he procures stocks peanuts from farmers only during the harvest season. His buyers are the same retailers that the farmers directly sell to in General Santos City;

c. Retailers

Rely on the farmers and assembler-wholesalers for their supply. Based in Lido Subdivision, General Santos City, these retailers have stalls in the public market, where cooked and uncooked peanuts are sold, and mobile carts spread in the city which retail boiled, unshelled peanuts.

26. Based on farmer interviews in the area, a total of 4,777.5 kilograms of unshelled peanuts were produced for one cropping season and the following product flow was established:

Figure 1. Product flow of peanut from Bong Lawaan, Palo 19, 2001.



20. As shown on Figure 1, 90.9% (4342.7 kilograms) of unshelled peanuts were directly sold by the farmers to the retailers while 9.09% (434.3 kilograms) were sold to the assembler. The assembler then sold the peanuts to the retailer in General Santos City.

21. The discrepancy of 0.001% or roughly 0.1 kilogram of unshelled peanut is accountable to losses sustained during the transportation of the peanuts from the farm to Palo 19 proper. Since the quality of the road from Sitio Bong Lawaan to Palo 19 proper is quite poor, most of the losses occurred there.

22. Similarly, the geographic flow of the peanuts from Sitio Bong Lawaan is illustrated on Figure 2.

Figure 2. Geographic flow of peanuts from Bong Lawaan, Palo 19, 2001.



23. To distinguish the two marketing channels, the marketing chain involving all three marketing participants (farmer, assembler-wholesaler and retailer) is referred to as Case 1 and the marketing chain involving direct selling by farmers to the retailers as Case 2.

#### *Marketing Practices and costs*

24. After harvest, the peanuts are immediately put into polyethylene sacks, each sack weighing 70 kilograms, and sold. Drying and storage of peanuts in the area are rarely practiced since the established buyers of peanuts from Sitio Bong Lawaan prefer the produce fresh.

30. For Case 1, the peanuts harvested in Sitio Bong Lawaan are directly delivered by the farmers to the retailers in General Santos City observing a single transportation sequence, described as follows:

- ?? Hauling, by horse, from the farm to Palo 19 proper;
- ?? Loading on public jeepneys bound for Tampakan;
- ?? Transport, by jeepney, from Palo 19 to Tampakan;
- ?? Unloading-loading at Tampakan;
- ?? Transportation, by jeepney, to General Santos City (Lido Subdivision);
- and
- ?? Unloading-hauling to the retailers' stalls

31. Shown below are the marketing costs for different marketing levels of peanut in Sitio Bong Lawaan.

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

ACTIVITY	FARMER		ASSEMBLER	RETAILER
	Case 1	Case 2		
Cleaning	0.36	0.36	<i>na</i>	<i>na</i>
Packing	0.23	0.23	<i>na</i>	<i>na</i>
Transportation	0.92	0.49	0.97	0.75
Labor	<i>na</i>	<i>na</i>	0.30	0.75
Supplies and materials	<i>na</i>	<i>na</i>	0.03	0.08
Utilities and other fees	<i>na</i>	<i>na</i>	0.03	0.67
Non-cash costs	<i>na</i>	<i>na</i>	0.13	1.00
TOTAL	1.51	1.08	1.46	3.25

32. As indicated in Table 1, the transportation cost from the farm to the retailer's stall, including hired labor and losses, total P0.92 per kilogram of peanut sold. However, the transportation cost from the farm to the Barangay proper, for Case 2, is only P0.49 per kilogram.

33. When the farmer reaches the assembler or the retailer a sample is first taken from the sack and examined for the quality of the nuts and the moisture content before purchase. Since the peanuts are usually sold fresh, there is tendency for the pods to rot and blacken. Corresponding price deductions are made to those sacks that contain more spoiled pods than usual.

34. At the Lido Subdivision, General Santos City, the farmers sell the peanuts to retailers who have their own stalls there. During peak months, around 70% of the peanuts handled by the retailers are delivered to their stalls by the farmers or assemblers. The retailers also pick up some peanuts from farms and barangay centers but the price for picked-up peanuts is P 0.50-2.00 per kilogram lower than the prices of delivered peanuts. These retailers also buy vegetables, corn, rice and other agricultural commodities.

35. These retailers sell peanuts in two forms, the dry and cooked. For the dry peanuts, the retailers prefer the native and Imelda varieties. Bulk of their sales, however, use the Singapore variety, which is sold boiled at mobile stalls and carts also owned by the retailers. Packaging sizes are 200 gram-, 500 gram-, and 1 kilogram packs.

36. Marketing costs on the part of this retailer include utilities, transportation, materials for packaging (plastic and paper bags), labor and fuel.

37. The peanuts sold to the Palo19 Barangay Captain, on the other hand, are loaded on the assembler's truck and brought to the Lido Subdivision for sale.

#### *Price Formation*

38. Peak months for buying peanuts are from July to September and February to March, while the lean months are October to December and April to June. Shown on Table 2 are the buying prices for Imelda and Singaporean varieties in General Santos City. It was found out that prices depend on the supply of peanuts in the area and therefore seasonal in nature.

Table 2. Average buying prices of Imelda and Singaporean varieties of peanuts during peak and lean months, General Santos City.

VARIETY	PEAK MONTHS July-Sept & Feb-Mar	LEAN MONTHS Oct-Dec & Apr-Jun
Imelda	20.29	27
Singaporean	22.36	25

39. The Palo 19-based assembler buys the peanuts from the farmers at P19.20 per kilogram while the General Santos City-based retailer buys the peanuts at P23.00 per kilogram.

#### *Marketing Margins*

40. The marketing margins and Net Farm Income in peanut for the cases are shown in Table 3.

Table 3. Marketing margins and income for peanut at different marketing levels.

ITEM	FARMER		ASSEMBLER	RETAILER
	Case 1	Case 2		
Selling Price (P/kg)	23.00	19.20	23.00	30.00
Buying Price (P/kg)	<i>na</i>	<i>na</i>	19.20	23.00
Marketing Margin (P/kg)	<i>na</i>	<i>na</i>	3.80	7.00
Marketing Cost (P/kg)	1.51	1.08	1.46	3.25
Profit Margin (P/kg)	<i>na</i>	<i>na</i>	2.34	3.75
Net Farm Income (NFI)	16.05	12.68	<i>na</i>	<i>na</i>
MC as % of MM	<i>na</i>	<i>na</i>	38%	46.4%
PM as % of MM	<i>na</i>	<i>na</i>	62%	53.6%
%ROI	<i>nil</i>	<i>nil</i>	10.6%	6.41%
Opportunity Cost of Capital	<i>na</i>	<i>na</i>	8%	8%

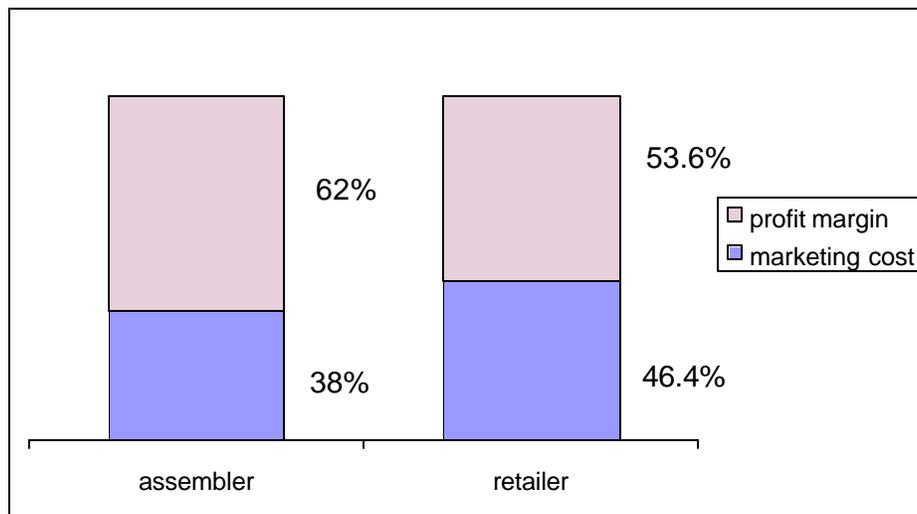
41. A comparison between the Net Farm Income (NFI) of the farmers for the two cases show that the profit or income of the farmer is higher when it is directly sold to the retailers.

42. Although the Case 1 farmer and the assembler sell the peanuts to the retailers at the same price, note that the assembler's marketing costs are lower. This explains why the assembler still exists despite the fact that the farmers would earn more money if they sell directly to the retailer rather than to the assembler. Also, some farmers would still opt to sell their peanuts to the assembler, to avoid the trouble of travelling and transporting the peanuts.

43. The total value added to the peanuts per kilogram as it moves along one marketing channel to another is indicated by the marketing margin (MM). In this case, the marketing margin of the assembler-wholesaler is P3.80 per kilogram and P7.00 per kilogram for the retailer.

44. The marketing costs make up 38% and 46.4% of the marketing margins of the assemblers and retailers, respectively. Graphically, the marketing margins are shown below.

Figure 4. Marketing margin at different marketing levels of peanut in Sitio Bong Lawaan, Palo 19.



45. A comparison between the two, show that the assembler gains more percentage profit than the retailer. This means that for all the marketing practices that the two traders carry out, the retailer relatively earns more.

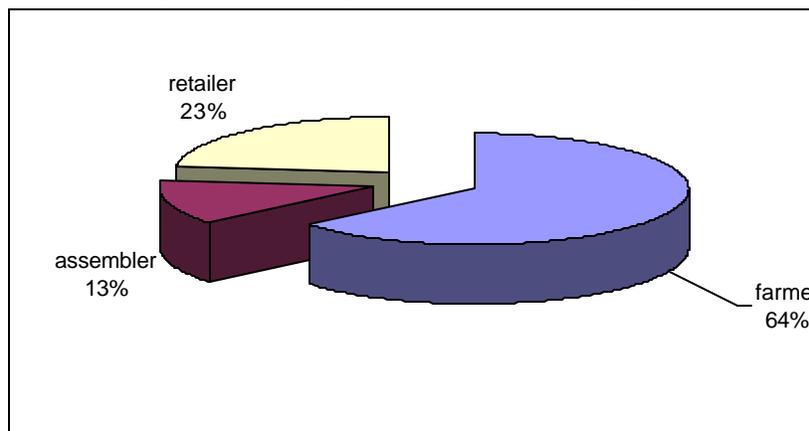
46. The Return on Investment (ROI) is another way of showing the profitability of the enterprise. For the assembler, every peso that he invests he earns back P0.1067. Similarly, for every peso that the retailer invests, P0.0641 is his profit.

47. In the presentation of the breakdown of the consumer peso Case 2 was used so that all the marketing participants are included in the analysis. The breakdown of the consumer peso for Case 2 is shown on Table 4 and Figure 5.

Table 4. Percentage share to the consumer peso.

MARKETING LEVEL	SELLING PRICE (P/kg)	% SHARE
Farmer	19.20	64%
Assembler	23.00	12.7%
Retailer	30.00	23.3%

Figure 5. Percentage share of the consumer peso.



## STRENGTH AND WEAKNESSES

48. The only strength in the marketing of peanuts in Bong Lawaan, Palo 19 is the long established marketing system. This means that there are already established buyers for peanuts grown in Bong Lawaan such that farmers would no longer have the problem of looking for prospective buyers of their produce.

49. Weaknesses in the peanut marketing system, on the other hand, surpass its strength. For instance, there are very few, if not non-existent, post-harvest activities involving peanut. Drying and shelling of peanuts, which raise the value of the produce, are rarely, if ever, done in the area.

50. Also, price was determined to be dictated by the traders, therefore, farmers do not have much influence over the farm-gate price which makes the pricing system inefficient.

51. Lastly, the inaccessibility of the Sitio Bong Lawaan, particularly to motorized vehicles, increases the transportation cost.

#### OTHER KEY FINDINGS

52. Peanut in Sitio Bong Lawaan suffers from a relatively low production, which is brought about by the lack of technical know-how in peanut cultivation. For instance, the use of inoculants before propagation of the peanut seeds is totally unknown to the farmers. This lack of knowledge in the use of peanut inoculants, a technology that is acknowledged and used extensively by other peanut producers in the country, is a clear indication of the lack of peanut production information in Sitio Bong Lawaan.

#### CONCLUSION

53. For the farmers, a comparison between two cases, one where the farmers sell their peanuts to the barangay assembler and the other where the farmer directly sells his produce to the retailers, show that it is better for the farmers to bring and sell their produce to General Santos City-based retailers since they would get a P16.05 per kilogram profit as opposed to the P12.68 per kilogram profit they would get if they sell to the barangay assembler.

54. Since the NFI for both cases of the farmer, it is concluded that peanut production and marketing, on a farmer level, in Sitio Bong Lawaan is profitable and efficient.

55. On the matter of the marketing efficiency for the traders, the percent return on investments of each marketing participant is evaluated. For the assembler, who receives a 10.67% ROI, marketing is efficient since the value exceeds the opportunity cost of capital, set at 8%.

56. For the retailers, however, marketing is inefficient. It would be better for the retailer to invest his money in a bank because it would earn more than in his peanut retail activity.

57. A further comparison between the two traders' marketing costs in relation to their marketing margins, show that the assembler has economically utilized his costs such that he could still receive 62% of the marketing margin as profit (Table 2).

## RECOMMENDATIONS

58. Based on the strength, weaknesses, other key findings and conclusions established in this study, the following recommendations are offered:

- ?? First is the development and improvement of the Bong Lawaan-Palo 19 path so that it could accommodate two-wheeled vehicles for hauling produce;
- ?? The facilitation of an informal assembly or a collective marketing of peanuts from various Bong Lawaan farmers during harvest such that the volume is enough to reduce the per unit transportation cost and reach the economies of scale in transportation;
- ?? A study on the feasibility of drying and storing peanuts in Sitio Bong Lawaan should also be conducted to consider the marketing options of the peanut farmers;
- ?? Conduct trainings and information drives highlighting the production, cultural and marketing practices in peanut so as to empower the farmers with technical know-hoe, consequently improving their yield; and
- ?? To help reduce the costs of the retailers by encouraging them to sell peanuts wholesale or by efficiently utilizing their stalls and carts through the diversification of commodities sold.

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APPENDIX A. Cost and returns per unit of peanut in Sitio Bong Lawaan, Palo 19.

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ITEM	P/kg
<b>RETURNS</b>	
Cash	
Sales*	22.65
Total Cash Returns (A)	22.65
Non-cash	
Home consumption	0.25
Given away	0.14
Total Non-cash Returns (B)	0.39
<b>TOTAL RETURNS (C )</b>	<b>23.04</b>
<b>COSTS</b>	
Cash	
Planting material	1.54
Fertilizer	0.84
Pesticide	1.12
Hired labor	1.25
Transportation	0.83
Land cost	0.02
Others	0.15
Total Cash Costs (D)	5.75
Non-cash	
Unpaid family and/or exchange labor	0.93
Depreciation	0.12
Losses/Shrinkage of produce	0.08
Opportunity cost of capital	0.45
Total Non-cash Costs (E)	3.31
<b>TOTAL COSTS (F)</b>	<b>6.89</b>
Net Returns Above Cash Costs (C-D)*	17.29
Net Farm Income*	16.15

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\*Note that the values are the averages for both cases.

APPENDIX B. Breakdown of costs per unit of peanut in Sitio Bong Lawaan, Palo 19.

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<b>ITEM</b>	<b>P/kg</b>
<b>I. Production Cost</b>	
Land cost	0.02
Planting material	1.54
Fertilizers	0.84
Pesticides	1.12
Depreciation	0.12
Own labor	0.70
Hired labor	0.89
Others	0.15
Total Production Cost	5.38
<b>II. Marketing Cost</b>	
A. Cleaning	
Own labor	0.14
Hired labor	0.16
Losses/shrinkage	0.06
Sub-Total	0.36
B. Packing	
Hired labor	0.13
Own labor	0.09
Losses/shrinkage	0.01
Sub-Total	0.23
C. Transportation	
Hired labor	0.07
Transportation	0.83
Losses/shrinkage	0.01
Others	0.01
Sub-Total	0.92
Total Marketing Cost	1.51
III. Opportunity cost of capital	0.45
<b>TOTAL COSTS</b>	<b>7.34</b>

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