

CHARCOAL BRIQUETTES PRODUCTION
IN DASMARINAS, CAVITE

508100

A FEASIBILITY STUDY PRESENTED TO THE
COLLEGE OF BUSINESS ADMINISTRATION
DE LA SALLE UNIVERSITY-AGUINALDO
DASMARINAS, CAVITE

IN PARTIAL FULFILLMENT
OF THE REQUIREMENTS FOR THE DEGREE
BACHELOR OF SCIENCE IN BUSINESS ADMINISTRATION

BY:

MARINETH P. COLAMBO

DINO E. CRISTOBAL

RUEL D. ASTILLA

1995

Kalakip sa Panrehiyong Memorandum Blg. 135, s. 1989

Feasibility Study Abstract Form

1. Title: Charcoal Briquettes Production in Dasmariñas, Cavite

Total Number of Pages: 107

2. Authors: Colambo, Marineth Panganiban
Cristobal, Dino Equibal
Astilla, Ruel Demillo

3. Type of Document: Feasibility Study

4. Name and Address of Institution: De La Salle University-
Aguinaldo Dasmariñas, Cavite

5. Adviser: Dr. Vicente Uy

6. Dean: Dr. Virginia Hernandez

7. Date Submitted: February 1995

8. Summary

Management, Marketing, Financial and Socio-Economic Aspects

① [Charcoal briquetting is the transformation of ordinary charcoal into compacted and shaped form which is called Charcoal Briquettes, which is also known as "Magic Uling". Production of charcoal briquettes started from Germany in the 19th century when the coal industry became well known.

② [The company shall adopt a sole proprietorship form of organization.] The company is composed of the manager, production supervisor, sales person, cashier/secretary, two charcoal makers, mixers, briquettor, packer, utility man and a driver. These personnel and workers will be given an above minimum salary and fringe benefits. The starting

capital of the company is ₱2,976,000.00]

② [The company's target market are the Industrial, Commercial and Residential Sectors in the whole area of Cavite.] The selling price of each kilogram of charcoal briquette is ₱8.50 and ₱9.00 for the wholesaler and retailer respectively and shall increase by 10% per year. The product has a variety of uses. In the Industrial Sector, the product serves as energy source in the manufacture of lime, cements, fireworks and gunpowder, crayons and rubber products; in the Commercial Sector, the product is used in restaurants, bakeries and poultries; in the Residential sector, charcoal briquette is used in cooking their foods and ironing their clothes using the traditional flat iron.

④ [The company shall produce 288 Metric tons a year of charcoal briquettes and shall increase its production volume to 5% each year. The plant of the company will be located along General Emilio Aguinaldo hi-way in Dasmariñas, Cavite near the town's public market.]

The ratio on the return of owner's equity for the first year is .13; second year .18; third year .24; fourth year is .28 and fifth year is .31. The return on investment for the first to fifth year are .12, .18, .28, .32 and .41 respectively. The payback period will take place for three years, 2 Months and 15 days.

② [Production of charcoal briquettes made from coconut shell could be one of the solutions to the waste disposal problem i.e. by converting some voluminous by-products into a new product of economic value, through simple, yet economical technologies. As a small industry, it will help provide job opportunities for people within the vicinity. The company is a self-reliant producer of charcoal briquettes since it does not depend on any importing of raw materials.

TABLE OF CONTENTS

Preliminaries	Page
Title Page.....	i
Approval Sheet.....	ii
Abstract.....	iii
Disclaimer.....	vi
Acknowledgement.....	vii
Table of Contents.....	ix
List of Tables.....	xi
List of Figures.....	xi
List of Schedules.....	xii
List of Exhibits.....	xii
Chapter I Introduction	1
The Need.....	2
Objectives of the Study.....	2
Significance of the Study.....	3
Scope and Delimitation.....	4
Definition of Terms.....	4
Methodology.....	5
Treatment of Data.....	5
Chapter II Management Aspect	
Form of Organization.....	6
Management of Organization.....	7
Hiring of Personnel.....	10
Qualifications and Specifications of Personnel.....	11
Manpower Requirement.....	13
Personnel Compensation and other Renumeration.....	13
Proposed Project Timetable of Activities.....	14
Chapter III Marketing Aspect	
Market Description.....	17
Demand.....	18
Projected Demand.....	19
Supply.....	20
Projected Supply.....	21
Supply and Demand Analysis.....	22
Market Share.....	23
Target Market.....	24
Existing Market Practices.....	24
Proposed Marketing Mix.....	25
Advertising and Promotion.....	25
Pricing Scheme.....	26
Channels of Distribution.....	27
Terms of Sale.....	27
Delivery.....	28
Competitive Position.....	28
Packaging.....	29
Projected Sales.....	30

Chapter IV Technical Aspect	
Product Description.....	32
Manufacturing Process Description.....	33
Proposed Production Volume.....	41
Plant Location.....	41
Equipment and Machinery.....	46
Utilities.....	51
Labor Complement.....	52
Waste Disposal.....	53
Raw Materials Availability.....	54
Chapter V Financial Aspect	
Total Project Cost.....	62
Basic Financial Assumption.....	63
Sources of Financing.....	64
Financial Statement Projection	
Projected Income Statement.....	65
Projected Balance Sheet.....	66
Projected Cash Flow Statement.....	67
Break-even Analysis.....	68
Financial Statement Analysis.....	71
Acid Test Ratio	
Receivable Turnover	
Average of Receivable	
Inventory Turnover	
Average Age Raw Materials	
Current Assets Turnover	
Test of Profitability.....	74
Return of Investment	
Return on Sale	
Gross Profit Ratio	
Return of Assets	
Return on Owner's Equity	
Payback Period	
Test of Solvency.....	76
Debt Equity Ratio	
Debt Ratio	
Equity Ratio	
Analysis of Liquidity.....	77
Chapter VI Socio- Economic Desirability of the Proposed Project.....	87
Chapter VII Conclusions and Recommendations.....	88
References.....	89
Appendices	
A. Survey Questionnaire.....	90
B. Computations for Supply and Demand.....	91
Resum'e.....	93

List of Tables

Table No.	Page
1 Manpower Requirement	13
2 Gantt Chart	16
3 Historical Demand	18
4 Projected demand	19
5 Historical Supply	20
6 Projected Supply	21
7 Supply and Demand Analysis	22
8 Market Share-Industrial Sector	23
9 Market Share-Commercial Sector	23
10 Projected Sales	30
11 Equipment and Machinery	46
12 Facilities	51
13 Direct Labor Cost	52
14 Indirect Labor	53
15 Clustering of municipalities in Cavite	57
16 Codes Used for Resource Map- Laguna	59
17 Codes Used for Resource Map- Quezon	61

List of Figures

Figure No.	Page
1 Organizational Chart	10
2 Channels of Distribution	27
3 Process Flowchart	35

List of Schedules

Schedule No.		Page
1	Production Budget	79
2	Purchase Budget	80
3	Cost of Goods Manufactured and Sold	81
4	Salaries	82
5	Depreciation	83
6	Finished Goods Inventory	83
7	Bad Debts Expense	84
8	Interest Expense	84
9	Provision for Income Tax	85
10	Summary of Fixed and Variable Cost	86

List of Exhibits

Exhibit No.		Page
1	Screening Process	36
2	Gelatinizing of Binder & Mixing Process	37
3	Briquetting Process	38
4	Inspection/Quality Control	39
5	Drying Process	40
6	Map of Cavite	43
7	Vicinity Map	44
8	Plant Lay-out	45
9	Charcoal Binder Mixer	48
10	Hammermill or Crusher & Briquette Drier	49
11	Mechanical Briquettor	50
12	Raw Materials of Charcoal Briquettes	55
13	Resource Map of Cavite	56
14	Resource Map of Laguna	58
15	Resource Map of Quezon	60