

CHAPTER 1

Introduction

1.1 Principle and Rational of the Study

The term 'inclusive growth' is said to be the best way to reach sustainable development and growth of the country. This characteristic of growth have been mentioned in IMF, ADB, NGOs and many others institutions working papers and has stated in work plans and strategies of the IMF, G20, European Commission and the UK's Department for International Development. Inclusive growth explains the nature of what is to be considered pro-poor growth. Pro-poor growth is determined as the situation that allows the poor to participate and significantly benefit from economic activity. Grinspun (2004) discussed that inclusive growth includes both poverty and inequality reduction. Ali and Son (2007) states inclusive growth is the component of the available opportunity and how the opportunity shared among the population. Habito (2009) defined that inclusive growth is the growth of GDP that leads to significant poverty reduction. While Rauniyar and Kanbur (2010) state that it is growth with equal opportunities and having a lower rate of income inequality. Finally, Ranieri R. and Ramos R. A. (2013), reviewed and concluded that most of the economists believed poverty and inequalities reduction, and productive employment are concerned as the determinants of inclusive growth.

1.1.1 Consider inclusive growth determinants in each region of Thailand

Consider inclusive growth in Thailand, looking at benefit sharing aspect, Poverty and Inequality in Thailand. When mentioned about economics poverty, which considering income rate, whether it could afford the household standard needs' spending or not. However, in the present time, the word poverty will include another aspect, not only money, such as scarcity of housing, education, public goods, public services, the lack of job (unemployed), and also the risk in life stated by World Bank (2008). From the recent working paper of the national bureau of economic research (NBER) written by

Robert Barro (1999) stated that High levels of inequality reduce growth in relatively poor countries but induce growth in richer countries. The study found that growth tends to fall with greater inequality when country's income per capita is less than \$2,000 (in 1985 dollars) and tends to rise with inequality when income per capita is in excess of \$2,000.

In development economics, poverty is defined as an inability to access the resources, which are used to enjoy standard of living while inequality is usually defined as a gap between rich and poor. Analyzing Thailand by region, Table 1 shows the Gini coefficient in each region of Thailand. Notice that in all regions except for Bangkok, the Gini coefficient tends to be stable, while in Bangkok the coefficient fluctuates during these 13 years. The data from the Office of the National Economic and Social Development Board (NESDB), (2015) states that inequalities do not decrease with time which means that the inequality situation in Thailand may or may not improve with its growth. However, inclusive growth concept was the growth with inequalities reduction improvement, with trend and raw data analyzing, Thailand still could not be defined to be an inclusive growth country. So, it is worth to analyze deeply since there is a fluctuation of Gini coefficient in some period of time.

Table 1.1: Regional Gini coefficient in Thailand: 2000-2012

Year/Region	Bangkok	Central	North	Northeast	South
2000	0.33	0.37	0.38	0.35	0.37
2002	0.37	0.36	0.38	0.36	0.37
2004	0.36	0.36	0.41	0.38	0.39
2006	0.36	0.36	0.41	0.40	0.37
2007	0.34	0.34	0.39	0.37	0.37
2008	0.36	0.34	0.39	0.37	0.35
2009	0.34	0.35	0.37	0.37	0.36
2010	0.35	0.34	0.39	0.39	0.35
2011	0.40	0.33	0.35	0.35	0.34
2012	0.37	0.34	0.35	0.35	0.37

Source: Office of the National Economic and Social Development Board (NESDB), (2015)

The inequality problem in Thailand, according to the office of National Economic and Social Development Board (2013) is generally caused from the difference in each region geography and its economic structure. In the northern part of Thailand, citizens normally face land scarcity problem, and mostly occur in the upland area. Therefore, the people in the upland live under the poor conditions. Moreover, the hill tribe family in the upland area have low opportunity for education, so, they face the vicious cycle (the cycle which the poor become

poorer and poorer because they have low opportunity to reach standard needs and other necessary factors such as public goods and education), which make them remain poor. In the Northeastern part of Thailand, the poor will normally live in the society which has high concentration of population compared to the productive land area. Therefore, there is a lot of migration from these areas to another area, especially in Mahasarakham, Kalasin, and Roi-ed. Moreover, in the northeastern part of Thailand, drought problems occur in many area such as Buriram, Srisakate, Ubonratchathani, Mahasarakham, Sakonnakhon, and Nongkhai. These problems make Northeasterners have natural resource scarcity and remain poor. In the South of Thailand, the poverty problem also exists and especially in Sa-toon, Ya-la, Pattanee, and Naratiwas the citizen gain the lowest income compared with the other provinces in this region. While, in the Central, people in this region mostly have the land poverty right problem. Most of the farmers have to rent the land to grow crops which results in the high planting cost. In addition, the poor in urban areas normally face the problem of the unfair wage, gaining low income. These groups of people obtain the most difficulties because they have to live with a high cost of living in the city while obtaining low wages. Table 2 shows the proportion of population living under each region poverty line. In the Bangkok region, the trend is falling during 10 years, but the trend is not smooth. There is a fluctuation in the year 2002 and 2011. In Central region, the trend is also falling and dramatically drops between the years 2011 to 2012. In the Northern region, the trend is increasing as time passes. In the Northeastern part, the trend is dropping but fluctuated between the years 2007 to 2008 and 2011 to 2012. In the final region, Southern, the trend is dropping but also fluctuated between the years 2007 to 2008 and 2011 to 2012.

Table 1.2: Proportion of population living under regional poverty line: 2000-2012

Year/region	Bangkok	Central	North	Northeast	South
2000	5.86	28.75	49.08	59.28	41.70
2002	6.35	23.42	41.03	44.16	29.20
2004	4.07	18.80	33.29	38.97	22.89
2006	2.88	12.85	26.11	35.32	19.84
2007	3.51	12.15	25.99	30.24	19.33
2008	2.33	12.83	29.05	31.19	16.77

Source: National Statistical Office, (2015)

Table 1.2 (continued)

Year/region	Bangkok	Central	North	Northeast	South
2009	2.36	11.18	23.38	27.71	17.03
2010	2.25	10.77	22.33	25.26	14.24
2011	7.74	10.36	16.09	18.11	10.12
2012	1.91	6.94	17.40	19.79	13.32

Source: National Statistical Office, (2015)

From table 2, notice that the proportion of poor was reducing over time, with the higher growth of regional GRP (Shown in table 4). This implies that Thailand could achieve inclusiveness through this poverty rate reduction. Next, consider the participation aspect and employment rate, was considered. Employment rate reflects the participation rate of the labor in economy. Participation of citizens in the economy could help reduce the gap between the rich and the poor in society since they all have equal right to use economics resources to create income and achieve the basic needs through spending.

Table 1.3: Employment rate, % of total labor force

Year/region	Bangkok	Central	North	Northeast	South
2005	98.19	98.32	97.51	96.57	98.20
2006	98.44	98.49	98.17	97.02	98.49
2007	98.77	98.54	98.18	97.34	98.58
2008	98.53	98.57	98.31	97.62	98.42
2009	98.63	98.46	98.45	97.54	98.13
2010	99.00	98.77	98.65	97.83	98.56
2011	99.25	99.28	99.09	98.06	99.20
2012	99.34	99.21	99.02	98.06	99.25
2013	99.14	99.15	99.06	98.22	98.88
2014	99.08	98.98	98.76	98.14	98.74

Source: National Statistical Office, (2015)

Some theory cited that people participation could bring higher growth in the case of Thailand; most of the region obtains a high level of employment rate which could refer to the higher growth rate in some regions, while in some regions the employment rate still fluctuates over time. So, it could not confirm that the growth in each region could induce employment rate. In addition, as mentioned before, the higher participation rate of the country's citizens could lead to inclusive growth. The data implies that the growth of each region of Thailand was in doubt to have inclusive growth. Considering regional production structure and the inequalities problem in Thailand, according to the survey from the Office of the National Economic and Social Development Board, regional income distribution was increasingly

unequal overtime. Because of the high expansion of city's urban area, the inequalities problem becomes more severe. Especially in Bangkok, this region had a very high rate of expansion for over 18 years, noticed in the table 1, which shows that the growth of Bangkok GRP was increased by a very high amount. While in other regions, the amount of GRP is relatively very low. The high amount of growth is extremely high only in Bangkok which is higher than other regions by 5 to 10 times. With this high GRP revealed that there was a big difference among the region economy size and growth. This shows that, even though every region received high growth rate, the country's income will have a concentration in Bangkok. Imply that this kind of growth will benefit the country or not. Moreover, the big and high growth in Bangkok will attach many resources such as human capital, foreign investment, and others to be either high concentration only in Bangkok, which could lower the usable resources in another region, resulting in the low productivity and low income in other regions.

Table 1.4: Gross regional product (Reference year = 2002) by region: 1995 - 201

Year/ region	Bangkok	Central	North	Northeast	South
1995	2,727,943.72	276,071.42	369,179.41	446,324.08	458,132.12
1996	2,804,162.21	312,009.46	404,507.71	481,909.28	482,863.46
1997	2,621,028.21	311,379.71	399,953.99	486,181.27	478,471.15
1998	2,372,127.29	285,016.48	380,056.25	455,313.47	483,390.43
1999	2,473,928.53	292,390.66	401,942.32	481,732.49	511,565.16
2000	2,625,480.65	317,399.15	400,018.58	484,208.23	501,639.27
2001	2,766,798.25	329,034.80	406,738.49	489,420.93	504,704.42
2002	2,871,066.30	355,265.45	443,093.53	517,148.90	523,082.59
2003	3,035,746.25	387,834.99	483,352.38	563,379.46	552,017.59
2004	3,244,804.72	409,736.20	487,285.57	578,719.84	593,718.18
2005	3,391,077.55	416,200.22	510,357.48	589,479.74	599,550.64
2006	3,536,551.48	433,235.71	517,187.45	621,828.65	630,434.46
2007	3,710,053.21	463,995.66	536,043.34	655,221.84	640,978.96
2008	3,737,800.75	532,000.36	540,454.10	649,186.26	641,707.45
2009	3,675,011.77	505,925.72	550,542.79	690,384.78	648,819.92
2010	3,989,563.79	544,718.67	569,573.18	730,012.05	677,963.09
2011	3,994,673.36	503,729.44	595,669.85	776,802.48	695,349.53
2012	4,317,611.69	533,828.50	632,822.17	819,099.21	713,548.04

Source: Office of the National Economic and Social Development Board (NESDB), (2015)

The causes of the great difference between the regional economies are from two reasons of economics structure. First, there was a very high production in the Central region and Bangkok and their production structure was highly expanded to each province, especially in

industrial sector. In another region, the production and income mostly depend on the agricultural sector, which depends only on a few types of fruit crops. Especially in the south and the northeastern part of Thailand, the production will tuft in some province and slowly expand the production to another region. Second, an increasing of the production will highly increase in the central and Bangkok including both industrial and agricultural productions. In other regions, the production increased very slowly compared to the central and Bangkok. In addition, the increase in the other regions' production was mostly from the expansion of the production land. This makes a great difference between people living in the central and Bangkok and the people living in other regions making them have a different income and standard of living. Moreover, the industrial sectors which are about 40 percent of GRP and shared almost 70 percent of export according to the office of industrial economics. Therefore, the industrial sector plays an important role in the increasing income of the citizens and also could be a cause of difference between people's income in each region. Ninety-five percent of industrial production bases in Thailand were mostly based in the Central and the East part of the country according to Collier's International Thailand industrial report papers (2013), especially in Bangkok. Moreover, the Central and Bangkok shared 60 percent of trading activities of the whole country. In conclusion, the weak point of each regions economics structure makes income distribution worsen. Moreover, the weakness may make the economy in the North, Northeastern, and the South become under developed compared with the Central and Bangkok. If the country leaves these problems unsolved, the gap between regions will become grater.

1.1.2 What factors affect inclusive growth determinants?

1.) What factors affect employment?

Education was cited to improve the employment opportunity of people. A recent study by the US Census Bureau for the US confirms the connection between a person's level of education and his or her employability and earnings. Moreover, education creates knowledge and skilled labor which would have better job opportunities. As the country develops economically, health conditions of its population would be improved. The improvement of health in population results in a good quality of life. Considering health in the production side, healthier workers can work harder and longer than the unhealthy

workers, and also can obtain more income. Among the Organization for Economic Co-operation and Development (OECD), the average doctor in developed countries are higher paid than in developing and least developed countries, stated by United Nations Development Program (2000). Human capital is divided into two major groups, education and health. They reflect the quality of labor, the labor with high level of education and with good health would have high productivity, which could lead to a higher production and growth. As human capital compose with Education and Health care, human capital could affect employment. Looking at education in Thailand, education was said to improve the employment opportunity of people. A recent study by the US Census Bureau for the US confirms the connection between a person's level of education and his or her employability and earnings. The study shows that US college graduates earned more income than people who only graduated from high school. Moreover, education creates knowledge and skilled labor which would have better job opportunities. For Thailand, the country is appearing to move away from low quality labor, low quality production, and unskilled labor intensive to be a knowledge-based economy. Since knowledge-based societies requires high educated worker, education is important for the country. Thailand has conducted three big education reforms. The first was in the era of king Rama 5, the second was in the era of king Rama 9 after the big revolution of Thailand (14 October 2516), and the third was in 1999. The third education reform tends to be the most significant action to Thai society nowadays. Education is one factor of endogenous growth; it encourages skilled and knowledge labor which results in sustainable growth in the future and could encourage employment by its externalities. The externalities of education is productivity, a higher level of education makes a person more productive worker, which makes workers obtain jobs, then the society can benefit from education in terms of higher standard of living that comes with increased productivity.

Table 1.5: Regional average years of education: 2007-2012

Year/region	Bangkok	Central	North	Northeast	South
2007	10.20	7.90	7.20	7.70	8.00
2008	10.50	8.00	7.40	7.80	8.00
2009	10.40	8.10	7.50	7.90	8.10
2010	10.50	8.10	7.50	8.30	8.10
2011	10.60	8.20	7.60	8.30	8.10
2012	10.80	8.30	7.30	8.10	7.50

Source: Office of the National Economic and Social Development Board (NESDB), (2015)

Table 5 shows the Thai regional average year of education, stating that Bangkok receive the highest average year of education among the other regions with the average year of 10.80 in the year 2012, while in the Northern part of Thailand, the citizens receive the lowest year schooling among the others. However, when we considered-partly, the average year of schooling in each region was not much different. This implies that the opportunities of education of people in each region were equal. Nevertheless, looking at the trend in term of education development, the average year of schooling among the citizen does not improve much since the year 2007. The Northern, Northeastern, and Southern parts of Thailand face a reduction in average year of education, while the Central part and Bangkok gain the higher level of average year schooling. These data reveal the fact that there was an education problem in the three parts of Thailand, and if education could lead to employment and finally lead to growth then this problem will retard inclusive growth in Thailand. Looking at health aspect in Thailand, according to Thai national health, Thai people tend to gain weight and have higher risk for getting obesity, diabetes and fat concentration in blood vein. In the case of health care programs from the government, nowadays, Thais have better health care provided from the government but the ability to access is still low. Even though the government provides high amounts of funds for the health sector, there is still some groups of citizens that cannot reach the health care services, especially in the suburban and rural area. In the case of health care services, there is higher competition in this sector which increase the number of private hospital, which in turn leads to a higher cost of going to the hospital. However, the advantage of a higher amount of private sector hospitals is that the patient could have faster service of health care. Therefore, the higher amount of hospitals own by private companies could raise the amount of doctors and medical equipment that the citizens need. This could lead the country to have better health care services.

2.) What factors affect poverty and inequality reduction?

Government expenditures could bring about more benefits for the citizens by the expense on investment, or what we call “public investment”. Public investment could be in many forms, such as agricultural, education, health, transportation, infrastructure and communication. Many papers such as Fozzard et. al (2001), M. Holmes, J. Klugman, K. WithersLenihan (2007), Mehmood and Sadiq (2010), Birowo, (2011) and Doerrenberg and

Peichl (2012), suggested that government expenditure could reduce poverty and inequality. The amount of money that governments use to spend is from its ‘revenue’. The biggest amount of government revenue was from tax correction. The higher tax government receives results in higher spending government could spend. Considering tax revenue, government spending on public infrastructure, education, and healthcare can provide a positive effect to economic growth. Appropriate financing of productive government spending depends on a country’s fiscal position. According to Easterly, Irwin, and Servén, (2007) “the appropriate fiscal strategy should be expected to vary across countries, depending on the volume of their revenues, the level and composition of their expenditures, their level of indebtedness, their endowments of public capital, their fiscal institutions, and a variety of other country specific factors” (p.13). The biggest amount of government revenue was from tax correction. The higher the tax government receives results in the higher spending government could spend. Table 6 shows the amount of tax that Thai government could correct from the year 2007 to the year 2014. The table shows that tax revenue paid by the regional tax payer would increase every year. It implies that the abilities of spending of the government would be increase every year as well.

Table 1.6: Regional Tax revenue: 2007-2014 (million baht)

Year/region	Bangkok	Central	North	Northeast	South
2007	737994.99	312910.74	21796.54	20878.59	26301.22
2008	827986.05	376120.00	21442.06	23021.89	28308.91
2009	768959.73	301004.66	21039.31	22891.83	25372.39
2010	824333.70	362266.92	24023.43	25932.62	29049.16
2011	989968.88	436588.37	25598.48	29970.00	35181.77
2012	1037333.86	478306.00	28984.41	35473.33	38041.47
2013	1128643.00	526228.44	31670.62	39005.90	39410.41
2014	1118444.38	504290.57	30517.57	38398.54	39088.93

Source: The revenue department (2015)

There are two major ways for government to spend its money: on its consumption and investment. The expenditure which could mostly brings about more benefits for the citizen is the expenditure on investment or what we call “public investment”. Public investment could be in many forms, such as agricultural, education, health, transportation, infrastructure, communication, and so on. Government expenditure could lead to poverty and inequality

reduction. Since, public goods could benefit every person in the country. For example, Government spending on health and education could provide equal future opportunities to the citizen, since every person will gain an equal standard level of education and standard needs for health. Moreover, the better health and higher education funded by government could create equality to the citizen. The poor would have higher skills and able to gain higher income, which could help them escape the poverty condition. Thai government expenditure was divided into ten sectors including General Public Services, Defense, Public Order and Safety, Economic Affairs, Environmental Protection, Housing and Community Amenities, Health, Recreation, Culture and Religion, Education and Social Protection, shown in table 7. From the data, General Public Services, Economics Affairs and Education were the sectors which share the highest proportions of government expenditure.

Table 1.7: Function classification of fiscal expenditures: 2011-2015

Sector/Year	2011	2012	2013	2014	2015
General Public Services	519,410.1	571,731.6	499,394.2	580,194.0	567,405.8
Defense	170,130.7	167,444.3	178,441.0	182,149.7	192,190.7
Public Order and Safety	124,241.1	132,240.6	144,820.6	149,141.8	158,290.3
Economic Affairs	421,193.9	421,238.8	471,491.8	530,060.5	549,892.1
Environmental Protection	3,081.8	1,522.8	2,171.3	3,102.8	3,991.5
Housing and Community Amenities	45,611.5	222,721.9	133,021.4	67,070.3	59,783.7
Health	209,848.0	220,411.3	254,947.3	252,996.3	261,367.5
Recreation, Culture, and Religion	14,821.9	19,173.4	20,055.1	24,632.9	21,818.8
Education	422,195.1	444,483.5	493,892.0	518,519.1	532,416.7
Social Protection	139,465.9	179,031.8	201,765.3	217,132.6	227,842.9
Total	2,070,000	2,380,000	2,400,000	2,525,000	2,575,000

Source: Source: National Statistical Office, (2015)

Human capital is composed of Education and Healthcare. Since, healthier workers can work harder and longer than unhealthy workers, and also can obtain more income. Then health condition of workers could increase their ability to reach resources by the higher income they gain. So, the factors that could affect poverty and inequality reduction are government tax revenue and human capital in terms of health care.

1.2 Purpose of the Study

The aims of this research are therefore to evaluate whether human capital and government tax revenue could lead to inclusive growth in Thailand or not. This study is to evaluate to what extent human capital, represented by education and health could contribute to employment and human capital, and tax revenue could lead to poverty and inequality reduction and all finally contribute to growth. We must be able to examine what factors could significantly move the country to achieve inclusive growth.

1.3 Contribution of the Study

This study aims at examining the relationship between the factors. The advantage of this study was to know the relationship between Education and Employments, Tax revenue and Inequality and Poverty Reduction, and Growth in Thailand to be able to explain the relationships between those variables, what directions are they correlated, and how much they are correlated. This could lead to the policy implications which suggests how and how much the government should control the variables to induce the higher growth or to maintain its inclusive growth level.

1.4 Scope of the Study

The study covered all regions in Thailand. The analysis used regional panel data including average years of education, employment rate, the growth rate of tax revenue, Gini coefficient, the proportion of population living under regional poverty line, grp growth rate, the ratio of medical profession per head, and the growth rate of the ratio of medical equipment per head. All data would cover 5 regions of Thailand including Bangkok, Central, Northern, Northeastern and South. The data used was 18 years of data, starting from the year 1996 to 2013.