

***Regional Income Inequality and Well-Being:
A Case Study in the Northeast of Thailand***

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The Asian Conference on Business and Public Policy 2014
Official Conference Proceedings

Abstract

The regional income inequality has played an important role in shaping economy, society and politics in Thailand. This issue is difficult to be eliminated within the short period. Evidently, the poverty problem has been diminishing, but unbalance distribution has prevailed. In term of statistical reports, it is usually revealed by dividing people into groups by regions. People who live in the Northeastern region have been considered as the lower income group comparing to people in other regions. Many policy makers have tried to solve inequality and poverty problem with the aim to increase people's income in terms of money.

However, money income is not sole indicator of the good quality of life or well-being although some people often use it to measure people's well-being. As a result of the field survey, the Northeastern people who have low income such as the farmer group are obviously embedded by high life satisfaction. Though low money income, they can live with the good quality of life due to self-sufficiency and sufficiency economy.

The policy development in order to improve people's quality of life and well-being should not only concentrate on trackling income inequality or the income gap among regions. The policy that people need is not the transitory effect policies for the short-term but they need the policy that effectively elevate their quality of life and ultimately lead to well-being in the long term.

Keywords: Income Inequality, Regional Inequality, Well-Being

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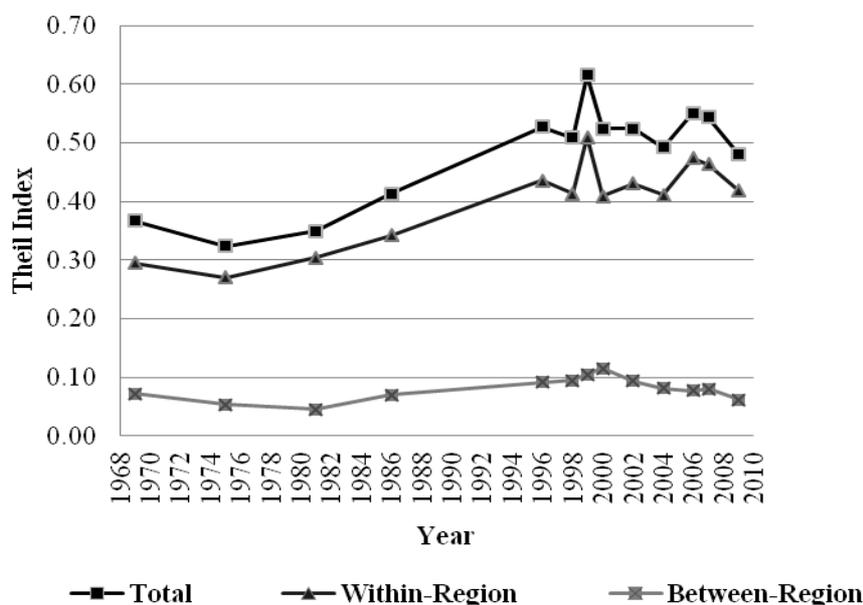
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1. Introduction

When income inequality is analyzed in order to alleviate the inequality and poverty issues, a country is usually divided into two or more sectors such as rural/urban areas, Bangkok and other regions in the case of Thailand, which implies that some sectors or regions have lower average income especially the Northeastern region that has been reported and considered as the poorest and therefore that people in the Northeastern region tend to be classified as “poor” in terms of money income. This kind of analysis may be useful if they are used correctly to improve the life of the less advantaged people. But they are sometimes used for misleading purposes such as political purposes to intensify the gap or misinterpretation of inequality in a country and sometimes resulted in giving precedence to ineffectively implemented policies.

The poverty incidence has shown the signal of diminishing as reported by the Office of the National Economic and Social Development Board (In the estimate, the poor is defined as person having consumption expenditure lower than poverty line). However, the Northeastern region had highest numbers of the poor, approximately 44.5 percent of the poor in the whole country. Furthermore, most of the poor are people living in rural area, 67.6 percent of the total (NESDB, 2012).

In term of relative poverty which refers to the inadequate distribution of income. The decomposition analysis of Theil Index by region which can be decomposed of within-region inequality and between-regions inequality reveals that the income inequality between regions may not be such an important focal problem of income inequality as is always assumed in Thailand (Figure 1). A problem of inequality issue in Thailand that should be more concerned is inequality within the region when we mention the “poorest” region.



Source: Charoenphandhu and Ikemoto (2012)

Figure 1: Decomposition of Inequality between Regions

In term of well-being, it is a broad evaluation of people's quality of life, although money income is the simple indicator applied to assess well-being. Income in-kind is also a key element for people's life and well-being, for example, some people or farmers have home-grown vegetables for their household consumption without the need to purchase from the market.

Moreover, the idea of the Sufficiency Economy which was proposed by The King Rama 9 of Thailand has begun to play a crucial role in Thai society after the economic crisis in 1997 as a way to solve the problems of the Thai economy which depended too much on the bubble economy in the pre-crisis period. The philosophy of Sufficiency Economy aims at not only self-sufficiency but also independent life, and it is not only for farmers but also for other people in the society who can adopt this philosophy in their life. Based on the philosophy of Sufficiency Economy, His Majesty the King proposed the New Theory of agriculture as the most distinct and concrete example of the application of the Sufficiency Economy to the agricultural sector. It aims at sustainability by dividing the agricultural land of a farm household into four parts; namely (1) rice cultivation; (2) fruit and perennial trees, vegetables, field crops and herbs; (3) pond; and (4) accommodation and animal husbandry, with a ratio of 30:30:30:10 so that farmers can obtain enough foods without depending on purchased inputs such as fertilizer and insecticide (Chaipattana Foundation, 2014).

Therefore, this study analyzes rate of money income dependence and proposes the self-sufficiency index in term of income in-kind dependency with an aim to employ to be an estimator for quality of life that beyond money income. Moreover, it is beneficial to conduct field survey in the Northeastern region to understand people in the local area in order to fulfill in the part that cannot be captured by only statistical analysis. With an insight on research findings, policy maker can improve the policies to solve the inequality and poverty problem appropriately and enhance well-being effectively.

2. Methodology and Data

This research consists of two parts of analysis. The first part is based on secondary data of the Socio-Economic Survey (SES) in 2011 compiled by the National Statistical Office of Thailand (NSO). The data is used to estimate the Self-Sufficiency Index which is proposed by examining the proportion of income in-kind of the monthly current household income per capita by regions. This is a method to find how much household in each region depend on self-sufficiency with income in-kind, and money income which can be analyzed as the following equations.

Quality of life on Money Income Dependence:

$$\Omega = \frac{\mu}{\phi}$$

Self-Sufficiency Index:

$$\delta = \frac{\gamma}{\phi}$$

or $\delta = 1 - \Omega$

Where

Ω = Rate of dependence on money income

μ = Monthly money income per capita

ϕ = Monthly current income per capita

δ = Self-sufficiency index

γ = Monthly income in-kind per capita

The self-sufficiency index can be between 0 to 1. The complete self-sufficiency is obtained if the index equals to 1. The higher number means more self-sufficiency.

In addition, the SES data of the Northeastern region is analyzed in detail. Cross tabulation analysis is employed to analyze the monthly current household income per capita by source of income (monthly current income consists of money income and income in-kind) and characteristics of household i.e. socio-economic class, age of household head, household size, and gender of household head.

Furthermore, the SES data of the Northeastern region is divided into 2 groups; under the poverty line and over the poverty line, using the poverty line calculated by NESDB at 2,415 Baht/person/month as of 2011. Both groups are more classified into 2 categories by administrative areas; municipal and non-municipal areas. Cross tabulation analysis is employed to analyze household to estimate the percentage of household depending on self-sufficiency which based on income in-kind more than money income and percentage of household which depend on money income more than income in-kind.

The second part of this research is based on primary data from in-depth interviews conducted in the Northeastern region of Thailand of a total of 111 respondents including the two farmer groups in Kalasin Province which are accounted as two of three groups that Provincial Administration Office of Kalasin has recognized as strong self-sufficient groups. The SWOT analysis is carried out to assess strengths, weaknesses, opportunities and threats of the surveyed local community in order to create tangible strategy to elevate local people's well-being.

3. Research Results

3.1 Quality of Life on Self-Sufficiency and Money Income Dependence

The results in the Figure 2 show that households depend their quality of life and well-being on money income in higher proportion than income in-kind of the monthly current income on average in every region. Households in the Northern region have the highest Self-Sufficiency Index that based on income in-kind among the households in all other regions with the Self-Sufficiency Index at 0.1496. The Northeastern region is the second highest with the Self-Sufficiency Index at 0.1479. The Self-Sufficiency Index of the Central region, Bangkok and the Southern region come after the Northeastern region with the rate of 0.1326, 0.1197 and 0.0978 respectively.

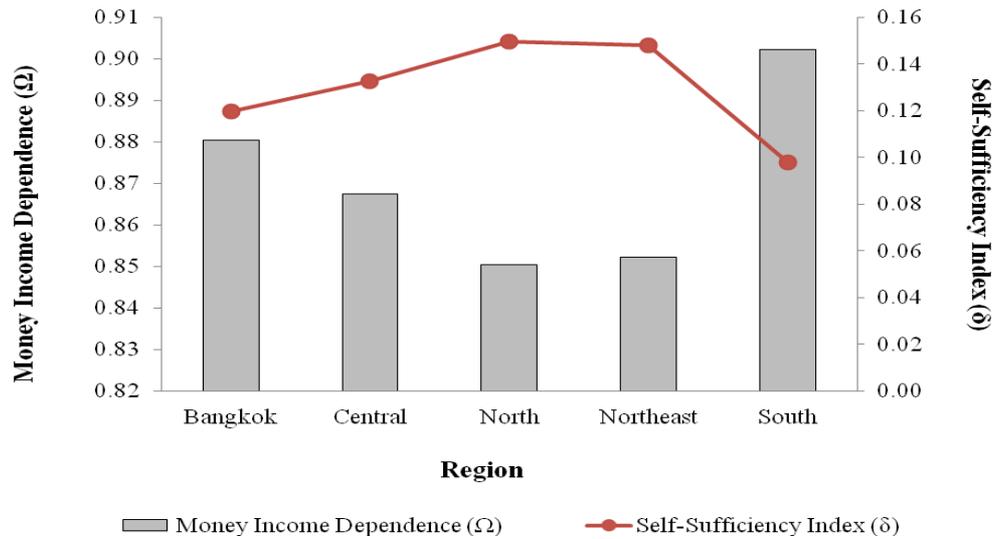


Figure 2: Self-Sufficiency and Money Income Dependence by Region

The results of analysis on monthly current household income per capita by source of income and characteristics of household in the Northeastern region are shown in Table 1-4. For the socio-economic class of household (Table 1), the professional, technical and managerial households have the highest monthly current income per capita 16,467.88 baht on average. Main source of income is money income up to 15,149.92 baht which includes money income from wages and salaries 8,620.70 Baht. In terms of income in-kind which can be categorized as income from rental estimated of free-occupied house, unpaid of goods and services and unpaid of food and beverages, the rental estimated of free-occupied house of this group is quite high (approximately 925.20 baht) but income from unpaid of food and beverages is low (approximately 254.81 baht). The group of farm operator who mainly owning land earns the highest income per capita from unpaid of food and beverages about 585.58 baht on average which could refer to their higher food security comparing to other groups.

Table 1: Monthly Income per Capita by Source of Income and Socio-Economic Class, Northeastern Region

Unit: Thai Baht

Source of Income (per Capita)	Socio-Economic Class							
	Farm Operator Who Mainly Owning Land	Farm Operator Who Mainly Renting Land/Occupied Free	Fishing, Forestry, Hunting, Agricultural Services	Entrepreneurs, Trade, Industry and Service	Professional, Technical and Managerial	Laborers	Other Employees	Economically Inactive
Monthly Current Income	4,725.26	4,291.26	3,553.29	12,770.77	16,467.88	3,734.35	6,010.28	8,407.15
Money Income	3,597.50	3,489.69	2,683.89	11,672.62	15,149.92	2,926.77	5,052.84	6,556.05
Wages and Salaries	269.51	431.73	133.87	540.59	8,620.70	2,411.78	4,332.40	607.67
Net profit from business	143.95	135.23	89.03	10,574.31	5,476.01	80.02	187.95	373.70
Net profit from farming	2,719.80	2,473.47	2,232.85	145.74	127.81	123.71	144.95	325.80
Pensions/annuities, other assistance	5.65	0	0	64.51	221.20	0	34.13	862.48
Work compensations or terminated payment	0	0	0	0.47	0	0	3.41	1.50
Money assistance from other people outside household	277.29	318.90	154.67	182.53	275.78	201.39	232.55	1,474.29
Elderly and disability assistance from government, and other organizations	169.59	129.70	65.00	76.37	72.68	107.12	70.26	247.27
Rent of properties	9.04	0	7.18	52.78	62.35	0.17	10.88	1,278.44
Saving interests, shares, bonds, and stocks	2.67	0.67	1.28	28.95	286.39	2.57	36.11	1,137.55
Interests of individual lending	0	0	0	6.35	7.02	0.01	0.20	247.34
Income In-kind	1,127.76	801.57	869.40	1,098.15	1,317.95	807.58	957.43	1,851.10
Rental estimated of free- occupied house	422.16	280.70	425.64	649.83	925.20	382.48	510.31	1,031.37
Unpaid of goods and services	120.02	78.83	87.93	100.53	137.94	80.80	138.17	328.02
Unpaid of food and beverages	585.58	442.03	355.83	347.79	254.81	344.31	308.96	491.72

Table 2: Monthly Income per Capita by Source of Income and Age of Household Head, Northeastern Region

Source of Income (per Capita)	Age of Household Head					Unit: Thai Baht
	Under 20	20-29	30-39	40-49	50-59	
Monthly Current Income	9,814.49	8,653.19	8,614.57	10,772.57	7,208.39	4,367.13
Money Income	8,548.77	7,598.85	7,499.12	9,454.50	5,962.38	3,107.39
<i>Wages and Salaries</i>	5,014.76	4,222.45	3,541.01	5,263.23	1,557.54	912.81
<i>Net profit from business</i>	2,172.46	2,402.80	2,567.74	2,042.48	1,282.74	602.86
<i>Net profit from farming</i>	190.41	414.60	637.72	859.71	688.37	273.59
<i>Pensions/annuities, other assistance</i>	28.91	27.70	39.55	260.63	1,128.61	351.12
<i>Work compensations or terminated payment</i>	0	0.25	1.27	4.46	0	0.12
<i>Money assistance from other people outside household</i>	1,035.60	435.56	503.04	736.53	941.28	656.16
<i>Elderly and disability assistance from government. and other organizations</i>	93.29	36.33	64.50	76.35	234.91	259.95
<i>Rent of properties</i>	0	7.18	34.11	51.70	52.53	29.38
<i>Saving interests, shares, bonds, and stocks</i>	13.34	45.78	93.71	154.32	73.07	21.08
<i>Interests of individual lending</i>	0	6.20	16.46	5.07	3.32	0.32
Income In-kind	1,265.72	1,054.34	1,115.45	1,318.07	1,246.01	1,259.75
<i>Rental estimated of free-occupied house</i>	617.83	570.59	598.57	717.32	652.37	508.51
<i>Unpaid of goods and services</i>	254.84	169.28	133.76	180.98	142.36	209.97
<i>Unpaid of food and beverages</i>	393.06	314.47	383.12	419.77	451.29	541.26

Table 3: Monthly Income per Capita by Source of Income and Household Size, Northeastern Region

Unit: Thai Baht

Source of Income (per Capita)	Household Size											
	1	2	3	4	5	6	7	8	9	10	11	12
Monthly Current Income	13,811	10,521	7,345	6,505	5,195	4,621	4,031	3,931	4,274	4,538	3,489	2,174
Money Income	11,344	9,093	6,301	5,627	4,441	3,945	3,425	3,359	3,721	4,219	3,029	1,807
<i>Wages and Salaries</i>	6,222	3,939	2,707	2,432	1,798	1,482	1,535	1,347	1,899	1,397	1,868	867
<i>Net profit from business</i>	2,274	2,121	1,806	1,793	1,216	1,293	904	818	779	2,097	947	659
<i>Net profit from farming</i>	341	751	687	667	574	558	449	463	301	291	70	89
<i>Pensions/annuities, other assistance</i>	551	822	226	175	288	167	160	43	389	314	0	0
<i>Work compensations or terminated payment</i>	0	0	4	0	2	0	0	1	0	0	0	0
<i>Money assistance from other people outside household</i>	1,505	1,038	665	386	402	256	257	524	221	75	0	47
<i>Elderly and disability assistance from government. and other organizations</i>	219	185	118	94	110	109	83	91	81	45	144	144
<i>Rent of properties</i>	52	82	32	31	19	39	18	31	31	0	0	0
<i>Saving interests, shares, bonds, and stocks</i>	172	147	50	41	31	42	19	40	20	0	0	1
<i>Interests of individual lending</i>	8	9	6	9	2	0	0	0	0	0	0	0
Income In-kind	2,468	1,428	1,045	878	755	676	606	572	553	319	460	368
<i>Rental estimated of free-occupied house</i>	1,398	775	520	420	321	287	254	231	185	219	221	115
<i>Unpaid of goods and services</i>	461	184	130	109	96	61	52	64	59	2	68	39
<i>Unpaid of food and beverages</i>	609	468	394	349	338	328	300	277	310	99	171	214

Table 4: Monthly Income per Capita by Source of Income and Gender of Household Head, Northeastern Region

Unit: Thai Baht

Source of Income (per Capita)	Gender	
	Male	Female
Monthly Current Income	8,490.76	8,428.66
Money Income	7,311.49	7,040.88
<i>Wages and Salaries</i>	3,379.49	3,070.41
<i>Net profit from business</i>	1,960.25	1,724.67
<i>Net profit from farming</i>	748.25	377.62
<i>Pensions/annuities, other assistance</i>	408.19	399.07
<i>Work compensations or terminated payment</i>	0.37	2.69
<i>Money assistance from other people outside household</i>	548.66	1,162.74
<i>Elderly and disability assistance from government. and other organizations</i>	135.08	154.07
<i>Rent of properties</i>	39.97	55.00
<i>Saving interests, shares, bonds, and stocks</i>	83.00	91.57
<i>Interests of individual lending</i>	8.23	3.05
Income In-kind	1,179.27	1,387.78
<i>Rental estimated of free-occupied house</i>	592.39	758.69
<i>Unpaid of goods and services</i>	162.54	209.22
<i>Unpaid of food and beverages</i>	424.34	419.86

For the age of household head category (Table 2), the households of household head in the age group of 40 to 49 years have the highest money income per capita approximately 9,454.50 Baht. The households of household head in the age of over 59 years have the lowest money income, but highest income in-kind from unpaid of food and beverages of 541.26 Baht on average.

For the household size category (Table 3), the small household size tends to earn higher income than large household size both in terms of money income and income in-kind. For the gender of household head category (Table 4), there is not much discrepancy in amount of income both money income and income in-kind between households with male or female household head.

In addition, there is 16.61 percent of households in the Northeast accounted in the poor group which under the poverty line (2,415 Baht/month/person, 2011). Among the households that have monthly current income less than poverty line, in municipal area, there is 76.87 percent of households have money income more than income in-kind while 23.13 percent have money income less than income in-kind (Table 5). For non-municipal area, 29.72 percent of households have proportion of income in-kind more than money income. On the contrary, households with average current income (money income and income in-kind) per capita over the poverty line, there is only 5.6 percent earn income in-kind more than money income for the household in the municipal area.

Table 5: Percentage of Household Comparing the Source of Income by Administrative Area

<i>Income</i>	Unit: Percent	
	Administrative Area	
	Municipal	Non-municipal
<i>Monthly current income less than poverty line</i>		
Money income>Income in-kind	76.87	70.28
Money income<Income in-kind	23.13	29.72
<i>Monthly current income equal to or more than poverty line</i>		
Money income>Income in-kind	94.39	26.66
Money income<Income in-kind	5.6	73.34

3.2 SWOT Analysis from In-Depth Interviews in the Northeastern Region

As the information from the interviews, the positive and negative aspects from internal and external factors are categorized into the strengths, weaknesses, opportunities and threats of the local community and people in the Northeastern region as shown in Table 6.

Table 6: SWOT Analysis from In-Depth Interviews

	Positive	Negative
Internal	<p>Strengths</p> <ul style="list-style-type: none"> • Solidarity among people in the community • Adoption of Sufficiency Economy • Attempt to self-sufficiency • Life satisfaction • Enough land for farm expansion • Multi crop • Knowhow of traditional agricultural method 	<p>Weaknesses</p> <ul style="list-style-type: none"> ○ Low capital, information, knowledge and modern technology ○ Misapplication of the government's services/supports ○ Lack of motivation of some people ○ Narrow channels of product distribution

External	<p>Opportunities</p> <ul style="list-style-type: none"> ✓ Increasing in demand of organic products and health concern ✓ Market development for agricultural products ✓ Main target for poverty alleviation policies ✓ Encouragement of sustainable development and living ✓ Knowledge exchange with other community ✓ Trend of multiple cropping system/integrated farming 	<p>Threats</p> <ul style="list-style-type: none"> ➤ Lack of water supply, public infrastructure ➤ Difficulty to thorough access to the government's supports ➤ Limitation of the source of fund
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4. Conclusions

Many policy makers have tended to solved inequality and poverty problem in the way to raise the income in terms of money to low income people. However, an increase of money income alone does not completely implacable to a better quality of life and well-being. The research results indicate that households in the Northeastern depend on income in-kind in higher proportion than that in other regions. Low- income households and households in the non-municipal area may earn less money income but have more food security. Low-income people and people in the rural area can live their life based on income in-kind in the higher proportion comparing to people in the higher income level. That is to say the low-income people do not necessarily mean they have low quality of life. Households in the Northeastern region have higher self-sufficiency that based on income in-kind comparing to households in other regions that have more money income dependence.

As the results of SWOT analysis, the positive aspects are that they have strength of the solidarity to support the community members, and their way of life have relied on Sufficiency Economy and self-sufficiency, however, the negative aspects such as lack of water supply and information technology of the surveyed area are the retardations for development.

5. Policy Implications

The inequality, poverty and well-being are multi-dimensional issues. The policy that can improve people's quality of life should be implemented carefully. The policies implications from this research will be proposed in 2 aspects; in terms of raising income in-kind and money income.

Income In-Kind

- Encouragement to employ the Sufficiency Economy principal.
- Support education and development in human capital so that people can have potential to enhance their quality of life and well-being by themselves.

- Information technology (IT) training project for local people so that they can obtain more market channels and ability to promote their products
- Promoting the Barter Trading System in the community so that people will not largely depend on money income.
- Promoting One Household One Product.

Money income

- Establishing saving and credit cooperative in local community to be the source of funds for people in the community.

6. Future Study

The scope of the research can be expanded to analyze in detail and survey people in other regions. Furthermore, comparative study for other countries for example AEC member countries should be analyzed in order to find practical and effective way to enhance people's well-being in the long-term.

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