

# **PROJECT FOR A MODEL COPRA UNIT**

## PROJECT AT A GLANCE

Objective:	Establishment of a Coconut Processing Unit for production of high quality copra		
Promoters:	Federation of Coconut Producers		
No. of nuts processed per year:	3 million nuts		
Products:	Copra		
Total Capital Cost:	Rs.	12.60	lakhs
Means of Finance:	Equity	Rs.	6.60 lakhs
	Subsidy from CDB*	Rs.	6.00 lakhs
	*Coconut Development Board		
Sales Realisation at stabilisation stage:	Rs.	1.64	crores
Gross Profit:(5th year)	Rs.	4.51	lakhs
Net Profit After Tax(5thyear):	Rs.	3.02	lakhs
Gross Profit on Sales: (%)		2.74	
Net Profit after Tax on Sales:(%)		1.84	
Return on Capital employed(5th year) (%)		21.98	
Internal Rate of Return(IRR)		19%	
Pay Back Period:		4 years	
Break Even Point:		64%	
Employment generation:		3000	man days in a year

**PROJECT FOR CREATION OF INFRASTRUCTURE FOR PRIMARY  
PROCESSING  
OF COCONUT IN .....(name of the village)  
VILLAGE,  
..... (name of the district) DISTRICT**

**1. BACKGROUND INFORMATION:**

The concept of value addition in agricultural commodities has been gaining more and more importance during the last five years. Infusion of new processing technologies and innovative methods for preservation of processed products are the essential need of the hour. If the farmer is to get the direct benefit of value addition the first step in this direction shall be to induce the farmer to take up on farm processing. On farm processing in coconut sector is only quite meagre. The reason for this phenomena, at least in Kerala, is that coconut scenario in the state presents quite a dismal picture with the proliferation of large number of small and marginal farms which are not economically viable to take up on farm process. Large sized farms can attempt on farm processing in order to reap the benefit of value addition. A large marketable surplus of raw nuts from small holds finds its way to other centres through middlemen negating the benefits to actual farmers. It is in this context the processing at the farmers' community level with their pooled production assumes prime priority and needs all sorts of supports and incentives.

Against this back drop the Coconut Producers Societies initiated by the Coconut Development Board recently aims at minimising cost of production, improving productivity, pooling together the scattered production of small holdings for achieving economies of scale and taking up primary processing. .... (name of the district) District is one of the districts which formed large number of CPSs. As an initial step .....(no.of CPSs) CPSs in .....(name of district) District formed a federation of CPSs and propose to start procuring coconut from farmers within the area of operation federation and to set up infrastructure for primary processing of coconut into copra. This is indeed a right step which will have a highly favourable impact in improving the farm level income and overall economic conditions of the small farmers engaged in coconut farming.

Traditional methods of coconut processing depended on sun drying for production of copra which often resulted in substandard quality of copra. At the present juncture quality of an agro based product needs more attention and utmost care has to be taken in every step of processing so that the end product conforms to the quality standards. In the case of copra also with the

development of modern dryers, twin benefits are accrued by way of high quality as well the drastic reduction in drying time.

To sum up sustainable development can be achieved if CPS Federations take up primary processing of coconut for value addition which will help achieving the prime objective of remunerative returns to the farmers.

**OBJECTIVE OF THE PROJECT PROPOSAL:**

This project proposal aims at setting up of a unit for processing of coconut to copra by creation of proper infrastructure in the form of drying system along with storage facilities at ..... (name of the village) Village of ..... (name of the district) District.

**PROMOTERS:**

..... (name of the federation) Federation of Coconut Producers' CPS Society

**LOCATION OF THE PROJECT:**

The location of the unit will be at .....(name of village) Village, ..... (name of the district) District. It is well connected by road and is accessible to all the CPSs comprised in the project. Electricity and Water are available in the area. All infrastructure facilities are available for implementing the project.

**TOTAL CAPITAL COST OF THE PROJECT**

	(Rs. lakhs)
Land 20 cents	Leased land
Building 1500 sq.ft.	6.00
Plant and Machinery	6.00
Preliminary & Pre-operative expenses	0.10
Working Capital Margin	0.50
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Total	12.60
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**MODE OF FINANCING**

Equity raised by Promoter	6.60
Subsidy from Coconut Development Board	6.00
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Total	12.60
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## LAND AND BUILDING:

The Promoter Society is already in possession of ..... (extent of land)cents of land in .....(name of the village) Village for the purpose. A building measuring 1500 sq. ft for processing and storage of products will be constructed by the promoter at a cost of Rs.6.00 lakhs.

## PLANT AND MACHINERY: (APPENDIX V)

The main objective of the project is to process coconut to copra ensuring the copra so produced will be of good quality. An efficient drying system to process 10000 coconuts a day along with the necessary accessories inclusive of a generator and other works such as electrification and erection would be installed at a cost of Rs. 6.00 lakhs.

## RAW MATERIAL REQUIREMENT: (APPENDIX I)

Installed capacity of the unit is to process 10000 coconuts a day and hence annual requirement of coconuts for the project is 3 million. The raw material, coconut, will be available from the farmers of the member CPSs of the federation. At present there are ... CPSs in the Federation. Total number of palms in the federation area is 30625. Average yield per bearing palm is observed to be .....(per palm productivity) per annum and the total number of coconuts available in the federation would work out around ..... (total production of coconuts in the federation area) million. Since the drying system is capable of processing 10000 nuts per day it will take care of the production of coconut in the area. There will not be any problem for raw material.

## COST OF RAW MATERIAL: (APPENDIX I)

Average weight of nut is 450g. The procurement price arrived at by the agencies involved is Rs.14 per 1 kg. At this rate total cost of raw material required for the project is Rs.1.89 crores. The farmers involved in the CPSs would deliver the material at the processing centre.

## OUTPUT OF PRODUCT: (APPENDIX II)

Studies carried out have shown that average yield of copra per kilogram of nut processed is 300gm. On this basis the total out put of copra in year would be 405 tons, of which 90% of FAQ copra and balance 10% would be second grade copra, RAS.

## PRICING OF COPRA: (APPENDIX II)

NAFED has declared the Minimum Support Price (MSP) for 1 kg of copra under the Price Support Scheme. Price fixed for copra is Rs.51 per kg for FAQ copra and Rs.30 per kg of RAS copra. On this basis total sales realisation from copra works out to 1.98 crores at 100% capacity utilisation.

## BY PRODUCT: (APPENDIX II)

By product Coconut Shell will be 100 g per nut and total shell available would be 300 tons. Of this 50% will be used as fuel in the drying system and balance shell will be sold at Rs. 5000 per ton so that the total sales income from shell would work out to Rs.7.5 lakhs.

Packing Material in the form of gunny bags would be necessary for copra, cost of which is taken Rs.20 per 50 kg bag. Total cost of Packing Material would work out to Rs.1.1 lakhs at 80% capacity utilisation.

## UTILITIES:

### (a) POWER AND FUEL:

Total connected load will be 10 HP. At the rate of Rs.6.25 per unit of electricity consumed and annual expenses towards diesel for generator at Rs.25000, total expenses towards this item would work out to Rs.2.36 lakhs at 100% capacity utilisation.

### (b) FACTORY OVERHEADS:

A Provision of 2.3% of the machinery to the extent of Rs. 0.138 lakhs is made towards plant maintenance, plant sanitation and stores and spares.

### (c) DEPRECIATION:

Depreciation is calculated by Straight Line method. Depreciation at the rate of 6.4% is taken for Plant and Machinery and 5% for other types of assets. Total Depreciation works out 0.68 lakhs.

## MANPOWER REQUIREMENTS FOR THE PROJECT:

Direct labour for day to day processing work is 10 hands consisting of 1 supervisor, 4 skilled hands and 5 unskilled persons with wage rates at Rs.300/- per day for Supervisor, Rs.250/- per day for skilled and Rs.200/- per day for

unskilled. Total cost towards labour works out to Rs. 8.28 lakhs per year 100% capacity utilisation stage.

#### ADMINISTRATIVE AND MANAGEMENT EXPENSES:

Administration and management of the project would be done by the Promoter of the project. A lump sum provision of Rs.150000/- per annum is made towards this item.

#### WORKING CAPITAL REQUIREMENT (APPENDIX IV)

Working capital requirement occurs in the first three years of the project. During the first year of the project requirement of working capital is to the extent of Rs.2.3 lahs, of which Rs.0.5 is lakhs is raised as margin money by the promoters and balance Rs.1.8 lakhs is raised as short term loan from banks/private sources at rate of interest 10%. Working capital requirements for subsequent years would be met from internal resources generated in the project.

#### IMPLEMENTATION OF THE PROJECT:

Once the approval for the project is cleared by the Coconut Development Board, the unit would start civil works from August 2012 and complete it by Oct 2012. By the time all the machinery and other fixed assets would be acquired and installed. Regular production would start from December 2012.

#### EVLUATION OF THE PROJECT: (STATEMENT VIII)

The setting up of a community level processing unit within the Federations is an innovative step and will reward the farming community as well as the population of the area. There will be employment generation both direct and indirect. The Benefit of value addition will percolate down even to the small and marginal farmers. Once this venture becomes successful it could be replicated and it will have a highly beneficial impact on the coconut sector.

Working results of the project throws light on its viability. Total sales realisation at 80% capacity utilisation stage is Rs.1.64 crores. Gross Profit during the fifth year of the project is Rs.4.51 lakhs and Net profit, Rs.3.02 lakhs. Gross Profit on Sales is 2.74.% and Net Profit on Sales is 1.84%. Return on Capital Employed during the fifth year of the project is 20.5%. Internal Rate of Return for the Project is 19%. Pay Back Period for the project is 4 years. The project breaks even at 64%.

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**STATEMENT I**  
**CAPITAL INVESTMENT COST OF THE PROJECT**

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Sl.No.	Item	Amount( Rs. in lakhs)
1	Land      20 cents	leased
2	Building    1500 sq.ft	6.00
3	Plant and Machinery	6.00
4	Preliminary & Pre-operative expenses	0.10
5	Working Capital Margin	0.50
	Total	----- 12.60 -----

**MODE OF FINANCING**

a) Equity by Promoters	6.60
b) Subsidy from Coconut Development Board	6.00
Total	----- 12.60 -----



**STATEMENT II**  
**PROFITABILITY STATEMENT**

(Rs. lakhs)

Sl.No.	Item	1st year	2nd year	3rd year	4th year	5th year	6th year	7th year	8th year	9th year	10th year
A	CAPACITY ACHIEVED	60%	70%	80%	80%	80%	80%	80%	80%	80%	80%
	No. of working days	300	300	300	300	300	300	300	300	300	300
B	SALES REALISATION	123.33	143.88	164.44	164.44	164.44	164.44	164.44	164.44	164.44	164.44
C	Operating Costs										
1	Raw Material	113.40	132.30	151.20	151.20	151.20	151.20	151.20	151.20	151.20	151.20
2	Power & Fuel	1.42	1.65	1.89	2.18	2.18	2.18	2.18	2.18	2.18	2.18
3	Water	0.04	0.05	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
4	Production Labour	4.97	5.80	6.62	4.20	4.20	4.20	4.20	4.20	4.20	4.20
5	Factory Overheads	0.08	0.10	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11
6	Depreciation	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68
		120.59	140.58	160.56	158.43	158.43	158.43	158.43	158.43	158.43	158.43
D	Administrative & Management Expenses	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
	Total Expenses(C+D+E)	122.09	142.08	162.06	159.93	159.93	159.93	159.93	159.93	159.93	159.93
	b)Interest: Short Term	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18
	Total (C to F)	122.27	142.26	162.24	160.11	160.11	160.11	160.11	160.11	160.11	160.11
G	Profit	1.06	1.62	2.19	4.33	4.33	4.33	4.33	4.33	4.33	4.33
H	Prelim. & Pre-op ex. Writ	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
I	Profit before Tax	1.05	1.61	2.18	4.32	4.32	4.32	4.32	4.32	4.32	4.32
J	Corporate Tax	0.32	0.48	0.65	1.29	1.29	1.29	1.29	1.29	1.29	1.29
K	Net Profit	0.74	1.13	1.53	3.02	3.02	3.02	3.02	3.02	3.02	3.02
L	Cumulative Net Profit	0.74	1.86	3.39	6.41	9.43	12.46	15.48	18.50	21.52	24.54

**STATEMENT III**  
**CASH FLOW STATEMENT**

(Rs. In lakhs)

Sl.No.	Item	Pre-op.yr	1st year	2nd year	3rd year	4th year	5th year	6th year	7th year	8th year	9th year	10th year
<b>A SOURCE OF FUNDS</b>												
1 a)	EBIT+D	-	1.91	2.47	3.04	5.18	5.18	5.18	5.18	5.18	5.18	5.18
	b)Add Pre. & Preop. Exp. W/off	-	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	Total Fund Generation(a+b)	-	1.92	2.48	3.05	5.19	5.19	5.19	5.19	5.19	5.19	5.19
2	Equity	6.10	0.50	-	-	-	-	-	-	-	-	-
3	Subsidy from Coconut Dev.Board	6.00	-	-	-	-	-	-	-	-	-	-
4	Short term loan	-	1.80	-	-	-	-	-	-	-	-	-
	Total A	12.10	4.22	2.48	3.05	5.19	5.19	5.19	5.19	5.19	5.19	5.19
<b>B APPLICATION OF FUNDS</b>												
1	Investment in Fixed Capital	12.00	-	-	-	-	-	-	-	-	-	-
2	Pre. & Pre.operative expenses	0.10	-	-	-	-	-	-	-	-	-	-
3	Working Capital	-	2.30	0.40	0.40	-	-	-	-	-	-	-
4	Intesest on Short Term Loan	-	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18
5	Corporate Tax	-	0.32	0.48	0.65	1.29	1.29	1.29	1.29	1.29	1.29	1.29
	Total B	12.10	2.80	1.06	1.23	1.47	1.47	1.47	1.47	1.47	1.47	1.47
<b>C</b>												
	Opening Balance	0.00	0.00	1.43	2.84	4.66	8.37	12.08	15.80	19.51	23.22	26.93
	Surplus Cash(A-B)	0.00	1.43	1.42	1.82	3.71	3.71	3.71	3.71	3.71	3.71	3.71
	Closing Balance	0.00	1.43	2.84	4.66	8.37	12.08	15.80	19.51	23.22	26.93	30.64

Internal Rate of Return(IRR)

19%

**STATEMENT IV**  
**PAY BACK PERIOD**

Total Capital Investment:   Rs.    12.6 lakhs

(Rs.lakhs)

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Year	Net Operating Surplus	Cumulating Operating Surplus
1st year	1.43	1.43
2nd year	1.82	3.24
3rd year	2.22	5.46
4th year	3.71	9.17
5th year	3.71	12.88
6th year	3.71	16.60

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Pay Back Period - 4 years

**STATEMENT V**  
**PROJECTED BALANCE SHEET**

(Rs. In lakhs)

Sl.No.	Item	1st year	2nd year	3rd year	4th year	5th year	6th year	7th year	8th year	9th year	10th year
<b>A</b>	<b>LIABILITIES</b>										
	Equity	6.60	6.60	6.60	6.60	6.60	6.60	6.60	6.60	6.60	6.60
	Reserves and Surplus	0.74	1.86	3.39	6.41	9.43	12.46	15.48	18.50	21.52	24.54
	Subsidy from Coconut Dev. Board	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
	Current Liabilities	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80
	<b>Total A</b>	<b>15.14</b>	<b>16.26</b>	<b>17.79</b>	<b>20.81</b>	<b>23.83</b>	<b>26.86</b>	<b>29.88</b>	<b>32.90</b>	<b>35.92</b>	<b>38.94</b>
<b>B</b>	<b>ASSETS</b>										
	Fixed Assets	12.00	11.32	10.64	9.96	9.28	8.60	7.92	7.24	6.56	5.88
	Depreciation	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68
	Net Assets	11.32	10.64	9.96	9.28	8.60	7.92	7.24	6.56	5.88	5.20
	*Current Assets	2.30	2.70	3.10	3.10	3.10	3.10	3.10	3.10	3.10	3.10
	Cash and Bank Balance	1.43	2.84	4.66	8.37	12.08	15.80	19.51	23.22	26.93	30.64
	Preliminary & Pre-operative exp.	0.09	0.08	0.07	0.06	0.05	0.04	0.03	0.02	0.01	0.00
	<b>Total B</b>	<b>15.14</b>	<b>16.26</b>	<b>17.79</b>	<b>20.81</b>	<b>23.83</b>	<b>26.86</b>	<b>29.88</b>	<b>32.90</b>	<b>35.92</b>	<b>38.94</b>
	<b>NET WORTH</b>	<b>13.25</b>	<b>14.38</b>	<b>15.92</b>	<b>18.95</b>	<b>21.98</b>	<b>25.02</b>	<b>28.05</b>	<b>31.08</b>	<b>34.11</b>	<b>37.14</b>

**STATEMENT VI  
BREAK EVEN ANALYSIS**

(Rs. in lakhs)

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Sl.No	Item	3rd year of operation (At 80% capacity utilisation stage)
A	Sales	164.44
B	Variable Costs	
	1 Raw Material	151.20
	2 Utilities	1.95
	3 Production labour	6.62
	4 Factory Overheads	0.11
	5 Adm. & Management Expenses(20%)	0.30
	TOTAL B	160.18
C	CONTRIBUTION(A-B)	4.25
D	Fixed Costs	
	1 Depreciation	0.68
	2 Adm. & Management Expenses(80%)	1.20
	3 Interest:	
	4 Short Term Loan	0.18
	TOTAL D	2.06
E	BREAK EVEN SALES(Rs lakhs)	44.92
	BREAK EVEN POINT	63.73 %

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**STATEMENT VII**  
**EVALUATION OF THE PROJECT**

(Rs. In lakhs)

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Sl.No.	Item	1st year	2nd year	3rd year	4th year	5th year
1	Sales Realisation	123.33	143.88	164.44	164.44	164.44
2	Gross Profit	1.24	1.80	2.37	4.51	4.51
3	Net Profit after tax	0.74	1.13	1.53	3.02	3.02
4	Gross Profit on Sales(%)	1.01	1.25	1.44	2.74	2.74
5	Net Profit after tax on Sales (%)	0.60	0.78	0.93	1.84	1.84
6	Net Worth	13.25	14.38	15.92	18.95	21.98
7	Return on Capital Employed(%)	9.37	12.53	14.90	23.77	20.50
8	Current Ratio(Current Assets/ Current Liabilities)	2.07	3.08	4.31	6.37	8.44
9	Pay Back Period	4 years				
10	Internal Rate of Return (IRR)	19%				
11	Break Even Point	64%				

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**APPENDIX I**  
**ANNUAL REQUIREMENT AND COST OF RAW MATERIAL**

Sl. No.	Item	1st year		2nd year		3rd year		
		Qty. ('000 kg)	Value Rs.lakhs	Qty. ('000 kg)	Value Rs.lakhs	Qty. ('000 kg)	Value Rs. lakhs	
A	CAPACITY UTILISED		60%		70%		80%	
B	Requirement of Raw Material							
1	Coconut for making copra (at the rate of Rs.14 per kg of nuts) (wt. Of one nut is 0.450 kg)	10000 nuts/day	810	113.4	945	132.3	1080	151.2
	Total			113.4		132.3		151.2

**APPENDIX II**  
**OUTPUT OF PRODUCTS AND SALES REALISATION**

(Rs. in lakhs)

Sl. No.	Product	1st year		2nd year		3rd year		
		Qty.	Value	Qty.	Value	Qty.	Value	
1	Copra 1st grade	ton	218.70	111.54	255.15	130.13	291.60	148.72
2	Copra 2nd grade	ton	24.30	7.29	28.35	8.51	32.40	9.72
3	Coconut Shell*	ton	90.00	4.50	105.00	5.25	120.00	6.00
	Total			123.33		143.88		164.44

\*Fifty per cent of the shell is utilised as fuel in the dryer.

**APPENDIX III**  
**WORKING CAPITAL REQUIREMENT**

(Rs. in lakhs)

Sl.No.	Item	1st year	2nd year	3rd year
1.	Raw Material 2 days	0.76	0.88	1.01
3.	Work in Progress 1 day	0.32	0.37	0.43
4.	Finished Goods 1 day	0.40	0.47	0.53
5.	Bills Receivable 2 days	0.82	0.96	1.10
	Total	2.30	2.68	3.07
	Rounding	2.3	2.7	3.1
	Increase in Working Capital	2.3	0.4	0.4
	Working Capital Margin(25%)	0.5		
	Short Term Bank Borrowings(75%)	1.8		