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## Knowledge and Practice of Trained Farmers from the Northern Community Sufficiency Economy Learning Center, Thailand

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**Abstract** Result shown that their knowledge about principle of sufficiency economy were moderately level. About 92.0% of the farmers brought the knowledge to practice after training and most of them were planting for self-consumption or for marketing (84.66%). Their satisfaction for the Northern Community Sufficiency Economy Learning Center was in high level as well as the opinion towards knowledge transferring process and the readiness of the Northern Community Sufficiency Economy Learning Center was in highly level, too. Result from hypothesis testing has shown that knowledge was significantly related to gender, level of education, income from agriculture activity and knowledge gained on sufficiency economy training at 0.01 level. Practice was related to their debt and sufficiency economy training at 0.01 and 0.05 significant levels. Problems involved with the center were an inconvenience travelling to some center due to far away from community, insufficiency water and seedy soil. Some centers lack infrastructures such as training building and restroom and have less public relation. Suggestion from research found that concerned agency should allocate budget to improve road to facilitate traveling to the center, promote water source and production factor to the farmers. Concerned agencies should continually support the academic i.e. knowledge exchange meeting about technique, process and various activities in order to improve and develop the learning center further.

**Keywords:** Knowledge, Practice, Northern Community Sufficiency Economy Learning Center, Thailand

### Introduction

Sufficiency Economy are philosophize to living and practice concept of Thai people in every level from level of family, community until government, both development and management the country with moderate practice especially economic development in order to catch up with globalization. Sufficiency means modesty, rationality including necessity to have moderate

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self-immunity to any impact that due to external and internal change. For this purpose, every step of planning and proceeding should employ academic knowledge with omniscience, prudence and precaution extremely. Meanwhile, there is a need to reinforce mind of people in nation, especially public official, theorist and business in every level have to realize in moral, honesty and have suitable omniscience. Live life with patience, assiduity, intelligent and prudence in order to balance and ready to bear a rapid extensive transformation whole physical, social, environment and culture from outward well.

Office of the permanent secretary for agricultural and cooperatives had conduct project of community sufficiency economy learning center in order to be a community agriculture learning center by offer farmer to learn and enhance agricultural skill in learning by doing pattern underneath farming follow to sufficiency economy. From proceeding and continuously of the center since 2005, now the center had strengthen a learning more and more. Trained farmers and farmers in local center should obtain support and promote in agricultural development in order to improve yield production, income community and living beneath community plan which farmers are consort together to create and practice a agricultural development plan, requirement and potency of local area without impact to natural resource and environment in their community. Community plan from community would had consistency and link to well living strategy of the province which assignment from the government that focus on 5 program i.e. 1) sufficiency economy 2) development and create opportunity in community 3) restore abundance of community 4) assistance to underprivileged and elder and 5) primary service. Through offer and opportunity to the farmer and anyone interested who wish to be a farmer could select various learning source from the center and brought the knowledge to extend results in their area and could be an example for community to some extent. Therefore the researchers aim to realize the knowledge and practice of the farmers who had trained from Northern Community Sufficiency Economy Learning Centers, but also as be basis for reference to anyone who interested and study in sufficiency economy in particularly or in aspect which involving in universal level for the purpose of suitable alternative and consistent with further develop economic and social.

### **Research Objectives**

1. To determine basis characteristic of trained farmers from community sufficiency economy learning centers in northern region
2. To study knowledge and practice of farmers about community sufficiency economy principle

3. To explore an opinion of farmer toward knowledge transferring process of community sufficiency economy center
4. To study an opinion of farmers to readiness of community sufficiency economy learning center
5. To explore problem and suggestion in order to develop the community sufficiency economy learning center

## **Materials and methods**

Population in this study were farmer who had trained from Community Sufficiency Economy Learning Center in Northern region, Thailand total 150 centers, collected data by simple random sampling ;3 samples each center totally 450 farmers .Use interview schedule as a research tool. Analyzed data determined relation between independent variable and knowledge through descriptive statistics. Determined relation between independent variable and trained farmer's practice through stepwise multiple regression analysis.

## **Results**

### ***Personal, economic and social characteristic of trained farmers***

Result shown that 58.00% of trained farmers were male, aged on average 47.20 years old ,52.67% of them finished from primary school, owned land and farm land on average 13.58 rai and 12.85 rai, (Note: 2.5 rai equal to 1Acre) member of household averaged in 4.15 persons, agricultural labor averaged in 2.20 people and 71.33% of trained farmer were rice farmer. Their agricultural income averaged 7,225.53 bath/household/months, (Note: 1 \$ US. equal to 30.72 Bath) other income averaged 4,110.86 bath/ household/ month, household expense 4,510.00 bath/household/month .77.56% of trained farmer had debt, 74.89% of trained farmer applied knowledge to practice could reduction debt, reduced household expense 41-50 bath, increased household income 41-50 bath. 62.67% of farmer had no social condition. 64.44% of the centers were located in their village. 84.67% of trained farmer joined program due to need addition knowledge, 55.11% of them never joined sufficiency economy training.97.32% had passed on the knowledge .62.89% of them passed to their family and friend. Almost farmers regard as they could applied the knowledge to practice.

***Knowledge and practice of farmer concerning community sufficiency economy principle***

***Knowledge about sufficiency economy principle***

From studying in knowledge about sufficiency economy found that 44.22% of farmer had knowledge about sufficiency economy between 11-13 points ,second had score between 14-16 points or in 42.89%.12.89% had knowledge about sufficiency economy equal or less 10 points . An average score were 12.83 point that was in moderate level. Maximum and minimum score were 16 and 4 point, respectively (Table1)

**Table 1.** Knowledge about sufficiency economy principle

Knowledge in sufficiency economy principle (score)	Number (person)	Percentage	Level
Less or equal to 10	58	12.89	Should improve
11–13	199	44.22	Moderate
14–16	193	42.89	Good
total	450	100.00	

Minimum score 4 point; Mean score 12. 83point;\_Maximum score 16 point; Standard deviation 2.01

***Knowledge practice after training***

92.00% of farmers had applied the knowledge, 84.66% of sample applied knowledge in planting for self-consume or sell. 68.89% of farmers applied knowledge in fertilizer, biological agent, feed and seed production. 65.11% brought knowledge to perform on supplement career. And 8.00% were not brought knowledge to practice (Table 2)

**Table 2.** Practice after training

Practical	Number (person)	Percentage
Non/never applied the knowledge	36	8.00
Practice/ applied the knowledge	414	92.00
Planting for self-consume or sell	381	84.66
Producing fertilizer, biological agent, feed and seed	310	68.89
Supplement career i.e. .livestock farm, employee	293	65.11
Household account	267	59.33
Reduce household expense	253	56.22
Etc.	12	2.67

Note: etc. i.e. plant breeding, soil improvement, biodiesel ,charcoal

***Opinion of farmer toward knowledge transferring process of community sufficiency economy center***

From studied in opinion concerning knowledge transferring process through 10 questions, found that farmer had view on knowledge transferring process in highly level ,on average 2.69 (Table 3)

**Table 3.** Opinion on knowledge transferring process

Opinion	Level of opinion			Average	S.D.	Meaning
	Much	Moderate	Less			
1. suitability of training course	255 (56.67)	191 (41.44)	(0.89) 4	2.56	0.51	much
2. received sufficiency economy knowledge	288 (64.00)	155 (34.44)	(1.56) 7	2.62	0.52	much
3. suitability of lecturer	318 (70.67)	127 (28.22)	(1.11) 5	2.70	0.48	much
4. lecturer transmit knowledge precise to training subject	330 (73.33)	115 (25.56)	5 (1.11)	2.72	0.47	much
5. lecturer permit to participate	349 (77.56)	96(21.33)	(1.11) 5	2.76	0.45	much
6. lecturer could answer question and give suggestion	335 (74.44)	112 (24.89)	3 (0.67)	2.74	0.46	much
7. lecturer could stimulate to learning and easily to understand	315 (70.00)	133 (29.56)	2(0.44)	2.70	0.47	much
8. lecturer on time	292 (64.89)	149 (33.11)	(2.00) 9	2.63	0.52	much
9. experience exchange together , intellectual support by lecturer	308 (68.44)	137 (30.44)	(1.11) 5	2.67	0.49	much
10. knowledge from training stimulate to practice	339(75.33)	110 (24.44)	1 (0.22)	2.75	0.43	much
	Grand Mean			2.69	0.48	much

***Opinion of farmer to readiness of community sufficiency economy center***

From research shown that farmer had opinion about readiness of community sufficiency economy center in highly level, on average of 2.45 (Table 4)

**Table 4.** Opinion on readiness of the center

Opinion	Level of Opinion			Ave.	S.D.	Meaning
	Much	Moderate	Less			
.1clearly objective and sufficiency economy principle	311 (69.11)	134 (29.78)	5 (1:11)	2.68	0.49	much
.2community have participation in settle of the center	251 (55.78)	183 (40.67)	(3.56) 16	2.52	0.57	much
.3suitability of center position	327 (72.67)	113 (25.11)	(2.22) 10	2.70	0.50	much
.4poster or information board are clearly and easily to understand	209 (46.44)	172 (38.22)	(15.33) 69	2.31	0.72	moderate
.5documents are suitable and enough	230 (51.11)	154 (34.22)	(14.67) 66	2.36	0.73	much
.6the center have equipment readiness i.e. table,board ,stationary	150 (33.33)	137(30.44)	163 (36.22)	1.97	0.83	moderate
.7the center have instrument and agricultural apparatus	121 (26.89)	167 (36.44)	165 (36.67)	1.90	0.79	moderate
.8readiness and potency of center chairman	324 (72.00)	114 (25.33)	(2.67) 12	2.69	0.52	much
.9the center have guide continuously	312 (69.33)	128 (28.44)	(2.22) 10	2.67	0.52	much
.10the center gain encouragement from community and community leader	304 (67.56)	135 (30.00)	(2.44) 11	2.65	0.53	much
Grand Mean				2.45	0.62	much

***Relationship between independent variables and dependent variable***

**Data analysis result through stepwise multiple regression analysis:** concluded that 4 independent variables; gender, education level, agricultural income and finished sufficiency economy training were statistic significantly related with knowledge of trained farmer at level 0.01.That could explained that male farmer had knowledge in sufficiency economy training more than female farmer and that cause score of knowledge in sufficiency economy training change 0.502 point. Farmer who graduated from higher school had knowledge more than those, and that cause score change 0.156 point. Meanwhile farmer who had higher agricultural income would had knowledge than those and cause score change 0.00003665 point. Trained farmer had knowledge more than farmer who never joined training and cause score change 0.155 point (Table 5)

**Table 5.** Regression analysis results

index	b	SE <sub>b</sub>	Beta	t
gender	0.502	0.221	0.129	**2.271
level of education	0.156	0.039	0.229	4.**001
agricultural income	0.00003665	0.000	0.162	2.**867
sufficiency economy training	0.155	0.076	0.116	**2.039
Constant	10.405	0.502		20.707**

R = 0.337   R<sup>2</sup> = 0.114   R<sup>2</sup><sub>adj</sub> = 0.101   SE<sub>est</sub> = 1.835   F = 9.105

**Data analysis:** result through Chi-square test revealed that debt and knowledge from training were statistical significantly related with practice of trained farmer at 0.01 and 0.05 level, respectively (Table 6 and 7)

**Table 6.** Relationship between farmer debt and practice

Debt	Practice		Total (person)
	Not practice	practice	
Had	22(4.99)	327(72.76)	349(77.56)
Have not	10(2.22)	80(17.78)	90(20.00)
Not specified	4(0.89)	7(1.56)	11(2.44)
Total	36(8.00)	414(92.00)	450(100.00)

$\chi^2 = 14.572$    Sig = 0.001

**Table 7.** Relation between training and practice

Training	Practice		Total) person(
	Not practice	practice	
Never	14(3.11)	234(52.00)	248(55.11)
Once	22(4.89)	180(40.00)	202(44.89)
Total	36(8.00)	414(92.00)	450(100.00)

$\chi^2 = 4.163$    Sig = 0.041

### ***Problems and suggestions from trained farmer***

From research shown that Problems of trained farmer were transportation due to the center were far away from their community ,lack water source for agricultural activity and deteriorate soil, insufficient budget for training handling and carry out activity in the center, lack of infrastructure i.e. training building, toilet. Product from center had capricious price and public relation of program were less.

Trained farmer given suggestion as concerned agency should support budget to improve in transportation, water source and production factor to trained farmer and including continually support academic knowledge i.e.

provide knowledge exchange meeting on varied technique, method and activity in order to improve and develop the center.

## **Conclusion and Discussion**

The factor which influenced on knowledge of trained farmer are following

1. That gender related with knowledge might be due to male have learning capacity and interesting in sufficiency economy more than female.

2. Trained farmer who graduated from higher level had knowledge more than those, because highbrow would had learning skill better that consistent with Sirirat (2003) who found that level of education related with knowledge of new theory agricultural ,and Chumpol (2002) also found that level of education related with knowledge of farmer to new theory agricultural .

3. Farmer who had agricultural income higher would had knowledge more than those, likely because farmer who had agricultural income higher interested to information and knowledge in order to be a factor in agricultural activity development for increase household income.

4. Much trained farmer had knowledge in sufficiency economy more than those this corresponding to Sirirat (2003) who found that experience on training related with new theory agricultural 's knowledge .So that trained farmer would understood in new theory agricultural .

The significant factor which influenced on practice of trained farmer are following

1. Debt's farmer related with practice shown that trained farmer who had much debt would brought knowledge to practice more than farmer who had less debt because of they need to release and increase income in household.

2. Much trained farmer obtained sufficiency economy accompanied with had exchanged learning together with farmer including with agricultural promote officer from livestock office, land development office and fishery office . All that had affected to true practice more than those. That consistent with Sirirat (2003) found that experience from training related with practice due to trained farmer had knowledge in new theory agricultural that conduce to more practice



## **Recommendations and Its applications**

In order to research on knowledge and practice of trained farmer in Northern region, Thailand more cover and precise on aspect, the researcher have suggestion on following

1. Research should study in role of agricultural promote officer who has significant participate in development of sufficiency economy learning center. How would be the role of an officer that could support the center to be an effective and continually development center.

2. Research should study on factor which influence on participation of trained farmer in northern region additional in order to compare and use result to improve quality of farmer life.

3. Research should study on opinion of trained farmer about various activity of the center in order to be information for improve center further.

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