Harnessing Renewable Energy Resources For Economic Development in the Rural Areas: An Action Plan

A Dissertation Submitted to the
Faculty of the Graduate School of the
University of Santo Tomas

In Partial Fulfillment of the Requirements
for the Degree of Doctor of Philosophy
in Economics

Elizabeth E. Polinga
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UNIVERSITY OF SANTO TOMAS GRADUATE SCHOOL

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ABSTRACT

The problem on dwindling supply of fossil-based fuel coupled with the increasing demand for power calls for the need to explore and develop alternative sources of energy. It is envisioned that renewable energy resources contributes significantly to broadening the country's energy resource-base. It is perceived to offer a great potential if not the only means of energizing remote and marginalized areas. This study analyses the impact of NRE systems to the quality of life of the present NRE users in the region, and based on these impacts, formulate an action plan for the utilization of NRE in relation to rural development.

NRE systems provide direct income to the users in the form of savings in energy for household activities, and it also provide indirect income in terms of increased animal and crop production, and cleaner environment.

To a very high extent, RET have improved the quality of life of the present NRE users in terms of cleaner environment and comfort. Also, to a high extent, RET have improved their quality of life in terms of increase in income, education of children, health and nutrition, livelihood opportunities, community development and socio-cultural values.

The result of the study confirmed the perception that NRE systems provide a number of economic benefits and are good alternative to conventional and commercial energy sources. If majority of the rural folks utilized NRE systems, more people enjoy the same economic benefits and the magnitude of the impact can really trigger rural development. The study concluded that NRE resource utilization should not be limited to the supply of subsistence energy for household consumption but should be connected to productive activities like small industries and agricultural production.

Keywords: energy for rural development, NRE resources, economic development, renewable energy, Action Plan, NRE commercialization, conventional energy

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICES

Chapter 1

THE PROBLEM AND ITS BACKGROUND

Introduction

For decades, abundant and inexpensive energy supplies powered the world economies. Today, after so many years of disruptions in the energy markets, energy supplies are in transition. Individual nations cannot afford to be complacent about the price and availability of energy as energy demand continues to rise worldwide, and soars in many developing countries. Supplies of oil, coal, gas and uranium were all subject to enormous uncertainty and price fluctuations during the past two decades.

This evidence indicates that most countries are not expecting stable prices and supplies to continue especially if the bulk of the world's energy supplies and suppliers are the same as those of the 1970s. Alternative resources have become attractive options in view of the heightened awareness of environmental problems caused by the continuous use of conventional energy resources (fossil-based fuels). Renewable energy resources, such as biomass, wind, solar photovoltaic and microhydro, provide better energy balance, a more indigenous supply, more local