



## TABLE OF CONTENTS

Content	Page
Title Page -----	i
ACKNOWLEDGEMENTS -----	iii
TABLE OF CONTENTS -----	v
LIST OF TABLES -----	viii
LIST OF FIGURES -----	x
LIST OF APPENDIXES -----	xi
INTISARI -----	xii
ABSTRACT -----	xiii
<b>I. INTRODUCTION -----</b>	<b>1</b>
1.1. Historical background -----	1
1.2. Problem formulation -----	7
1.3. Objectives of the research -----	7
1.4. Benefits of the research-----	8
1.5. Originality of research -----	9
<b>II. LITERATURE REVIEW -----</b>	<b>11</b>
2.1. The Community forestry concept -----	11
2.1.1. Understanding of community forest -----	11
2.1.2. The classification and structure of community forest -----	16
2.1.3. Environmental applicability of community forestry program -----	20
2.1.4. Community forestry and Environment Conservation -----	28
2.3. Theoretical foundation -----	32
2.4. Hypothesis formulation -----	41
2.5. Operational concepts and definitions -----	43
<b>III. RESEARCH METHODOLOGY -----</b>	<b>46</b>
3.1. Research Instruments and materials -----	46
3.2. Study procedure -----	47
3.3. Choice of research area -----	51
3.4. Determination of respondent sample -----	52
3.5. Data collection technique -----	53
3.5.1 Research variables -----	54



3.6. Data management and analysis -----	64
3.7. Problems faced during the research -----	69
<b>VI. DESCRIPTION OF RESEARCH AREA -----</b>	<b>71</b>
4.1. Physical and geographical condition -----	71
4.1.1. Location and total area -----	72
4.1.2. Administration condition -----	72
4.2. Abiotic (Physical) Environment component ----	74
4.2.1. Climate -----	74
4.2.2. Winds -----	76
4.2.3. Topography and geology -----	76
4.2.4. Pedogenetic / edaphical condition ----	78
4.2.5. Hydrology -----	84
4.3. Biotic (Biological) environment component ---	85
4.3.1. Flora -----	85
4.3.2. Fauna -----	85
4.4. Cultural (Socio-economic) environment -----	86
4.4.1. Infrastructure and cities -----	87
4.4.2. Land - use and land cover -----	87
4.4.3. Population -----	92
4.4.4. Employment and source of income -----	101
4.4.5. Livestock ownership -----	102
4.4.6. Extension services and communication -	104
4.4.7. Demand for fuelwood and charcoal ----	105
<b>V. RESEARCH FINDINGS AND ANALYSIS OF RESULTS -----</b>	<b>111</b>
5.1. Research findings -----	111
a) Age composition -----	112
b) Formal education -----	113
c) Social - economic status -----	115
d) Agricultural extension services -----	116
5.2. Community forest potential -----	119
5.2.1. Testing hypothesis 1.1 (a): Influence of physical factors to tree Volume --	121
5.2.2. Testing hypothesis 1.1 (b): Socio- economic factors to tree volume ----	126
5.2.3. Testing hypothesis 1.2 (a): physical factors to species diversity -----	134



5.2.4. Testing hypothesis 1.2 (b): Socio-econ. factors towards species diversity index -----	141
5.2.5. Testing hypothesis 1.3 (a): physical/edaphic factors to stand density ---	145
5.2.6. Testing hypothesis 1.3 (b): Socio-economic factors to stand density ---	151
5.2.7 Testing hypothesis 2 -----	154
VI. DISCUSSION -----	159
6.1 Influence of physical, edaphic and socio-economic factors towards the community forest's potential -----	159
6.1.1 Physical and edaphic factors towards tree volume (m <sup>3</sup> ) -----	160
6.1.2 Socio-economic characteristics towards tree volume -----	163
6.1.3 Physical and edaphic factors towards tree diversity index (Y <sub>2</sub> ) -----	170
6.1.4 Socio-economic factors towards tree species index (Y <sub>2</sub> ) -----	174
6.1.5 Influence of physical and edaphic factors towards tree -----	180
6.1.6 Influence of socio-economic factors towards stand density / ha (Y <sub>4</sub> )-----	183
6.1.7 Relationship between landholdings and livestock held with farmer's interaction with the forest -----	188
VII. CONCLUSIONS AND RECOMMENDATIONS -----	192
7.1. Conclusion -----	192
7.2. Recommendation -----	193
SUMMARY -----	198
BIBLIOGRAPHY -----	210
APPENDIXES -----	215