

**UNIVERSITY OF THE PHILIPPINES LOS BAÑOS**

**Doctor of Philosophy in Agricultural Economics**

**TRAN NHAT LAM DUYEN**

**ECONOMIC ANALYSIS OF THE EFFECT OF AGRICULTURAL LAND REVOCATION ON POVERTY AND FOOD INSECURITY OF FARM HOUSEHOLDS, DUY TIEN DISTRICT,**

**HA NAM PROVINCE, VIETNAM**

**ISABELITA M. PABUAYON, PhD**

**Adviser**

**Date: AUGUST 2018**

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**HA NAM PROVINCE, VIETNAM**

**DO THI THANH HUYEN**

**SUBMITTED TO THE FACULTY OF THE GRADUATE SCHOOL**

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**IN PARTIAL FULFILLMENT OF THE**

**REQUIREMENTS FOR THE**

**DEGREE OF**

**DOCTOR OF PHILOSOPHY**

**(Agricultural Economics)**

**JUNE 2019**

This dissertation attached hereto, entitled “**ECONOMIC ANALYSIS OF THE EFFECT OF AGRICULTURAL LAND REVOCATION ON POVERTY AND FOOD INSECURITY OF FARM HOUSEHOLDS, DUY TIEN DISTRICT, HA NAM PROVINCE, VIETNAM”** prepared and submitted by **DO THI THANH HUYEN** in partial fulfillment of the requirements for the degree of **DOCTOR OF PHILOSOPHY (AGRICULTURAL ECONOMICS)** is hereby accepted.

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**TABLE OF CONTENTS**

| **CHAPTER** |  | **PAGE** |
| --- | --- | --- |
|  | Title Page | i |
|  | Approval Page | ii |
|  | Biographical Sketch | iii |
|  | Acknowledgement | iv |
|  | Table of Contents | v |
|  | List of Tables | ix |
|  | List of Figures | x |
|  | List of Appendices  | xi |
|  | List of Abbreviation | xii |
|  | Abstract | xiv |
| **I** | **INTRODUCTION** | **1** |
|  | Other constraints in attaining LGU self- sufficiency target | 111 |
|  | Recommendation in the improvements of the Agricultural Innovation System | 114 |
| **V** | **SUMMARY, CONCLUSION AND RECOMMENDATIONS** | **117** |
|  | Summary | 117 |
|  | Conclusions | 122 |
|  | Recommendations | 123 |
|  | **LITERATURE CITED** | **125** |

**LIST OF TABLES**

|  |  |  |
| --- | --- | --- |
| **TABLE** |  | **PAGE** |
| 1 | Defining features of the three main frameworks used to promote knowledge in the agricultural sector | 12 |
| 2 | First group of respondents per municipality | 51 |
| 3 | Distribution of the numbers of farmer respondents | 53 |
| 4 | Socio-demographic profile of respondents | 65 |
| 5 | Farm characteristics of respondents | 69 |
| 6 | Yield of farmer respondents during 2010 and 2011 dry and wet season | 72 |
| 7 | General roles of different actors of agricultural innovation | 74 |
| 8 | Production support provided by the actors in Talavera and Nampicuan | 84 |
| 9 | Summary of the identified problems in attaining the potential yield level | 100 |
| 10 | Rating and frequency of assistance received | 101 |
| 11 | Suggestions to improve knowledge and skills of extension workers | 102 |

**LIST OF FIGURES**

|  |  |  |
| --- | --- | --- |
| **FIGURE** |  | **PAGE** |
| 1 | Five forms of decentralization | 25 |
| 2 | Agricultural Innovation System | 38 |
| 3 | Conceptual Framework of the study | 40 |
| 4 | Vicinity map of Nueva Ecija Province | 46 |
| 5 | Pattern of interactions among actors from DA and attached agencies and from LGU in giving seeds and seed subsidy, fertilizer and fertilizer subsidy as production support | 88 |
| 6 | Pattern of interactions among private actors in providing fertilizers, pesticides and other inputs | 91 |
| 7 | Pattern of interactions among actors DA and attached agencies and LGU in giving technical support | 93 |
| 8 | Pattern of interactions among actors and farmers in marketing | 95 |
| 9 | Pattern of interactions among actors and farmers in providing credit | 96 |

**LIST OF APPENDICES**

|  |  |  |
| --- | --- | --- |
| **APPENDIX** |  | **PAGE** |
| A | Survey Questionnaire for Farmers | 141 |
| B | Survey Questionnaire for AEWs | 161 |
| C | Survey Questionnaire for MAO | 170 |
| D | Survey Questionnaire for RFUs | 173 |
| E | Survey Questionnaire for POs and NGOs | 175 |
| F | Survey Questionnaire for Planning/Budget/LGU Executives | 182 |
| G | Survey Questionnaire for Input Supplier | 183 |
| H | Survey Questionnaire for Threshers/Harvesters | 186 |
| I | Survey Questionnaire for Buyers | 188 |
| J | Survey Questionnaire for Miller | 190 |
| K | Memorandum on subsidy of hybrid rice seeds | 192 |
| L | Memorandum on subsidy of F1 hybrid rice seeds | 193 |
| M | Memorandum on the guidelines for GMA Rice Program of CY 2007-2008 | 194 |
| N | Memorandum on the amended guidelines for GMA Rice Program of CY 2007-2008 | 195 |
| O | Memorandum on the guidelines in the certification of certified seeds | 196 |
| P | Memorandum on the submission of compact rice demo-site and cooperators | 204 |
| Q | Memorandum on the guidelines on fertilizer incentive program | 206 |
| R | Memorandum on the guidelines for GMA Rice Program | 211 |
| S | Memorandum on the guidelines in granting performance based incentive allowance to AEWs | 218 |
| T | Special order on the amendment to signed GMA Rice Program | 224 |
| U | Memorandum on the use of LCC | 226 |
| V | Memorandum on the guidelines on the 2009 fund balances for CS and hybrid seed subsidy | 227 |

**ABSTRACT**

**DO THI THANH HUYEN.** University of the Philippines Los Baños, June 2019**. Agricultural Innovation System in High and Low Income Class Municipalities in Nueva Ecija, Philippines.**

**Major Professor: Dr. ROWENA DT. BACONGUIS**

The study analyzed the poverty and food insecurity patterns of farm households affected by agricultural land revocation for industrialization and urbanization in Duy Tien district, Ha Nam province, Vietnam. Results showed that the farmland size of households has become more fragmented after agricultural land revocation and there is inequality in ownership of farmland between the two household groups, namely, those with partial (PALR) and entire farmland revoked (FALR). Agricultural land revocation also caused a decrease in farm employment and increase in off-farm employment of affected households. The average monthly income per capita of PALR households was significantly higher than that of FARL households. Formal wage work contributed most to total household income. Food expenditure, especially for rice, was significantly higher in FALR households than in PALR households.

Poverty incidence was 17.2%, 16%, and 18% of all respondents, PALR, and FALR households, respectively. Only 5.7% of all household - respondents were food insecure. The proportion of food insecure households in PALR and FALR groups was 5.4% and 6.3%, respectively. This means that there were more poor and food insecure farm households in FALR group than in PALR group.

Determinants of poverty situation are dependency ratio, proportion of revoked farmland size, formal and informal credit, time of farmland revocation, proportion of non-farm labor, sex, and education of household head. Time of agricultural revocation, sex and education of household head are also determinants of food insecurity situation. Also, cultivated land, and non-farm income of households had relationship with probability of household being food insecure.

The time of agricultural land revocation negatively influenced the probability of household being poor and food insecure. The result reveals that the probability of household being poor and food insecure will be reduced by 10.8% and 97.6%, respectively if such household’s farmland was revoked prior to 2015. The proportion of revoked farmland had negative effect on poverty situation. An additional unit in the proportion of revoked farmland leads to an increase by 0.2% in the probability of household being poor.

The study recommends that farm households affected by land revocation policy should be assisted in terms of education improvement, vocational training, and shift to non-farm employment. The government should also reconsider the size of farm land revocation, provide adequate time in serving notice of land revocation, and review the compensation package (amount and use) for revoked farmlands.

**CHAPTER I**

**INTRODUCTION`**

**Major Subheading**

**Minor Subsection**

 ***Paragraph heading.*** In whole papaya, 1-methylcyclopropene has been found effective in slowing the ripening process and hence, extending the fruit’s shelf-life. At greater than 25% of yellowing, 1-MCP can delay the ripening of ‘Sunrise Solo’ papaya without causing abnormal development of organoleptic attributes such as hard lumps in the flesh and uneven yellowing of the skin (Manenoi et al., 2007). However, in ‘Golden’ papaya, 1-MCP treated fruit had inferior quality with the fruit normally ripened (Fabi et al., 2007). This emphasizes the relevance of cultivar as a factor influencing sensitivity to 1-MCP treatment.

*Paragraph heading 2.*In whole papaya, 1-methylcyclopropene has been found effective in slowing the ripening process and hence, extending the fruit’s shelf-life. At greater than 25% of yellowing, 1-MCP can delay the ripening of ‘Sunrise Solo’ papaya without causing abnormal development of organoleptic attributes such as hard lumps in the flesh and uneven yellowing of the skin (Manenoi et al., 2007). However, in ‘Golden’ papaya, 1-MCP treated fruit had inferior quality with the fruit normally ripened (Fabi et al., 2007). This emphasizes the relevance of cultivar as a factor influencing sensitivity to 1-MCP treatment.

**REVIEW OF LITERATURE CITED**

**Major Subheading**

**Minor Subheading**

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| Table 1. | Amount of change in mean temperature (%) of Mekong River Delta Provinces compared to 1980 - 1990 period based on the medium emission scenario ([MoNRE, 2012](#_ENREF_58)) |

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| --- | --- | --- |
| **NO.** | **PROVINCE/****CITY** | **YEARS** |
| **2020** | **2030** | **2040** | **2050** | **2060** | **2070** | **2080** | **2090** | **2100** |
| 1 | Long An | 0.3 | 0.5 | 0.7 | 0.9 | 1.1 | 1.3 | 1.5 | 1.6 | 1.8 |
| 2 | Dong Thap | 0.3 | 0.7 | 1.0 | 1.3 | 1.5 | 1.8 | 2 | 2.2 | 2.4 |
| 3 | Tien Giang | 0.5 | 0.5 | 0.7 | 0.9 | 1.1 | 1.3 | 1.5 | 1.6 | 1.8 |
| 4 | Ben Tre | 0.3 | 0.6 | 0.8 | 1.1 | 0.13 | 1.5 | 1.7 | 1.9 | 2.0 |
| 5 | Vinh Long | 0.4 | 0.5 | 0.7 | 0.9 | 1.0 | 1.2 | 1.4 | 1.5 | 1.6 |
| 6 | Tra Vinh | 0.4 | 0.6 | 0.8 | 1.0 | 1.2 | 1.4 | 1.6 | 1.8 | 1.9 |
| 7 | An Giang | 0.3 | 0.5 | 0.7 | 0.9 | 1.0 | 1.2 | 1.4 | 1.5 | 1.6 |
| 8 | Can Tho | 0.4 | 0.6 | 0.8 | 1.0 | 1.3 | 1.5 | 1.7 | 1.8 | 2.0 |
| 9 | Hau Giang | 0.4 | 0.5 | 0.8 | 1.0 | 1.2 | 1.4 | 1.6 | 1.7 | 1.9 |
| 10 | Soc Trang | 0.3 | 0.5 | 0.7 | 0.9 | 1.1 | 1.3 | 1.4 | 1.6 | 1.7 |
| 11 | Bac Lieu | 0.4 | 0.6 | 0.8 | 1.1 | 1.3 | 1.5 | 1.7 | 1.8 | 2.0 |
| 12 | Kien Giang | 0.4 | 0.5 | 0.7 | 1.0 | 1.2 | 1.4 | 1.5 | 1.7 | 1.8 |
| 13 | Ca Mau | 0.4 | 0.6 | 0.9 | 1.1 | 1.4 | 1.6 | 1.8 | 2.0 | 2.1 |

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| **NO.** | **PROVINCE/****CITY** | **YEARS** |
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78