

Community Capitals Management for Household Well-being: Case Studies in Two Communities in Surin and Buriram Provinces, Thailand

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ABSTRACT. This study was conducted in two villages in Thailand, Nongtakhem in Buriram province and Somboon in Surin province. It analyzed the community capitals management for household well-being. Data were gathered through household survey, key informant interviews, field observation, and review of related data. For the survey, 64 households were selected from Nongtakhem and 54 households from Somboon through simple random sampling. Descriptive statistics and t-test were used in the data analysis. Findings show that both villages practiced all the community capitals management strategies (group membership, family planning, sufficiency economy, savings plan, household accounting, and secondary occupation) except family forest management, which was practiced only in Somboon. The benefits acquired from group membership were diverse, but majority of the households in both villages accessed financial assistance from membership groups. Meanwhile, the t-test results show that the households who had members in the Buffalo and Cow Bank in Nongtakhem earned high-average monthly income than the households who did not. The households who were non-members of the Consumer Cooperative in Somboon earned higher monthly income than those who were members. For the difference in household debt, the households in Nongtakhem who were members of the groups had higher mean debt than those who were not because they were able to access sources of credit. For the other strategies, the secondary occupation practiced in Nongtakhem enabled the members to increase household income. For the difference in the household debt, the sufficiency economy strategy was effective in both villages, and the family planning strategy was effective only in Nongtakhem.

Keywords: *Community capitals, community capitals management, household well-being*

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INTRODUCTION

Thailand's National Economic and Social Development Plan (NESDP), from first to seventh (1961-1996), focused on economic growth of the country, which significantly affected the structure of agricultural production.

With the modernization of agriculture in Thailand (Lianchamroon & Thankitjanukit, 2005), the country experienced changes in the economic structure, society, and culture (McGregor, 2006, 2008). Therefore, the new model of holistic "people-centered development" was adopted in the Eight Plan. As a result, the National Economic and Social Development Board (NESDB, 2004) reported findings of qualitative studies showing that those elderly who did not have access to national welfare experienced considerable suffering and anxiety. Aging parents worried of being left alone in the house because all their family members had become economic migrants. Widows and single mothers were also vulnerable, and the poor and marginalized people were not protected and served. Moreover, while the life expectancy of the Thai people has been improving, their physical and psychological well-being have deteriorated. This is partly due to the increasing incidence of diseases of affluence. To improve its national economic and social development plans, the Thai government included the concept of well-being in the Ninth to Eleventh Plans (Promphakping, Klangseang, Pankham, Sriphom, & Wong-Arsa, 2007; Promphakping, 2012).

Significantly, the Eleventh Plan period emphasized building resilience at the family, community, society, and national levels under the sustainable development concept, the Philosophy of Sufficiency Economy. According to the Community Development Department (2013), there were 6,269 sufficient economic model villages in Thailand. It also noted that the specific development factors are based on human, social, physical, financial, natural resource, environmental, and cultural assets (NESDB, 2011). One of the goals is to utilize these assets to improve the well-being of the people. Many communities in Thailand realized that they need to manage themselves and determine the appropriate development strategies based on existing community capitals. As a result, some communities were successful in community capital management, which became a development model at the national level. Unfortunately, the development model is not applicable in some communities because of the difference in context.

In Surin and Buriram provinces, Somboon and Nongtakhem villages realized that they need to manage their capitals such as natural, human, financial, physical, and social. Somboon village was able to conserve the family forestⁱ, covering 837 raiⁱⁱ (133.92 ha). Likewise, the people in Nongtakhem village have managed well their community capitals, thereby becoming the model for sufficient economic village at the national level. The two villages have different capitals, thus, this paper argues that the communities have different potentials in solving a problem because success is dependent on the capitals that the communities have and the facilitating factors.

In general, the study aimed to analyze community capitals management for household well-being in two villages in Thailand such as Nongtakhem and Somboon in Surin and Buriram provinces, respectively. Specifically, the study aimed to:

1. describe the characteristics of the study areas in terms of community capitals;
2. discuss the community capitals management strategies of the study areas;
3. identify the organizations that facilitate community capitals management; and
4. analyze the outcomes of community capitals management in terms of household well-being.

Conceptual Framework of the Study

The conceptual framework (Figure 1) shows how household well-being is achieved through access to a range of community capitals and conduct of different community capitals management strategies. The Community Capitals box shows the five capitals that are normally found in the community, i.e., social, human, natural, financial, and physical capitals. Meanwhile, the box of Community Capitals Management Strategies of Households shows the strategies that each household has adopted. All strategies are based on existing community capitals. These capitals, when combined, allow various strategies to be pursued and different outcomes to be achieved. Further, the box of Organizations Facilitating Community Capitals Management includes the external organizations that facilitate

ⁱFamily forest is the conservation area of each family that comprises diversity of trees and natural food, which is necessary for the livelihood of the people in a community.

ⁱⁱA rai (Thai) is a unit of area equal to 1,600 m² (40 m × 40 m) and used for measuring land area.

community capitals management strategies. Lastly, the box of Household Well-being shows the outcomes of community capitals management at the household level including some variables modified from the well-being indicators of the NESDB Office. The identified outcomes are based on the five community capitals.

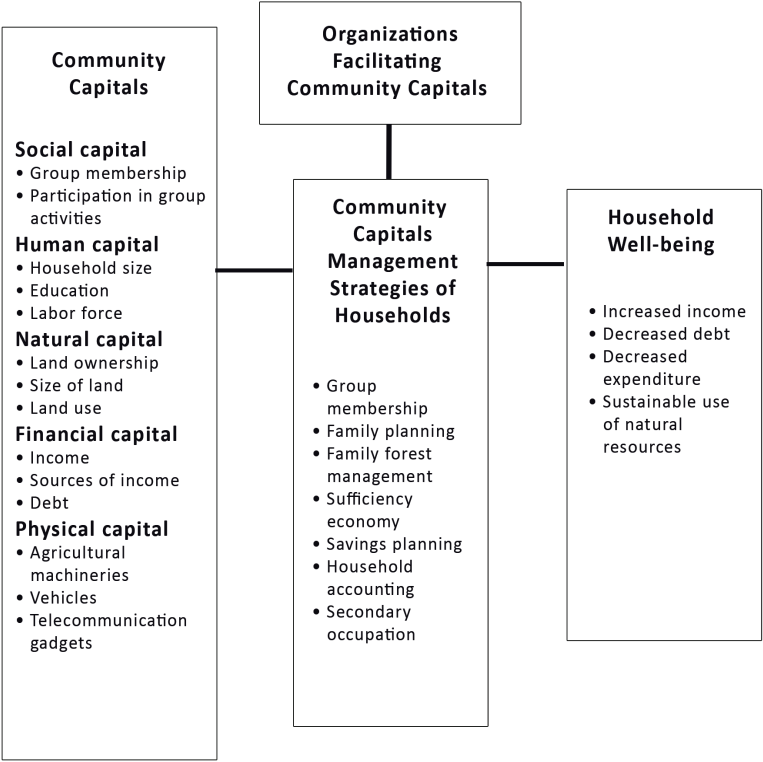


Figure 1. Conceptual framework of the study

METHODOLOGY

Respondents and Sampling Design

Somboon and Nongtakhem villages were selected as the study areas because of the diversity of community capitals as compared with the other villages in their respective sub-districts. The total number of the respondents from each village was determined by using the Slovin's formula at 10 percent margin of error:

Slovin's formula: $n = N / (1 + Ne^2)$; where n = sample size, N = total number of households in each village, and e = desired margin of error at 10 percent.

Thus, for Somboon where $N = 118$, $n = 54$ and for Nongtakhen where $N = 178$, $n = 64$.

Utilizing simple random sampling, a total of 118 households were selected for the household survey. The respondents, who may or may not practice community capitals management, were any adult member of the household.

Key informant interviews (KIIs) were conducted to get additional data that supported the survey questionnaire. The key informants were the village head, the village council members, and head of important groups in the village (e.g., savings group, flower growing group, organic fertilizer group, and weaving group).

Data Collection

A series of field works was conducted from May to June 2014, including orientation meetings with eight researcher-enumerators, personal interviews of household respondents, KIIs, and field observation. Secondary data were also reviewed.

Data Analysis

Survey data gathered were processed using the Statistical Package for the Social Sciences (SPSS) program. Descriptive statistics such as frequency counts, percentages, means, and ranges were used to describe the socio-economic characteristics, community capitals,

community capitals management strategies, organizations facilitating community capitals management, and outcome of community capitals management.

The test of means of independent samples was used to determine the difference between household income and debt of the households who had members of community groups, and those who either practiced or not the community management strategies.

RESULTS AND DISCUSSION

Socio-demographic Characteristics of the Respondents

Table 1 shows that majority of the respondents from both Nongtakhem and Somboon were female farmers with an average age of 53 years old for Nongtakhem and 49 years old for Somboon. Likewise, most of them finished primary school (Grades 1-6) and commonly held the position of ordinary members in the village.

Characteristics of Community Capitals

As shown in Table 2, there were diverse groups and each had different purposes in both communities. The results indicate that majority of the household members from both villages had membership with the village fund group. It implies that the members were able to access the financial capital they needed for investing in their occupations; the amount of loan was sufficient for the members; and the regulations of the group were acceptable such as low interest rates and yearly money returns. Expectedly, most of the group members were female farmers (Table 1) who mostly spent their time in the paddy field. Therefore, the time constraint affected the frequency of participation in the group activities (e.g., meetings, trainings). Moreover, traditionally, women had to take responsibility of the household chores and take care of the children.

The average household size of Nongtakhem was four persons, while that for Somboon was five persons (Table 3). It is still larger than the average household size of three in Thailand (National Statistical Office of Thailand [NSO], 2010). This is probably because the households need additional labor force to work in their agricultural farms. In terms

Table 1. Socio-demographic characteristics of the respondents in Nongtakhem and Somboon

CHARACTERISTICS	NONGTAKHEM (n=64)		SOMBOON (n=54)	
	No.	%	No.	%
Sex				
Male	10	15.6	11	20.4
Female	54	84.4	43	79.6
Age				
< 30	1	1.6	7	13.0
31-40	8	12.5	12	22.2
41-50	18	28.1	8	14.8
51-60	27	42.2	13	24.1
61-70	6	9.4	10	18.5
>71	4	6.2	4	7.4
Mean	52.81		48.69	
Range	29-78		21-80	
Educational attainment				
Primary (Grade 1-6)	49	76.6	33	61.1
Secondary (Grade 7-9)	9	14.1	13	24.1
Secondary (Grade 10-12)	6	9.4	6	11.1
Bachelor's degree	-	-	2	3.7
Main occupation				
Farmer	51	79.7	50	92.6
Self-employed	2	3.1	2	3.7
Employee	1	1.6	-	-
Laborer	8	12.5	-	-
Government officer	-	-	1	1.9
Did not specify	2	3.1	1	1.9

Table 1. Socio-demographic characteristics...(Continuation)

CHARACTERISTICS	NONGTAKHEM (n=64)		SOMBOON (n=54)	
	No.	%	No.	%
Position in the community				
Sub-district Administrative Organization (SAO) deputy chief executive	-	-	1	1.9
SAO council member	-	-	1	1.9
Village head	1	1.6	-	-
Assistant village head	1	1.6	-	-
Village council member	4	6.2	3	5.6
Village member	57	89.1	48	88.9
Group head	1	1.6	-	-
Village health volunteer	-	-	1	1.9

Table 2. Group membership of household members

GROUPS*	NONGTAKHEM (n=64)		SOMBOON (n=54)	
	No.	%	No.	%
Village fund group	48	75.0	51	94.4
Buffalo and Cow Bank	28	43.8	7	13.0
Consumer Cooperative	1	1.6	27	50.0
Family forest group	-	-	23	42.6
Flower growing group	28	43.8	-	-
Organic fertilizer group	17	26.6	27	50.0
Savings group	40	62.5	18	33.3
Vegetable growing group	19	29.7	3	5.6
Village Development Bank	48	75.0	-	-
Weaving group	27	42.2	2	3.7
Women's group	41	64.1	9	16.7
None	1	1.6	1	1.9

*Multiple responses

Table 3. Households' human capital

CHARACTERISTICS	NONGTAKHEM		SOMBOON	
	No.	%	No.	%
Household size	(n=64)		(n=54)	
1-3	31	48.4	13	24.1
4-6	31	48.4	31	57.4
7-9	2	3.1	8	14.8
> 9	-	-	2	3.7
Mean	3.64		5.06	
Range	2-8		2-13	
Labor age force	(n=233)		(n=273)	
< 15	32	13.7	54	19.8
15-60	186	79.8	175	64.1
>60	15	6.4	44	16.1
Level of education of household members	(n=233)		(n=273)	
Kindergarten	3	1.3	24	8.8
Primary school	112	48.1	124	45.4
Lower secondary school (Grade 7-9)	47	20.2	57	20.9
Upper secondary school (Grade 10-12)	53	22.7	37	13.6
High vocational certificate	-	-	2	0.7
Bachelor's degree	14	6.0	17	6.2
No formal education	1	0.4	2	0.7
Did not specify	3	1.3	10	3.7

of labor force in the households, majority of the household members in both villages belonged to the workforce age (15 – 60 years old). This implies that they were able to generate income for the households. Further, majority finished primary school (Table 3).

Table 4 shows that all households in Nongtakhem owned land averaging 14 rai (2.24 ha). Meanwhile, 92 percent of Somboon household respondents owned a farmland, which has a mean size of 26 rai (4.16 ha). Majority of them allocated land for paddy field because the main source of their income was rice farming.

Natural capital is crucial for both communities' livelihood and well-being. The growth of other capitals can be delayed or stopped if there is lack of access to natural capital. It would also be difficult to overcome poverty if natural resources are depleted and are not reinvested (Flora & Thiboumery, 2005). However, the natural capital is only one capital that is not created by humans and is thus the most difficult to manage. Both Nongtakhem and Somboon residents allocated land for their livelihood, especially for paddy field.

The average land size of Somboon was larger than that of Nongtakhem, so the paddy field size of Somboon would be larger than that of Nongtakhem. Therefore, the farmers in Somboon might need to use resources such as water, labor force, and finance for agricultural activities more than those in Nongtakhem.

The average monthly household income of Nongtakhem was 14,309 Baht, while it was 10,247 Baht/household for Somboon (Table 5). If the total household income is divided by the household size (Table 3), Nongtakhem (4 persons) and Somboon (5 persons), the households from Nongtakhem would earn a monthly income of 3,577 Baht/person and 2,049 Baht/person for Somboon. It would be above the stated poverty line: 1,678 Baht/person/month (NSO, 2010).

Majority of the respondents in Nongtakhem (91%) and Somboon (92%) incurred an average debt per household of 62,845 Baht and 159,300 Baht, respectively from the Bank of Agriculture and Agricultural Cooperatives (BAAC). Considerably, the average amount of debt of both villages was lower than the average debt in the provincial level: 196,381 Baht for Surin and 161,895 Baht for Buriram (NSO, 2011).

Meanwhile, the purposes of each household in borrowing money from financial sources varied. For example, some would take a loan to invest in their occupation (e.g., to buy fertilizer, agricultural machinery,

Table 4. Households' natural capital

CHARACTERISTICS	NONGTAKHEM		SOMBOON	
	No.	%	No.	%
Land ownership	(n=64)		(n=54)	
Yes	64	100.0	50	92.5
No	-	-	4	7.4
Size of land (Rai)	(n=64)		(n=50)	
< 10	42	65.6	5	10.0
11-20	17	26.6	17	34.0
21-30	1	1.6	13	26.0
31-40	-	-	5	10.0
41-50	4	6.2	9	18.0
> 51	-	-	1	2.0
Mean	13.55		25.74	
Range	0.1-165		5-52	
Land use ^a	(n=64)		(n=50)	
Habitation	64	100.0	50	100.0
Paddy field	53	82.8	49	98.0
Pond	9	14.1	16	32.0
Cash cropping	33	51.1	5	10.0
Family forest	-	-	13	26.0
Rent	1	1.6	-	-
Did not specify	9	14.1	-	-

^aMultiple responses

seeds). Therefore, it is possible that the households in Somboon would borrow money from financial sources to buy large tractors with an estimated unit value of 1,433,300 Baht.

The main income source of both villages was rice farming, but the average yield from Surin province (366 kg/rai) was a little lesser compared with that from Buriram province (375 kg/rai) (Office of Agricultural Economics, 2012). Table 5 shows that although income sources in Somboon were more diverse than in Nongtakhem, Somboon respondents incurred higher debt. Their average income was lower

Table 5. Households' financial capital

CHARACTERISTICS	NONGTAKHEM		SOMBOON	
	No.	%	No.	%
Monthly income of household (THB) ^a	(n=64)		(n=54)	
< 5,000	6	9.4	13	24.1
5,001 - 10,000	30	46.9	20	37.0
10,001 - 15,000	9	14.1	10	18.5
15,001 - 20,000	5	7.8	7	13.0
20,001 - 25,000	4	6.2	4	7.4
25,001 - 30,000	3	4.7	-	-
> 30,001	7	10.9	-	-
<i>Mean</i>	<i>14,309</i>		<i>10,247</i>	
<i>Range</i>	<i>2,500-48,000</i>		<i>1,500 - 23,000</i>	
Sources of income ^b	(n=64)		(n=54)	
Rice farming	54	84.4	47	87.0
Cash cropping	24	37.5	-	-
Self-employed	38	59.4	7	13.0
Private employment	4	6.2	3	5.6
Government officer	2	3.1	3	5.6
Hired laborer	49	25.3	4	7.4
Pig raising	-	-	1	1.9
Rice mill	-	-	1	1.9
Salon	-	-	1	1.9
Remittance	-	-	4	7.4
Old age allowance	-	-	11	20.4
Did not specify	4	6.2	1	1.9

^a1 USD = 32.74 THB^bMultiple responses

Table 5. Households' financial...(Continuation)

CHARACTERISTICS	NONGTAKHEM		SOMBOON	
	No.	%	No.	%
Debt	(n=64)		(n=54)	
Yes	58	90.6	50	92.6
No	6	9.4	4	7.4
Amount of debt (THB) ^a	(n=58)		(n=50)	
< 50,000	34	58.6	21	42.0
50,001 - 100,000	13	22.4	9	18.0
100,001 - 150,000	6	10.3	6	12.0
150,001 - 200,000	4	6.9	3	6.0
200,001 - 250,000	1	1.7	3	6.0
> 250,001	-	-	8	16.0
Mean	62,845		159,300	
Range	10,000-250,000		10,000-1,000,000	
Sources of debt ^b	(n=58)		(n=50)	
Village fund group	35	60.3	20	40.0
Village Development Bank	13	22.4	-	-
Savings group	3	5.2	1	2.0
Flower growing group	1	1.7	-	-
Neighbor	0	0.0	2	4.0
Bank of Agriculture and Agricultural Cooperatives (BAAC)	37	63.8	29	58.0
Krung Thai Bank Public Company Limited (KTB)	-	-	1	2.0
Anamai Surin Savings and Credit Cooperative Limited	-	-	1	2.0
Agricultural cooperatives	-	-	8	16.0
Did not specify	-	-	1	2.0

^a1 USD = 32.74 THB

^bMultiple responses

than that of the respondents from Nongtakhem. Only few of them were engaged in other income generating activities such as pig raising, rice milling, and running a salon.

In terms of physical capital, the hand tractor was more prevalent in both villages compared with other agricultural machineries because it was the cheapest. Majority of the household members used the motorcycle as their transport vehicle as it was convenient for travelling based on the travelling route, and it was not expensive. Only one respondent from Nongtakhem owned a truck. The crucial telecommunication gadgets in both villages were television and telephones/cellphones (Table 6).

As shown in Table 7, the large tractor as agricultural machinery had the highest estimated value in both villages: about 566,670 Baht for Nongtakhem and 1,433,300 Baht for Somboon. Somboon respondents owned more agricultural machinery and had larger lands as compared with Nongtakhem respondents.

Table 6. Households' physical capital

CHARACTERISTICS ^a	NONGTAKHEM (n=64)		SOMBOON (n=54)	
	No.	%	No.	%
Agricultural machinery				
Hand tractor	9	14.1	30	55.6
Large tractor	3	4.7	3	5.6
Rice mill	2	3.1	7	13.0
Vehicles				
Motorcycle	63	98.4	45	83.3
Car	20	31.2	12	22.2
Truck	1	1.6	-	-
Telecommunication gadget				
Television	62	96.9	52	96.3
Computer/laptop	31	48.4	12	22.2
Telephone/cellphone	63	98.4	50	92.6

^aMultiple responses

Table 7. Estimated value of the household respondents' physical assets

CHARACTERISTICS	NONGTAKHEM (n=64)		SOMBOON (n=54)	
	Average Number	Average Value	Average Number	Average Value
Estimated value (THB) ^a				
Agricultural machineries				
Hand tractor	1	23,333	1	48,067
Large tractor	1	566,670	1	1,433,300
Rice mill	1	50,000	1	46,714
Vehicles				
Motorcycle	2	50,619	2	67,922
Car	1	460,600	1	600,250
Truck	1	650,000	-	-
Telecommunication gadget				
Television	1	5,377	1	7,226
Computer/laptop	1	18,710	1	14,270
Telephone/cellphone	2	8,599	2	5,557

^a1 USD = 32.74 THB

Community Capitals Management Strategies

Community capitals management strategies such as group membership, family planning, sufficiency economy, savings plan, household's accounting, and secondary occupation were practiced by both villages. Meanwhile, only Somboon practiced family forest management. The intensiveness of each strategy in both villages differed depending on their context of the facilitating factors.

Group membership. About 69 percent of the households in Nongtakhem acquired benefits from the village fund group. The rest of them acquired benefits from the savings group (53%), Village Development Bank (38%), women's group (36%), vegetable growing group, among others. Likewise, only one household member in Nongtakhem did not get any benefit from any group because he/she was not part of any group.

In Somboon, majority (83%) acquired benefits from the village fund group, while the others received benefits from the organic fertilizer group (35%), Consumer Cooperative (30%), savings group (28%), family forest group (22%), and other groups. Like in Nongtakhem, only one household member did not get any benefit because he/she was not also a member of any group in Somboon.

Family planning. Family planning is the practice of controlling when to have children by means of birth control techniques. More than half (56%) of the households in Nongtakhem and about two-thirds (65%) in Somboon practiced family planning.

Family forest management. Family forest management, a strategy to conserve the forests that are owned by the families, was practiced in Somboon, which has 837 rai (133.92 ha) of family forest. However, only 44 percent of the households in Somboon practiced family forest management. This can be explained by the fact that there were more households that did not own forests as compared with those who owned. Meanwhile, Nongtakhem respondents did not practice family forest management because there was no family forest in the village.

Sufficiency economy practice. Almost all (98%) of the households in Nongtakhem and majority (78%) in Somboon practiced sufficiency economy. The sufficiency economy practice became popular because it is one of the concepts in the Eleventh NESDP (2012-2016). Nongtakhem practices sufficiency economy more intensively than that of Somboon because it is one of the sufficiency economy villages in Thailand.

Inspired by the late King Bhumibol Adulyadej's philosophy of sufficiency economy, the Eleventh NESDP emphasized building resilience at the family, community, society, and national levels. According to the Community Development Department, Ministry of Interior (2013), there were 6,269 sufficient economic model villages in Thailand, and Nongtakhem was one of them.

Savings plan practice. All of the households in Nongtakhem practiced savings plan. On the other hand, almost half (48%) of the respondents in Somboon did not have a savings plan practice because of the following reasons: insufficient income (46%), unstable income (46%), and no monthly household income (42%). As previously discussed, majority of the respondents from both villages relied on rice farming for their income (Table 5). The households would get income

after selling rice, which is actually once a year. The households' lack of monthly income resulted to their inability to save.

Household accounting practice. Only four households (6%) did not practice household accounting in Nongtakhem because they have no time to practice it. Meanwhile, more respondents (33%) in Somboon reported that they did not practice household accounting. Among the 18 households in Somboon, majority (89%) said that they also had no time to practice it, while two households (11%) replied that they lacked knowledge in household accounting.

Secondary occupation practice. Majority (84%) of the households in Nongtakhem practiced secondary occupation while 16 percent did not. In Somboon, more than half (57%) of the households practiced secondary occupation and 43 percent did not. This indicates that some households have diverse sources of income while some relied solely on their main occupation. If something affects negatively the main occupation of the households who do not have a secondary occupation, it would make them vulnerable in terms of income.

Organizations Facilitating Community Capitals Management

The organizations that supported or facilitated the community capitals management in both villages were government organizations and nongovernment organizations (NGOs). Majority of the households in Nongtakhem identified the following: 1) District Agricultural Extension Office, which provided them facilitation assistance in terms of group membership and participation as well as secondary occupation practice; 2) Three-generation Center to Strengthen the Family Love Bond in family planning; and 3) BAAC in household accounting. Meanwhile, most Somboon households reported receiving support from: 1) NET Foundation in group membership and participation as well as family forest management; 2) Tambon Health Promoting Hospital in family planning; 3) Sub-district Administration Organization in secondary occupation practice; and 4) agricultural cooperatives in household accounting.

In terms of sufficiency economy practice, majority of the households in Nongtakhem and Somboon received support from the District Agricultural Extension Office because majority of them work in the agricultural sector. Meanwhile, half of the households in Nongtakhem and Somboon did not identify the organization that provided them assistance in terms of savings planning. It is possible that they did not

remember the name of the organizations that helped facilitate financial capital.

**Outcomes of Community Capitals Management
in Terms of Household Well-being**

Increased household income. Almost all (97%) of the households in Nongtakhem claimed that the sufficiency economy strategy enabled them to increase their household income. Meanwhile, more than half attributed their increased income to their savings plan (55%) and household accounting (55%). Others considered group membership (53%), secondary occupations (53%), and family planning (50%) as factors that contributed to their increased income (Table 8).

In Somboon, most (72%) of the households affirmed that the sufficiency economy strategy was able to increase their income. Other factors considered were group membership (65%), secondary occupation (61%), family forest management (56%), family planning (28%), savings plan (20%), and household accounting (18%).

Table 8. Strategies that increased household income

STRATEGIES ^a	NONGTAKHEM (n=64)		SOMBOON (n=54)	
	No.	%	No.	%
Group membership	34	53.1	35	64.8
Family planning	32	50.0	15	27.8
Family forest management	n/a	n/a	30	55.6
Sufficiency economy practice	62	96.9	39	72.2
Savings plan	35	54.7	11	20.4
Household accounting	35	54.7	10	18.5
Secondary occupation	34	53.1	33	61.1

^aMultiple responses
n/a - not applicable

Decreased household debt. Table 9 shows that majority (95%) of the households in Nongtakhem cited that practicing the sufficiency economy strategy enabled them to decrease household debt. Other strategies considered responsible for their decreased debt were household accounting strategy (59%), family planning (50%), savings plan (50%), secondary occupation strategies (50%), and group membership (48%).

Table 9. Strategies that decreased household debt

STRATEGIES ^a	NONGTAKHEM (n=64)		SOMBOON (n=54)	
	No.	%	No.	%
Group membership	34	48.4	4	7.4
Family planning	32	50.0	4	7.4
Family forest management	n/a	n/a	9	16.7
Sufficiency economy practice	61	95.3	19	35.2
Savings plan	32	50.0	12	22.2
Household accounting	38	59.4	16	29.6
Secondary occupation	32	50.0	42	77.8

^aMultiple responses

n/a - not applicable

In Somboon, majority (78%) of the households agreed that the secondary occupation strategy helped decrease their household debt. Meanwhile, other strategies were sufficiency economy strategy (35%), household accounting (30%), savings plan (22%), family forest management (17%), group membership (7%), and family planning (7%).

Decreased household expenditure. As shown in Table 10, majority (89%) of the households in Nongtakhem mentioned that the household accounting strategy helped decrease household expenditure. Other strategies cited were sufficiency economy practice (69%), group membership (50%), family planning (48%), and savings plan (50%). In Somboon, about 67 percent of the households agreed that the family planning strategy helped decrease household expenditure. Also, other strategies considered were sufficiency economy practice (56%), family forest management (37%), and household accounting (32%).

Table 10. Strategies that decreased household expenditure

STRATEGIES ^a	NONGTAKHEM (n=64)		SOMBOON (n=54)	
	No.	%	No.	%
Group membership	32	50.0	2	3.7
Family planning	31	48.4	36	66.7
Family forest management	n/a	n/a	20	37.0
Sufficiency economy practice	44	68.8	30	55.6
Savings plan	31	48.4	0	0
Household accounting	57	89.1	17	31.5

^aMultiple responses

n/a - not applicable

Sustainable use of natural resources. In Table 11, all households in Nongtakhem affirmed that practicing sufficiency economy led them to use natural resources in a sustainable way because the sufficient economic agriculture encouraged them to avoid any chemical substance. In Somboon, almost all (98%) agreed that practicing the sufficient economic agricultural strategy led them to use the natural resources in a sustainable way. Likewise, majority (91%) said that the family forest management led to the use of natural resources.

Table 11. Strategies that led to the household's sustainable use of natural resources

STRATEGIES ^a	NONGTAKHEM (n=64)		SOMBOON (n=54)	
	F	%	F	%
Family forest management	n/a	n/a	49	90.7
Sufficiency economy practice	64	100.0	53	98.1

^aMultiple responses

n/a - not applicable

Difference in household income, expenditure, and debt. Based on test of means, as presented in Table 12, there was a significant difference of household income between the households who were in group membership (Mean = 17,261 Baht) and non-membership (Mean

= 12,014 Baht) in the Buffalo and Cow Bank at 0.1 level of significance in Nongtakhem. In other words, group membership in the Buffalo and Cow Bank was effective. Based on the mean value, the households who were members of the Buffalo and Cow Bank earned monthly income more than the households who were not. Therefore, to increase household income, membership in the Buffalo and Cow Bank should be continued and supported.

Table 12. Difference in the household income of member and non-member in community groups

GROUPS ^a	NONGTAKHEM (n=64)			SOMBOON (n=54)		
	Mean (THB)		Sig. (2- tailed)	Mean (THB)		Sig. (2- tailed)
	Mem- bers	Non- Members		Mem- bers	Non- Members	
Buffalo and Cow Bank	17,261	12,014	0.092*	13,286	9,825	0.179
Consumer cooperative	8,000	14,410	0.591	8,751	11,796	0.076*
Family forest group				10,274	10,274	1.000
Flower growing group	16,789	12,381	0.136			
Organic fertilizer group	17,171	13,274	0.242	9,933	10,615	0.696
Savings group	15,028	13,112	0.470	11,656	9,583	0.259
Vegetable growing group	15,647	13,744	0.556	12,333	10,153	0.566
Village Development Bank	14,504	13,725	0.820			
Village fund group	13,690	16,169	0.467	10,408	8,000	0.526
Weaving group	15,944	13,116	0.343	12,750	10,179	0.577
Women's group	14,785	13,461	0.667	13,011	9,726	0.156

^aMultiple responses

*There is a significant difference at 0.1 level (2-tailed)

THB - Thai Baht

In Somboon, there was a significant difference of household income between the households who had group membership (Mean = 8,751 Baht) and non-membership (Mean = 11,796 Baht) in the Consumer Cooperative at 0.1 level of significance. However, based on the mean value, the households who were not members of the cooperative earned monthly income higher than the households who were members because more of the non-member households owned land than those who were members. Moreover, their sources of income were more diverse.

Table 13 shows the difference in the household debt. The households in Nongtakhem who were members of the organic fertilizer group, vegetable growing group, Consumer Cooperative, weaving group, and flower growing group incurred debt higher than the households who were not members because majority of them borrowed money from these groups to invest in their occupations (e.g., to buy agricultural machineries, fertilizers, seeds). In Somboon, group membership was not effective in any group.

For the other strategies in Nongtakhem, the secondary occupation strategy should be supported because it enabled the households to increase their household income. For Somboon, there was no effective strategy.

For the difference in household debt, the sufficiency economy strategy should be supported in both villages because the amount of debt of the households who practiced the sufficiency economy strategy was less than the households who did not. Moreover, the family planning strategy was effective only in Nongtakhem although the increase in income was not significant.

CONCLUSIONS

Community capitals in Nongtakhem and Somboon villages comprised social, human, natural, financial, and physical capitals. First, in social capital, majority of those who were in group membership in both villages were female. They were traditionally assigned to manage assets or resources in the household level, especially finance. Being in group membership encouraged the households in accessing diverse resources, namely loan, natural food, organic fertilizer, and other materials. For participation in group activities, traditional ceremonies, village development, and natural resource conservation were the activities that most of the households did together. Second, in human capital, the

Table 13. Difference in the household debt of members and non-members of community groups

GROUPS ^a	NONGTAKHEM (n=58)			SOMBOON (n=50)		
	Mean (THB)		Sig. (2- tailed)	Mean (THB)		Sig. (2- tailed)
	Mem- bers	Non- Members		Mem- bers	Non- Members	
Buffalo and Cow Bank	74,923	53,031	0.133	104,290	168,260	0.482
Consumer Cooperative	150,000	61,316	0.091*	175,000	144,810	0.633
Family forest group				189,770	135,360	0.391
Flower growing group	81,179	45,733	0.009***			
Organic fertilizer group	87,765	52,512	0.060*	157,120	161,670	0.943
Savings group	68,838	52,286	0.207	109,120	185,150	0.251
Vegetable growing group	84,158	52,462	0.067*	156,670	159,470	0.983
Village Development Bank	65,702	50,636	0.247			
Village Fund group	67,533	46,615	0.107	165,100	20,000	0.366
Weaving group	84,680	46,303	0.008***	42,500	164,170	0.449
Women's group	66,171	54,824	0.454	254,440	138,410	0.154

^aMultiple responses

*There is a significant difference at 0.1 level (2-tailed)

***There is a significant difference at 0.01 level (2-tailed)

THB - Thai Baht

average size of household was four persons for Nongtakhem and five for Somboon. Majority of the household members were 15 – 60 years old and finished primary school. Third, in natural capital, almost all of the households owned land averaging 14 rai (2.24 ha) for Nongtakhem and 26 rai (4.16 ha) for Somboon. Majority of them allocated the land for habitation and paddy field. Fourth, in financial capital, the households earned a monthly income of 14,304 Baht for Nongtakhem and 10,247 Baht for Somboon, and incurred debt amounting to an average of 62,845 Baht for Nongtakhem and 159,300 Baht for Somboon. The main source of loan was the Bank of Agriculture and Agricultural Cooperatives. Fifth, in physical capital, majority owned hand tractor as their agricultural machinery, used motorcycle as their transportation, and had television sets, and telephones/cellphones as telecommunication gadgets. Large tractor as the agricultural machinery had the highest estimated value.

Seven strategies were applied to manage the community capitals such as group membership, family planning, family forest management, sufficiency economy, savings planning, household accounting, and secondary occupation. The intensiveness of each strategy in both villages differed depending on their context of the facilitating factors. Both villages acquired benefits from group membership, especially village fund group, and practiced family planning. However, only households from Somboon practiced family forest management because there were no forests in Nongtakhem.

The sufficiency economy practice became popular in both villages because it is one of the concepts in the Eleventh National Economic and Social Development Plan. Nongtakhem practices sufficiency economy more intensively than Somboon because it is one of the sufficiency economy villages in Thailand. All of the households in Nongtakhem practiced savings planning, but only half of households in Somboon did because income was insufficient. Majority of the households in Nongtakhem practiced household accounting and secondary occupation, while 67 and 57 percent of the households in Somboon practiced these strategies, respectively.

For outcomes of community capitals management, most of the households in both villages accepted that the sufficiency economy strategy enabled them to increase their household income. However, only the majority of households in Nongtakhem affirmed that the strategy led to the decrease in household debt. In contrast, the secondary occupation strategy was effective in Somboon in decreasing household

debt. In terms of decreased household expenditure, majority of the households in Nongtakhem mentioned that the household accounting strategy helped decrease expenditures, but about 67 percent of the households in Somboon mentioned that the family planning strategy did. For sustainable use of natural resources, majority of the households in both villages affirmed that practicing sufficiency economy led them to use natural resources in a sustainable way because the sufficient economic agriculture encouraged them to avoid any chemical substance.

Moreover, for the test of means, the households in Nongtakhem who were members of Buffalo and Cow Bank earned higher monthly income than the households who were not. For Somboon, the households who were not members in the Consumer Cooperative earned higher monthly income than the households who were members. Moreover, the households in Nongtakhem who had membership in organic fertilizer group, vegetable growing group, weaving group, flower growing group, and Consumer Cooperative incurred debts higher than those who were not members. This is because the households borrowed money from these groups, investing the money in occupations.

In Somboon, there was no effective group in terms of household debt. In Nongtakhem, the households who practiced secondary occupation and sufficiency economy earned higher monthly income than the households who did not. In Somboon, the households who practiced sufficiency economy earned higher monthly income than the households who did not.

For the sustainable use of natural resources, all households in Nongtakhem and almost all (98%) in Somboon agreed that practicing the sufficiency economy led them to use the natural resources in a sustainable way. Likewise, majority (91%) in Somboon said that the family forest management did the same.

For organizations facilitating community capitals management, various government organizations and NGOs were identified. The organizations focused on the different community capitals management strategies depending on their policy and context. These organizations had crucial roles in supporting both Nongtakhem and Somboon villages.

RECOMMENDATIONS

In the light of the findings of the study, the following recommendations are forwarded:

1. Group membership should be supported and extended to other community members because it enabled the households to access financial capital and improve their household well-being, particularly in increasing household income and decreasing household debt.
2. Households relied on rice farming for income. Thus, the government organizations should consider formulating policies to improve rice production and encourage households to create diverse sources of income.
3. Since majority of the households incurred debts, they should be able to apply the appropriate strategies to manage household debts. Moreover, the knowledge concerning debt management should be provided by involved organizations.

LITERATURE CITED

- Community Development Department. (2013). Sufficient economic model villages (Thai version). Ministry of Interior. Retrieved from http://app4.cdd.go.th/cddcenter/cdd_report/spp_r03.php?&display=9999&year=2556&course=&location_id=0 on 11 May 2014.
- Flora, C. B. & Thiboumery, A. (2005). Community capitals: Poverty reduction and rural development in dry area. *Annals of Arid Zone*, 45 (3&4), 239-253.
- Lianchamroon, W. & Thankitjanukit, S. (2005). Green revolution to genetic engineering: Advantages and impacts to Thailand (Thai version). Bangkok, Thailand: The Thailand Research Fund.
- McGregor, J. A. (2006). Researching wellbeing: From concepts to methodology. WeD working paper 20. ESRC Research Group on Wellbeing in Developing Countries, University of Bath, United Kingdom. Retrieved from <http://www.welldev.org.uk/research/workingpaperpdf/wed20.pdf> on May 10, 2014.

- McGregor, J. A. (2008). Wellbeing, development and social change in Thailand. *Thammasat Economic Journal*, 26(2). Retrieved from <http://www.ids.ac.uk/files/dmfile/WellbeingDevelopmentandSocialChangeinThailand.pdf> on 11 May 2014.
- National Economic and Social Development Board (NESDB). (2004). Sufficiency economy. Retrieved from <http://www.sufficiencyeconomy.org/old/en/files/4.pdf> on 8 February 2015.
- National Economic and Social Development Board (NESDB). (2011). The eleventh national economic and social development plan (2012 – 2016). Office of Prime Minister, Bangkok, Thailand.
- National Statistical Office of Thailand (NSO). (2010). Survey of household economic and social status. Retrieved from http://social.nesdb.go.th/SocialStat/StatReport_Final.portid=205&template=1R1C&yeartype=M&subcatid=43 on 19 February 2015.
- National Statistical Office of Thailand (NSO). (2011). Average debt per household by region and province: 1996– 2011. Retrieved from http://social.nesdb.go.th/SocialStat/StatBarChart_Final.reportid=52&template=3R2C&yeartype=M&subcatid=24 on 19 February 2015.
- Office of Agricultural Economics (OAE). 2012. Agricultural Statistics of Thailand 2012. Agricultural Statistics No. 402.
- Promphakping, B., Klangseang, K., Pankham, P., Sripom, PH., & Wong-Arsa, W. (2007). Well-being index synthesis: Lesson learned conclusion in case of happy index development process of Loei province. Retrieved from <http://www.wesd.net/content.php?show=1&id=6> on 4 May 2014.
- Promphakping, B. (2012). Well-being (Thai version). *Journal of Humanities & Social Sciences*, 29 (2). Retrieved from www.huso.kku.ac.th/thai/hsJournal/journal/29-2.pdf on 11 May 2014.