

The Study on Farmers' Debt, Loan Repayment and Guideline for Debt Settlement in the South of Thailand

Wandee Nuansoi

*Rajamangala University of Technology Srivijaya,
Rattaphum College, Songkhla, Thailand.*

Abstract

This research is aimed at investigating the individual factors, socio-economic status and factors affecting farmers' participation in government projects in the south of Thailand by using averages and percentages as research statistics and to ascertain factors which affect the total liabilities and debt repayment of farmers by using the linear regression analysis model as research instrument. The result revealed that most of the farmers were male with elementary level education. The average number in each household was 4.14 people. Most of them were rubber tappers in their own rubber plantation which is 19.90 Rai (equals to 31,616 square metres). The revenue from their rubber plantations were approximately 432,565.90 THB per household per year. Their total liabilities were 263,552 THB per household per year. Most of the farmers did not participate in the debt settlement project launched by the government. Positive factors that affected the total liabilities were estate ownership, assets in each household, consuming expenditure, school fee and saving. The positive factors that affected the debt repayment were assets in each household and revenue from other sectors. The negative factors affecting debt repayment were rubber plantation investment and the educational expenditure for their children.

Keywords: Farmers' debt, loan repayment, debt settlement.

1. Introduction

In Thailand by the year 2011, there were 24.14 million of populations in the agricultural factor equally average to 37.64, occupies the area of 46.54 percent of farmland categorized into 46.84 paddy fields, orchard and 23.39 perennial plants, 20.81 field crop and other purposes 7.91, respectively. Most of the farmers' revenue comes from in-farm sector rather than off-farm sector at 140,565 THB per household whereas off-farm income gains 99,666 THB. The expenditure outside the farm is higher than inside the farm. The expenditure inside the farm is 83,117 THB whereas outside the farm is 114,807 per household. The balance before repayment is 43,027 THB. Meanwhile the debt in 2010 has increased to 53,885 THB in 2011 (Agricultural Promotion Bureau, 2011) due to the current problems such as drought, rice price depreciation, poverty, property problems, farm product price, and social welfare. Many sectors in Thai authority have tried to assist with these problems by running moratorium project, supporting loans and capitals, rice pledge project, and farm product price sanction. However, the crisis cannot be solved in a short period of time especially farmers' debt.

To solve the farmers' debt per household effectively, the supporting information for decision making is required in policy drafting. It is necessary to focus on each area to understand the cause of the problem and find solution.

2. Methodology of the Study

2.1 The study setting

This study evaluates, population, data analysis and data collection procedure as follows:

- 1) This study covers 14 southern provinces – Prajoubkirikhan, Chumporn, Suratthani, Nakonsrithammarat, Pattalung, Trang, Krabi, Phanga, Ranong, Songkhla, Satun, Yala, Pattani, and Narathiwat.
- 2) The populations are the farmers' households in the south of Thailand totally 717,663 households.
- 3) Data analysis is focused all factors on socio-economic factors and government project participation that directly affected the total liabilities and repayment of debt.
- 4) Data collection period - the primary data has been collected in January to March 2013.

2.2 Sampling procedure

The multi-stage sampling is used to select the target area of this study by dividing the area into 14 provinces - Prajoubkirikhan, Chumporn, Suratthani, Nakonsrithammarat, Pattalung, Trang, Krabi, Phanga, Ranong, Songkhla, Satun, Yala, Pattani, and Narathiwat by considering the size of the debt in the province as a criteria. The target size is the provinces that have more than 300,000 THB debts per household, which are Trang, Krabi, and Suratthani. For the selection in the district and sub-district level, the

simple random sampling is used for 625 samples according to the number of farmer in debt. Trang 160 samples Krabi 170 samples and Suratthani 295 samples.

2.3 Analytical model

The dependent variable is the total liabilities (y_1) and debt repayment of farmers (y_2) were affected by its individual factors, socio-economic status and farmers' participation in government projects. The variables that were hypothesized to affect the total liabilities and debt repayment of farmers are described below.

1. Age (AGE) refers to household head older.
2. Education level (EDU) the level of education.
3. Family size(FAM-SIZE) refers to Number of people living in agricultural households.
4. Asset in household(ASSET) means the value of the household asset such as house, car, bike, agricultural machine, house facilities, gold ornament, etc.
5. Land holding (LND) is the number of all entities holding area farmer.
6. Income from farm activities (IN-FARM) means value of the total products included money and not money, sold and not sold.
7. Income from off-farm activities (OFF-FARM) farmers with more income from non-agricultural activities.
8. Saving (SAV) means all the money that was saved in any financial institutes.
9. Expenditure on farm (EXPF) refers to the total amount of expenses that were used in agriculture, such as fertilizers, seeds and plants. The cost of technology used for agriculture. Wages and other expenses occurred in agricultural activities.
- 10.10 Expense of the consumer (EXPCON) was defined as the sum of payments for the purchase of goods to consume, costs of improving quality of life and other expenses.
11. Expense of the education(EXPEDU) means total expenditure on buying school uniforms and shoes, school bus fees or public transports, school fees and equipment, children allowance and others related to educational activities.
12. Expense of the social (EXPSOC) refers to the total amount of expenses that were used in event activities.
13. The 3-year moratorium (MOR) means moratorium project for famers, people with little income and debt amount less than 500,000 baht.
14. The village fund (FUND) means the fund launched by the government, to support funding to village and urban society, according to the state policy that the government is the capital source.

The linear regression model is one of the methods that is used to overcome such problems as given below:

$$y_1 = \beta_0 + \beta_1 AGE + \beta_2 EDU + \beta_3 FAM-SIZE + \beta_4 ASSET + \beta_5 LND + \beta_6 IN-FARM + \beta_7 OFF-FARM + \beta_8 SAV + \beta_9 EXPF + \beta_{10} EXPCON + \beta_{11} EXPEDU + \beta_{12} EXPSOG + \beta_{13} MOR + \beta_{14} FUND + \epsilon_i \quad (1)$$

$$y_2 = \beta_0 + \beta_1 AGE + \beta_2 FAM - SIZE + \beta_3 SAV + \beta_4 LND + \beta_5 IN - FARM + \beta_6 OFF - FARM + \beta_7 EXPF + \beta_8 EXPCON + \beta_9 EXPEDU + \varepsilon_i \quad (2)$$

3. Result and Discussion

The individual, socio-economic status and farmers' participation in government projects, in 59.50 percent of the cases males were the head of the household was male gender, the average age is 50.18 years, graduated from primary schools, and followed by 57.80 percent. The household members were 4.14 people on average. Most of the rubber plantation household accounted for 86.60 percent, representing 28 percent of the average farm holding of 19.90 Rai. Most of the agricultural household savings was 155,259.36 baht with the average value of the asset was 1,332,786.86 baht per household. The average farm income was 362,523.59 baht and off-farm income was 69,788.24 baht per year. The liabilities per household were 263,552 baht. The expenditure on farm investment was 44,498.60 baht per year. The consuming expends were 242,806.32 baht on average per year. The expenditure on their children education was 27,877.84 baht per year. The expenditure on social activities was 25,485.44 baht per year. When considering the participation in the government projects for debt settlement. It was found that most of farmers joined the village fund since it was easy to access to and the office is in their village. The second option was three-year moratorium project.

Factors affected total liabilities of farmers. From the data analysis found that factors affected the debt increasing were area of land occupied, number of household asset, consumption behavior, educational expenditure of their children, and the saving are shown in table 1.

Table 1: The Factors affected total liabilities of farmers.

Variable	Coefficient	t-statistics
Constant	4.851	145.928
LND	0.007	4.775
ASSET	5.233E-07	4.195
EXPCON	2.982E-07	3.806
EXPEDU	1.023E-06	2.436
SAV	1.767E-07	2.308

The result found that farmers who own more estate are likely to have more debt because the more land they have, the more money to be invest. Beside they have more creditworthiness; in the same time there was a chance to lose their profits, too. This group of farmers tends to have more debt because they need to buy cars, machines, mobile phone, electrical facilities. These activities causing shortage of money and need to loan. Farmers who have more educational fees for their children are likely to have

more debt. Except farmers who have their own savings are tend to have more debt than the one who have fewer because they can manage to pay off well. The relationship between debt and factors affected the repayment can be shown as equations below and the debt percentage can be forecasted as 22.10 percent.

$$y_1 = 4851000LND - 5.23E-07ASSET - 2.98E-07EXPCGM - 0.02E-06EXPEDU - 0.76E-07SAV + \varepsilon_i$$

Factors affected repayment of farmers. The main factors were educational background and the off-farm income. Since the farmers knew how to manage their finance systematically and know-how to increase their income outside their farm. Farmers who had poor educational background were likely to affect their ability of repayment as shown in table 2.

Table 2: The Factors affected repayment of farmers.

Variable	Coefficient	t-statistics
Constant	0.296	7.003
ASSET	4.496E-08	2.259
OFF-FARM	7.132E-07	4.070
EXPF	-1.352E-06	-3.160
EXPEDU	-1.531E-08	-2.384

The result found that farmers have more asset value can pay off their debt better than those who have fewer since they have machines to facilitate and increase their income at the same time decrease their capitals. Farmers who have more off-farm income are able to pay off better than those who have fewer. Farmers who have more expenditure on their children education have smaller ability to pay off than those who have small expends since they have no savings left to pay off. Those farmers who have more investment are not able to pay off debt because they also have no savings left to pay off. The relationship between repayment and factors mentioned above can be shown as equation below and forecasted the loan repayment value as 6.90 percent.

$$y_2 = 0.296 + 4.496E-08ASSET + 7.132E-07OFF - FARM - 1.352E-06EXPF - 1.531E-08EXPEDU + \varepsilon_i$$

4. Conclusion

Factors that caused the problems to farmers who have debts are expenditure on children education and consumption expends. Factors of number of estate, household asset, savings, are acceptable since farmers are able to manage their repayment. The debt settlement can be done by the government by support and encourage in many aspects such as supporting the educational expends in each household, controlling expends on school fees, equipment, school bus fees, and product prices in the market.

Government should encourage population to lead their lives according to the sufficiency economy theory. For the debt repayment, expends on farm and educational activities caused the repayment disabilities. The suggested solutions are avocation campaign and technological know-how in farm to minimize the farming capitals.

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