

**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**

**UNIVERSITY OF THE PHILIPPINES LOS BAÑOS**

**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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**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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