



**ECONOMIC VALUATION OF THE NIPA INDUSTRY**  
**IN MAUBAN, QUEZON**

**An Undergraduate Research Presented to**  
**the Biological Sciences Department**  
**College of Science and Computer Studies**  
**De la Salle University – Dasmariñas**

**In Partial Fulfilment of the Requirements for the Degree of**  
**Bachelor of Science in Biology with Concentration**  
**in Environmental Science**

**Norris T. Tribiana**

**March 2014**



TABLE OF CONTENTS

<b>1 Chapter 1 Introduction.....</b>	<b>1</b>
<b>1.1 Background of the Study.....</b>	<b>1</b>
<b>1.2 Conceptual Framework.....</b>	<b>2</b>
<b>1.3 Objectives of the Study.....</b>	<b>3</b>
<b>1.4 Scope and Delimitation.....</b>	<b>4</b>
<b>1.5 Significance of the Study.....</b>	<b>5</b>
<b>1.6 Definitions of Terms.....</b>	<b>5</b>
<b>2 Chapter 2 Review of Literature.....</b>	<b>7</b>
<b>2.1 Conceptual Literature.....</b>	<b>7</b>
<b>2.2 Related Studies.....</b>	<b>10</b>
<b>3 Chapter 3 Methodology.....</b>	<b>15</b>
<b>3.1 Research Design.....</b>	<b>15</b>
<b>3.2 Research Setting.....</b>	<b>15</b>
<b>3.3 Research Procedure.....</b>	<b>16</b>
<b>3.4 Data Gathering and Statistical Analysis.....</b>	<b>16</b>
<b>4 Chapter 4 Results And Discussion.....</b>	<b>20</b>
<b>4.1 Results.....</b>	<b>20</b>
<b>4.1.1 Abundance of <i>Nypa fruticans</i>.....</b>	<b>20</b>
<b>4.1.2 Environmental Factors.....</b>	<b>23</b>
<b>4.1.3 Correlation of the Environmental Factors Affecting                 <i>Nypa fruticans</i>.....</b>	<b>26</b>
<b>4.1.4 People’s Knowledge, and Awareness for                 <i>Nypa fruticans</i>.....</b>	<b>27</b>
<b>4.1.5 Kruskal-Wallis Test for Knowledge and                 Awareness.....</b>	<b>30</b>
<b>4.1.6 Cost Benefit Analysis.....</b>	<b>31</b>
<b>4.2 Discussions.....</b>	<b>32</b>
<b>4.2.1 Abundance and Importance Value.....</b>	<b>33</b>
<b>4.2.2 Environmental Factors.....</b>	<b>33</b>



4.2.3 Correlation of the Environmental Factors  
 Affecting *Nypa fruticans*.....37

4.2.4 Knowledge and Awareness.....39

4.2.5 Cost Benefit Analysis.....40

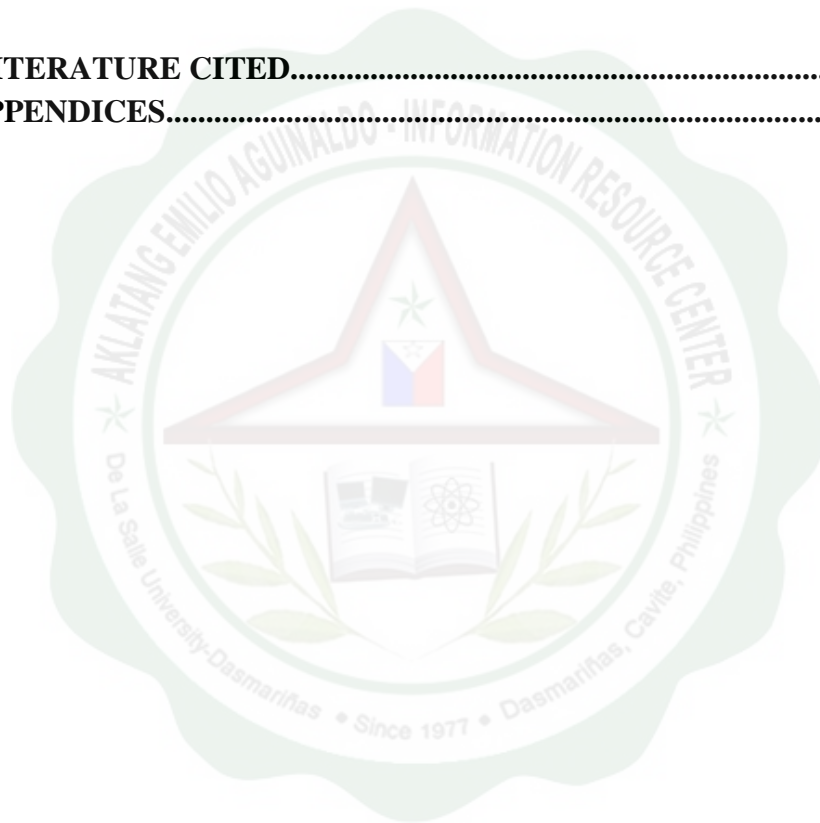
5 Chapter 5 Conclusions and Recommendations.....42

5.1 Conclusions .....42

5.2 Recommendations .....43

LITERATURE CITED.....45

APPENDICES.....47





**List of Tables**

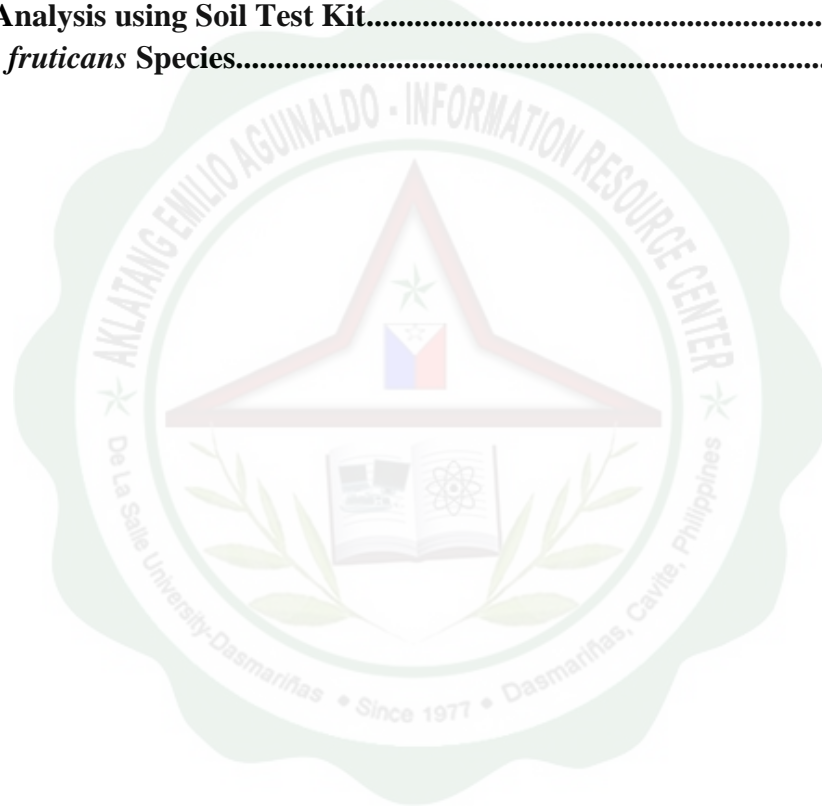
<b>The Geographical Coordinates of the 9 Sites.....</b>	<b>52</b>
<b>Personal Information about the stakeholders and the products they produce .....</b>	<b>53</b>
<b>Knowledge and Awareness.....</b>	<b>53</b>
<b>Cost Benefit Analysis.....</b>	<b>54</b>
<b>Temperature, Humidity, Light and soil pH.....</b>	<b>55</b>
<b>Number of Nipa per Quadrat.....</b>	<b>55</b>





List of Figures

Map of the Site.....48  
Humidity Measurement using Sling Psychrometer.....56  
Measurement of Luminous Intensity through Light Meter.....56  
Obtaining Soil Temperature through Soil Thermometer.....57  
Measurement of Abundance.....57  
Administration of Questionnaire and Actual Interview.....57  
Soil Analysis using Soil Test Kit.....58  
*Nypa fruticans* Species.....58





### Abstract

The study was able to determine the value of the nipa industry in Barangay Bagong Bayan Mauban, Quezon using Cost Benefit Analysis (CBA). On the other hand, soil samples and geographical coordinates were obtained from each sampling site. The environmental factors were measured and questionnaires were administered to the 40% of the stakeholders. The necessary data for knowledge and awareness and CBA were obtained through the questionnaires. The environmental factors affecting the *Nypa fruticans* such as soil temperature, soil pH, humidity, and light were correlated to the abundance of *Nypa fruticans* in the area. The knowledge and awareness of the stakeholders were also determined. Net Present Value (NPV), Benefit Cost Ratio (BCR) and Internal Rate of Return (IRR) are the determining factors for CBA. Based on the results, the nipa industry in Barangay Bagong Mauban, Quezon is valuable and beneficial to the stakeholders because the value of NPV, BCR and IRR agrees with the decision rule. For knowledge and awareness, the stakeholders do not have knowledge to the statements administered to them. In awareness, they are aware about the potential and capabilities of *Nypa fruticans*. Results also show that the answers of the stakeholders for awareness and knowledge have significant difference. For the environmental factors, all of the environmental factors that were correlated show no significant relationship with the abundance of *Nypa fruticans*.