



## A STUDY OF THE SOCIO-ECONOMIC STATUS OF THE FARMERS DEBT: CASE STUDY OF BAN NONG MAI GAN, THA CHAMUANG, RATTAPHUM, SONGKHLA PROVINCE

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**Abstract:** This research aims to investigate socio-economic status of the farmers residing in Ban Nong Mai Gan village, Thachamuang, Rattaphum, Songkhla Province. By statistically analyzing factors affected the amount of farmer household debt per unit and the participation in the debt settlement project launched by the government. The data used in this study collected from the questionnaires, descriptive and t- test statistics to explain the socio-economic status and find out factors affected to the debt amount per household. The result revealed that most of the household leaders were male. Their average age was 49, 3-4 persons were their average family members. 2-3 of them were agricultural labors. 41.70 percent graduated from the primary schools 1 or 2 persons of each family were in schools and 0-1 person was a dependent family member. 60.8 percent of them live on rubber plantation. 31.70 percent of them were farmers. 38 percent of the farmers were part time job employees and 28 percent of them were retailers, respectively. 11.70 Rai was their occupied land or their agriculture area. 65 percent of the households had their own savings with the average of 60,000 THB. The average revenue from the agricultural sector was 119,681.90 THB and the average off- farm income was 70,247.90 THB per household. The capital invested in farming was 19,204.25. Most expenditure was on fertilizer. The consuming expenditure was based on food, car purchase and maintenance, children education at 93,624.81 THB, most spent on their daily allowance, Social activities cost 16,948.28 THB. The average debt per household was 138,414.29 THB. Most of the households had borrowed money from the village fund to be used in their farming and daily lives. According to the debt settlement policy, the farmers joined the village fund for it was the most convenient channel for them to contact the government sector. From the above mention can be concluded that nine variables: Age, Education Level, Number of household members, Number of Land Holding, Income from farm activities, Income from off-farm activities, Expense of the consumer, Expenditure on farm and Social cost were related to the debt amount.

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**Keywords:** socio- economic status, debt condition, household, debt settlement



**Introduction:** Farmers' debt is one of the economic problems in which many sectors put into account in connection with the debt extension and the government attempts to cope with this problem by launching a policy and measures such as debt moratorium, credit loan, renovation budget, support old careers or encourage new careers in order to increase more revenue etc.[4, 5] The study was funded by the family of agriculture occupation in 2011, National Bureau of Statistics found that about two out of three households of farmers had debt. The value of agricultural household debt had increased from 121,965 THB, the average debt per household in 2009, to 140,404 per household in 2011, with the rate rising to 7.3 percent per year. As shown in Table 1.[4]

Table 1. The average value of the farm household debt owed by sector in 2009 and 2011

Sector	2009	2011
South	194,078	247,964
Northeast	87,781	103,005
North	119,601	133,589
Central	176,492	194,516
Bankok	452,969	854,315
Kingdom	121,965	140,404

According to the increasing in the value of such debt, in order to avoid debt problems in the future there were a lot of studies focused on the root cause of the debt of the agricultural household both from the micro and local level to the national level. A summary of factors affected the amount of household debt were as follows.

1. Personal factors include gender, age, level of education, number of family members and the number of agricultural labors.
2. Economic factors include the size of agricultural area, integrated farming, water resource, and value of the property, agriculture revenue, Off-farm income, agricultural and non-agricultural expenditure, expenditures for children education.
3. Social factors.
4. Geographic factors.
5. Behavioral factors.
6. Participating in government project.

In this study, researchers were interested in studying socio-economic status of the farmer household debt. The farmer households resided in Ban Nong Mai Gan, Thachamuang Rattaphum Songkhla was a case study by using a multivariate multiple regressions. The next section presents the theoretical background of this study. This was followed by the discussion of the methodologies used in the study in section 3. Section 4 presented the results of the study and finally, the last section was the conclusion.



## Methodology

The research methodology used in this research. Data were collected at the same time via questionnaires to collect data from samples in the target area. The data were processed and analyzed as per the research objectives.

## Population and sample

The population of study was farmer households in the village of Ban Nong Mai Gan Thachamuang, Rattaphum, the number of 153 households in total.

The sample of the study, due to the population research was fixed to determine the sample size formula of Taro Yamane allowing a deviation from the sample not to exceed 5 percent level of confidence of 95 percent of the sample size was 111 households, however. All data were randomly collected from 120 samples.

Instrument used in the research was conducted by analyzing the variables such as the independent variables and the dependent variable used as follows.

1. Variables include factors affected the amount of farm debt.

- 1.1 Gender
- 1.2 Age
- 1.3 Education Level
- 1.4 Number of household members
- 1.5 Number of Land Holding
- 1.6 Saving
- 1.7 Income from farm activities
- 1.8 Income from off-farm activities
- 1.9 Expense of the consumer
- 1.10 Expenditure on farm
- 1.11 Social cost

2. Variables include the amount of debt of farmers. Researchers studied all of these variables. The tools used to collect data were questionnaires entitled Socio- economic Loans and participating in the state project of famer debt settlement.

For debt settlement projects by government, this study looked into 1) 3-year moratorium 2) Informal debt 3) Village fund 4) Farmer credit card 5) Rice price guarantee 6) Rice pawn.

**Data collection.** This study collected data by sending questionnaires to samples.

**Data analysis.** The researcher analyzed collected data from questionnaires by using statistical methods, statistical analysis as follows.

1. Descriptive analysis to describe the socio-economic status of loans and participating in the state project of famer debt settlement.

2. Quantitative analysis. The data analysis was to examine the relationship between variables to affect the liability of farmers, determine the coefficients of the variables. Using regression analysis, the complex model was studied.

The model of the variables had an impact on income of farmers. The equation shows the relationship.

$$y = \beta_0 + \beta_1 GEN + \beta_2 AGE + \beta_3 EDU + \beta_4 FAM + \beta_5 LND + \beta_6 IN-FARM + \beta_7 SAV + \beta_8 OFF-FARM + \beta_9 EXC + \beta_{10} EXF + \beta_{11} SO + \varepsilon_i$$

## Hypothesis

Factors influencing farmers' debt in the amount of the debt to the farmers in the south and a variable rate loan, the independent variables include:

1. Gender (GEN) refers to the female head of households might affect the amount of additional debt that the male head of household, female head of household might have to invest in production due to the labor needs.

2. Age (AGE) refers to household head older. The results showed that the amount of additional debt that was less than the head of the household. The older head may be required to pay higher more.

3. Education level (EDU) the level of education is negatively related to the amount of debt due to farmers with higher education levels have the ability to increase revenues from agriculture than the number of members in household debt has been reduced by agriculture.

4. Family size(FAM) refers to Number of people living in agricultural households, Households with many working labors affected the amount of agricultural household debt to be increased. The influence of working-age members in the household affected the expenditure and maturity of decision making on loan.

5. Land holding (LND) is the number of all entities holding area farmer with a number larger than the amount of debt less than farmers with less space due to the ability of farmers to produce more product in less space.

6. Income from farm activities (IN-FARM) income factors came from agriculture correlated with the amount of debt in the opposite direction whenever farm income from agriculture was increased the amount of debt would be reduced.

7. Saving (SAV) factors associated savings in the opposite direction on the amount of debt on farmers, the farmers have increased the amount of savings, debt reduction.

8. Income from off-farm activities (OFF-FARM) farmers with more income from non-agricultural activities would have small debt than farmers who have less income.

9. Expense of the consumer (EXC) was defined as the sum of payments for the purchase of goods to consume, costs of improving quality of life and other expenses. Factor for agriculture correlated with the amount of debt in the same direction that was to say the more increasing in expenditure, the more debt growing bigger.

10. Expenditure on farm (EXF) 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. On the higher cost of agriculture activities, farmers would increase the amount of debt.

11. Social cost (SO) refers to the total amount of expenses that were used in event activities . On the higher cost of event activities, farmers would increase the amount of debt to suit this model;



## Results

A study of the socio-economic status of agricultural household debt at Ban Nong Mai Gan Thachamuang sub-district Rattaphum district, Songkhla province. Field survey data for the year 2012 the production of the samples and the results of the survey will be used to process and analyze the results of the study into 3 sections.

Section 1. The social and economic farm household.

Section 2. Analyzed the relationship between the independent variables and the dependent variable amounts of debt.

Section 3. Participating in the state project of farmer debt settlement.

Section 1. The social and economic conditions of farming households.

Head the household accounted for 60.8 percent was male gender and 39.2 percent was female, at the average age of 48.79 years, graduated from primary schools, followed by 41.70 percent graduated from high school. Accounted for 25 percent of the household members was average at 3.79 people. The number of household members of working age in the average number of family members had 2.57. People who were studying at the average number of 1.11 and the household dependants aged average was 0.32 people per household. Most of the rubber plantation household accounted for 60.8 percent, followed by 31.70 percent had a career of employee 38 percent were followed by trade, representing 28 percent of the average farm holding of 11.07 acres mostly agricultural household savings was 65 percent, with the average savings of 60,000 baht per household. The average revenue from agriculture was 119,681.90 per household. The average off-farm income was 70,247.90 baht per household. The average cost of farming was 19,204.25 baht invested in the purchase of fertilizer. The household expenses were 93,624.81 baht mainly about the average consumption per household per year. Most of the expenditure spent on food, car purchase and maintenance cost 27,210 baht in the average of children education as daily allowance. Social activities cost 16,948.28 baht. The average farm household debt was 138,414.29. Most farmers owed to the village funds. The purpose of the loan was to invest in agriculture investment and living. For participating in the government's debt settlement the famers join the village fund due to the conveniences.

Section 2. Analyzes the relationship between the independent variables and the dependent variable amounts of debt.

This analysis used regression analysis. The assumption that the amount of debt depend on variables of different factors and the hypothesis test to convince that the independent variables and the dependent variable were associated with statistically significant as expected or not. The independent variables affected the dependent variable, totally liable. A significant

number of nine variables: Age, Education Level, Number of household members, Number of Land Holding, Income from farm activities, Income from off-farm activities, Expense of the consumer, Expenditure on farm, Social cost. The variables can explain or predict the total variance of the farmers.

Table 2. The variables could be explained or predict the total variance of the farmers.

Variable	Coefficient	t- statistic
Age	-5470.603	-1.129
Education Level	-89546.577	-1.574
Number of household members	5568.610	0.206
Number of Land Holding	0.029	0.168
Income from farm activities	-0.379	-1.014
Income from off-farm activities	0.150	0.443
Expense of the consumer	0.301	1.223
Expenditure on farm	2.621	1.092
Social cost	2.046	0.889

From table 2, the independent variables affected the dependent variable, total liabilities of farmers. A significant number of nine variables: Age, Education Level, Number of household members, Number of Land Holding, Income from farm activities, Income from off-farm activities, Expense of the consumer, Expenditure on farm, Social cost. The variables can explain or predict the total variance of the farmers.

The variables could explain or predict the total variance of the farmers' debt as follows:

$$y = 731201906 - 5470603AGE - 89546577EDU + 5568610FAM + 0.029LND - 0.379IN - FARM + 0.150OFF - FARM + 0.301EXC + 2.621EXF + 2.046SO\epsilon_i$$

The analysis of the data showed that the factors that affect the amount of such liabilities in the same direction. Number of household members. Total number of holdings. Off-farm income. The cost of farming. Expense of the consumer and the cost of the property when a household has to spend more than the number of members in the household. The number of households holding more capital than necessary. Spending and investment. Consumption. Social spending that amount of debt increases. The factors that affect the amount of debt in the opposite direction, including education. Income from agriculture. Agriculture and age of household head. Because agricultural households with higher education levels reduces the risk of investment. In the same way, if the agricultural.

### Section 3. Participating in the state project of farmer debt settlement.

The study of the participating in the state project of farmer debt settlement revealed that the farmer households perception of 70% of village fund, 60% of 3-year moratorium, 15% of informal debt, 11.7% of rice price guarantee and rice pawn, 10% of farmer credit card, For 65% used village fund and 5% used 3-year moratorium, respectively. Most of the farmer households acknowledged and participated in the village fund due to the convenience with



the officers in the local area. The examination of the relationship between debt amount and project participation were correlated whenever the farmers participated in the village fund, the debt amount increased.

## Discussion and Conclusion

A case study of the socio-economic condition of the household debt of farmers at the village of Nong Mai Gan pointed out that the household aspect could be described as such the huger number of household members were labor than the dependent or the studying ones. They had their own land enough for all the household members. Most of the households performed saving behavior. Income from farm and non-farm could be affordable. Agriculture activities, especially rubber plantation were no need to invest in buying seeds every year, in contrast, mainly to invest in maintenance and the fertilizer. The majority of household consumption could be used in various fields such as food, clothing, electricity, water, telephone and car maintenance. However, most households still owed to professional investors in the purchase of land and side jobs. Most farm households joined the village funds.

The relationship of the factors which affected the amount of debt showed that households that have more expenses and social costs than consumption would have higher debt. Households with a household head were older would have higher debt. Higher in number of household members would have higher debt and households with the cost of farming higher were likely to have higher debt. The guidelines for the protection of household debt should find ways to reduce the cost of farming and encourage households to lead their lives according to the philosophy of sufficiency economy.

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