

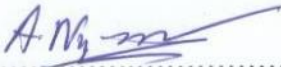
**INTERGOVERNMENTAL TRANSFER IN THAILAND:
A TEST OF HORIZONTAL EQUITY**

Darunee Pumkaew

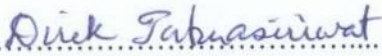
**A Dissertation Submitted in Partial
Fulfillment of the Requirements for the Degree of
Doctor of Philosophy (Development Administration)
School of Public Administration
National Institute of Development Administration
2015**


INTERGOVERNMENTAL TRANSFER IN THAILAND: A TEST OF HORIZONTAL EQUITY

Darunee Pumkaew
School of Public Administration


Associate Professor..........Major Advisor
(Achakorn Wongpreedee, Ph.D.)

The Examining Committee Approved This Dissertation Submitted in Partial Fulfillment of the Requirements for the Degree of Doctor of Philosophy (Development Administration).

Professor..........Committee Chairperson
(Direk Patamasiriwat, Ph.D.)

Associate Professor..........Committee
(Achakorn Wongpreedee, Ph.D.)

Associate Professor..........Committee
(Chira Prateep, Ph.D.)

Professor..........Dean
(Nisada Wedchayanon, Ph.D.)

June 2015

ABSTRACT

Title of Dissertation	Intergovernmental Transfer in Thailand: A Test of Horizontal Equity
Author	Miss Darunee Pumkaew
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This research proved the existing fiscal equality of the intergovernmental grant allocation. The research objectives were 1) to investigate the intergovernmental transfer in Thailand and to test the hypothesis on horizontal fiscal balance among the local governments, 2) to conduct a qualitative study with an emphasis on general grant and specific grant allocation in order to strengthen the horizontal fiscal balance, and 3) to provide recommendations to policymakers and concerned parties on the improvement of grant allocation. The mixed method was used to investigate the horizontal equalization at all local government levels, especially the lower-tier, throughout the country. The units of analysis were Provincial Administrative Organizations (PAOs), Municipalities, and Subdistrict Administrative Organizations (SAOs). Data were collected for a period of four fiscal years from 2009 to 2012, and were based on the records of the Department of Local Administration under the Ministry of Interior. The general grant was the main variable because it is used to fix local government fiscal imbalances which supplement inadequate local own-source revenues in order to enhance the ability of local governments to meet their expenditure responsibilities.

The results confirmed the following 1) General grant allocation was not inverse with local government revenue; in other words, general grant was not delivered to local government with lower revenue capacity. 2) The inequality still remained in local administrative organizations; the disparity was declined only 0.04 after general grant allocation. 3) Allocation created more fiscal inequality among

some types of local administrative organizations, and among some regions. 4) In term of the highest fiscal inequality, by types of local administrative organization and by region, it was Sub-district municipalities, and the East respectively. 5) The measure of specific grant allocation created more fiscal inequality. The different methods or channels, either regular or irregular, to obtain special grant allocation, resulted in fiscal inequality. The impacts of grant allocation are the limiting of fiscal autonomy of local governments, unpredictable budget, not narrowing fiscal gaps, and motivating pork barrel as the discretion on (specific) grant allocation. Recommendations for the reduction of fiscal disparities were 1) to develop an equalization transfer-formula, 2) to reduce some specific grant projects, and 3) to improve the institutional arrangement for fiscal transfers.

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ABBREVIATIONS AND SYMBOLS

Abbreviations

Equivalence

BB	Bureau of the Budget
BMA	Bangkok Metropolitan Administration
CV	Coefficient of Variation
DLA	Department of Local Administration
LAO	Local Administrative Organization
NESDB	Office of the National Economics and Social Development Board
NDC	National Decentralization Committee
NMT	The National Municipal League of Thailand
ODLOC	Office the Decentralization to the Local Government Organization Committee
ONDC	Office of the National Decentralization Committee
PAO	Provincial Administrative Organization
SAO	Subdistrict Administrative Organizations
S.D.	Standard Deviation
S.E.	Standard Error
VAT	Value-Added Tax

CHAPTER 1

INTRODUCTION

1.1 Background of Study

The transition to fiscal decentralization in Thailand was launched with the Constitution of B.E. 2540 (1997). The Constitution mandated the Government to decentralize finances to local government organizations in order to enhance their financial capacity to deliver public services to the people. Section 334 also outlined the plans and processes for decentralization of the local government organizations. Decentralization became visible two years later after the 1999 National Decentralization Act came into effective. The law laid down plans on revenue allocation for the local government organizations of not less than 20% of the total government revenue in 2001, and to be raised to not less than 35% in 2006. Following the 1999 law was the Determining Plans and Processes of Decentralization to the Local Government Organizations Act, version 2, B.E. 2549 (2006). It specified that from 2007 onwards, the local government organizations should earn revenue at a minimum of 25% of the Government's net revenue, and local revenues are expected to increase to 35% of total government revenues. Nonetheless, despite a rise in 2013, the revenue of the local government organizations remained low over the past decade (Table 1.1) at 27.27%; their total revenue was 572,670 million baht, while the Government's total revenue was 2,100,000 million baht.

Table 1.1 Percentage of the Local Government Organizations' Revenue to the Total Government Revenue from 1998-2013

Fiscal Year	The percentage of local government revenue to the total government revenue (percent)
1998	13.1
1999	13.79
2000	13.39
2001	20.68
2002	21.88
2003	22.31
2004	22.5
2005	23.5
2006	24.1
2007	25.17
2008	25.2
2009	25.25
2010	24.3
2011	26.14
2012	26.77
2013	27.27

Source: Bureau of the Budget, 2013.

In keeping with the law, the task to seek more revenue for local government organizations fell upon the Government. However, expansion of the local revenue base came with limitations including the local organizations' revenue-generating capacity which encountered a tax revolt and an inefficient revenue collection system. The Government, hence, turned to allocate the budget by providing grants and increasing them for local government organizations. The allocated grants were considered a component of local revenue so as to meet the law's requirement.

At present, grants are a source of revenue integral to local government organizations; since 2001, grants have become their major source of revenue (Table 1.2; Figure 1.1) contributing over 40% of total revenue. That is to say, they made up 41.03% in 2010, 40.32% in 2011, 41.72% in 2012 and 41.30% in 2014. An increase of grants began annually from 1999, and up to 6.3 times in 2013, yet 2010 was exceptional due to the economic recession.

Table 1.2 Comparison of the Local Government Organizations' Revenue from 1999-2013

Types of Revenue	Fiscal Years (:Million baht)													
	1999	%	2000	%	2001	%	2002	%	2003	%	2004	%	2005	%
1. Local Collecting	17,516.80	17.92	19,475.30	19.51	17,701.88	11.08	21,084.47	11.99	22,258.28	12.09	24,786.27	10.24	27,018.00	9.2
2. Government Collecting	42,731.60	43.72	45,527.50	45.62	55,651.90	34.84	58,143.52	33.06	60,217.71	32.72	82,623.37	34.15	102,520.34	34.9
3. Government Sharing	-		-		12,669.00	7.93	19,349.00	11	35,504.44	19.29	43,100.00	17.81	49,000.00	16.68
4. Grants	37,499.30	38.36	34,800.00	34.87	73,729.80	46.15	77,273.30	43.94	66,085.72	35.9	91,438.00	37.79	115,210.70	39.22
Total Local Government Revenue	97,747.70	100	99,802.80	100	159,752.58	100	175,850.29	100	184,066.15	100	241,947.64	100	293,749.04	100
Government Revenue	708,826.00		749,945.00		772,574.00		803,651.00		829,495.56		1,063,600.00		1,250,000.00	
Proportion to Government Revenue	13.79		13.31		20.68		21.88		22.19		22.75		23.5	

Table 1.2 (Continued)

Types of Revenue	Fiscal Years (:Million baht)													
	2007	%	2008	%	2009	%	2010	%	2011	%	2012	%	2013	%
1.Local Collecting	32,021.45	8.96	35,223.60	9.35	38,745.96	9.35	29,110.41	8.54	38,745.96	8.98	46,529.72	8.78	50,281.54	8.78
2.Government Collecting	120,728.70	33.78	128,676.40	34.16	140,679.27	33.95	126,589.59	37.12	148,109.04	34.34	175,457.28	33.11	187,988.46	32.83
3. Government Sharing	65,300.00	18.27	65,000.00	17.25	71,900.00	17.35	45,400.00	13.31	70,500.00	16.35	86,900.00	16.4	97,900.00	17.1
4. Grants	139,374.00	38.99	147,840.00	39.24	163,057.00	39.35	139,895.18	41.03	173,900.00	40.32	221,091.79	41.72	236,500.00	41.3
Total Local Government Revenue	357,424.15	100	376,740.00	100	414,382.23	100	340,995.18	100	431,255.00	100	529,978.79	100	572,670.00	100
Government Revenue	1,420,000.00		1,495,000.00		1,604,640.00		1,350,000.00		1,650,000.00		1,980,000.00		2,100,000.00	
Proportion to Government Revenue	25.17		25.2		25.82		25.26		26.14		26.77		27.27	

Source: The National Municipal League of Thailand, 2013b.

Unit: Million baht

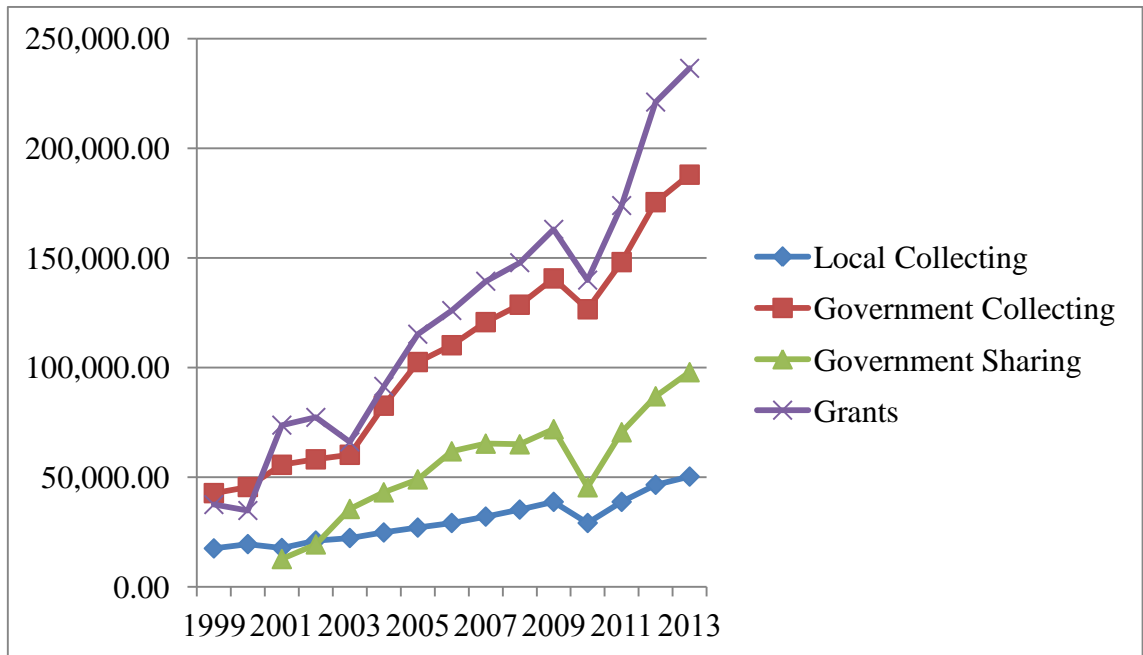


Figure 1.1 Comparison of the Local Government Organizations' Revenue in 1999-2013

Source: The National Municipal League of Thailand, 2013b.

Two types of intergovernmental grants allocated to the local government organizations to be mentioned here are the general grant and the specific grant. The former allows the organizations discretion in using the grant under relevant laws and regulations. As for the latter, it is allocated to meet the objectives as set by the Government, and does not allow for discretion. The central Government, therefore, has control over how the money is to be used. Furthermore, in spite of increasing grants, the specific grant is larger than the general one. Table 1.3 demonstrates that from 2011, half of the grants were allocated as a specific grant, and this jumped to 52% (114,594.89 million baht) in 2013, or a six-time increase within six years from 2007.

Table 1.3 Proportion of General Grant and Specific Grant from 2006-2013

					Million baht
Fiscal Year	General Grant	%	Specific Grant	%	Total Grant
2006	98,657.00	89.5	11,556.00	10.48	110,213.00
2007	114,293.00	92.48	9,281.00	7.51	123,574.00
2008	109,997.00	83.91	21,077.00	16.08	131,074.00
2009	104,099.00	77.34	30,484.00	22.65	134,583.00
2010	74,271.00	59.24	51091.3	39.24	125,363.04
2011	80,029.00	50.53	78,346.43	49.46	158,375.43
2012	85,695.00	41.76	119,497.08	58.23	205,192.08
2013	104,444.85	47.68	114,594.89	52.31	219,039.74

Source: The National Municipal League of Thailand, 2013b.

According to the Determining Plans and Processes of Decentralization to Local Government Organizations Act, B.E. 2542 (1999), Section 12 authorizes the Decentralization to the Local Government Organizations Committee to make decisions on the regulations of grant allocation to the local government organizations. The allocation carries three objectives: to support local government organizations for the nationwide provision of public services with acceptable standards; to reduce fiscal gaps among local government organizations; and to enable some local government organizations to solve problems beyond their fiscal capacity. Therefore, intergovernmental grant allocation in Thailand is meant to diminish fiscal gaps among local government organizations so that people all over the country will be ensured of standardized public services. As such, it is critical to investigate how and how much such objectives can be reached by the grants, with special attention given to the reduction in fiscal gaps and the proof if the grants are a key mechanism towards successful decentralization to the local government organizations.

1.2 Rationale of Study

In the decentralized countries, fiscal decentralization is indispensable to local administration for the following reasons. Firstly, the central Government cannot retain the power to make decisions on local finance. Government has numerous problems to deal with at the national level. Similar to local governments, they have their own unsolved problems, and different kinds of problems. Secondly, local governments understand best about their problems. By separating, the local public goods and services provided by local Government are to be adjusted to suit the tastes and the preferences of local residents (Watt, 2006). This is because the local Government works closely with its people and so there is no barrier to understand local culture and problems. This principle promotes service providers to provide public services based on people's needs or voters' preferences. Thirdly, with local autonomy, the local people will play an active role in politics, and will simultaneously result in an increase in local identity and consciousness. All these yield benefits to the community and nation in the long run. Finally, fiscal autonomy will be possible only if decentralization, or local and democratic self-governance, becomes a reality.

Although the fiscal decentralization is crucial for the provision of public services by local governments, it is unavoidable to create fiscal disparity among the local government units. Typically, local governments are confronted by two fiscal challenges: revenue mobilization and revenue utilization (Tiu Sonco II & Brillantes, 2007). Local governments are tasked with local revenue generation; meanwhile they are concerned with expenditure management which involve the allocation of revenues in the provision of public services. Local governments suffer from financial constraints to provide public services. They have insufficient resources to finance local development projects. Local revenues from local-own revenues, and shared taxes generally do not cover local government expenditure responsibilities. There are imbalances in resources in the local governments. These signify imbalances in resources at the local governments.

Intergovernmental grants are the transfer of money from the central Government to local government units. The transfers are aimed to fix local Government fiscal imbalances and supplement inadequate own-source revenues in order to enhance local

governments' ability to meet their expenditure responsibilities. The end result is standardized public services provided by local government organizations to all people of all areas regardless of different economic, social and geographic conditions. In addition, the transfers are used to meet national redistributive objectives, facilitating offsetting fiscal capacity differences among local governments. The purpose of grants provision is to narrow fiscal gaps among local government organizations or, in other words, to equalize fiscal disparities horizontally. The decentralization of power to these local government authorities implies the transfer of responsibilities and revenues to them. The decentralization is accompanied by both revenue and expenditure distributed, causing fiscal disparities or gaps owing to organizations' various needs, costs of public services and revenue-raising capacities. Apart from this is that the structure of local revenue does not support the local governments to best perform their functions. All these are reasons for the significant role of grants, particularly for fiscal equality among local government organizations, and this would balance the revenue and expenditure. Furthermore, without equalization of transfers, three problems will emerge (Martinez-Vazquez & Boex, 2005). First, some local areas may experience a shortage of revenue to perform their functions or provide public services with minimum standards, meaning that people of different areas may receive different standards of the same public services. Second, the horizontal fiscal imbalances may still remain, particularly in local organizations with greater fiscal needs but smaller fiscal capacity. Third, the government may be unable to utilize the grants as a mechanism to implement fiscal policies and to achieve national objectives, and so are unable to encourage fiscal efforts.

In Thailand, the intergovernmental grants allocation to local government bodies began in 1999. Over 40% of these local organizations' revenues came from grants, while merely 10% came from local taxes. The value of grants has escalated annually, from 38% in 1999 to over 40% since 2010. Despite such annual escalation, the prime objective has not been reached as an equal standard of public services, for the improved quality of life, was still inaccessible to people living throughout the country. A report by the United Nations Development Program (UNDP) found differences in health, as the basis of well-being, of people in each province. The five

provinces on the top of the health index¹ were Bangkok, Samut Sakhon, and three Southern provinces, namely Songkhla, Phang-nga, and Chumphon.

The five on the bottom were Kamphaeng Phet, Si Sa Ket, Buri Ram, Surin, and Mae Hong Son, all being in the Northern and the Northeastern Region. With regards to education, the gap among people with low education was still wide, with 7.7% for the Northern, 5.9% for the Southern, 4.3% for the Central and 2.2% for the Northeastern regions. Similarly, there were wide gaps among the non-educated between provinces, such as 1.1% for Nonthaburi, 29.3% for Chiang Rai and 36.4% for Mae Hong Son. Between provinces, big differences in road conditions existed. The top five ranking with good road conditions were Bangkok, Phuket (92.3%), Smut Sakhon (90.1%), Sing Buri 87.3%), Pathum Thani (86.3%) and Nonthaburi (85.9%). On the contrary, less than 50% of roads were in good condition in Kamphaeng Phet (36.6%), Mae Hong Son (39.1%), Nakhon Sawan (40.4%), Maha Sarakham (37.6%) and Si Sa Ket (38.8%). About one third of the villages did not have convenient access to provincial centers because of ill-conditioned roads, particularly during the rainy season. Furthermore, people in many provinces did not have sufficient clean drinking water. Only six provinces in the Southern Region did have 100% clean drinking, and so did 12 Northeastern provinces and 7 Northern provinces. Access to electricity was also problematic to some people; 98.3% of households in the Southern Region had access, while no Southern province had 100% access. Similar to the Northern Region, 98.5% of households had access; no province had 100% access.

All aforementioned facts suggest further investigation into the quality of life of people in different areas. Fiscal equalization should also be evaluated on how it achieves the aim of reducing disparities between communities in access to public services. If the inequality in access public services is caused from the differences in ability to raise revenue and the differences in service costs, it is important to solve this problem in order to improving quality of life in the country.

¹ The health index consists of 7 indicators: underweight births, population with physical illness, population with disability, mentalhealth score, population with unhealthy behaviour (smoking and/or alcohol drinking), population that exercise, and population per physician.

Whether Thailand's grant allocation has reached its aim or not is being investigated by academic scholar concurrently. In terms of criteria, the central Government simply employs the population size and the size of the area as the major criteria for grant allocation (Somboon Siriprachai & Direk Pattamasiriwat 2004, Weerasak Khreathep, 2011). This method, however, seems inappropriate for the present, as well as for the future. The horizontal allocation based on the population size under each local government is neither equitable nor efficient. In addition, as proposed by Sakon Varanyuwatana (2003), the criteria of grant allocation is not systematic. Revenue allocation focuses on the aggregation of local revenues that also cause inequality among local governments (Sakon Varanyuwatana, 2003). Despite the Government's attempts to develop a variety of approaches, these are rather simple and short of reliability and systematic investigation (Somboon Siriprachai & Direk Pattamasiriwat, 2004).

Considering the research area on fiscal inequality of intergovernmental transfers, Thai scholars have made attempts to explore fiscal inequality in local governments. Charas Suwanmala (2010) has insisted that, although Thailand's transfer system gives priority to the horizontal fiscal balance so as to address fiscal disparities, the grant transfer system could not reduce the horizontal fiscal gaps. On the other hand, the gaps tend to widen since the grant allocation leans towards the well-off provinces or areas rather than the poor ones. In 2011, Weerasak Krueathep (2011) investigated fiscal disparities among municipality units in the 2009 fiscal year and reported the presence of fiscal disparity gaps in spite of fiscal transfer measures. Horizontal fiscal inequality has prevailed among Thai municipalities. The municipalities with high proportion of taxes and revenues are likely to receive a high proportion of intergovernmental grants. One characteristic of intergovernmental transfers was that the budget paralleled the grant value to be allocated. In other words, a big budget means a big grant, and vice versa. The redesign of the intergovernmental transfer formula that incorporates the municipal fiscal capability and the level of socio-economic development was needed to equalize the municipal fiscal capabilities. Later Direk Patmasiriwat (2012), an economist and expertise on Thailand's fiscal system, studied fiscal inequality and grant allocation. This work specially highlighted the provincial level in the 2011 fiscal year, and analyzed the horizontal fiscal

imbalance in 75 provinces. Its findings confirmed fiscal inequality in grant per capita, and more fiscal disparities found in 28 poor provinces.

Meanwhile, in terms of the specific grant, its allocation opens an opportunity for local and national politicians to scoop up financial resources through their relationships (Charas Suwanmala, 2010). This kind of allocation, in part, has limited the generation of local governments' revenues. Meanwhile, Worapit Meemak (2002) studied the fiscal system of Thai local governments by focusing on the grants. The research found that local politicians' needs indeed were the priority for grants allocated to local governments. The most preferable method used by local governments to acquire intergovernmental grants is designing a project in accordance with the central Government's desire.

At present, there are studies stresses an expanded and strengthened grant allocation mechanism, together with fiscal disparity equalization. The criteria for grant allocation is investigated to promote fiscal equity among local governments. However, only a few studies make an in-depth investigation into intergovernmental transfers to local governments across the country and in time series, particularly on the specific grant allocation. Different from previous research, this study prioritizes the horizontal distribution of intergovernmental transfers, of both the general grant and the specific grant allocation, through the lower-tier of local governments in order to answer how the intergovernmental grants are allocated and how the intergovernmental grant allocation achieves equalization. More importantly, despite hardly accessible data, this study pioneers the illustration of the allocation of the specific grant and produces new relevant knowledge. This study intends to prove the existing fiscal equality of the grant allocation system, and offers recommendations to better improve the system towards the improved public services for people's betterment, and the fiscal equity for local government organizations.

1.3 Research Objectives

The Research Objectives are

- 1) to investigate the intergovernmental transfer in Thailand, and to test the hypothesis on horizontal fiscal balance among the local governments.

2) to conduct a qualitative study with an emphasis on the general grant and the specific grant allocation in order to strengthen the horizontal fiscal balance.

3) to provide recommendation to policymakers and concerned parties on the improvement of grant allocation.

1.4 Research Questions

This Study Addresses the Following Research Questions:

1) How the intergovernmental transfer in Thailand is determined, and what institutional factors influence it?

2) How both the general and the specific grants allocation effect the degree of horizontal fiscal balance and local governments?

3) What are the better ways to improve the grant allocation to achieve horizontal equalization?

1.5 Study Design

Both quantitative and qualitative methods were employed in this study. The quantitative approach investigated the fiscal inequality at the local government level, and the equalization of intergovernmental grant allocation. All local governments throughout the country were involved. The units of analysis were Provincial Administrative Organizations (PAOs), municipalities, City Municipalities, Town Municipalities, Subdistrict Municipalities, and Subdistrict Administrative Organizations (SAOs). This study excludes Bangkok Metropolitan Administration (BMA), and Pattaya City because both are special forms of local government.

Data were collected for a period of four fiscal years from 2009 to 2012, and were based on the records of the Department of Local Administration under the Ministry of Interior. In addition, data from the Bureau of the Budget, the Office of the National Economic and Social Development Board, Office of the Decentralization to the Local Government Organizations Committee, and the National Municipal League of Thailand were used in this study. The Gini coefficient was applied to investigate the fiscal inequality at the local government level. As a measure of statistical

dispersion, the Gini coefficient measured inequality among values of a frequency distribution.

The study gave priority to the quantitative method and used qualitative method as a complement. The study utilized in-depth interviews and document analysis to understand the fiscal situation at the local government level. To collect the data, the interview method was employed to explore the views and experiences of participants. Data collection came from key informants selected from two groups. The first group consisted of local government officials and local politicians, representing grant users that helps to clarify the intergovernmental grants, especially the specific grant situation experienced by them. The second group consisted of government officials such as the Decentralization to the Local Government Organizations Committee and the Parliamentary Committee on Local Administration. This group allowed for accessibility to explore the decision-making process of intergovernmental transfers and the method to achieve fiscal equalization.

1.6 Term Definitions

This Section Provides Definition of the Terms Used in this Study.

Expenditure Needs is the potential cost for a local government organization to provide a set of public services.

Fiscal Disparity is the differences in revenue raising or fiscal capacity among local government organizations.

Fiscal Equalization is a transfer of fiscal resources across local government organizations, with the aim of offsetting differences in revenue-raising capacity or public service costs, in order to allow local governments to provide their citizens with equal standards of public services at a similar tax burden even if incomes differ.

Fiscal Gap is the difference between revenue raising capacity and expenditure needs.

General Grant is the unconditional grant given to the local government organization to run functions based on its expenditure process and does not require the unused grant money to be returned to the Ministry of Finance.

Horizontal Equalization refers to a transfer of fiscal resources to local governments with the aim to reduce fiscal inequalities among them by compensating local governments which have greater fiscal needs and smaller fiscal capacity.

Intergovernmental Grant is the funds transferred from the central government to the governments of lower levels to support the provision of public services.

Local Government Organization means Provincial Administrative Organizations, Municipalities, Subdistrict Administrative Organizations, Bangkok Metropolitan Administration, and Pattaya City. However, this study refers to the first three local government organizations only.

Revenue of Local Government Organization means the tax revenues and non-tax revenues belonging to local government organizations.

Revenue-raising Capacity or fiscal capacity is the potential revenues that local administrative organizations can generate from non-taxes and the tax bases assigned to the local government.

Shared Taxes between the State and Local Government Organization means taxes collected by the State and local governments using the same tax base.

Specific Grant is the conditional grant for a specific purpose.

Tax Allocated to the Local Government Organization means the tax collected by the State and the tax revenues allocated to the local government organization at a specific rate.

CHAPTER 2

LITERATURE REVIEW: INTERGOVERNMENTAL TRANSFER AND HORIZONTAL EQUALIZATION

This Chapter consists of three parts. The first part introduces the intergovernmental grants, including the rationales and types. The second part emphasizes the equalization of grants. It describes the rationale and concept of equalization, the horizontal fiscal balance and the equalization mechanism. The third part provides the conceptual framework that investigates the equalization of Thai intergovernmental transfers. This research applies equalization principles, such as local autonomy, equity, predictability, transparency and general purpose, to investigate the horizontal equalization transfers. In addition, factors relevant to the institutional arrangement and political motive of the intergovernmental grant allocation are analyzed.

2.1 Intergovernmental Grants

2.1.1 Rationale of Intergovernmental Grants

Intergovernmental grants are the funds transferred from the central Government to the governments at lower levels to support the provision of public services. Generally, the Government provides intergovernmental grants for four key purposes: improving vertical fiscal balance or closing fiscal gaps; improving horizontal fiscal balance or equalization; correcting externalities and spillover effects; and achieving national objectives (Fisher, 2007; Boadway, 2007; Slack, 2007; Ulbrich, 2003; Bahl, Boex & Martinez-Vazquez, 2001). Firstly, to correct the vertical fiscal imbalance, the intergovernmental grant plays a passive role as a tool to balance the central and local government budgets (Boadway, 2007). It is normal that wherever decentralization takes place and public functions are assigned to local governments, the central Government tends to gain more revenues than expenditures, while local

governments see revenues grow smaller than spending responsibilities. When expenditure responsibilities of local governments and their revenue raising power become imbalanced between the local and central government, a vertical fiscal gap occurs (Slack, 2007). According to Shah (2007a), a vertical fiscal imbalance may be the result of an inappropriate assignment of responsibilities, centralization of taxing power and heavier tax burdens imposed by the central Government. The result of a vertical fiscal gap is that local governments find it difficult to deliver public services at a set standard. According to Bahl, Boex and Martinez-Vazquez (2001), this problem can be solved by intergovernmental transfers or devolving revenue-raising power to local governments. These methods imply that fiscal resources are provided and expenditure responsibilities assigned to local governments. When these governments gain taxation power adequately to successfully deal with their expenditure responsibilities, there becomes a state of vertical fiscal balance. Secondly, intergovernmental grants play an active role in horizontal fiscal balance or equalization (Boadway, 2007). Decentralization of expenditure and revenue assignments results in differences in fiscal capacities among local governments of the same level. Some local governments are able to provide sufficient public services, while others are not. The inability may come from the different cost for services, the need for services, and revenue raising capacities (Slack, 2007). On fiscal needs, different local governments require different expenditure because of two reasons: dissimilar local characteristics such as geography, climate, demographic composition and economic conditions; and different cost for the provision of standardized public services. As for fiscal capacity, different local governments have various economic bases and their ability to generate their own revenues. If the horizontal fiscal imbalance situation among local governments is not improved, it may lead to migration. In other words, people migrate out of jurisdictions that give them less satisfactory public services to places with the best public services that suit their needs (Martinez-Vazquez & Boex, 2005). Similar to Tiebout's model, local residents can seek a more precise match between their preferences and local provision by voting with their feet (Tiebout, 1956). They migrate to where the local government offers public goods that best fit their preferences. Therefore, measurements to solve fiscal disparities among local governments are important. Typically, the measurements to fix horizontal fiscal

imbalance are different from ones that solve the vertical fiscal imbalance. The horizontal fiscal balance can be reached through the intergovernmental transfer only, not by devolving revenue-raising power that possibly widens fiscal disparities. This is because the more urbanized the local government becomes, the more taxable capacities the local government has (Bahl, Boex & Martinez-Vazquez, 2001). Thirdly, correcting externalities and minimizing spillover effects means that the intergovernmental grants are for correcting externalities arising from the misallocation of resources across local government units. It compensates local governments for service provisions in areas beyond their jurisdiction. For example, intergovernmental grants compensate for the spillover effects that occur because the public services provided by a given local government may generate benefits to those living outside its jurisdiction, and for those who do not contribute to its revenue (Ulbrich, 2003). In brief, intergovernmental grants compensate for discrepancies between the taxes paid by citizens and the benefits from the services financed by those taxes. This compensation allows people of poorer jurisdictions enjoy public services delivered by the better-performing local governments nearby. Fourthly, achieving national policy priorities means that the intergovernmental grants are used to encourage local governments to follow priorities set by the Government; for example, education, health and welfare policies. These services, regarded as national equity and standard, are funded through intergovernmental grants. Besides the four rationales for intergovernmental transfers, Slack (2007) proposes one political rationale. Government uses intergovernmental transfers as incentives for local governments to act as an agent of the donor government. It encourages local governments to offer public services of acceptable standards (Slack, 2007).

In practice, intergovernmental grants have different purposes in different countries. The main purpose of grants in Australia, Canada and Germany is for regional redistribution and equalization. Meanwhile, USA, grants are intended to affect spending on particular service categories (Fisher, 2007). Despite regional economic differences in the country, the equalization objective is relatively unimportant, meaning that fiscal equalization is of less interest for the Government.

2.1.2 Types of Intergovernmental Grant

Not only having various objectives, but the intergovernmental grants are classified into types also. To classify the types, Fisher (2007) proposes four characteristics, which are the intention of use, allocation method, matching, and limit on grant size. The first characteristic refers to whether the grant is intended for a specific purpose or not. If the grant is allocated unconditionally, it is of the general type. If the grant is specific to a given activity, it is then of the specific type. The allocation method is characterized by allocation manner, using a formula or based on a specific project. The allocation formula comes with specific statistics, such as population, income or area size, that determines the allocated amount. The specific project-based allocation relies upon the consideration of a project and the transfer of an allocated grant is designed as an ad-hoc grant. The third characteristic is matching which focuses on grant participation. The grant may or may not be matched, or can be a lump sum. The matching grant is co-financed by recipient government funds. It requires the recipient or local Government to participate in the funding process by financing a percentage of expenditures. The grantor or Government provides a certain amount of money to the recipient Government for a project. The matching grant is appropriate for compensating local government units that furnish people with services that have externalities. The non-matching grant is offered for a given amount of funds without being match matched locally. Lastly, the limit on the grant size considers whether the size of the grant is limited. Matching grants can be closed- or open-ended. If a fixed ceiling of the grant value is set for a program, this is called “a closed-ended grant”. In other words, the closed-end matching grant is funded by the grantor up to a pre-specified limit. On the other hand, the open-ended grant has no funding limit.

Basically, intergovernmental grants can be broadly divided into two categories: conditional or specific grant; and unconditional or general grant (Rosen & Gayer, 2008). The latter is a grant with no restrictions on its use. The fund increases the local Government’s revenue without changing relative prices in the provision of public services (Bergvall, Charbit, Kraan & Merk 2006). This grant is mostly allocated by formulas and for general purposes. The criteria for calculating the distribution of the grant is usually related to the cost of service provision and fiscal raising capacity. Not being controlled by the central Government, local governments

can utilize the fund, depending on their own priorities and discretion. Therefore, this general grant preserves local autonomy and increases equity between jurisdictions (Shah, 2007a). When looking at the conditional grant, it is for a specific purpose and comes with set rules for spending it. The intention of this grant is to hand out incentives to local governments to undertake certain activities imposed with the conditions on outputs and quality of services (Shah, 2007a). Specific grants are designed to address issues involving spillover effects, asymmetric shocks and national priorities.

According to Spahn (2012), general grants and specific grants are meant for different policy objectives. General grants maintain the vertical fiscal balance so as to share financial risks arising on the revenue side of public budgets. In addition, general grants act as an instrument to maintain horizontal fiscal balance and equalization that will result in regional equity. Specific grants provide incentives to local governments to perform particular programs, and compensate for spillover effects. Furthermore, they are employed to convince local governments to follow priorities established by the Government (see Figure 2.1).

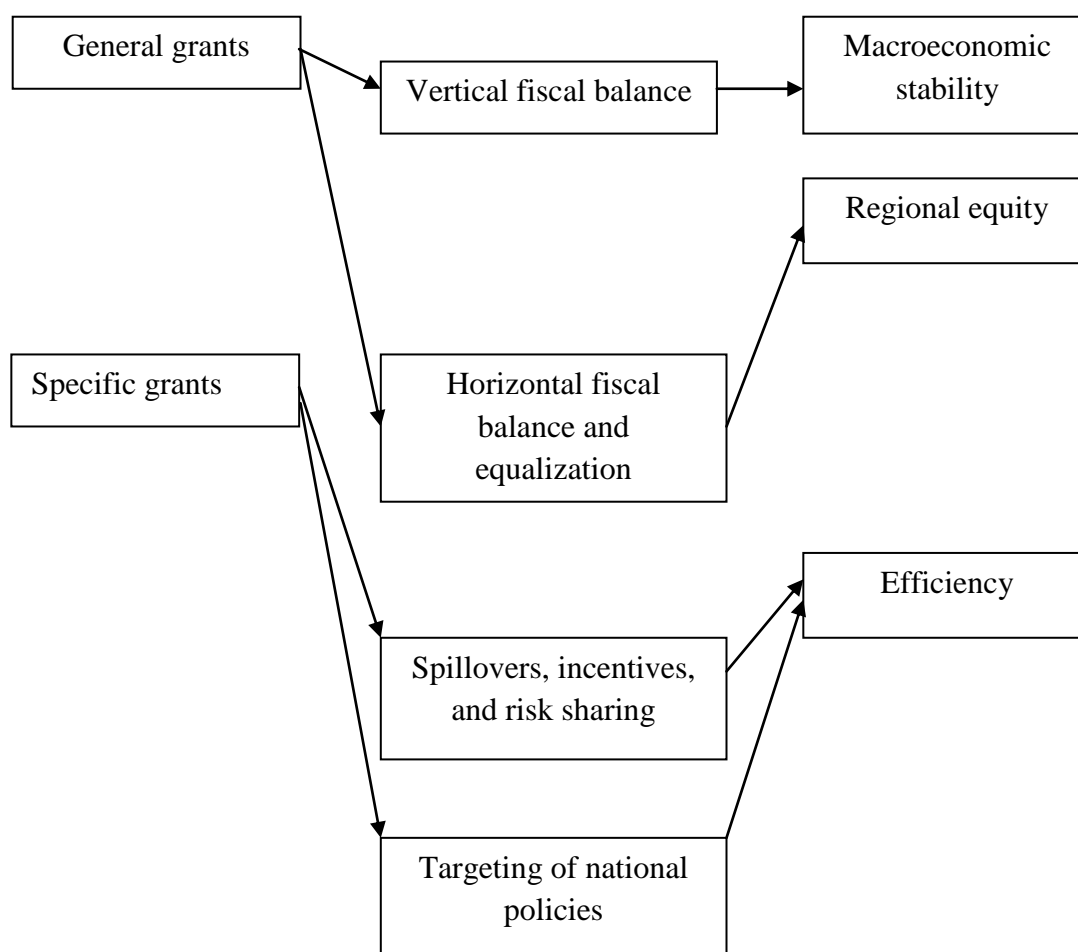


Figure 2.1 The Relationship between Intergovernmental Grants and Policy Objectives

Source: Adapted from Spahn, 2012.

2.1.3 Effects of Intergovernmental Grants on Local Governments

Each type of grants carries miscellaneous effects on the local Government. In terms of local autonomy, the degree or intensity of the reduction in freedom of localities leans on the specificity of the grant (Kitchen, 2007). The specific grant appears to reduce such freedoms and power, especially autonomy over the budget, more than the general grant. General grants give the green light to localities to use their discretion in using the grant, contrary to specific grants which bring along with them conditions and undermine local autonomy, flexibility, fiscal efficiency and fiscal equity objectives (Shah, 2007b). As for the response to the locality's needs for public services, the specific grant undermines local governments' capacity in response to

local priorities (Kitchen, 2007). In addition, the grant does not allow taxpayers to express what they want. The final effect is on an access to the budget (or resources), meaning that the specific grant is less accessible than the general grant owing to complexities that disable small-scale localities without the expertise in the grant application processes. The reason behind this is that specific grants work with different formulas and criteria, possibly confusing grant recipients about how to use the fund.

In fact, the specific grant is preferable to the central Government because of the command and control of transfers, and interference in decision making bestowed on them (Shah, 2007b), while the general type is more preferable to local governments because of its flexibility to give these governments the power to make decisions on local expenditures (Kitchen, 2007). The specific grant, however, is much in demand for local benefits in many countries. Specific grants should be in line with the following principles: objectively reasonable use; effective monitoring and enforcement to not bring about inefficient resource utilization and accountability loss, and then corruption and is to be carried out through a neutral organization or official intergovernmental committee, and not by secret political negotiations.

2.2 Horizontal Fiscal Equalization

2.2.1 The Purpose of Fiscal Equalization

Fiscal equalization aims to enable all local organizations to provide similar public service levels at similar tax rates even if their tax-raising capacities or service costs differ (Blöchliger, 2014). Decentralization of expenditure responsibilities and revenue assignment to local governments inevitably creates different fiscal disparities among local governments. These governments may experience fiscal disparities arising from two main factors, namely fiscal capacity and expenditure needs. Fiscal capacity is the local government's ability to raise revenues. Fiscal disparities emerge as revenue collection of a local government is directly tied in with differences in economic conditions and ability to generate revenues. Different expenditure needs and demographic or geographic characteristics, poverty, and others, cause fiscal disparities in some local governments despite having the same fiscal capacity.

Fiscal equalization which is concerned with disparities between local administrative organizations in access to public services, is underpinned by equity and efficiency. From the equity perspective, the fundamental aim of fiscal equalization is the equity among residents of different local jurisdictions. The equity enables citizens of a given jurisdiction to be placed in a position of fiscal equality with their equals in other jurisdictions (Buchanan, 1950). This means households should not be treated differently as a result of their place of residence. All residents of a country should be able to obtain similar public services. According to this view, the large differences in fiscal burden among local governments are unacceptable if the causes of such differences are beyond the control of local authorities (Dafflon, 2007). In the perspective of efficiency, public services at the lowest possible cost should be provided. Transfers, therefore, should encourage local governments to spend their limited resources carefully and in the most possible and productive manner. In addition, the transfers are allocated to address spillovers effects. It manages externalities and limits undesirable tax competition, while preventing people from migrating out of poor jurisdictions to better ones.

Two types of fiscal equalization are pursued by the central Government. They are vertical equalization and horizontal equalization. This study emphasizes horizontal equalization, that is a transfer of fiscal resources across local governments in order to reduce differences in revenue-raising capacity and expenditure needs among the local governments (Boadway & Shah, 2009). Economic disparities, such as GDP per capita or household income, make it difficult for some local administrative organizations to provide adequate service levels. This is the reason behind unequal access to public services. Meanwhile, the cost of public services is also the factor for unequal public service provision due to two reasons: the difference in the composition of the population within a given jurisdiction; the cost of public services targeted at special groups (children, elderly, disabled, etc.), and the difference in the cost per service unit in different geographies (OECD, 2013). Therefore, to achieve equalization, local governments having low tax bases or high service costs should receive transfers more than those with large tax bases or low service costs. This statement is to serve the objective that local governments should be able to deliver public services to their population with the same standards as in other areas.

The horizontal equalization grant allocated to local governments has three functions (Martinez-Vazquez & Boex, 2005). First, it functions as an additional resource to support local governments having insufficient resources to deliver public services at a minimum standard. Without this grant, some local government would fall into a burdensome situation when offering standardized public services. Second, the equalization grant reduces horizontal fiscal imbalances in local governments because it compensates local governments with high fiscal needs and low fiscal capacity. It intends to provide a stable source of revenues for all local governments. Third, the provision of the equalization grant allows the Government to pursue its selected objectives. The Government can use equalization as a fiscal policy tool to stimulate local governments to implement national programs such as health and education. Having particular rationales, the equalization grant holds unique characteristics. The major ones are unconditional grants that have general purposes, the total value of the grant being determined by funding rules, using formulas based on expenditure needs or revenue-raising capacities and equalizing fiscal conditions among local governments by providing additional resources to the poorer local governments (Martinez-Vazquez & Boex, 2005). In addition, to correct unequal access to public services between local administrative organizations, fiscal equalization clearly provides per capita transfers to local administrative organizations with below-average tax-raising capacity or above-average public service costs (OECD, 2013).

2.2.2 Equalization Mechanism

Equalization is meant to ensure horizontal equity. The design of the equalization transfer is important as it is linked to the efficiency and equity of public service provision and sustainability of public budgets at the local level. According to Smart (2007), any good transfer system should distribute funds based on formulas. In addition, Martinez-Vazquez & Boex (2005) suggest that the design of the equalization transfer should be guided by sound economic principles. Therefore, it is essential to take into account which formula is used for the allocation of resources to local governments.

Most formulas for equalization transfer encompass criteria concerning local government fiscal capacity, expenditure needs, local fiscal effort and equal share to all

local governments (Steffensen, 2010). Firstly, the local expenditure needs measure fundamental needs or local conditions necessary for the grant allocation system. Differences in local conditions have a direct relationship with different needs for public services. For example, in terms of poverty, a high poverty rate has direct adverse effects on local government resources (Hall, 2008). Therefore, grants should be offered to or benefit localities living below the poverty line. In terms of population density, it involves the costs of public service delivery. The areas of less dense population typically require higher financial resources for such services. When looking at the demographic issue, the number of people with special needs, for instance the elderly, disabled and HIV patients, contributes a greater impact on local government expenditure. To give an example, the number of elderly people yields a greater impact on the costs within the health sector (Steffensen, 2010). With regard to the population size, the local expenditure needs generally grow proportionally along with the number of residents (Steffensen, 2010). The population size is not a progressive criterion by itself, but has considerable equalizing impacts that require equal per capita transfers to all local governments. This is a common factor in intergovernmental transfers, as well as a simple and transparent variable for intergovernmental allocation.

Secondly, fiscal capacity or ability of local governments to raise its revenue from their own sources is an important factor to the equalization system. Rich local governments are able to raise tax revenues, but not the poor ones. It is a huge burden for poor small governments to generate their own revenues. Two common methods to measure fiscal capacity are the representative tax system and the macro indicators (Shah, 2007a). The former measures the revenue to be raised by the Government using standard tax bases and rates. This approach requires information on tax bases and tax revenues of every region. The latter measures the State's gross domestic product (GDP), income factor, income accruing to residents only, personal income and personal disposable income.

Thirdly, local fiscal efforts are tax efforts, financial management performance and other performances. According to Steffensen (2010), there are no clear theoretical economic reasons for inclusion of tax effort in the grant transfer system, but it may be included in the allocation criteria in order to stimulate local

governments to exploit their tax potential and generate funds for better public services. Other performance criteria consist of administration, public finance management and good governance. The design for the transfer system is to encourage local governments to effectively perform within performance criteria and receive a higher share of financial resources (Steffensen, 2010). However, it seems not advisable to include measures of fiscal effort in the formula. The reason pertains to difficulty in defining fiscal effort, although it is most meaningfully understood as the ratio of actual taxes collected to potential taxes estimated on some fiscal capacity and tax rates (Smart, 2007). The measure of fiscal effort is complex. Fourthly, the equal share is added in the transfer system so as to ensure a minimum funding of key functions necessary to all local governments. The formula considers population and land area as key determinants in its allocation. These criteria seldom stand alone, but are often combined with expenditure needs (Steffensen, 2010).

Typically, to distribute equalization transfers, the transfer scheme can be focused on either the revenue capacity or expenditure needs, which are called revenue equalization and needs equalization respectively. The equalization can reduce differences in tax-raising capacity or in the cost of providing public services. Revenue raising capacity is the potential revenues that local administrative organization can obtain from the tax bases assigned to the local Government if an average level of effort is applied to those tax bases (Martinez-Vazquez & Boex, 2001). Generally, per capita tax revenue is applied to measure fiscal capacity. There are many methods to measure the local fiscal capacity such as the representative tax system (RTS), personal income, past years' revenue collections, Gross Regional Product (GRP), and total taxable resources (TTR) (Martinez-Vazquez & Boex, 2001). On the other hand, measuring expenditure needs or measuring cost is based on a set of standard costs per public service delivered at a standard level of service provision (OECD, 2013). There are many ways to measure expenditure needs such as costing the current expenditure obligations of local governments, estimating some type of index of relative expenditure needs, and relying on historical expenditure patterns (Martinez-Vazquez & Boex, 2001).

However, to correct imbalances between local government organizations, fiscal equalization can be pursued through both expenditure needs equalization and

fiscal capacity at the same time, being known as fill the gap or need-capacity gap equalization (Dafflon, 2007; Boex & Martinez-Vazquez, 2007). For example, some countries utilize only fiscal capacity measures such as Canada, while some prefer expenditure needs such as India, Italy and Spain (Bronic, 2010; Boex & Martinez-Vazquez, 2007). Indonesia, Japan, Australia, Germany, and the United Kingdom use the fiscal gap for grant equalization (Hofman & et al., 2006; Boex & Martinez-Vazquez, 2007). Different countries can utilize different equalization formulas. However all equalization formulas should be based on closed funding, not creating positive or negative incentive effects, and on computable quantitative standards, and must not open doors for recipient governments to manipulate (Spahn, 2007).

2.3 Conceptual Framework

This paper employs the following conceptual framework to investigate the horizontal equalization of grant distribution (see Figure 2.2).

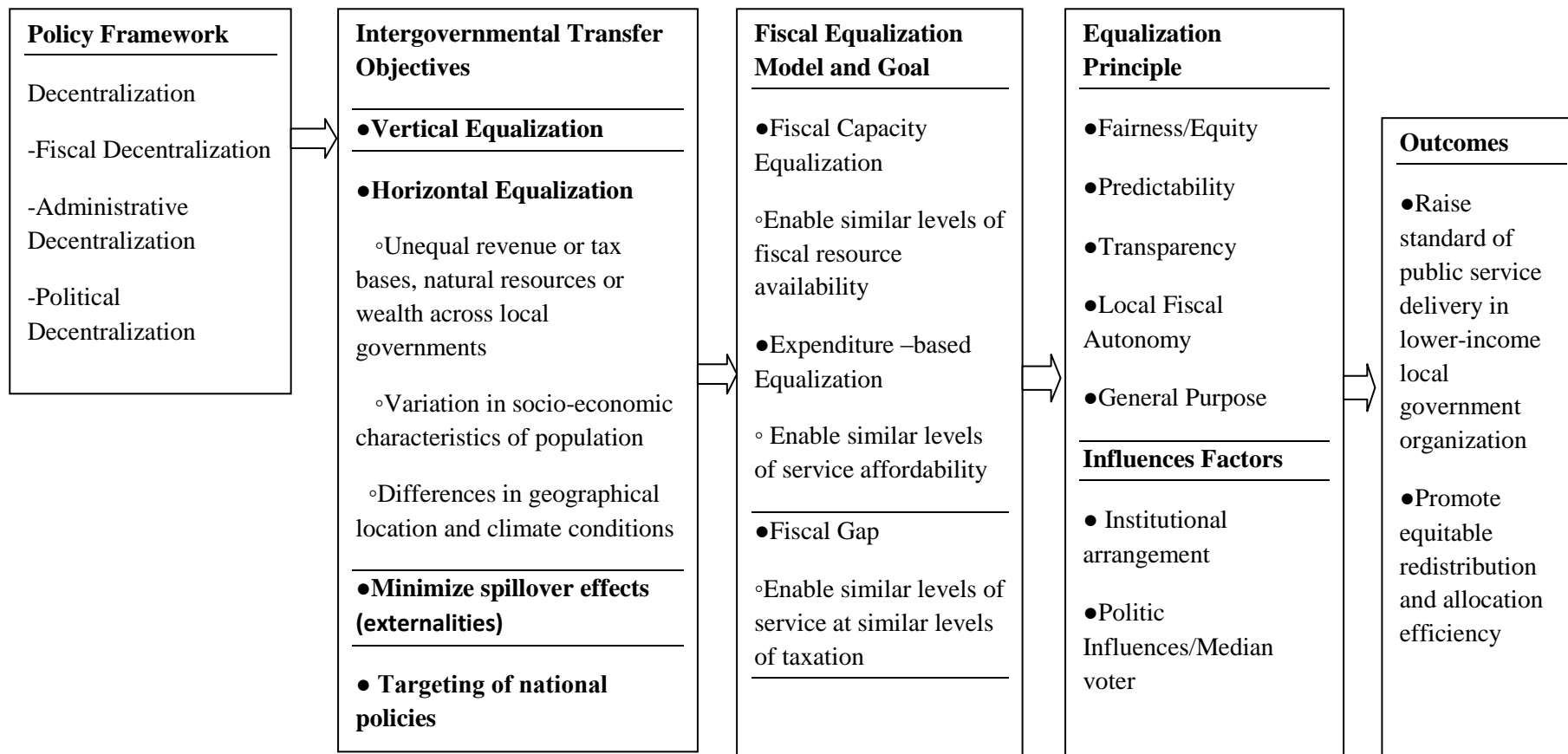


Figure 2.2 Conceptual Framework of Horizontal Fiscal Equalization

Source: Adapted from Brilliant and Tiu Sonco II, 2007; Boex and Martinez-Vazquez, 2004.

2.3.1 Horizontal Fiscal Equalization

Horizontal fiscal equalization is a transfer of fiscal resources to local governments with the aim to reduce fiscal inequalities among them. Differences in revenue raising capacity resulting from unequal tax bases, natural resources and wealth among these governments are offset, and so are differences in fiscal needs caused by differences in characteristics of population and geography among others. The ultimate objective of horizontal fiscal equalization is to ensure the increased standard of public services in poor localities, and the promotion of equitable redistribution and allocation efficiency (Table 2.1).

Table 2.1 Objectives and Key Dimension of Horizontal Equalization

Fiscal Problem	Causes	Objectives	Outcomes
Horizontal imbalance: fiscal disparities occur across local governments	<ul style="list-style-type: none"> - unequal tax bases - natural resources or wealth across local governments - differences in characteristics of population, geographical location etc 	<ul style="list-style-type: none"> to equalize horizontally 	<ul style="list-style-type: none"> - raised standard of public services in poor local governments - promotion of equitable redistribution and allocation efficiency

Source: Adapted from Brillant & Tiu Sonco II, 2007.

To achieve horizontal fiscal equalization, the Government has many options of equalization formulas, which should, nonetheless, be guided by universal equalization principles (Martinez-Vazquez & Boex, 2005). This study focuses on five principles, namely local autonomy, equity, predictability, transparency and general purpose. Starting firstly with local autonomy, equalization should not undermine the autonomy of local governments in political, administrative and fiscal matters despite the fact that

equalization is a resource provision to local governments. Regarding fiscal autonomy, local governments should retain complete independence in setting priorities, allocating financial resources and authorizing the annual budget without external interference. Several indicators can assess fiscal autonomy. This study develops three indicators: share of tax revenue allocated to local governments (local Government tax revenue/total revenue); share of transfers allocated to local government (total grants/total revenue); and percentage of earmarked transfers (general grant or non-earmarked grants/total intergovernmental grants) (Blochliger & King, 2006) (see Table 2.2).

Table 2.2 Fiscal Autonomy Indicators

Fiscal Autonomy Indicators	Measures of Fiscal Autonomy (in percentage)
Share of tax revenue allocated to local governments	Local government tax revenue/total tax revenue
Share of transfers allocated to local governments	Total grants/total tax revenue
Percentage of earmarked transfers	General grant /total intergovernmental grants

Source: Adapted from Blochliger & King, 2006.

To promote local autonomy, general-purpose allocation is the best method because it gives local governments full autonomy over the use of intergovernmental grants, meaning that these governments retain freedom to make use of the grant money according to their purposes and desires. The percentage of the general grant out of the total intergovernmental transfer should be higher than the specific grant.

The second principle, fairness or equity, is relevant to horizontal equalization. The economic rationale for the equalization transfer system is to reduce differences in the fiscal capacity of local governments. To meet the principle of equity during allocation, the transfer should consider differences in both expenditure needs and

fiscal capacity. This means that more grants should be delivered to local governments with a lower tax capacity and greater fiscal needs. Thirdly, grant allocation should be predictable. That is to say, local governments should be able to budget and plan for future expenditure based on a calculation of grant allocation (Kitchen, 2007). In the absence of predictability, local governments will find themselves in a difficult situation, not knowing whether the intergovernmental transfer will meet their plan and budget for the next fiscal year.

Fourthly, fiscal transparency is the fundamental principle of good governance of public finance, and is when the activities and processes concerning the preparation, consideration, approval and implementation of budgets are not conducted secretly. In other words, information about public finances situation should be publicly accessible, and intergovernmental transfers should not lie beneath any hidden political negotiations. Decision making by grant commissions or formal systems is the highlight, and the formulas for transfers should be simple and adhere to credible factors. Finally, the general purpose implies that grants should be unconditional or not lay down constraints for local spending. Local governments should be able to consider the funds as their own revenues for public services. Fundamentally, the grants should enhance the inter-local government equity and preserve the freedom of local authorities to exercise discretion within their local governments (Shah, 2007a).

2.3.2 Voter Choice Model Framework

The median voter model assumes that elected politicians tend to act in ways that guarantee their re-election. In relation to the intergovernmental grant, elected politicians maximize the number of votes by adopting the fiscal preferences of the median voter. From empirical evidence, the equity principle does not solely stand in the allocation of intergovernmental grants. Political factors such as lobbying activities and party support, are involved in the process of transfers to subnational governments. According to Khemani (2007), intergovernmental grants are likely to be distributed in accordance with political interests. The assumption is that politicians are rent-seekers and focus on being re-elected, using the grant allocation as a means to maximizing their electoral votes. They can get support from voters from their ability to benefit their districts. The study of Khemani (2003) on political factors and intergovernmental

fiscal transfers in India presents that when national political agents have decision-making authority over the distribution of resources across states, the distribution of intergovernmental transfers for states over time is influenced by political considerations. In 2011, Nara Panprayad (2011) studied the factors that affect the distribution of specific grants to local government units in Thailand for the 2009 Fiscal Year. This research found that the significant factor influencing the specific grant allocation was the political factor. The jurisdictions where members of the ruling party resided had a tendency to attract specific grants more than other areas. The political influence on grants is derived from the relationship between the Parliament and its individual members (Hall, 2008).

2.3.3 Institutional Arrangements for Intergovernmental Transfers

The institution theory emphasizes formal and legal aspects of the government structure in the way that they are arranged, their legal powers, and their rules for decision making (Kraft & Furlong, 2013). The Government has responsibility over fiscal arrangements in order to achieve national objectives. Normally, there are one or more government agencies in charge of designing and allocating fiscal transfers. According to Shah (2005) and Martinez-Vazquez and Boex (2001), the institutional patterns of fiscal arrangement are represented by five models: government agency, independent agency, intergovernmental forum, national legislature and sub-national government forum.

The central government agency is the most common model in which the President or Prime Minister or the finance ministry shares policy making processes and implementation of fiscal transfers. To Martinez-Vazquez and Boex (2001), this archetype may not be representative of local interests, and this arrangement could be inappropriate for federal States. The independent agency model or grants commission is the model that has an independent agency established by the central Government on a permanent or periodic basis to design fiscal transfer mechanisms. This agency is accountable for reports to the national executive or legislature. To serve the goal of intergovernmental transfers, the agency should be independent, professional, rigorous and transparent (Shah, 2007a).

The intergovernmental forum model has an authorized forum to determine fiscal transfers. The forum facilitates intergovernmental consultation and shares decision making on intergovernmental fiscal transfers, including balancing competing interests and mediating conflicts. The forum may consist of representatives from different levels of Government, national ministers and civil society members. However, to achieve the transfer objectives, the forum can empower involving governments to represent competing interests and diverse commitments on equalization for general accord (Shah, 2005). The national legislature model is the legislation enacted by a national legislature in order to provide a legal foundation for intergovernmental transfers between the central Government and local governments. However, this institutional arrangement is infrequently found, and most of them have never led to the design and implementation of policy (Martinez-Vazquez & Boex, 2001). Lastly, the sub-national government forum or local government association or non-governmental organization model, is an institutional partner in institutional arrangements. It is probable that the forum can take on a more effective role if equipped with institutional and technical capacities to work with national government counterparts, and if sufficiently acting for all local governments (Martinez-Vazquez & Boex, 2001). On the whole, Shah (2005) viewed that the achievement of intergovernmental transfers may not depend on the internal structure of the institutional arrangement only, but also their interactions with other formal and informal institutions in the country.

CHAPTER 3

LOCAL GOVERNMENT FINANCE IN THAILAND

This chapter has three parts. The first part reviews the Thai local government structure, and the second part reviews the Thai local government finance that includes local finance laws and the structure of local government revenues. The last part emphasizes the Thai intergovernmental transfer system.

3.1 Thai Local Government

3.1.1 Thai Local Government Structure

Thailand divides the administration into three levels: central, regional and local administration. The regional administration covers provincial and district levels. At the provincial level, the appointed governors and provincial departments are units of the central Government. The district administration is administered by the District Head appointed by the Department of Local Administration, Ministry of Interior. In terms of local administration, there are five types of local self-government, namely Provincial Administrative Organization (PAO), Municipality, Tambon or Subdistrict Administrative Organization (SAO), Bangkok Metropolitan Administration, and Pattaya City. These five types of local administration are further categorized into general and special patterns. The general pattern, as seen in every province, is composed of the PAO, the municipality, and the SAO. The special category consists of two special administrative units which are the Bangkok Metropolitan Administration and Pattaya City. They both have greater local autonomy and are independent from other types of local government. The BMA's governor is elected. Pattaya City is governed by city manager. Members of the Pattaya City assembly are elected.

On the other hand, the general pattern has two tiers - the upper-tier and lower-tier local governments. The PAO is the upper-tier local government with

responsibility over public service administration at the provincial level, especially the services that cross boundaries between municipalities or SAO units. The PAO coordinates local development plans for the province, promotes missions that cover various jurisdictions of the local administrative organizations, and provides public services within the jurisdictions of the municipalities or SAOs when they request. The structure of the PAO is made of the Provincial Administrative Organization Council and Chief Executive of the Provincial Administration Organization. The council members are elected and the number varies relative to the population of each province. The Chief Executive is also elected by popular vote in the province and is in charge of the administration of the PAO.

The municipality and SAO are the lower-tier local governments working closely with the local people. The responsibility which falls on them is public service provision within their territories. The municipality was the first type of local administration recognized by law in 1933. Most municipalities are located in urban areas. The municipality has three sub-units, namely Thesaban Nakorn (City Municipality), Thesaban Mueang (Town Municipality) and Thesaban Tambon (Subdistrict Municipality). The classification of units is dependent upon the size of their population; a population of more than 7,000 is classified as Thesaban Tambon, more than 10,000 as Thesaban Mueang, and more than 50,000 as Thesaban Nakorn. In the municipal structure, there is a municipal council, Mayor and municipal executive board. The council acts as a legislative body that governs and monitors, or in other words to counterbalance, the administrative power. The council members are directly elected by people for a four-year term. The Board is the municipality's administrative unit, elected from the municipal council members and approved by the Council. The Board consists of a mayor and two to four commissioners according to the municipality's status. To establish a municipality, the following factors are considered: population size; local economic growth focusing on revenue collection and expenditure of local administration; and political significance by focusing on the capacity of how fast development occurs.

By virtue of the District Assembly and District Administrative Organization Act, B.E. 2537, the SAO was established in 1994. Most SAOs are located in rural areas or outside the municipalities. In fact, both SAOs and municipalities hold the

same major responsibility for public service provision. However, each SAO consists of an elected council and chief executive as a part of its structure. The Council is made up of two members from each village located within the jurisdiction of the SAO, and elected by the villages; eligible voters. For an SAO with only one village, six members can be elected to the Council, while one with two villages can have three members elected from each village. Each chief executive is elected by popular vote as provided by law regarding the election of local council or local administrators.

Table 3.1 Number of Local Administrative Organizations

Local Administrative Organizations	Amount of Units (Unit)
Provincial Administrative Organization	76
Municipality	2,266
Thesaban Nakhon (City Municipality)	29
Thesaban Mueang (Town Municipality)	167
Thesaban Tambon (Subdistrict Municipality)	2,070
Subdistrict Administrative Organization	5,509
Special Administrative Organization (Bangkok Metropolitan Administration and Pattaya City)	2
Total	7,853

Source: Department of Local Administration, 2013a. (as of October 1, 2012)

As of 2013, there are a total of 7,853 local government units composed of 76 Provincial Administrative Organizations, 2,266 Municipalities, 5,509 Subdistrict Administrative Organizations and two Special Administrative Organizations (Table 3.1).

3.2 Thai Local Government Finance

3.2.1 Law and Local Finance

Thai fiscal decentralization is stated in acts, royal decrees, ministerial regulations and announcements. All these are under the major laws that regulate the decentralization of fiscal power and target revenues for localities.

3.2.1.1 The 1997 Constitution

The 1997 Constitution was the origin of fiscal decentralization. The Constitution promotes a decentralization system as written in Section 284 where there should be a law determining plans and processes for decentralization to localities. The Determining Plans and Processes of Decentralization to the Local Government Organization Act prioritizes the decentralization of public service provision and revenue allocation to the local government organizations. This Act addresses three main issues: 1) delineating the power and duties between the State and local government organizations, as well as between local government organizations, in the management of public services; 2) allocating taxes between the State and local government organizations by taking into consideration the relative duties of each; and 3) establishing a decentralization committee consisting of equal numbers of representatives from the central Government, local governments and qualified persons that will carry out the tasks.

3.2.1.2 The Decentralization Plans and Processes Act, B.E. 2542 (1999)

In 1999, the Decentralization Plans and Processes Act, or the Decentralization Act, was launched as an organic law and the foundation for the decentralization process under Section 284 of the 1997 Constitution. The essence of this Act contained four elements. First, a Committee of Decentralization to Local Government Organizations, or Decentralization Committee, must be established. The Committee played the major role in planning policy on decentralization and was to draw up a plan to decentralize and implement, including the decentralization monitoring process. The Committee worked under the Office of the Permanent Secretary of the Prime Minister's Office.

The second element was delineation of duties and responsibilities among different types of local government. The Decentralization Committee was

assigned to determine the power and duties between the State and local government organizations, as well as between local government organizations. Third, the Committee determined the sources of revenues from taxes, fees and other incomes for different types of local government. The Committee made decisions on the method of revenue transfers from the central Government down to local governments. Fourth, the Committee set the target goal of revenue transfer. Section 30 of this Decentralization Act stipulated that the decentralization plan should come to a decision on tax allocation, intergovernmental grants and other sources of income for local government organizations by harmonizing with their duties. This Section also detailed that local government organization revenue shall increase to not less than 20% of government revenue by 2001, and not less than 35% by 2006.

3.2.1.3 The Decentralization Plan, B.E. 2543 (2000) and Operational Plans

The Decentralization Plan described the vision, goal and framework for decentralization. This Plan, written as a result of Section 30 of the Determining Plans and Processes of Decentralization Act, was recognized as a blueprint for decentralization (Orathai Kokpol, 2010), which was a mechanism towards a successful decentralization policy. The Decentralization Plan had to be completed within one year after the Decentralization Committee began its operations and would review the Plan every five years. The fiscal goal of this Plan was to have the allocation of taxes, intergovernmental grants and other incomes to the local government organizations conformed with their authorities and duties. The Plan targeted the share of local government revenue to be not less than 20% of all government revenue in 2000 (B.E. 2543), and was to rise to at least 35% in 2006 (B.E. 2549).

3.2.1.4 The Second Edition of Decentralization Plan, B.E. 2549 (2006) and Operational Plans

This Second Edition sets the targets for fiscal decentralization to the local government organizations. Section 30(4) imposes the collection of taxes and revenues on the local government organizations in accordance with the law on local revenue, meaning that the collection is depended on tax characteristics, resource

allocation of the State, balance between revenue and expenditure, level of economic growth, fiscal status and the State's fiscal sustainability.

Beginning in 2007, the local government organizations should earn revenue at a minimum of 25% of the total State revenue. In addition, its aim is that the local government organization's revenue must increase to not less than 35% of the total State revenue, and through fair allocation. The local government organizations' revenue in relation to the central government's total revenue should be increased at appropriate time intervals with consideration of increased capacity of the local government organization to handle public services by itself, and the transfer of responsibilities to the organization after the 2006 fiscal year. In any case, the allocated grant must not be lower than the grant allocated in 2006 (or not less than 126,013 million baht). It is the responsibility of the Fiscal Policy Office and the Bureau of the Budget to forecast the local government organizations' revenue.

In the Plan, the guidelines on fiscal and budget decentralization to the local government organizations are adjustment of revenue structure and revenues collected by the organization, tax adjustment, taxes assigned by the Government or shared taxes, revision of revenue allocation to the organization, measure to promote financial discipline of the organization, adjustment of grant allocation with support to fortify the organization's capacity to provide public services at a standard level, reduction of gaps between organizations of different fiscal statuses, boost to build up the organization's capacity for fiscal self-reliance based on the organization's revenue in the long term, and promotion of the organization's compliance with the government's policies or ability to solve local problems beyond its fiscal capacity.

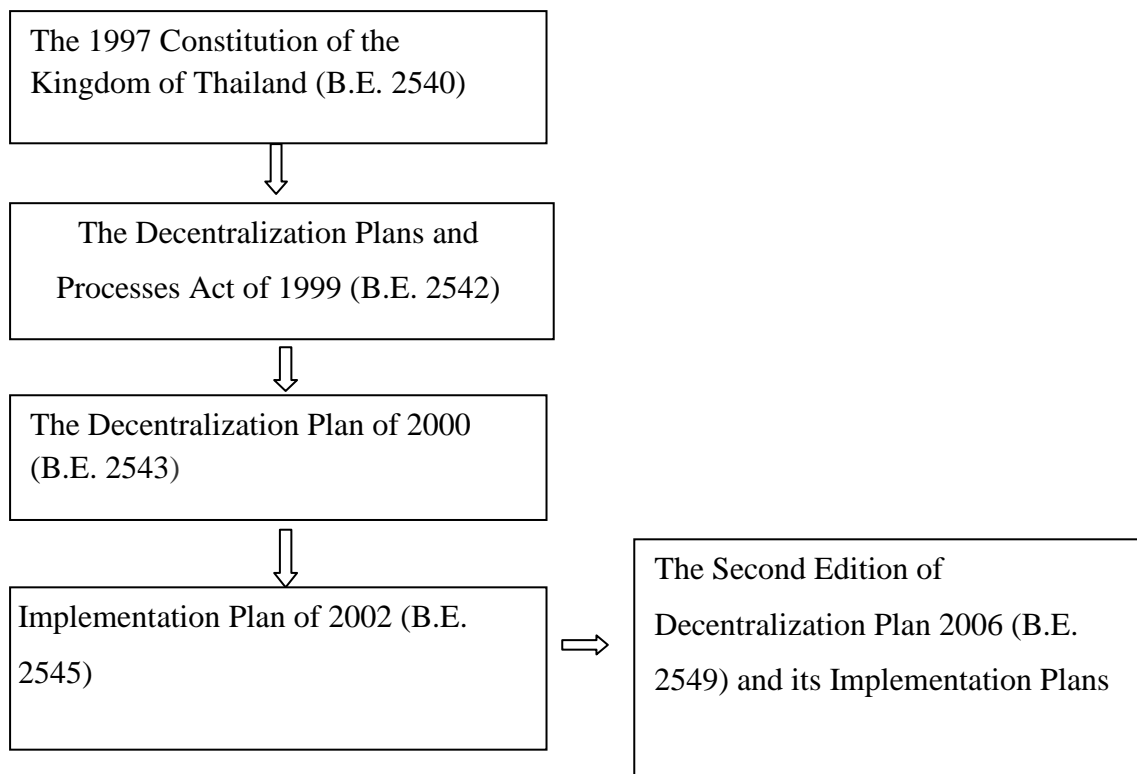


Figure 3.1 Guideline on Fiscal Decentralization

A positive trend had appeared in fiscal decentralization until enforcement of the (B.E. 2550) 2007 Constitution that emphasized the local public finance by clarifying the local government organization's responsibility to provide public services and maintaining the balance between public service delivery and revenue according to the draft local revenue law. As mentioned in Section 283, a law on plans and processes of decentralization must be found in order to share responsibilities in relation to revenue distribution between the central and regional governments and the local government organizations, and between local government organizations. The core of the distribution is that the increased decentralization should fit each local government organization's capacity. There also must be a law on local revenue to assign the responsibility for tax and revenue collection of the local government organization according to tax characteristics, resource allocation and revenues sufficient for spending. All these should stay in line with the level of local economic growth, fiscal status of the local government organization and fiscal sustainability of the State.

3.2.1.5 The National Decentralization Committee

The National Decentralization Committee, the key to the decentralization process, was established by the 1999 Decentralization Act. The Committee was mandated to direct the decentralization plans and processes. The Committee decentralizes the power to the local government organizations 1) to adjust the proportion of taxes and duties, and the revenues between the State and the local government organizations, and between local government organizations, 2) to propose policies on financing, taxation, budgeting and the local government organization's financial and fiscal discipline, 3) to provide recommendations to the Cabinet regarding the increased budget allocation for the local government organizations owing to the transfer of responsibility from the central Government, and 4) to set up criteria, methods, conditions, allocation rates, and return and receipt of revenue of the local government organizations.

The National Decentralization Committee is composed of 36 representatives from three groups, namely concerned government agencies, local government organizations and experts. Twelve members from the concerned government organizations are the Prime Minister or the Deputy Prime Minister delegated to chair the Committee, the Minister of Interior, the Minister of Finance, the Permanent Secretary for Interior, the Permanent Secretary for Finance, the Permanent Secretary of Education, the Permanent Secretary of Public Health, the Secretary-General of the council of State, the Secretary-General of the Civil Service Commission, the Secretary-General of the National Economic and Social Development Board, the Budget Director of the Bureau of the Budget and the Director-General of the Department of Local Administration. The next twelve members from local government organizations are two provincial administrators of the PAO, three municipal administrators, five administrators of the SAO, and Bangkok Metropolitan and Pattaya City administrators, or two other administrators of local Government as provided by the law.

The last twelve representatives are experts in the field of public administration, local development, economics, local governance, political science and law. The election of representatives from local government organizations and the selection of qualified experts must meet the regulations and procedures set by the

Prime Minister. Each committee member retains their position for a four-year term at the Office of the National Decentralization Committee (ONDC) attached to the Prime Minister's Office.

3.2.2 Local Government Revenue

3.2.2.1 Percentage of Revenue of the Local Government Organizations and Revenue Allocation Criteria

The Determining Plans and Processes of Decentralization to the Local Government Organization Act (Second Version), B.E. 2549 mandates that the local government organizations must achieve revenue of not less than 25% of the total government revenue, and the increased revenue of not less than 35%. The revenue percentage is calculated by compiling the revenues from local taxes, shared taxes, taxes allocated to local Government and general grants of all local government organizations, and comparing these with the total revenue of the Government for that year.

The calculation for the local government organization's total revenue is from four sources, which are local own-source taxes and revenues, the government revenues, revenues from grants and revenues of the local government organization. The responsibility to estimate the local government organization's revenues belongs to the Fiscal Policy Office and the Bureau of the Budget. In an annual estimation of such revenues, the previous year's data on actual collection of local own-source taxes and revenues are used, and then increased based on the economic growth rate. The government revenues can be estimated using the data from the local government organization and the estimated tax collected in that year. The reason behind this estimation is that most of the government revenues are shared taxes such as the value added tax, specific business tax, liquor tax, excise tax, and the like.

With regard to the estimation of the government's total revenue, revenues from four sources are calculated. They are tax revenues, revenues from sales and services, revenues from State enterprises and other revenues. These incomes, then, are subtracted from the sum total of the Revenue Department's tax return, the value added tax (VAT) of the PAO or VAT under the Determining Plans and Processes of Decentralization to Local Government Organization Act, and the

compensation for export tax. The percentage of revenue of the local government organization per government total revenue under the Decentralization Act is summarized below.

Proportion of local government organization's revenue per government's total revenue

$$= \frac{\text{local government organization's revenue}}{\text{government's total revenue}} \times 100$$

Local government organization's revenue = (local own-source revenues + shared taxes + revenues allocated by government + grants)

Government's total revenue = (tax revenue+revenue from sales and services + revenue from state enterprise+other revenues)-(tax return of Revenue Department+VAT of local government organization or VAT of Determining Plans and Process of Decentralization to Local Government Organization Act + compensation for export tax)

The Decentralization to Local Government Organization Committee is authorized to set criteria, methods, conditions and rates for revenue allocation to the local government organizations. Under the Committee's authorization, the revenues come from taxes and grants. The Committee sets two criteria for the allocation. First, consideration of the overall revenues means that the Committee takes into account the local own-source revenues, shared taxes, and grants. In case tax revenues allocated are insufficient for the local government organization's operation, VAT and general grants will be allocated to lessen the revenue inequality among local government organizations. Second, it is the sources of tax. Generally, taxes will be returned to the agencies collecting such taxes. Nonetheless, data of some sources of taxes such as VAT and specific business taxes are not available for local government organizations, but are for provincial organizations. These taxes, hence, are allocated to government agencies at the provincial level.

3.2.2.2 Revenue Structure of the Local Government Organization

There are two types of the local government organization revenue - tax revenues and non-tax revenues. Tax revenues are local taxes, shared taxes, centrally collected tax revenues and other taxes as provided by law. The non-tax revenues are

revenues from government grants, government agencies, State enterprises, public organizations and also local government organizations. Others are revenues from fees, permits and fines, properties, trades or community enterprises, honorariums or service charges, donations, international aid, property belonging the Government or State enterprises, and other revenues as set by law.

According to the Determining Plans and Processes of Decentralization to Local Government Organization Act, the revenue of the local government organization is derived from four sources, which are local-levied tax, government-levied tax, revenues allocated by the State and revenues from grants.

3.2.2.3 Revenues Collected by the Local Government Organization

The local-collected revenue is the revenue from taxes and non-taxes collected by the local government. The law authorizes the local government organizations to collect their own revenues. Only taxation rates and tax exemptions must follow the law. The local government has the authority over the collection of various taxes, namely land and building tax, land development tax, signboard tax, animal slaughtering tax, swallow bird's nest duty, and tobacco or petroleum tax. Other locally collected non-tax revenues include fees and fines, revenues from property, infrastructure services, and miscellaneous revenues (Table 3.2).

Table 3.2 Local Government Revenue Sources

Local revenue sources	Types of revenue	Units that collect the revenue		
		PAO	Municipality	SAO
1. Locally collected revenues	Land and building tax	/		/
	Land development tax	/		/
1.1 Locally collected taxes	Signboard tax	/		/
	Animal slaughtering tax	/		/
	Bird's nest duty	/	/	/
	Tobacco/petroleum tax	/		

Table 3.2 (Continued)

Local revenue sources	Types of revenue	Units that collect the revenue		
		PAO	Municipality	SAO
1.2 Locally collected non-tax revenues	Fee and fines	/	/	/
	Revenue from property	/	/	/
	Revenue from infrastructure services	/	/	/
	Revenue from trade	/	/	/
	Miscellaneous revenues	/	/	/
2. Centrally collected tax revenues for local government organization	VAT(1 out of 9)		/	/
	Specific business tax		/	/
	Liquor tax		/	/
	Gambling tax		/	
	Vehicle tax	/		
	Property registration duties		/	/
	Mineral royalty	/	/	/
	Revenues under the National Park Act in the tambon administrative organization			/
3. Shared taxes	VAT according to the Determining Plan and Process Act.	/	/	/
4. Intergovernmental grants	General grant based on responsibility	/	/	/
	General grant based on purpose	/	/	/
	Specific grant	/	/	/

Source: The Revenue Department, 2012.

The PAO collects several types of taxes: motor vehicle tax under the Motor Vehicle Act and Land Transport Act; retail sales tax on benzine or similar and diesel or similar, and petroleum fuel for motor vehicles collected from retail sales in the province as specified by law; retail sales tax on tobacco collected from retail sales in the province as specified by law; tax from hotel as specified by law; swallow bird's nest duty according to the Swallow Bird's Nest Duty Act; environment tax as specified by law; education tax according to the National Education Act; and other taxes as specified by law. On the other hand, the municipality and SAO are authorized to tax the following items: building and land tax as stated in the Building and Land Tax Act; local development tax according to the Local Development Tax Act; property transfer tax according to the Property Transfer Tax Act; signboard tax according to the Signboard Tax Act; gambling tax; animal slaughtering stamp under the law on animal slaughtering and animal meat sale; swallow bird's nest duty under the Swallow Bird's Nest Duty Act; environment tax as specified by law; education tax under the National Education Act; and other taxes as specified by law.

3.2.2.4 Centrally Collected Tax Revenues

Government-collected tax revenues are the revenues from taxes collected by the Government for the local government organizations. The Government deducts relevant expenditures in accordance with the law. These tax revenues are of two types: taxes under the law that empowers the local Government to determine tax rates that will increase taxation for local revenue such as VAT and specific business tax; and fixed-rate taxes that allows the taxation organization to tax using a fixed rate such as liquor tax, excise tax and gambling tax (Dutsadi Suwatwittayakon, 2008).

Centrally collected tax revenues distributed to the local government organizations include the following revenues. The first is VAT according to the Act on the Allocation of Revenues from Value Added Tax and Specific Business Tax to the Local Government, B.E. 2534 (VAT 1/9) collected by the Revenue Department and distributed to the municipality and SAO based upon population number. The second is specific business tax from businesses, namely banking, finance, securities, credit foncier business, life insurance and insurance, pawn and securities sale. Revenues from business taxes are allocated to the provinces that are the sources of

these taxes. The provinces, then, allocate the revenues to their municipalities and SAOs using the population criterion. The third is fees from property-related registration and legal transactions collected in the jurisdiction of the local government organization. The fourth is liquor and excise taxes collected by the Revenue Department and allocated to municipalities and SAOs based on population. The fifth is vehicle tax collected by the Government and allocated to the PAOs and Bangkok Metropolitan Administration only. And finally, there is mineral royalty and petroleum royalty collected within the province. The allocation is divided into proportions: 40% to the Government and 60% to the local government organization. The latter proportion is later divided for local organizations located in the area where the mineral mine concession certificate is granted. They are the municipality or SAO (20%) and the PAO (20%). The remaining 20% is for other municipalities and SAOs in the province where the concession is granted (10%) and municipalities and SAOs located outside the province (10%).

3.2.2.5 Shared Taxes Revenue

It is also the revenue from tax collected by the central Government that is allocated to the local government organizations on a proportion basis. By following the Determining Plans and Processes of Decentralization to the Local Government Organization Act, this shared revenue comes from VAT to be allocated to the local government organizations of not more than 30% of the Government's VAT revenue. Owing to the large amount, VAT is currently an important revenue to the organization. The allocation of VAT revenue relies on the criteria set by the Decentralization to the Local Government Organization Committee that uses this tax to diminish the revenue inequality among local government bodies and increase local government revenues in order to perform functions and transfer responsibilities. After the tax rebate, the Revenue Department transfers 20.29% of VAT levied under the Revenue Code. The revenue allocation has two parts. The first part goes to the local government organizations, based on VAT collection as stated in the Determining Plans and Processes of Decentralization Act. The second one is the additional allocation, by allocating 60% to local government organizations, based on inverse proportion of revenues prior to tallying the grants for the previous year. The remaining 40% falls to local government agencies that fulfill the criterion of the

number of people living in poverty. In this 40% allocation, 10% is for the PAO based on number of people living below the poverty line, and 90% is for Bangkok Metropolitan Administration, Pattaya City, municipalities and SAO based on the number of poor people in their province.

3.2.2.6 Intergovernmental Grant

The Thai Government applies two measures to enhance local revenues, namely shifting some tax bases from national to local authorities, and increasing local grants (Sutapa Amornvivat, 2004). The Government adopts the following two methods when shifting. First, some national tax bases are shifted to localities such as the mineral resource tax, gambling tax, and swallow bird's nest duty. The second method is an increased share for the local Government of two shared taxes - VAT and excise taxes (Orathai Kokpol, 2010). The second measure is increasing intergovernmental grants or subsidies. Intergovernmental grants are the revenues allocated by the central Government to the local Government. These grants are special revenues, unlike tax and non-tax revenues recognized as regular ones. The Government needs to assist localities because of their inability to obtain the revenue or budget sufficient to deliver a standard level of public services. At present, the intergovernmental grants are essential sources of local revenue.

There are two types of intergovernmental grant: general and specific. The general grant is allocated to the local Government for general purpose. This grant also has two types: the general grant based on responsibility and the general grant based on purpose. The former allows the local organization autonomy over its use, while the latter allows for certain projects or activities. The specific grant is the revenue distributed by the central Government to the local government for particular projects. This grant brings along considerable fixed purposes. The Decentralization to the Local Government Organization Committee makes decisions on allocation. For the local Government, they are required to submit project proposals. Such projects, however, must identify an urgency or be within the government policy. The submitted proposals are considered step-by-step following the specific grant allocation process.

3.3 Thai Intergovernmental Transfer

The objectives of the Thai intergovernmental transfer are similar to those of countries with a decentralized form of Government. The first objective is to promote standardized public services managed by the local Government for all people. The second is to narrow fiscal gaps among local government organizations. The final objective is for local governmental bodies to fix problems beyond their fiscal capacity. The Government transfers the grants to three local government organizations: Bangkok Metropolitan Administration; Pattaya City; and PAO, municipality and SAO. The transfers are made for both general and specific grants.

3.3.1 Types of Intergovernmental Grant

Two types of grant transferred to the local government organizations are the general and specific grants (Figure 3.2). The general grant is the organization's revenue, aimed to increase the revenue along with the organization's freedom to make use of the grant money. This grant is parted to the general grant specified for missions and responsibilities, and the general grant specified for purposes based on transferred responsibilities. Commonly, the general grant allows for fiscal autonomy to the organization to manage the grant money in agreement with transferred responsibilities and people's needs. The general grant allocation abides by the decisions of the Decentralization to the Local Government Organization Committee that relies upon the proportion of grants between different local government organizations and upon the criteria used for similar local government agencies. These criteria are often concerned with the population size, area size, revenues and prioritized missions. The most critical issue is that the criteria must not lessen the revenues of any local government organization, when compared with the previous year (Dutsadi Suwatwittayakon, 2008).

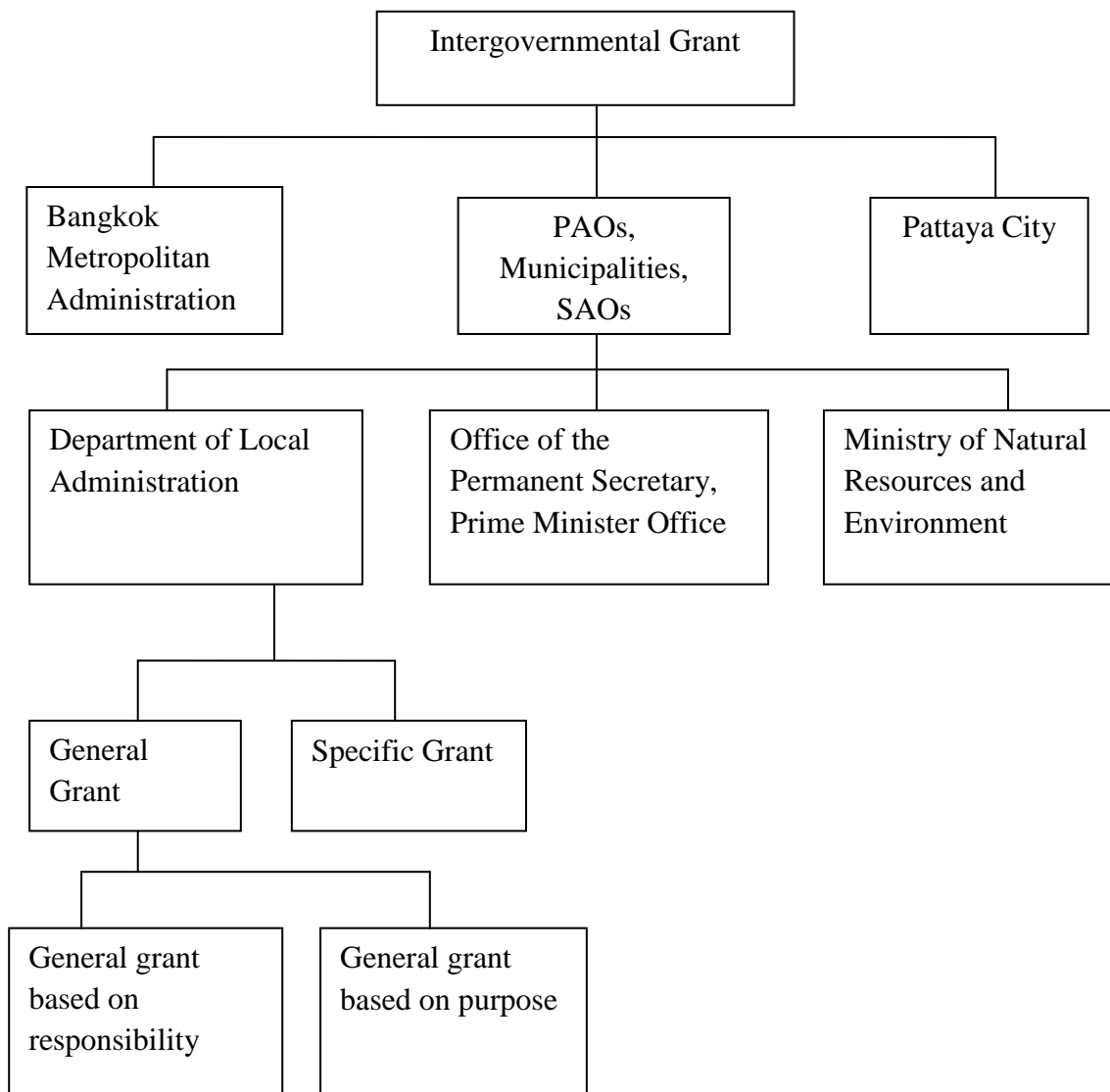


Figure 3.2 Types of Grant Transferred to Local Government Organization

The specific grant is the grant transferred from the Government for projects under the government or Cabinet policy, or having been committed from the previous years. The grant money is to be used for the purpose set by the Government. The allocation criteria are decided by the Decentralization to the Local Government Organization Committee. The lists of projects for the specific grant are changed each year depending on the Government's decision. For example, in 2009 there were 19 specific grant projects, namely bonus, transferred education equipment, education building construction, equipment for child care center, child care center construction, public health facility maintenance, personal transfer, environmental preservation,

health care for teachers, house rent for teachers, pension for teachers, Department of Religions Affairs' child center, electric water pump, village pipe water, town planning, environmental action plan, water shortage problem in Nakhon Ratchasima, flagship projects, and local government organization's strategy. However, in 2010 the number of projects decreased to 15 , namely electric water pump, personal transfer, health care for teachers, house rent for teachers, pension for teachers, public health services and related construction, child care center transferred from Department of Religious Affairs, environmental action plan, water shortage problem in Nakhon Ratchasima, social security for the elderly, guaranteed free education up to 15 years, promotion of volunteer, education management and salary and related wages, community development plan, and welfare for the disabled.

3.3.2 Process and Criteria of Grant Allocation

3.3.2.1 General Grant Allocation Process

Annually, the general process of allocation begins with the allocation criteria jointly set by the Department of Local Administration under the Ministry of Interior and the Local Government Organization, and both, then, propose the criteria to the Sub-Committee on Revenue Allocation chaired by an expert for approval. When being approved, the criteria are finalized by the Decentralization to Local Government Organization Committee. The Office of the Decentralization to the Local Government Organization Committee acts as the secretariat proposing the grant to the Committee to finalize the allocation approval. Upon the Decentralization Committee's final resolution, the criteria will become effective after being published in the Government Gazette. Next, the Committee conveys the approval to the Bureau of the Budget and Department of Local Administration to set the budget for the local government organization. The approval of allocation relies upon the Committee's criteria. As for the general and specific grants without clarity for allocation, the Office will propose the criteria to the Committee for approval, and then for announcement in the Government Gazette.

3.3.2.2 Criteria

1) General Grant

Varying by types, the general grant based on responsibilities adopts the population size and equality criteria (Figure 3.3). There are two portions in the allocation.

First portion: 95% in 2009-2010 and 93% in 2011 to the local government organizations, 10% to the municipalities and 90% to the SAOs

Allocation criteria for municipality

- (1) 50% based on population
- (2) 50% equally to all

Allocation criteria for SAO

2009-2010

- (1) 30% based on population
- (2) 50% based on number of villages
- (3) 30% equally to all

2011-2012

- (1) 40% based on population
- (2) 60% equally to all

Second portion: 7% to the local government organizations having expenditures for public services higher than their revenues excluding the grant. The money is allocated based on proportion of differential. This portion is aimed to decrease inequality.

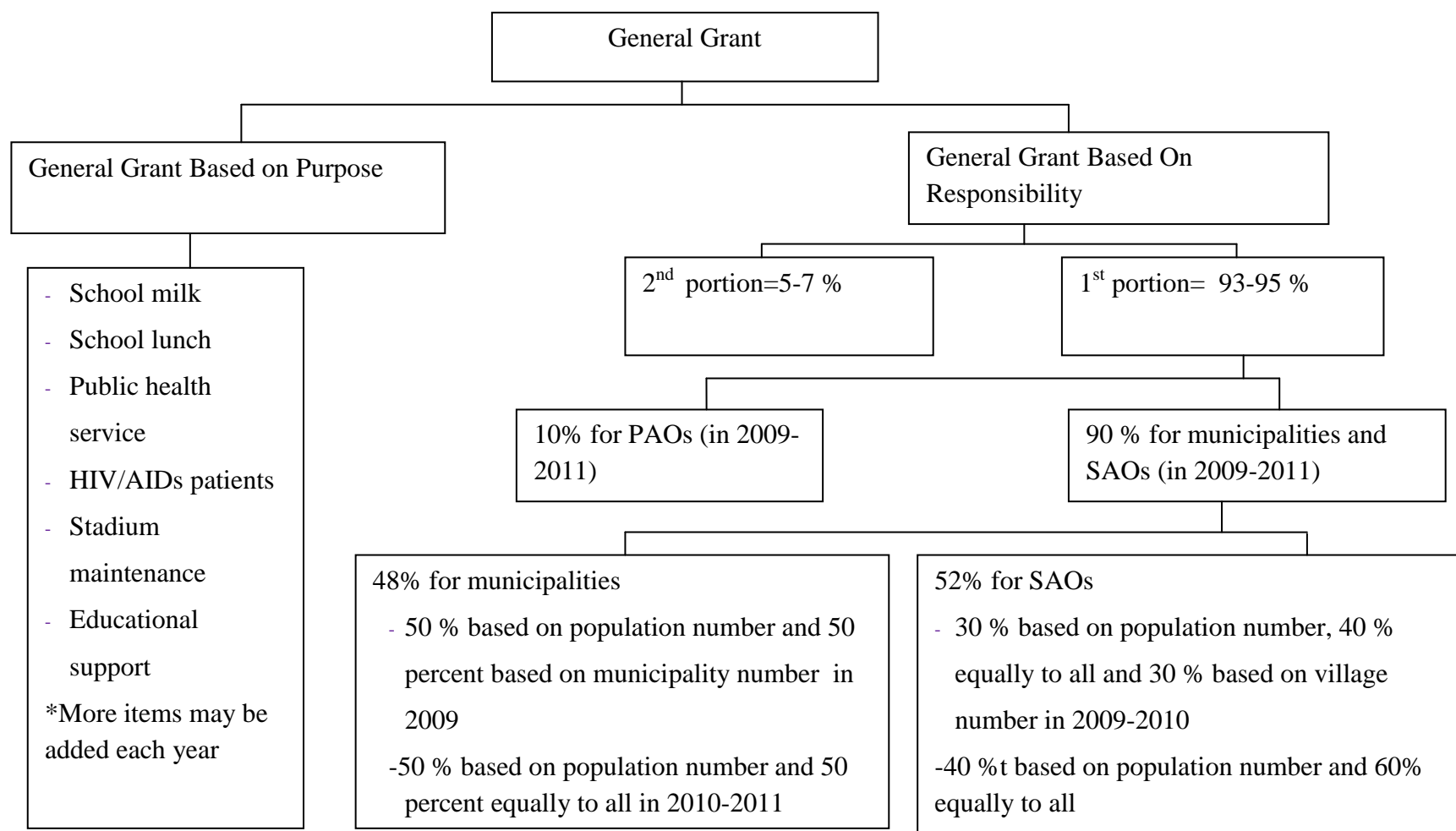


Figure 3.3 Criteria for General Grant Allocation to Local Government Organizations

Source: Announcement of Decentralization to the Local Government Organization Committee, 2009; Bureau of Local Finance, 2009-2012; The National Municipal League of Thailand, 2010-2013.

The general grant based on purpose is distributed in order to meet the transferred responsibilities such as the grant for compensation for train fares at half price for local staff, subsidies for public health services, school milk, school lunch, stadium maintenance, allowance for HIV/AIDs patients, social services, shelters for the elderly and educational development (Table 3.3). The allocation method follows the previous year's criteria.

Table 3.3 The Items of the General Grant Based on Purpose between 2009 and 2012

2009	2010	2011	2012
1. Public health service	1. Compensation for train fares	1. Compensation for train fares	1. Public health service
2. Childcare center	2. Public health service	2. Public health service	2. School lunch
3. Southern border provinces	3. School lunch	3. School milk	3. School milk
4. Compensation for income in southern border provinces	4. School milk	4. School lunch	4. Stadium maintenance
5. Compensation for train fares	5. Childcare center	5. Support for local education	5. Allowance for HIV/AIDS patients
6. School lunch	6. Quality of life in five southern provinces	6. Stadium maintenance	6. Support for educational management
7. School milk	7. Compensation for income in five southern provinces	7. Allowance for HIV/AIDS patients	7. Compensation for local government organization's revenue in five southern provinces
8. Allowance for elders	8. Stadium maintenance	8. Social service center	
9. Allowance for disabled people	9. Allowance for elders	9. Elderly care center	
10. Allowance for HIV/AIDS patients	10. Allowance for disabled people	10. Quality of life in five southern provinces	
11. Early childhood education	11. Allowance for HIV/AIDS patients		

Table 3.3 (Continued)

2009	2010	2011	2012
12. Compulsory education	12. Social service center	11. Compensation for income in five southern provinces	
13. Drug addict rehab	13. Elderly care center	12. Drug Prevention and Problem Solution Project	
14. Development for community developer	14. Educational support		
15. Stadium maintenance			
16. Social service center			
17. Elderly care center			

Source: Bureau of Local Finance, 2009-2012.

The greatest proportion of general grant is allocated base on simple criterion - the population size. This simple criterion, however, uneasily leads to fiscal equality. Without local economic, geographical and social factors, this criterion fails to reflect each local government organization's expenditure and revenue capacity.

2) Specific Grant

This grant accompanies a specific purpose. Each year, the Government launches many projects for specific grants which can be classified into four groups: welfare, education, water source and environment (Table 3.4). The specific grants for welfare are, for example, social security for the elderly and disabled. The education group consists of compulsory education that includes expenditures on health treatment, house rent, pension, and child care center and construction, education equipment for local schools, salary for teachers and related

wages, and the guaranteed free education up to 15 years. The third and fourth involve the environment and water resource management respectively.

Table 3.4 Specific Grant Allocation between 2009 and 2012

Unit: Million baht (MB)			
2009	2010	2011	2012
1. Incentive for enhanced capacity: 500 MB	1. Electric water pump :809.05 MB	1. Electric water pump: 906.56 MB	1. Electric water pump
2. Transferred educational equipment: 164.28 MB	2. Personnel transfer: 1,503.56 MB	2. Personnel transfer: 1,353.21 MB	2. Personnel transfer:
3. Construction of school building: 1,517.77 MB	3. Compulsory education (healthcare and treatment): 500.00 MB	3. Compulsory education (healthcare and treatment): 500.00 MB	3. Compulsory education (healthcare and treatment)
4. Equipment for childcare center: 1,237 MB	4. Compulsory education (house rent) : 80.00 MB	4. Compulsory education (house rent) :80.00 MB	4. Compulsory education (house rent)
5. Construction of childcare center building: 1,237 MB	5. Compulsory education (pension): 1,743.61 MB	5. Compulsory education (pension) : 6,454.40 MB	5. Compulsory education (pension)
6. Public health facility maintenance: 23.44 MB	6. Public health service (construction): 21.07 MB	6. Childcare center : 312.92 MB	6. Childcare center
7. Personnel transfer: 3,765.37 MB	7. Childcare center (transferred from Department of Religious Affairs): 1,765.58 MB	7. Construction of childcare center : 101.58 MB	7. Salary and wage for teachers
8. Environment preservation: 99.89 MB	8. Environmental action plan: 2,543.66 MB	8. Educational equipment for local schools : 1,275.12 MB	8. Honorarium for workers in southern border provinces
9. Healthcare for teachers: 500 MB		9. Environmental action plan :	9. Social service center
		10. Flood problem solving in Nakhon	10. Elderly care center
			11. Performance of students from poor families
			12. Educational expenses

Table 3.4 (Continued)

Unit: Million baht (MB)

2009	2010	2011	2012
10. House rent for teachers: 80 MB	9. Water shortage solving in Nakhon Ratchasima :	Ratchasima : 205.02 MB	13. Security for older persons
11. Pension for teachers : 1,743.61 MB	10. Income security for older persons :	11. Salary and wage for teachers : 11,226.82 MB	14. Social welfare for disabled people
12. Child center under Department of Religious Affairs: 1,919.8 MB	11. 15-Year-Free Education :2,881.41 MB	12. Income security for older persons : 31,068.31 MB	15. Proactive project for volunteers
13. Electric water pump: 809.05 MB	12. Proactive project for volunteers: 7,029.66 MB	13. 15-Year-Free Education : 2,942.57 MB	16. Drug problem solution
14. Village waterworks: 373.70 MB	13. Education management (salary and wage) : 9,892.83 MB	14. Project for volunteers : 7,240.56 MB	17. Construcion of school building
15. Urban planning: 65.38 MB	14. Community plan and development : 839 MB	15. Social welfare for disabled people : 4,739.58 MB	18. Consturction of child development center
16. Environmental action plan: 1,709.37 MB	15. Social welfare for disabled people : 1,374.10 MB	16. Honorarium for workers in southern border provinces :254.07 MB	19. Educational equipment
17. Water problem solving in Nakhon Ratchasima: 526.02 MB		17. Flagship (Urgent) projects : 8,142.11 MB	20. Water management according to petition
18. Urgent development of local government organization: 2,000 MB			21. Household water problem
19. Strategy of local government organization: 2,999.95 MB			22. Road maintenance
			23. Health center
			24. Mobile computer
			25. Flood relief
			26. Special area administration and development
			27. Flagship (Urgent) projects

Source: The National Municipal League of Thailand, 2010-2013.

The different specific grant projects are written with different allocation criteria. The Decentralization to the Local Government Organization Committee takes responsibility on writing down the allocation criteria for each specific grant project. For example, for the grant for development and urgent projects, the Department of Local Administration is responsible for setting up criteria and the allocation plan, and then submit them to the Committee for approval. This allocation is for organizations in need of grants for projects concerning urgent development and problem solving for their people. By having the grant, damages can be prevented. Nonetheless, these projects should be within the authority and agree with the development plan of the local government organization. To qualify for the grant, the project should promote the royal project, follow the Government's policy, be relevant to water source development for household use and agriculture, be aimed at transport development, be aimed at public safety or facility restoration and disaster recovery, be aimed at construction or repair of infrastructure transferred from other government agencies, and be under the organization's authority for the improvement of people's quality of life, and security of life and property. The additional characteristics of the project for specific grant are that the grant is a capital budget for construction projects. Upon receiving the grant, the local government organization will kick off the construction scheduled to be finished within one year. Furthermore, an overlap of missions, sites and budgets should not be counted in the specific grant project. As to budgeting, it should be between 500,000 and 10,000,000 baht, with a clear construction plan and estimated budget.

Regarding the process for urgent projects for Subdistrict Municipalities and SAOs, they must submit the project through the District and Provincial Office that will pass it on to the Department of Local Administration. For the projects for the local government organizations, city municipalities and town municipalities, their projects must be passed to the Provincial Office and then to the Department of Local Administration that will appoint a committee to review the project. The committee has a maximum of five members who are representatives from concerned government agencies, the Provincial Administration Organization Council of Thailand, the Municipality League of Thailand, the Subdistrict Administrative Organization Council of Thailand and experts in local development. All members are approved by the Director General of the Department of Local Administration.

CHAPTER 4

RESEARCH METHODS

Chapter 4 presents the methods used in this study. The research incorporates a research design which employs a mix methods approach to understand the horizontal fiscal imbalances in Thai intergovernmental grant transfer system. Later, the scope of the study for both quantitative and qualitative methods is expressed. The process of gathering information is described in the data collection section. Furthermore, research hypotheses, data analysis, tools, and reliability and validity are presented in this chapter.

4.1 Research Design

This study concentrated on the area of fiscal equalization, which was aimed at enabling all local administrative organizations to deliver a similar standard of public services at similar tax rates even if their revenue raising capacities or expenditure needs differ. To investigate equalization, the study specifically analyzed horizontal equalization which focuses on the transfer of fiscal resources between units at the local government level. In addition, horizontal equalization tends to be more efficient than vertical equalization because it has higher equalization effects per monetary unit (Blöchliger & Charbit, 2008).

This study employed a mixed methods approach to gain an insightful understanding about the fiscal horizontal inequality between types of local administrative organizations and among the local administrative organizations at the same level. A mix of both quantitative and qualitative data grasped the fiscal inequality situation in detail. The goal of the quantitative method was to investigate whether or not the intergovernmental transfer in Thailand promotes fiscal equalization among local governments. The qualitative method helped explain why fiscal inequality among the local governments exists by explaining statistical results through an in-depth investigation on informants' views. While collecting data, the qualitative

research took the whole picture into account and collected data using a participatory method. The priority placed in this study was on quantitative results thoroughly explained by qualitative methods. The results of quantitative and qualitative data collection are combined in the discussion chapter.

4.1.1 Quantitative Method

4.1.1.1 Scope of Study

The study analyzed the horizontal fiscal imbalances by focusing on three types of local Government of upper and lower tiers, namely Provincial Administrative Organization (PAO), city municipality (thesban nakorn), town municipality (thesban muang), sub-district municipality (thesban tambon), and Subdistrict Administrative Organizations (SAO). However, this research gave priority to the lower-tier of local government: city municipality (thesban nakorn), town municipality (thesban muang), sub-district municipality (thesban tambon), and Subdistrict Administrative Organizations (SAO), because it is the lowest level of local government which takes responsibility in a wide range of functions or public services. The units of analysis are municipalities and SAOs throughout the country between 2009 and 2012 (Table 4.1). In addition, the unit of analysis excludes Bangkok Metropolitan Administration and Pattaya City because of their special forms of administration.

Table 4.1 Numbers of Provincial Administrative Organizations (PAOs), City Municipalities, Town Municipalities, Subdistrict Municipalities and Subdistrict Administrative Organizations (SAOs) between 2009 and 2012

Unit: Organization

Types of local government organization	Year			
	2009	2010	2011	2012
Provincial Administrative Organization (PAO)	75	75	75	76
Municipality				
City Municipality (Thesban Nakorn)	23	25	27	29

Table 4.1 (Continued)

Types of local government organization	Year			
	2009	2010	2011	2012
Town Municipality (Thesban Muang)	142	142	149	167
Subdistrict Municipality (Thesban Tambon)	1,522	1,841	1,884	2,072
Subdistrict Administrative Organization (SAO)	6,089	5,767	5,715	5,507
Total	7,851	7,850	7,850	7,851

Source: Department of Local Administration, 2010-2013.

The total sample size of organizations was 7,851 in 2009, 7,850 in both 2010 and 2011 and 7,851 in 2012. The reason the number decreased by one in 2010 was that Wangnamyen Subdistrict Administrative Organization and Wangnamyen Subdistrict Municipality of Srakaew Province were merged together in 2010. A new province, Bueng Kan, was then established in 2011 (received the grant in 2012), increasing the number of PAO and total number of organizations by one in 2012. Furthermore, the number of SAOs decreased annually - from 6,089 in 2009 to 5,507 in 2012 - as they were upgraded to subdistrict municipality status. Consequently, the number of subdistrict municipalities increased. Similarly, a number of subdistrict municipalities and were upgraded to town municipality status, and a number of town municipalities were upgraded to city municipality status.

4.1.1.2 Data Collection

The data analysis was of secondary data which was collected by the Department of Local Administration. Furthermore, additional data was collected from the Bureau of the Budget, the National Municipal League of Thailand, and the Office of the National Economics and Social Development Board (NESDB). The data were collected annually over the past four years from 2009-2012. It is useful for identifying the phenomenon of horizontal equalization.

The data were composed of three local revenue resources: local own-revenue, shared taxes, and intergovernmental grants (general grant and specific grant). These three resources were investigated to analyze fiscal disparity. The general grant, as a government tool to reduce horizontal fiscal imbalance, is useful to test horizontal equalization of the budget. In terms of specific grant data, they were collected from the Department of Local Administration, but contained some limitations as appeared in the data reports. The reports presented only those at the provincial level, disabling this study in exploring further detail at the local jurisdiction. Despite such a limitation, available data could answer the research questions. The correlation factor data on specific grants, such as poverty and elderly population, were collected from the Office of the National Economic and Social Development Board.

4.1.1.3 Research Hypotheses

This study has developed three research hypotheses to guide the research design.

Hypothesis 1: There is a significant fiscal inequality in intergovernmental grant allocation.

Hypothesis 2: The intergovernmental grant allocation within local government units is equalizing between high-income areas and low-income areas.

Hypothesis 3: There are options to solve the horizontal fiscal imbalance among local governments.

4.1.1.4 Data Analysis

Beginning with data screening in order to obtain an accuracy of results, data were cross-checked with data sources from the Department of Local Administration, the Bureau of the Budget and the National Municipal League of Thailand. Later, to assess and compare fiscal disparities, variables, for instance local own-revenues, shared taxes and intergovernmental grants, were calculated in per capita terms in order to control the existing differences of local government unit size. Descriptive statistics, such as mean, minimum, maximum and coefficient of variation, measured local fiscal disparities, while the coefficient of variation (CV) assisted with the measure of dispersion.

To measure horizontal fiscal equalization, this study applied the Gini coefficient, or Gini ratio, to measure the fiscal inequalities among local administrative

organizations. The Gini coefficient is the most commonly used measure of inequality, which was proposed by Corrado Gini. If the Gini coefficient is 0, the grant allocation produces perfect equality. If Gini coefficient is 1, this implies a maximal inequality. In addition, the Lorenz curve was also used to describe fiscal inequality in local government. If intergovernmental grants are allocated equally to all local governments, the Lorenze curve is a straight line, called the line of equality. If there is any inequality, the Lorenze curve falls below the equality line.

This study further investigated variables that involved equalization principles. In terms of fiscal autonomy, local governments power over their intergovernmental grants was an indicator. Generally, the revenue from intergovernmental grants was broken into unconditional and conditional grants. The proportion of unconditional grants acted as an indicator of local governments' fiscal power. In regard to political variables, this study used descriptive statistics to investigate the allocation of intergovernmental grants among different local governments. However, besides the local fiscal autonomy variable, the other variables, such as predictability, transparency, and equity, were analyzed in the qualitative section. Regarded the specific grants, the study used the regression method to test the relationship between expenditure needs (poverty, area, elderly population) and the allocation of the specific grant per capita.

4.1.2 Qualitative Method

This study made the qualitative approach feasible to investigate the fiscal inequality among local governments. The qualitative study explained the results from the quantitative study so as to understand comprehensively the process of grant allocation of both the general and specific grants. The institutional arrangement factor and political factors were a part of the analysis.

4.1.2.1 Data Collection

This section of the study collected data through both document analysis and in-depth interviews with key information. First, the documents were obtained from the Department of Local Administration (Ministry of Interior), published reports, published research and relevant policy documents. Second, the in-depth interview, as a qualitative research technique, was used in semi-structured format to

collect information in more detail. Two groups of key informants were identified as information sources. The first group, as users, consisted of local politicians, local government officials and representatives from SAOs, municipalities, PAOs, the Provincial Administration Organization Council of Thailand, the National Municipal League of Thailand and the Sub-district Administration Organization Association of Thailand. In the second group, as decision makers, key informants came from central government agencies; for example, the Bureau of Local Finance and the Division of Grant Allocation and Budget System under the Department of Local Administration, and the Decentralization to the Local Government Organization Committee.

1) In-depth Interviews with Local Government Officials

The in-depth interviews were structured into open-ended questions. The interviews focused on questions concerning their experiences on the use of general and specific grants, and on their opinions on the intergovernmental grant allocation and effects of distribution system. These opinions included issues about how they accessed the specific grant, what factors influenced the assessment, the concerns on the specific grant and other relevant issues informed by the interviewees.

2) In-depth Interviews with Central Government Officials

This informant group reported on how the grant committee worked on grant distribution, and the criteria of grant allocation for both general and specific grants. The interviews consisted of determining grant allocation, and the decision-making process. In addition, collecting data from an academic conference on local government revenue was also used in this research because it was convenient to collect more data from various experienced persons with different backgrounds.

4.1.2.2 Validity and Reliability

In the quantitative methods, the study used data that were collected by government agencies.

The Department of Local Administration collected data from the reported revenue by local government organizations. In addition, some data were under the responsibility of the Department of Local Administration, namely, the general grant. The Department of Local Administration is the grant's distributor; therefore, the information was self-reported and more accurate. In terms of reliability,

the data that were used in this analysis was more reliable. The data were collected by the Department of Local Administration, as a government agency whose duties take responsibility directly to Promote and coordinate the implementation of financial, fiscal, budget, procurement, and storage revenue.

Every year, the Department of Local Administration, as an organization working closely with local governments, collected the local revenue from all local government organizations as part of the financial database for local government finance. In addition, this data were published to the public. This data were used widespread by interesting persons such as academic scholars, researchers, and students. Therefore this secondary data came from a reputable source to be employed in this study. On the other hand, for the qualitative section, the data were triangulated with a variety of sources such as previous studies, interviews, and reports. The data from interviews were triangulated by comparisons with key informants.

CHAPTER 5

INTERGOVERNMENTAL GRANTS: HORIZONTAL FISCAL EQUALIZATION TEST

This Chapter reports the analysis of the horizontal fiscal equalization among local government organizations nationwide, by region and type of organization, between 2009 and 2012. Provincial Administrative Organizations (PAOs), City Municipalities (thesaban nakorn), Town Municipalities (thesaban muang), Subdistrict Municipalities (thesaban tambon) and Subdistrict Administrative Organizations (SAOs) are included in the analysis (Table 5.1). This study also investigated the horizontal fiscal imbalances in seven regions according to the National Economic and Social Development Board, which are the Northeast, North, South, East, West, Center, and Vicinity (See Appendix A). The Northeast consists of Khonkaen, Udonthani, Loei, Nongkhai, Mukdahan, Nakhonpanom, Sakonnakorn, Kalasin, Nakhonratchasima, Chaiyaphum, Yasothon, Ubonratchathani, Roiet, Burirum, Surin, Mahasarakam, Sisaket, Nongbualamphu, and Amnatchareon. The North consists of Chiangmai, Lampang, Uttradit, Maehongson, Chiangrai, Prae, Lamphun, Nan, Phayao, Nakhonsawan, Phitsanulok, Kamphaengpet, Utaithani, Sukhothai, Tak, Phichit, and Phetchabun. The South consists of Phuket, Suratthani, Ranong, Phangnga, Krabi, Chumpon, Nakhonsithammarat, Songkhla, Satun, Yala, Trang, Narathiwat, Pattalung, and Pattani. The East consists of Chonburi, Chacheongsao, Rayong, Trad, Chantaburi, Nakhonnayok, Prachinburi, and Srakaew. The West consists of Ratchaburi, Kanjanaburi, Prachuabkirikhan, Pechaburi, Suphanburi, and Samutsongkram. The Center consists of Saraburi, Singburi, Chainat, Angthong, Lopburi, and Ayuthaya. The Vicinity consists of Samutprakan, Prathumthani, Samut Sakhon, Nakhon Pathom and Nonthaburi.

Fiscal data investigated are local own revenues, shared tax revenues, intergovernmental grants, general grants and specific grants, as recorded by the Department of Local Administration. To measure horizontal balances, all local

revenues from every source are converted into an amount (in baht) per capita so as to control differences of governing areas of local government organizations.

The particular focus in examining fiscal equalization is on the general grant, one of two categories of grant, and mostly allocated to local government organizations. The purpose of the general grant is, principally, to equalize and reduce fiscal gaps among local government organizations. Each local government organization has different a capacity to raise revenues, and those with lower fiscal capacities are the target of general grant allocation. Another purpose of this grant is the allocation to local organizations whose expenditures and revenues are considerably different. The general grant is intended for fiscal gap reduction among organizations with large fiscal gaps. According to these purposes, this study emphasizes on general grant allocation. As written in Chapter 3, Thailand has two types of general grant - general grant specified by responsibilities which allows unconditional use of grant money, and general grant specified by purpose of which the money is to be utilized for certain projects. This study analyses the sum of both grants for fiscal equalization.

Descriptive statistics demonstrate fiscal disparities, whereas the Gini coefficient and Lorenz curves measure fiscal balance. The results of the analysis are shown in three parts. The first part presents the general background of local government such as the total number of local government organizations regionally, types of local organizations, population size, area size, and others. The second part presents the total revenue of local government organizations, fiscal statistics and disparities at different levels (national, regional and local organization type). In this part, the following revenue sources are examined: local own source revenue, shared tax revenue, grant revenue and total revenue. The third part talks about the general grant and fiscal horizontal equalization. Results before and after general grant allocation to local government organizations are presented. The measurement for equalization is made by type of local government organization and by region.

5.1 Local Government Organization Information

Table 5.1 shows the numbers of local government organizations between the fiscal years 2009 and 2012 in this study, excluding Bangkok and Pataya City. There were 7,851 organizations in 2009, 7,850 in 2010 and 2011 and 7,851 in 2012. The reason for a decrease in 2010 and 2011 was that Wangnamyen Subdistrict Administrative Organization and Wangnamyen Subdistrict Municipality of Srakaew Province were merged together in 2010. A new province “Bueng Kan” was established in 2011 and received the grant in 2012. This study, therefore, explored 7,850 organizations in 2011, leaving out Beung Kan, but including it in the exploration in 2012. Furthermore, each year’s numbers of studied organizations was different as many SAOs were eligible to be upgraded to Subdistrict Municipalities and, consequently, the number of SAOs was reduced from 6,088 in 2009 to 5,509 in 2012. This means that the number of Subdistrict Municipalities were on an increase annually, similar to City Municipalities and Town Municipalities that were upgraded from Town Municipalities and Subdistrict Municipalities respectively.

Table 5.1 Numbers and Types of Local Government Organization between 2009 and 2012

Types of Local Government Organization	Unit: Organization			
	Fiscal year			
	2009	2010	2011	2012
PAO	75	75	75	76
Municipality				
City Municipality (thesaban nakorn)	23	25	27	29
Town Municipality (thesaban muang)	142	142	149	167
Subdistrict Municipality (thesaban tambon)	1,522	1,841	1,884	2,072
SAO	6,089	5,767	5,715	5,507
Total	7,851	7,850	7,850	7,851

Source: Department of Local Administration, 2010-2013.

Table 5.2 presents the numbers of local government organizations in each region. The highest numbers of PAOs, Town Municipalities, Subdistrict Municipalities, and SAOs existed in the Northeastern Region. The Southern Region had the highest number of City Municipalities, while none existed in the West.

Table 5.2 Numbers of Provincial Administrative Organizations (PAOs), City Municipalities, Town Municipalities, Subdistrict Municipalities, and Subdistrict Administrative Organizations (SAOs) between 2009 and 2012 by Region

Unit: Organization

Fiscal year	Types of local government organization	Region							
		Northeast	North	South	East	West	Central	Vicinity	Total
2009	PAO	19	17	14	8	6	6	5	75
	City Municipality	4	5	7	1	0	1	5	23
	Town Municipality	30	23	28	19	12	11	19	142
	Subdistrict Municipality	526	348	207	143	125	120	53	1522
	SAO	2,387	1,300	934	413	400	422	233	6,089
Total		2,966	1,693	1,190	584	543	560	315	7,851
2012	PAO	19	17	14	8	6	6	5	75
	City Municipality	4	6	7	2	0	1	5	25
	Town Municipality	30	22	28	20	12	11	19	142
	Subdistrict Municipality	678	452	228	154	136	140	53	1,841
	SAO	2,235	1,196	913	399	389	402	233	5,767
Total		2,966	1,693	1,190	583	543	560	315	7,850
2011	PAO	19	17	14	8	6	6	5	75
	City Municipality	4	6	7	2	0	1	7	27
	Town Municipality	31	24	31	23	12	11	17	149
	Subdistrict Municipality	682	458	234	166	139	142	63	1,884

Table 5.2 (Continued)

Fiscal year	Types of local government organization	Region							
		Northeast	North	South	East	West	Central	Vicinity	Total
	SAO	2,230	1,188	904	384	386	400	223	5,715
Total		2,966	1,693	1,190	583	543	560	315	7,850
2012	PAO	20	17	14	8	6	6	5	76
	City Municipality	5	6	8	2	0	1	7	29
	Town Municipality	37	27	34	24	12	13	20	167
	Subdistrict Municipality	755	498	281	178	151	145	64	2,072
	SAO	2,150	1,145	853	371	374	395	219	5,507
Total		2,967	1,693	1,190	583	543	560	315	7,851
Total		11,865	6,772	4,760	2,333	2,172	2,240	1,260	31,402

Source: Department of Local Administration, 2010-2013.

Table 5.3 details the average population size by type of local government organization and by region. The Vicinity had 28,848 people, which was the largest population. When comparing between types of local government, SAOs had the lowest average population (6,562), which was close to that of Subdistrict municipalities (7,248).

Table 5.3 Average Population Sizes for Fiscal Years 2009 to 2012 by Region and by Type of Local Government Organization

Unit: Person

Types of local government organization	Population							
	Northeast	North	South	East	West	Central	Vicinity	Total
PAO	1113497	691013.6	628248.3	555568.1	606815.1	494803.9	908738.6	765122.6
Municipality								
City								
Municipality	116174.9	81680.5	93628.6	63932.0	-	54314.3	115126.9	96121.9
Town								
Municipality	26347.3	20203.1	25726.4	25952.1	25488.7	21701.0	38981.2	26336.7
Sub-district								
Municipality	7191.6	6771.2	6447.2	7676.1	6743.9	6412.4	16722.0	7248.0
SAO	6820.6	6477.7	6445.3	6495.5	6213.2	4417.7	9462.5	6562.8
Total	14452.4	13877.4	14782.3	15240.6	13410.2	10602.9	28848.8	14667.9

Source: Department of Local Administration, 2010-2013.

Table 5.4 provides details of the average size of areas and the population density of each type of local government organization in each region. SAOs, especially in the Northern Region, occupied areas larger than cities, towns and Subdistrict Municipalities. The smallest population density was for City Municipalities, or 0.00038 km² per person on average. SAOs had the largest population density, or 0.01268 km² per person, especially those in the North with an average of 0.0214 km² per person.

Table 5.4 Average Sizes of Areas and Population Densities between 2009 and 2012
by Type of Local Government Organization and by Region

Types of local government organization	Area (km ²)							
	Northeast	North	South	East	West	Central	Vicinity	Total
PAO	8606.58	9767.65	5113.21	4606.25	7138.44	2704.59	1218.37	6715.10
Municipality								
City								
Municipality	40.91	32.48	31.80	56.68	-	14.00	23.00	32.4
Town								
Municipality	19.08	22.77	30.36	24.40	16.82	12.82	18.10	21.92
Sub-district								
Municipality	39.05	51.45	32.43	42.94	27.74	23.60	14.26	38.71
SAO	61.82	118.23	69.63	74.91	100.21	31.72	21.07	74.59
	Area (km ² /1person)							
	Northeast	North	South	East	West	Central	Vicinity	Total
PAO	0.0082	0.0168	0.0090	0.0094	0.0106	0.0053	0.0015	0.00993
Municipality								
City								
Municipality	0.0004	0.0004	0.0004	0.0008	-	0.0003	0.0002	0.00038
Town								
Municipality	0.0007	0.0011	0.0012	0.0010	0.0006	0.0006	0.0005	0.00087
Subdistrict								
Municipality	0.0053	0.0075	0.0049	0.0066	0.0040	0.0037	0.0013	0.00554
SAO	0.0096	0.0214	0.0119	0.0117	0.0176	0.0073	0.0030	0.01268

Source: Department of Local Administration, 2010-2013.

5.2 Overall Revenues of Local Government Organizations

5.2.1 Overall Local Government Revenues for Fiscal Years 2009 to 2012

Table 5.5 and Figure 5.1 include the local government revenues for fiscal years 2009 to 2012. The local own revenue was the lowest revenue source, but slightly grew annually. The grant allocated tended to grow sharply each year, except

in 2010 when the economic recession caused a reduction in grant allocation. The grant, however, rose again in 2012, to 205,192.07 million baht, or 1.5 times increase from 2009.

Table 5.5 Local Government Revenues for Fiscal Years 2009 to 2012

Unit: Million baht

Fiscal year	Local own revenue	Shared tax revenue	Intergovernmental grants
2009	23,512.83	124,303.67	134,584.44
2010	24,613.21	157,375.65	125,363.04
2011	26,329.60	160,277.19	158,375.43
2012	29,507.88	175,453.38	205,192.07

Source: Department of Local Administration, 2010-2013.

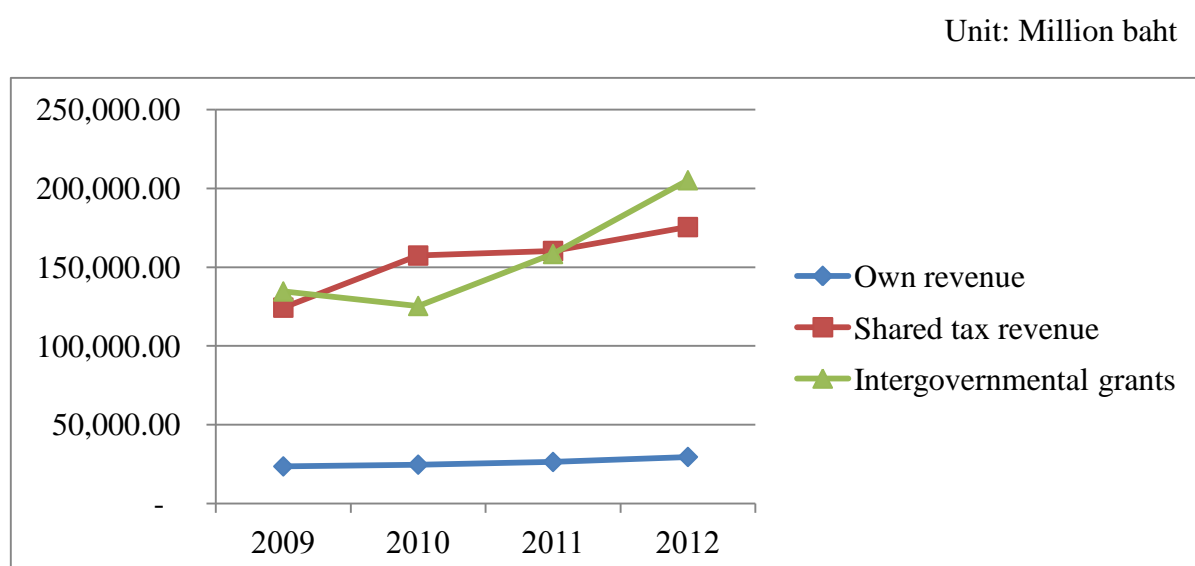


Figure 5.1 Local Government Revenues for Fiscal Years 2009 to 2012

Source: Department of Local Administration, 2010-2013.

As in Table 5.6 and Figure 5.2, Thailand has two categories of grant - general and specific. The general grant is further subdivided into general grant specified for purpose and general grant specified for responsibilities. The latter gives more freedom to make use of grant money for local development. Comparisons were performed for the specific grant and general grant for fiscal years 2009 to 2012. Largely, the general grant specified by responsibilities was transferred more than the general grant specified by purpose. Year 2010, nonetheless, was an exception of this. The general grant specified by responsibilities ranged between 50,000 and 58,000 million baht each year, or 30% of the total grant. The specific grant varied from 30,484.63 million baht in 2009 to 3.9 times that, at 119,497.07 million baht in 2012, or over 50% of the total grant.

Table 5.6 Percentage of General Grant Specified by Responsibilities and by Purpose, and Specific Grant for Fiscal Years 2009 to 2012

Unit: Million baht

Fiscal year	General grant specified by responsibilities	Percent	General grant specified by purpose	Percent	Specific grant	Percent
2009	57,233.60	42.5	46,866.19	34.8	30,484.63	22.6
2010	29,062.62	23.1	45,209.11	36.0	51,091.30	40.7
2011	52,062.62	32.8	27,966.38	17.6	78,346.43	49.4
2012	55,768.89	27.1	29,926.11	14.5	119,497.07	58.2

Source: National Municipal League of Thailand, 2010-2013.

Unit: Million baht

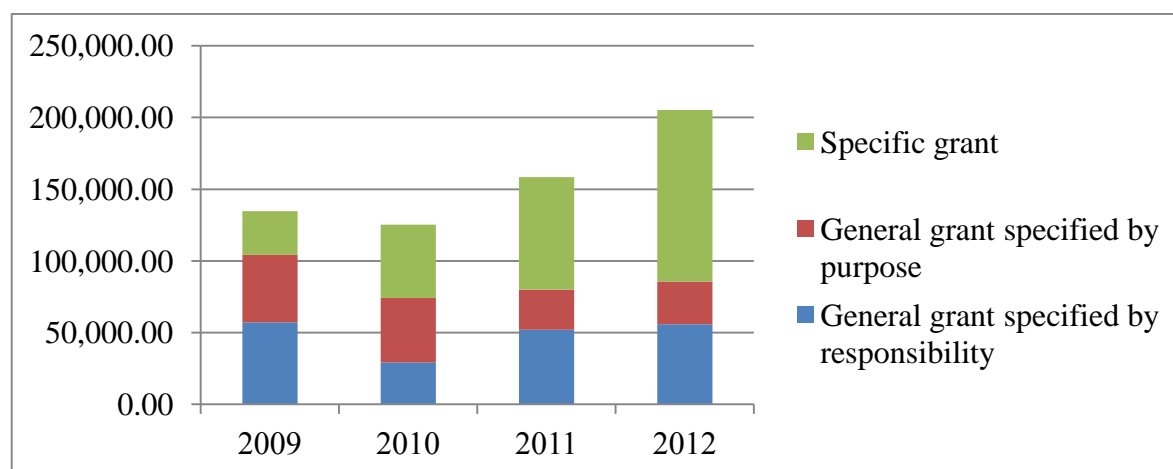


Figure 5.2 Amount (in Baht) of General Grant Specified by Responsibilities and by Purpose, and Specific Grant by Year

Source: National Municipal League of Thailand, 2010-2013.

Table 5.7 displays the complete local finance consisting of local own revenue, shared tax revenue, grant revenue and total revenue. The grant revenue reduced in 2011, unlike other revenues, because of the recession. The local own revenue increased by 24% in four years (from 250 baht per capita in 2009 to 308 in 2012) and so did the shared tax revenue by 39% and the total revenue by 36%. By comparing all three sources of revenue, most local governments earned revenues from grants that made an increase of 3,000 baht per capita in 2012. The local own revenue produced the least revenue per capita of less than 500 baht per capita every year.

Table 5.7 Local Own Revenue, Shared Tax Revenue, Grant Revenue by Year

		Unit: Baht per capita			
Fiscal year	N	Local own revenue	Shared tax revenue	Grant revenue	Total revenue
2009	7,851	250.16	1792.63	2234.27	4277.07
2010	7,850	256.17	2346.00	1683.58	4285.74
2011	7,850	272.80	2320.01	2348.09	4940.89

Table 5.7 (Continued)

		Unit: Baht per capita			
Fiscal year	N	Local own revenue	Shared tax revenue	Grant revenue	Total revenue
2012	7,851	308.18	2492.48	3014.20	5814.85
Total		271.83	2237.77	2320.05	4829.65

Source: Department of Local Administration, 2010-2013.

Table 5.8 shows the differences of local revenues for fiscal years 2009 to 2012. A comparison between these revenues reveals the biggest differences in local own revenues between local government organizations having high revenues and those having low revenues (p90/p10). There was a 14.59, 16.4, 15.55 and 12.65 times difference from 2009 through 2012 respectively. Local organizations with low local own revenues (10th percentile) gained revenues of 37, 35, 39 and 52 baht per capita from 2009 through 2012 respectively. Those with high revenues (90th percentile) earned 544, 578, 611 and 669 baht per capita during the same period. The grant revenue was ranked the second for having the biggest differences between local settings with high and low grant revenues, or differences of 2.6, 4.07, 2.76 and 2.7 from 2009 through 2012 respectively. The shared tax revenue had the least differences (p90/p10), with differences of 2.36, 2.31, 2.37 and 2.48 during the same years.

Table 5.8 Statistical Differences of Finance of Local Government Organizations for Fiscal Years 2009 to 2012

Unit: Baht per capita

Fiscal year	Stats	Local own revenue	Shared tax revenue	Grant revenue	Total revenue
2009	N	7851	7851	7851	7851
	Mean	250.16	1792.63	2234.27	4277.07
	p10	37.32	1134.31	1337.67	2734.13
	p25	56.57	1276.31	1573.09	3074.44
	p50	100.15	1526.91	1881.76	3588.95
	p75	227.57	2038.26	2388.54	4569.59
	p90	544.57	2686.11	3472.27	6499.91
	p90/p10	14.59	2.37	2.60	2.38
2010	N	7850	7850	7850	7850
	mean	256.17	2346.00	1683.58	4285.74
	p10	35.24	1511.45	711.23	2527.42
	p25	55.38	1701.52	969.06	2949.99
	p50	101.64	2019.07	1389.20	3640.91
	p75	230.29	2670.99	1993.46	4850.33
	p90	578.09	3494.49	2896.03	6685.58
	p90/p10	16.40	2.31	4.07	2.65
2011	N	7850	7850	7850	7850
	mean	272.80	2320.01	2348.09	4940.89
	p10	39.30	1479.47	1255.89	3179.05
	p25	61.05	1664.99	1720.71	3671.80
	p50	111.07	1977.83	2135.01	4290.47
	p75	245.14	2652.19	2632.29	5427.07
	p90	611.34	3517.36	3471.29	7327.65
	p90/p10	15.55	2.38	2.76	2.30

Table 5.8 (Continued)

Fiscal year	Stats	Local own revenue	Shared tax revenue	Grant revenue	Total revenue
2012	N	7851	7851	7851	7851
	mean	308.18	2492.48	3014.20	5814.85
	p10	52.37	1555.97	1641.96	3951.53
	p25	77.43	1762.29	2350.06	4443.94
	p50	133.21	2100.04	2744.48	5048.88
	p75	283.14	2881.98	3332.67	6395.99
	p90	664.21	3840.84	4429.07	8622.84
	p90/p10	12.68	2.47	2.70	2.18

Source: Department of Local Administration, 2010-2013.

In Table 5.9, the Gini coefficient measured for fiscal disparities in the local own revenue, shared tax revenue, grant revenue and total revenue (See more detail in Appendix B). It revealed the greatest disparity in the local own revenue (Gini coefficient of 0.628). The next greatest disparity exists in the grant revenue and shared tax revenue respectively.

Table 5.9 Fiscal Disparities in Local Own Revenue, Shared Tax Revenue, Grant Revenue and Total Revenue for Fiscal Years 2009 to 2012

Types of revenue	N	Gini coefficient	Std. Err.	t
Local own revenue	31402	0.628	0.004	149.78
Shared tax revenue	31402	0.232	0.001	157.44
Grant revenue	31402	0.283	0.002	169.39
Total revenue	31402	0.236	0.001	161.41

Source: Department of Local Administration, 2010-2013.

Fiscal disparities in the local own revenues, shared tax revenues, grant revenues and total revenues, measured by Gini coefficient, for Fiscal Years 2009 to 2012 are detailed in Table 5.10 (See more detail in Appendix C). Disparities in local own revenues and grant revenues dropped since 2010. Gini coefficient of disparity in local own revenues between 2010 and 2012 is 0.638, 0.631 and 0.609 respectively, and in grant revenues in the same years is 0.321, 0.237 and 0.223 respectively. Higher disparities in the shared tax revenues were found with Gini coefficient of 0.214 in 2010, 0.219 in 2011 and 0.227 in 2012. Fiscal disparity in total revenue declined every year.

Table 5.10 Fiscal Disparities in Local Own Revenue, Shared Tax Revenue, Grant Revenue and Total Revenue by Year during 2009 to 2012

Types of revenue	Gini coefficient			
	2009	2010	2011	2012
N	7851	7850	7850	7851
Local own revenue	0.632	0.638	0.631	0.609
Shared tax revenue	0.223	0.214	0.219	0.227
Grant revenue	0.250	0.321	0.237	0.223
Total revenue	0.229	0.224	0.213	0.202

Source: Department of Local Administration, 2010-2013.

The Lorenz curves indicates fiscal disparities (Figure 5.3). The 45-degree line means equality or no disparity. The line closer to the 45-degree line implies less disparity, and thus the farther from the 45-degree line implies more disparity. As measured by the Lorenz curve, the greatest inequality was for local own revenue, then the shared tax revenue and the grant revenue respectively.

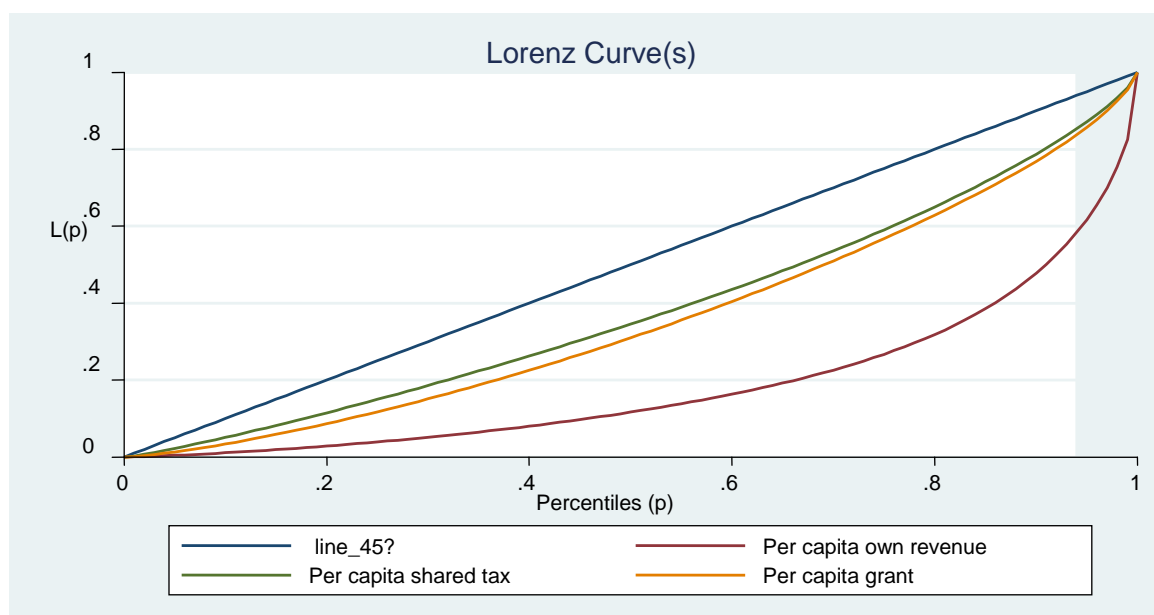


Figure 5.3 Fiscal Disparities in Local Own Revenue, Shared Tax Revenue and Grant Revenues between 2009 and 2012 Measured by Lorenz Curve

Source: Department of Local Administration, 2010-2013.

5.2.2 Overall Local Government Revenues for Fiscal Years 2009 to 2012 by Region

As indicated in Table 5.11, the Northeastern Region gained the smallest revenues from all sources of revenue. Its local own source revenue contributed only 137 baht per capita, whereas the Vicinity earned the highest at 839 baht per capita, which was six times greater. The shared tax revenue of the Northeastern Region was 1,890 baht per capita, much less than the Vicinity which received 3,069 baht per capita, or 1.6 times greater. The Northeast Region received the smallest allocated grant, compared to the Central Region of which the grant was 1.18 times greater.

Table 5.11 Statistics of Fiscal Differences for Fiscal Years 2009 to 2012 by Region

Unit: Baht per capita

Region	No. of local government organizations	Local own revenue	Shared tax revenue	Grant revenue	Total revenue
Northeast	11,865	137.7	1890.7	2136.4	4164.8
North	6,772	191.6	2250.6	2444.0	4886.1
South	4,760	352.2	2268.8	2499.7	5120.7
East	2,333	574.1	2741.2	2312.6	5627.9
West	2,172	263.5	2386.9	2418.4	5068.7
Central	2,240	428.0	2835.1	2524.7	5787.7
Vicinity	1,260	839.2	3069.3	2185.5	6094.0
Total	31,402	271.8	2237.8	2320.1	4829.7

Source: Department of Local Administration, 2010-2013.

Table 5.12 shows statistical differences by region and by year between fiscal years 2009 and 2012. Having the least revenues from all sources when compared to other regions, the Northeastern Region, however, achieved a gradual increase in these incomes from 122 baht per capita in 2009 to 127, 135 and 165 baht per capita for the next three years. The Vicinity received the highest shared taxes every year. The Central Region received the highest grant in 2010 and 2012, meanwhile the South received the highest grant in 2009 and 2011.

Table 5.12 Statistics of Fiscal Differences by Region and by Year

Unit: Baht per capita

Fiscal year	Region	No. of local government organizations	Local own revenue	Shared tax revenue	Grant revenue	Total revenue
2009	Northeast	2,966	122.9	1518.7	2123.5	3765.1
	North	1,693	170.9	1802.3	2285.1	4258.2
	South	1,190	339.8	1834.9	2442.9	4617.6
	East	584	523.6	2174.0	2266.1	4963.8
	West	543	233.2	1933.9	2268.4	4435.5
	Central	560	396.1	2284.3	2368.6	5049.0
	Vicinity	315	798.5	2335.6	1859.7	4993.8
	Total	7,851	250.2	1792.6	2234.3	4277.1
2010	Northeast	2,966	127.5	2013.5	1443.5	3584.5
	North	1,693	178.6	2365.0	1821.0	4364.6
	South	1,190	333.7	2380.0	1822.4	4536.1
	East	583	545.7	2799.2	1818.2	5163.1
	West	543	246.0	2523.3	1852.0	4621.4
	Central	560	419.9	2971.3	1970.5	5361.8
	Vicinity	315	782.5	2990.1	1631.2	5403.8
	Total	7,850	256.2	2346.0	1683.6	4285.7
2011	Northeast	2,966	135.4	1945.1	2155.5	4236.0
	North	1,693	195.6	2327.7	2461.5	4984.8
	South	1,190	354.6	2340.1	2580.8	5275.5
	East	583	571.5	2870.0	2368.0	5809.5
	West	543	264.0	2462.7	2510.6	5237.4
	Central	560	441.3	2919.8	2513.8	5874.8
	Vicinity	315	835.7	3402.4	2061.1	6299.3
	Total	7,850	272.8	2320.0	2348.1	4940.9

Table 5.12 (Continued)

Unit: Baht per capita

Fiscal year	Region	No. of local government organizations	Local own revenue	Shared tax revenue	Grant revenue	Total revenue
2012	Northeast	2,967	165.2	2085.2	2822.9	5073.3
	North	1,693	221.3	2507.4	3208.2	5936.8
	South	1,190	380.7	2520.3	3152.6	6053.7
	East	583	655.6	3122.4	2798.3	6576.3
	West	543	310.8	2627.5	3042.4	5980.7
	Central	560	454.8	3164.9	3245.7	6865.4
	Vicinity	315	940.0	3549.2	3190.0	7679.2
	Total	7,851	308.2	2492.5	3014.2	5814.9

Source: Department of Local Administration, 2010-2013.

The Gini coefficient measured for fiscal disparities for fiscal years 2009 to 2012 by region (Table 5.13; See more detail in Appendix D). It reports the Eastern Region having the greatest disparity in total revenue at 0.266, followed by the South, the Vicinity, the West, the North and the Northeast (Figure 5.4). The vicinity had the greatest disparity in grant revenue at 0.365, followed by the Center, the East, the West, the South, the North and the Northeast respectively.

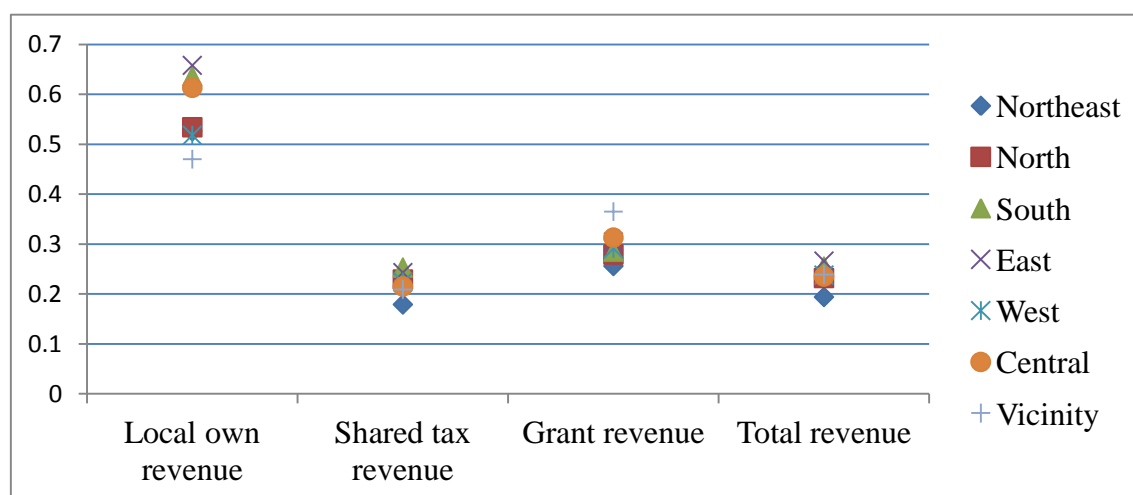
Table 5.13 Fiscal Disparities for Fiscal Years 2009 to 2012 by Region

Gini coefficient					
Region	N	Local own revenue	Shared tax revenue	Grant revenue	Total revenue
Northeast	11865	0.526	0.179	0.256	0.194
North	6772	0.534	0.229	0.279	0.232

Table 5.13 (Continued)

Region	N	Gini coefficient			Total revenue
		Local own revenue	Shared tax revenue	Grant revenue	
South	4760	0.636	0.253	0.285	0.255
East	2333	0.658	0.243	0.304	0.266
West	2172	0.518	0.224	0.291	0.238
Central	2240	0.613	0.215	0.313	0.235
Vicinity	1260	0.47	0.209	0.365	0.239
Total	31402	0.628	0.232	0.283	0.237

Source: Department of Local Administration, 2010-2013.

Figure 5.4 Fiscal Disparities for Fiscal Years 2009 to 2012 by Region

Source: Department of Local Administration, 2010-2013.

In Table 5.14, the Gini coefficient measured for fiscal disparities in all regions between fiscal years 2009 and 2012 (See more detail in Appendix E). From 2010 onwards, every region, but the Vicinity, had a general reduction of disparities in total

revenue every year. Disparities in grant revenues of all regions, except the Center and the Vicinity, were also less after 2010.

Table 5.14 Fiscal Disparities by Region by Year

Region	Types of revenue	Gini coefficient			
		2009	2010	2011	2012
Northeast	Local own revenue	0.522	0.536	0.525	0.508
	Shared tax revenue	0.166	0.163	0.159	0.169
	Grant revenue	0.201	0.289	0.203	0.19
	Total revenue	0.178	0.197	0.165	0.157
North	Local own revenue	0.526	0.549	0.543	0.509
	Shared tax revenue	0.222	0.211	0.21	0.224
	Grant revenue	0.245	0.315	0.233	0.218
	Total revenue	0.225	0.234	0.206	0.198
South	Local own revenue	0.639	0.647	0.641	0.615
	Shared tax revenue	0.249	0.237	0.238	0.246
	Grant revenue	0.279	0.326	0.246	0.203
	Total revenue	0.26	0.265	0.237	0.209
East	Local own revenue	0.654	0.662	0.659	0.651
	Shared tax revenue	0.234	0.223	0.227	0.238
	Grant revenue	0.302	0.344	0.264	0.246
	Total revenue	0.274	0.273	0.246	0.239
West	Local own revenue	0.518	0.524	0.515	0.507
	Shared tax revenue	0.221	0.216	0.207	0.211
	Grant revenue	0.285	0.333	0.247	0.22
	Total revenue	0.247	0.246	0.212	0.199
Central	Local own revenue	0.613	0.627	0.619	0.589
	Shared tax revenue	0.21	0.199	0.196	0.209
	Grant revenue	0.267	0.344	0.277	0.284
	Total revenue	0.231	0.238	0.215	0.213

Table 5.14 (Continued)

Region	Types of revenue	Gini coefficient			
		2009	2010	2011	2012
Vicinity	Local own revenue	0.489	0.449	0.441	0.491
	Shared tax revenue	0.183	0.18	0.196	0.187
	Grant revenue	0.336	0.337	0.287	0.372
	Total revenue	0.237	0.21	0.199	0.224

Source: Department of Local Administration, 2010-2013.

5.2.3 Overall Local Government Revenues for Fiscal Years 2009 to 2012 by Type of Local Government Organization

Table 5.15 presents that the SAO earned the lowest revenues from all sources on average, or 189 baht per capita of local own revenue, 2,000 baht per capita of shared tax revenue and 2,006 baht per capita from grant revenue. The Subdistrict Municipality earned revenues more than the SAO, or 2.36 times higher for the local own revenue, 1.4 times higher for the shared tax revenue and 1.6 times higher for the grant revenue.

Table 5.15 Fiscal Statistics of Revenues of Provincial Administrative Organizations (PAO), Municipalities and Subdistrict Administrative Organizations (SAO) for Fiscal Years 2009 to 2012

Unit: Baht per capita					
Types of local government organization	N	Local own revenue	Shared tax revenue	Grant revenue	Total revenue
PAO	301	83.20	545.06	312.53	940.78
Municipality					
City Municipality	104	1,459.36	3,230.23	3,511.27	8,200.87

Table 5.15 (Continued)

Types of local government organization	N	Local own revenue	Shared tax revenue	Grant revenue	Total revenue
Town	600	1,155.65	3,356.11	4,155.44	8,667.19
Municipality					
Subdistrict	7,319	449.35	2,950.81	3,222.86	6,623.02
Municipality					
SAO	23,078	189.66	2,000.17	2,006.83	4,196.66
Total		271.83	2,237.77	2,320.05	4,829.65

Source: Department of Local Administration, 2010-2013.

Table 5.16 presents the average revenues of each type of local government organization for fiscal years 2009 to 2012. The SAO had the least local own revenues that also minimally increased every year. For 2009 through 2011, the increase rate stayed at lower than 10 baht per capita. The SAO received less allocated grant in 2010, and then more grants were allocated every year of not less than 800 baht per capita. The total revenue of SAO in general stayed lower than that of the Subdistrict Municipality. However, differences in revenues of both SAO and Subdistrict Municipality became less. That is to say, they had a 1.78 times difference between their total revenues in 2009, which reduced to 1.67, 1.5 and 1.36 times in 2010, 2011 and 2012 respectively.

Table 5.16 Fiscal Statistics of Revenues of Provincial Administrative Organizations (PAO), Municipalities and Subdistrict Administrative Organizations (SAO) by Year

Fiscal year	Types of local government organization	Local own revenue	Shared tax revenue	Grant revenue	Total revenue
2009	PAO	78	488.35	263.5	829.85
	Municipality				
	City Municipality	1,230.08	2,558.67	3,966.04	7,754.78
	Town Municipality	1,114.56	2,650.24	4,300.77	8,065.57
	Subdistrict Municipality	469.18	2,518.31	3,532.96	6,520.45
	SAO	173.68	1,604.42	1,879.19	3,657.29
	Total	250.16	1,792.63	2,234.27	4,277.07
2010	PAO	79.47	539.43	244.92	863.83
	Municipality				
	City Municipality	1437.8	3181.8	2768.67	7388.28
	Town Municipality	1148.08	3499.5	3490.93	8138.51
	Subdistrict Municipality	415.33	3068.08	2622.27	6105.69
	SAO	180.57	2106.96	1353.42	3640.94
	Total	256.17	2346	1683.58	4285.74
2011	PAO	82.68	540.82	327.12	950.62
	Municipality				
	City Municipality	1404.15	3367.55	3483.77	8255.46
	Town Municipality	1183.63	3518.81	4310.16	9012.59
	Subdistrict Municipality	448.42	2986.66	3173.23	6608.3
	SAO	188.31	2087.38	2046.08	4321.77
	Total	272.8	2320.01	2348.09	4940.89
2012	PAO	92.51	610.74	413.23	1116.47
	Municipality				
	City Municipality	1711.21	3676.75	3816.38	9204.33

Table 5.16 (Continued)

Fiscal year	Types of local government organization	Local own revenue	Shared tax revenue	Grant revenue	Total revenue
	Town Municipality	1172.05	3689.21	4458.84	9320.1
	Subdistrict Municipality	465.87	3131.71	3573.82	7171.4
	SAO	218.24	2235.41	2791.5	5245.14
	Total	308.18	2492.48	3014.2	5814.85

Source: Department of Local Administration, 2010-2013.

Fiscal disparities in revenues of each type of local government organization are presented as results from Gini coefficient analysis (Table 5.17). Among the municipalities and the SAOs, the greatest disparities in the shared tax revenue (0.263), grant revenue (0.271) and total revenue (0.248) were seen in the Subdistrict Municipality. The SAOs had the greatest disparity in their local own revenue. However, each type of local government organization had the same disparities in their revenues. The highest disparities was found in local own revenues, followed by grant revenues and shared tax revenues respectively.

Table 5.17 Fiscal Disparities of Each Type of Local Government Organization for Fiscal Years 2009 to 2012

Types of local government organization	Gini coefficient				
	N	Local own revenue	Shared tax revenue	Grant revenue	Total revenue
PAO Municipality	301	0.390	0.274	0.278	0.212
City Municipality	104	0.272	0.145	0.227	0.144
Town Municipality	600	0.374	0.209	0.331	0.234
Subdistrict Municipality	7319	0.544	0.263	0.271	0.248

Table 5.17 (Continued)

Types of local government organization	Gini coefficient				
	N	Local own revenue	Shared	Grant revenue	Total revenue
			tax revenue		
SAO	23078	0.596	0.180	0.236	0.175
Total	31402	0.628	0.232	0.283	0.237

Source: Department of Local Administration, 2010-2013.

Table 5.18 and Figures 5.5-5.8 show the Gini coefficient analysis of annual fiscal disparities for each local government organization. During four years, from fiscal years 2009 to 2012, the disparities in local own revenues of the SAOs and Subdistrict Municipalities tended to reduce (Figure 5.5). However, the disparities of the SAOs were wider than the Subdistrict Municipalities every year. With regard to shared tax revenues after 2010, disparities in these revenues of the SAOs, Subdistricts and Town Municipalities increased. By excluding the PAOs, the SAOs had the highest disparities in shared tax revenues every year (Table 5.18).

Disparities in grant revenues of Subdistrict and Town Municipalities dropped, opposite to the SAO and the City Municipalities whose disparities seemed to fluctuate. The Town Municipalities gained the highest disparities every year (Figure 5.7). The total revenues of Subdistrict and City Municipalities had less disparity, whereas the same revenues of the SAOs and the Town Municipalities were more fluctuating (Figure 5.8).

Table 5.18 Fiscal Disparities of Each Type of Local Government Organization
by Year

Fiscal year	Types of LGO	N	Gini coefficient			
			Local own revenue	Shared tax revenue	Grant revenue	Total revenue
2009	PAO	75	0.383	0.295	0.259	0.226
	Municipality					
	City Municipality	23	0.144	0.139	0.261	0.165
	Town Municipality	142	0.362	0.199	0.324	0.234
	Subdistrict Municipality	1522	0.536	0.261	0.288	0.267
	SAO	6089	0.591	0.165	0.152	0.140
	Total	7851	0.632	0.223	0.250	0.229
2010	PAO	75	0.395	0.249	0.243	0.190
	Municipality					
	City Municipality	25	0.327	0.116	0.209	0.131
	Town Municipality	142	0.360	0.188	0.338	0.223
	Subdistrict Municipality	1841	0.556	0.261	0.292	0.258
	SAO	5767	0.611	0.155	0.249	0.169
	Total	7850	0.638	0.214	0.321	0.244
2011	PAO	75	0.398	0.275	0.223	0.196
	Municipality					
	City Municipality	27	0.254	0.109	0.216	0.121
	Town Municipality	149	0.385	0.193	0.333	0.236
	Subdistrict Municipality	1884	0.550	0.254	0.251	0.238
	SAO	5715	0.597	0.165	0.172	0.145
	Total	7850	0.631	0.219	0.237	0.214
2012	PAO	76	0.377	0.259	0.293	0.194
	Municipality					
	City Municipality	29	0.292	0.116	0.171	0.112

Table 5.18 (Continued)

Fiscal year	Types of LGO	N	Gini coefficient			
			Local own revenue	Shared tax revenue	Grant revenue	Total revenue
	Town Municipality	167	0.382	0.200	0.314	0.232
	Subdistrict Municipality	2072	0.532	0.261	0.229	0.225
	SAO	5507	0.579	0.174	0.189	0.150
	Total	7851	0.609	0.227	0.223	0.202

Source: Department of Local Administration, 2010-2013.

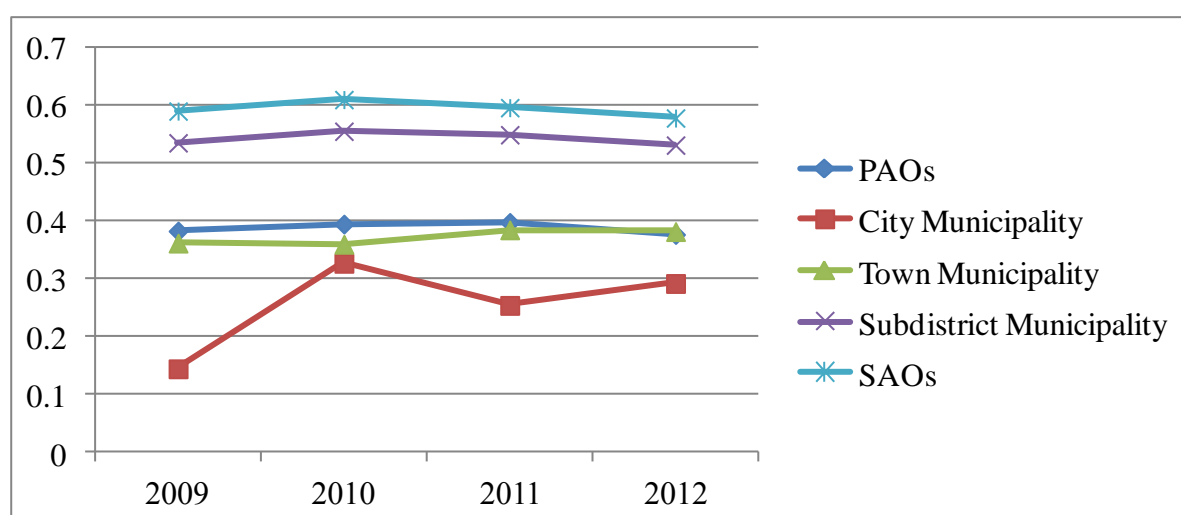


Figure 5.5 Disparities in Local Own Revenues of Each Type of Local Government Organization by Year

Source: Department of Local Administration, 2010-2013.

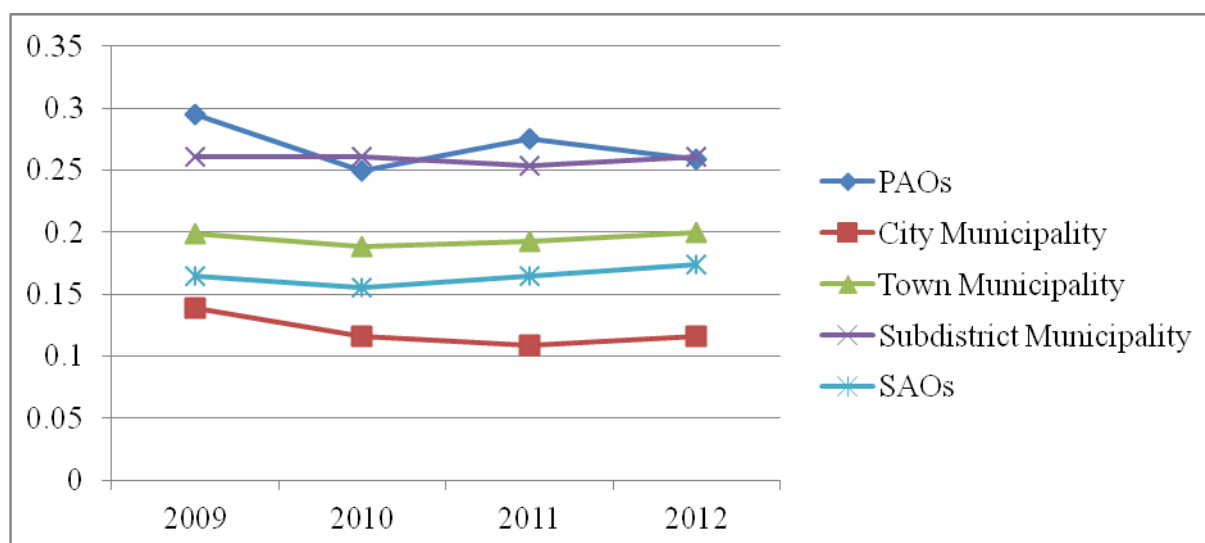


Figure 5.6 Disparities in Shared Tax Revenues of Each Type of Local Government Organization by Year

Source: Department of Local Administration, 2010-2013.

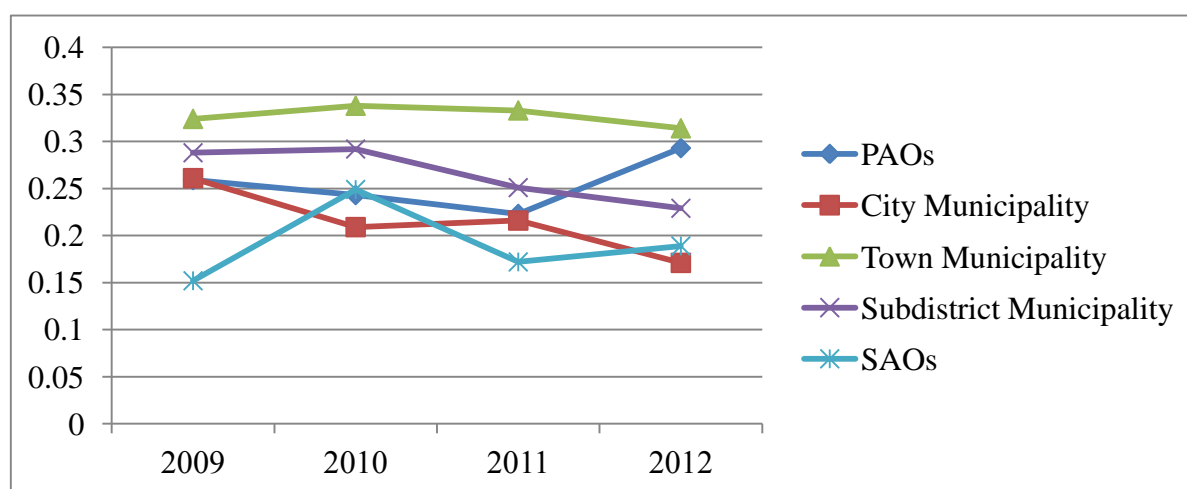


Figure 5.7 Disparities in Grant Revenues of Each Type of Local Government Organization by Year

Source: Department of Local Administration, 2010-2013.

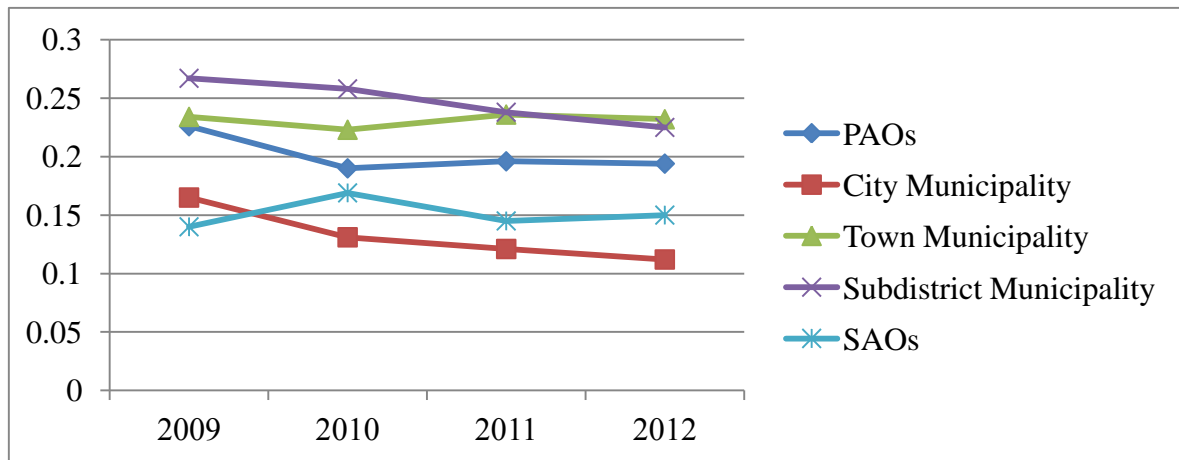


Figure 5.8 Disparities in Total Revenues of Each Type of Local Government Organization by Year

Source: Department of Local Administration, 2010-2013.

In Table 5.19 and Figures 5.9-5.11, the Gini coefficient reveals fiscal disparities of each type of local government setting. Subdistrict Municipalities in every region shared the highest disparities in total revenues. Town Municipalities, except those in the West and Center, also had the highest disparities in grant revenues. Subdistrict Municipalities in the two regions had the highest disparities of these revenues.

Table 5.19 Fiscal Disparities of Each Type of Local Government Organization for Fiscal Years 2009 to 2012 by Region

Region	Types of local government organization	N	Gini coefficient			
			Local own revenue	Shared tax revenue	Grant revenue	Total revenue
Northeast	PAO	77	0.184	0.172	0.288	0.199
	Municipality					
	City Municipality	17	0.218	0.088	0.213	0.144
	Town Municipality	128	0.272	0.128	0.297	0.192
	Subdistrict Municipality	2641	0.498	0.224	0.238	0.210

Table 5.19 (Continued)

Region	Types of local government organization	N	Gini coefficient			
			Local own revenue	Shared tax revenue	Grant revenue	Total revenue
North	SAO	9002	0.383	0.127	0.228	0.143
	PAO	68	0.165	0.135	0.242	0.121
	Municipality					
	City Municipality	23	0.121	0.147	0.152	0.107
	Town Municipality	96	0.306	0.218	0.291	0.223
South	Subdistrict Municipality	1756	0.484	0.253	0.265	0.239
	SAO	4829	0.401	0.175	0.234	0.169
	PAO	56	0.450	0.275	0.224	0.244
	Municipality					
	City Municipality	29	0.262	0.179	0.197	0.138
East	Town Municipality	121	0.484	0.246	0.318	0.258
	Subdistrict Municipality	950	0.510	0.302	0.274	0.272
	SAO	3604	0.596	0.170	0.226	0.169
	PAO	32	0.241	0.282	0.185	0.209
	Municipality					
West	City Municipality	7	0.339	0.089	0.120	0.100
	Town Municipality	86	0.393	0.155	0.311	0.199
	Subdistrict Municipality	641	0.548	0.245	0.287	0.245
	SAO	1567	0.674	0.201	0.227	0.203
	PAO	24	0.169	0.064	0.264	0.103
	Municipality					
	City Municipality	0				
	Town Municipality	48	0.248	0.155	0.218	0.132
	Subdistrict Municipality	551	0.408	0.260	0.257	0.235
	SAO	1549	0.455	0.153	0.224	0.155

Table 5.19 (Continued)

Region	Types of local government organization	N	Gini coefficient			
			Local own revenue	Shared tax revenue	Grant revenue	Total revenue
Central	PAO	24	0.202	0.205	0.354	0.170
	Municipality					
	City Municipality	4	0.464	0.058	0.229	0.117
	Town Municipality	46	0.302	0.326	0.312	0.264
	Subdistrict Municipality	547	0.576	0.264	0.314	0.264
	SAO	1619			0.248	0.176
Vicinity	PAO	20			0.290	0.146
	Municipality				0.607	0.172
	City Municipality	24	0.111	0.109	0.144	0.169
	Town Municipality	75	0.325	0.148	0.367	0.185
	Subdistrict Municipality	233	0.388	0.229	0.359	0.231
	SAOs	908	0.488	0.188	0.334	0.215

Source: Department of Local Administration, 2010-2013.

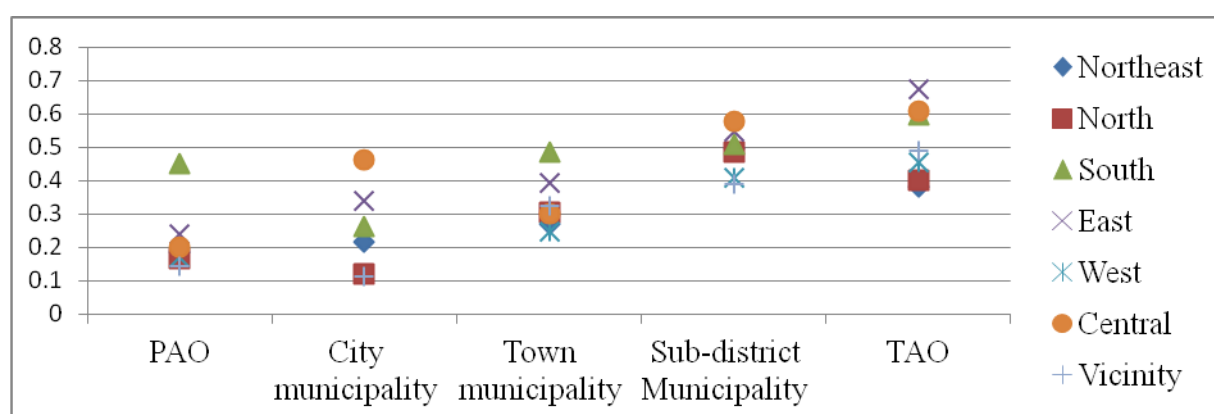


Figure 5.9 Own Revenue Disparities of Each Type of Local Government Organization for Fiscal Years 2009 to 2012 by Region

Source: Department of Local Administration, 2010-2013.

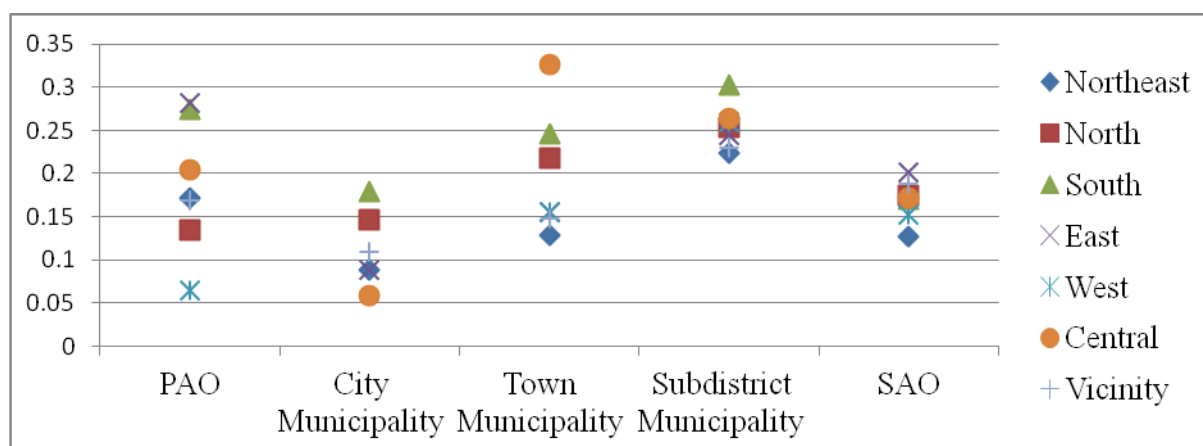


Figure 5.10 Shared Tax Revenue Disparities of Each Type of Local Government

Organization for Fiscal Years 2009 to 2012 by Region

Source: Department of Local Administration, 2010-2013.

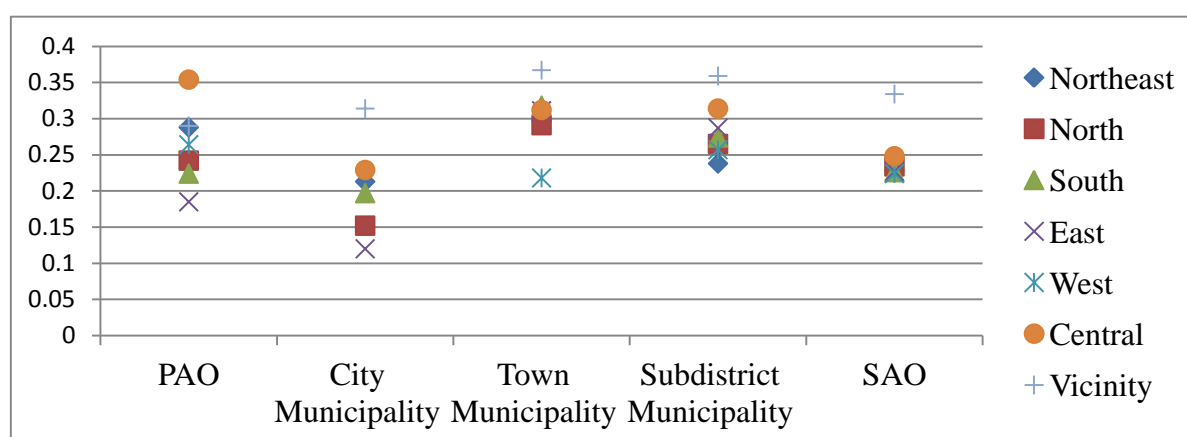


Figure 5.11 Grant Revenue Disparities of Each Type of Local Government

Organization for Fiscal Years 2009 to 2012 by Region

Source: Department of Local Administration, 2010-2013.

The Gini coefficient measurement in Table 5.20 reports that, despite having the highest disparities in total revenues, the Subdistrict Municipalities in every region experienced slight downward trends of such disparities every year between Fiscal years 2009 and 2012. Likewise, the disparities in their grant revenues decreases, except those subdistrict settings in the Vicinity whose disparities in grant revenues fluctuated.

Table 5.20 Fiscal Disparities of Each Type of Local Government Organization
by Year

Fiscal year	Region	Types of local government organization	Gini coefficient				
			N	Local own revenue	Shared tax revenue	Grant revenue	Total revenue
2009	Northeast	PAO	19	0.152	0.168	0.241	0.166
		Municipality					
		City Municipality	4	0.075	0.015	0.083	0.049
		Town Municipality	30	0.257	0.106	0.269	0.187
		Subdistrict Municipality	526	0.495	0.214	0.232	0.222
	North	SAO	2387	0.358	0.108	0.133	0.105
		PAO	17	0.154	0.136	0.233	0.105
		Municipality					
		City Municipality	5	0.067	0.175	0.111	0.097
		Town Municipality	23	0.284	0.242	0.252	0.208
	South	Subdistrict Municipality	348	0.465	0.259	0.280	0.261
		SAO	1300	0.385	0.161	0.148	0.135
		PAO	14	0.396	0.281	0.248	0.256
		Municipality					
		City Municipality	7	0.204	0.173	0.263	0.185
	East	Town Municipality	28	0.446	0.221	0.288	0.234
		Subdistrict Municipality	207	0.499	0.313	0.310	0.299
		SAO	934	0.598	0.156	0.167	0.143
		PAO	8	0.248	0.303	0.144	0.202
		Municipality					
		City Municipality	1	0.000	0.000	0.000	0.000
		Town Municipality	19	0.370	0.124	0.306	0.183

Table 5.20 (Continued)

Fiscal year	Region	Types of local government organization	Gini coefficient				
			N	Local own revenue	Shared tax revenue	Grant revenue	Total revenue
2010	West	Subdistrict					
		Municipality	143	0.536	0.232	0.327	0.264
		SAO	413	0.665	0.190	0.161	0.185
		PAO	6	0.091	0.075	0.311	0.130
		Municipality					
		City Municipality	0				
		Town Municipality	12	0.233	0.131	0.176	0.114
		Subdistrict					
		Municipality	125	0.400	0.261	0.283	0.261
		SAO	400	0.444	0.149	0.158	0.137
		PAO	6	0.203	0.204	0.314	0.141
		Municipality					
	Central	City Municipality	1	0.000	0.000	0.000	0.000
		Town Municipality	11	0.300	0.312	0.348	0.308
		Subdistrict					
		Municipality	120	0.573	0.259	0.312	0.276
		SAO	422	0.598	0.168	0.145	0.148
		PAO	5	0.145	0.139	0.202	0.121
		Municipality					
		City Municipality	5	0.065	0.053	0.405	0.231
		Town Municipality	19	0.339	0.137	0.353	0.199
		Subdistrict					
		Municipality	53	0.424	0.234	0.420	0.284
		SAO	233	0.500	0.152	0.197	0.169
	Vicinity	PAO	19	0.168	0.137	0.265	0.159
		Municipality					
		City Municipality	4	0.295	0.028	0.342	0.180

Table 5.20 (Continued)

Fiscal year	Region	Types of local government organization	Gini coefficient				
			N	Local own revenue	Shared tax revenue	Grant revenue	Total revenue
		Town Municipality	30	0.251	0.101	0.326	0.182
		Subdistrict					
		Municipality	678	0.506	0.221	0.258	0.219
		SAO	2235	0.402	0.105	0.231	0.127
	North	PAO	17	0.150	0.105	0.184	0.087
		Municipality					
		City Municipality	6	0.098	0.079	0.173	0.065
		Town Municipality	22	0.299	0.193	0.281	0.211
		Subdistrict					
		Municipality	452	0.491	0.249	0.279	0.241
		SAO	1196	0.433	0.153	0.249	0.157
	South	PAO	14	0.442	0.239	0.171	0.225
		Municipality					
		City Municipality	7	0.220	0.178	0.057	0.093
		Town Municipality	28	0.452	0.219	0.302	0.230
		Subdistrict					
		Municipality	228	0.516	0.299	0.277	0.274
		SAO	913	0.615	0.147	0.249	0.165
	East	PAO	8	0.226	0.244	0.230	0.189
		Municipality					
		City Municipality	2	0.318	0.042	0.062	0.112
		Town Municipality	20	0.378	0.129	0.282	0.183
		Subdistrict					
		Municipality	154	0.546	0.249	0.302	0.254
		SAO	399	0.676	0.166	0.253	0.197
	West	PAO	6	0.169	0.032	0.239	0.070
		Municipality					

Table 5.20 (Continued)

Fiscal year	Region	Types of local government organization	Gini coefficient				
			N	Local own revenue	Shared tax revenue	Grant revenue	Total revenue
2011	Central	City Municipality	0				
		Town Municipality	12	0.245	0.135	0.289	0.146
		Subdistrict					
		Municipality	136	0.417	0.263	0.284	0.247
		SAO	389	0.462	0.134	0.240	0.144
		PAO	6	0.212	0.180	0.172	0.122
		Municipality					
		City Municipality	1	0.000	0.000	0.000	0.000
		Town Municipality	11	0.278	0.309	0.286	0.248
		Subdistrict					
		Municipality	140	0.597	0.262	0.348	0.281
		SAO	402	0.626	0.148	0.246	0.166
	Vicinity	PAO	5	0.159	0.107	0.252	0.105
		Municipality					
		City Municipality	5	0.077	0.048	0.220	0.070
		Town Municipality	19	0.323	0.123	0.368	0.173
		Subdistrict					
		Municipality	53	0.417	0.241	0.326	0.227
		SAO	233	0.444	0.145	0.288	0.168
	Northeast	PAO	19	0.198	0.149	0.231	0.157
		Municipality					
		City Municipality	4	0.299	0.031	0.242	0.154
		Town Municipality	31	0.246	0.093	0.266	0.168
		Subdistrict					
		Municipality	682	0.499	0.215	0.217	0.201
		SAO	2230	0.378	0.102	0.158	0.104
	North	PAO	17	0.163	0.113	0.204	0.086

Table 5.20 (Continued)

Fiscal year	Region	Types of local government organization	Gini coefficient				
			N	Local own revenue	Shared tax revenue	Grant revenue	Total revenue
		Municipality					
		City Municipality	6	0.095	0.078	0.137	0.083
		Town Municipality	24	0.292	0.192	0.297	0.227
		Subdistrict					
		Municipality	458	0.504	0.240	0.240	0.227
		SAO	1188	0.402	0.153	0.171	0.135
	South	PAO	14	0.457	0.269	0.205	0.222
		Municipality					
		City Municipality	7	0.227	0.153	0.139	0.095
		Town Municipality	31	0.527	0.243	0.363	0.289
		Subdistrict					
		Municipality	234	0.509	0.295	0.259	0.268
		SAO	904	0.600	0.151	0.165	0.141
	East	PAO	8	0.230	0.279	0.122	0.191
		Municipality					
		City Municipality	2	0.207	0.032	0.090	0.017
		Town Municipality	23	0.394	0.138	0.323	0.200
		Subdistrict					
		Municipality	166	0.552	0.228	0.261	0.229
		SAO	384	0.679	0.186	0.181	0.184
	West	PAO	6	0.224	0.051	0.169	0.059
		Municipality					
		City Municipality	0				
		Town Municipality	12	0.251	0.125	0.199	0.128
		Subdistrict					
		Municipality	139	0.411	0.244	0.227	0.215
		SAO	386	0.439	0.136	0.163	0.123

Table 5.20 (Continued)

Fiscal year	Region	Types of local government organization	Gini coefficient				
			N	Local own revenue	Shared tax revenue	Grant revenue	Total revenue
2012	Central	PAO	6	0.186	0.193	0.200	0.111
		Municipality					
		City Municipality	1	0.000	0.000	0.000	0.000
		Town Municipality	11	0.287	0.304	0.262	0.240
		Subdistrict					
		Municipality	142	0.582	0.251	0.301	0.255
	Vicinity	SAO	400	0.618	0.148	0.198	0.149
		PAO	5	0.141	0.232	0.253	0.197
		Municipality					
		City Municipality	7	0.119	0.059	0.254	0.094
		Town Municipality	17	0.313	0.113	0.347	0.168
		Subdistrict					
	Northeast	Municipality	63	0.377	0.202	0.307	0.197
		SAO	223	0.453	0.181	0.234	0.169
		PAO	20	0.151	0.165	0.235	0.163
		Municipality					
		City Municipality	5	0.115	0.036	0.071	0.053
		Town Municipality	37	0.301	0.109	0.295	0.206
2012	North	Subdistrict					
		Municipality	755	0.487	0.226	0.194	0.187
		SAO	2150	0.370	0.108	0.168	0.110
		PAO	17	0.162	0.143	0.254	0.124
		Municipality					
		City Municipality	6	0.166	0.141	0.071	0.102
2012	North	Town Municipality	27	0.327	0.205	0.300	0.224
		Subdistrict					
2012	North	Municipality	498	0.470	0.250	0.231	0.219
		Subdistrict					

Table 5.20 (Continued)

Fiscal year	Region	Types of local government organization	Gini coefficient				
			N	Local own revenue	Shared tax revenue	Grant revenue	Total revenue
		SAO	1145	0.369	0.166	0.181	0.144
	South	PAO	14	0.482	0.262	0.181	0.230
		Municipality					
		City Municipality	8	0.303	0.145	0.166	0.105
		Town Municipality	34	0.488	0.257	0.289	0.258
		Subdistrict Municipality	281	0.512	0.292	0.230	0.249
		SAO	853	0.569	0.164	0.154	0.130
	East	PAO	8	0.226	0.271	0.125	0.199
		Municipality					
		City Municipality	2	0.293	0.040	0.110	0.058
		Town Municipality	24	0.413	0.134	0.274	0.190
		Subdistrict Municipality	178	0.552	0.242	0.241	0.231
		SAO	371	0.673	0.199	0.184	0.183
	West	PAO	6	0.134	0.042	0.256	0.101
		Municipality					
		City Municipality	0				
		Town Municipality	12	0.242	0.118	0.153	0.082
		Subdistrict Municipality	151	0.397	0.251	0.214	0.212
		SAO	374	0.457	0.134	0.166	0.123
	Central	PAO	6	0.143	0.188	0.450	0.197
		Municipality					
		City Municipality	1	0.000	0.000	0.000	0.000
		Town Municipality	13	0.314	0.294	0.288	0.245

Table 5.20 (Continued)

Fiscal year	Region	Types of local government organization	Gini coefficient				Total revenue
			N	Local own revenue	Shared tax revenue	Grant revenue	
		Subdistrict					
		Municipality	145	0.548	0.262	0.273	0.236
		SAO	395	0.582	0.164	0.253	0.169
	Vicinity	PAO	5	0.119	0.133	0.275	0.098
		Municipality					
		City Municipality	7	0.092	0.075	0.245	0.086
		Town Municipality	20	0.309	0.102	0.369	0.169
		Subdistrict					
		Municipality	64	0.340	0.194	0.342	0.204
		SAO	219	0.540	0.174	0.369	0.218

Source: Department of Local Administration, 2010-2013.

5.3 General Grants and Horizontal Equalization

5.3.1 Overall General Grant

Table 5.21 shows the total amount of local own and shared tax revenues before general grant allocation, and the sum of the two revenues, plus general grant after allocation for fiscal years 2009 to 2012. During this four-year period, the local government earned an average revenue of 2,509 baht per capita before allocation; the general grant was 1,549 baht per capita, making the total 4,058 baht per capita.

Table 5.21 Average Revenues from General Grant and Local Government Revenues before and after General Grant Allocation for Fiscal Years 2009 to 2012

Unit: Baht per capita

Fiscal year	N	General grant	Local gov't revenue before general grant allocation*	Local gov't revenue after general grant allocation **
2009	7,851	1815.97	2042.8	3858.76
2010	7,850	1500.23	2602.16	4102.39
2011	7,850	1417.47	2592.81	4010.27
2012	7,851	1464.9	2800.65	4265.55
Total	31402	1549.65	2509.6	4059.25

Source: Department of Local Administration, 2010-2013.

Note: * Local government revenue before general grant allocation = Total amount of local own revenue and shared tax revenue

** Local government revenue after general grant allocation = Total amount of local own revenue, shared tax revenue and general grant

Table 5.22 presents the local government revenues before and after general grant allocation. The local governments with high revenues and low revenues (p90/p10) had a 2.72, 2.59, 2.68 and 2.77 times difference in 2009, 2010, 2011 and 2012 respectively. Differences of revenues of these governments increased every year after 2010. Nonetheless, such differences went into reverse after grant allocation, meaning differences between the governments with high revenues and those with low revenues decreased, from a 2.4 times difference in 2009 to a 2.41, 2.29 and 2.11 times difference in 2010, 2011 and 2012 respectively, and there is a likeliness of such a decrease to continue every year.

Table 5.22 Statistics of Fiscal Differences of Local Government Organization before and after General Grant Allocation by Year

Unit: Baht per capita

Fiscal year	Stats	General grant	Local gov't revenue before general grant allocation	Local gov't revenue after general grant allocation
2009	N	7851	7851	7851
	mean	1815.97	2042.8	3858.76
	p10	1101.06	1201.87	2478.83
	p25	1295.8	1361.05	2777.93
	p50	1543.19	1649.92	3220.73
	p75	1918.66	2303.73	4113.37
	p90	2824.52	3266.11	5961.43
	p90/p10	2.57	2.72	2.4
2010	N	7850	7850	7850
	mean	1500.23	2602.16	4102.39
	p10	729.45	1584.47	2549.13
	p25	976.54	1789.12	2946.33
	p50	1276.01	2142.57	3519.01
	p75	1682.68	2954.63	4545.06
	p90	2346.77	4103.81	6149.69
	p90/p10	3.22	2.59	2.41
2011	N	7850	7850	7850
	mean	1417.47	2592.81	4010.27
	p10	938.05	1550.68	2674.26
	p25	1075.46	1752.84	2931.01
	p50	1231.33	2104.49	3350.04
	p75	1511.86	2944.64	4404.66
	p90	2100.28	4156.9	6134.14
	p90/p10	2.24	2.68	2.29

Table 5.22 (Continued)

Unit: Baht per capita

Fiscal year	Stats	General grant	Local gov't revenue before general grant allocation	Local gov't revenue after general grant allocation
2012	N	7851	7851	7851
	mean	1464.9	2800.65	4265.55
	p10	989.13	1640.15	3035.36
	p25	1147.82	1872.01	3201.58
	p50	1329.21	2252.11	3510.59
	p75	1573.24	3223.1	4604.18
	p90	2043.47	4549.53	6408.72
	p90/p10	2.07	2.77	2.11

Source: Department of Local Department Administration, 2010-2013.

Table 5.23 and Figure 5.12 shows groups of local government revenue before general grant allocation and the average general grant received. The result is that the trend of general grant allocation fluctuates. It is not allocated depending on local government revenue.

Table 5.23 Local's Revenue before General Grant and Average General Grant between 2009 and 2012

Unit: Baht per capita

Types of local administrative organization	N	Local gov't revenue before general grant allocation	General grant
City municipality	0	<500	
	0	501-1000	
	0	1001-2000	
	4	2001-3000	1484.9
	31	3001-4000	1608.1

Table 5.23 (Continued)

Unit: Baht per capita			
Types of local administrative organization	Local gov't revenue before		
	N	general grant allocation	General grant
Town municipality	33	4001-5000	1210.4
	20	5001-6000	1432.9
	10	6001-7000	1123.1
	4	7001-8000	1515.5
	0	8001-9000	
	1	9001-10000	1003.2
	1	>10001	1203.1
	0	<500	
	0	501-1000	
	11	1001-2000	1111.8
	95	2001-3000	1747.4
	182	3001-4000	1691.6
	132	4001-5000	1962.8
	93	5001-6000	1735.4
	36	6001-7000	1544.8
	18	7001-8000	2021.0
Sub-district municipality	8	8001-9000	1619.5
	8	9001-10000	2714.9
	15	>10001	1994.8
	0	<500	
	5	501-1000	1572.2
	1750	1001-2000	1507.5
	1916	2001-3000	1823.8
	1674	3001-4000	2271.6
	925	4001-5000	2720.5
	476	5001-6000	3262.1
	239	6001-7000	3652.3
	127	7001-8000	4541.0

Table 5.23 (Continued)

Unit: Baht per capita

Types of local administrative organization	Local gov't revenue before		
	N	general grant allocation	General grant
SAO	61	8001-9000	4299.9
	42	9001-10000	4103.9
	97	>10001	5941.0
	0	<500	
	49	501-1000	1287.1
	12478	1001-2000	1327.0
	7757	2001-3000	1346.4
	1838	3001-4000	1405.4
	520	4001-5000	1315.5
	154	5001-6000	1251.6
	99	6001-7000	1400.0
	57	7001-8000	1191.8
	31	8001-9000	1325.5
	16	9001-10000	1626.6
	59	>10001	1778.9

Source: Department of Local Administration, 2010-2013.

Unit: Baht per capita

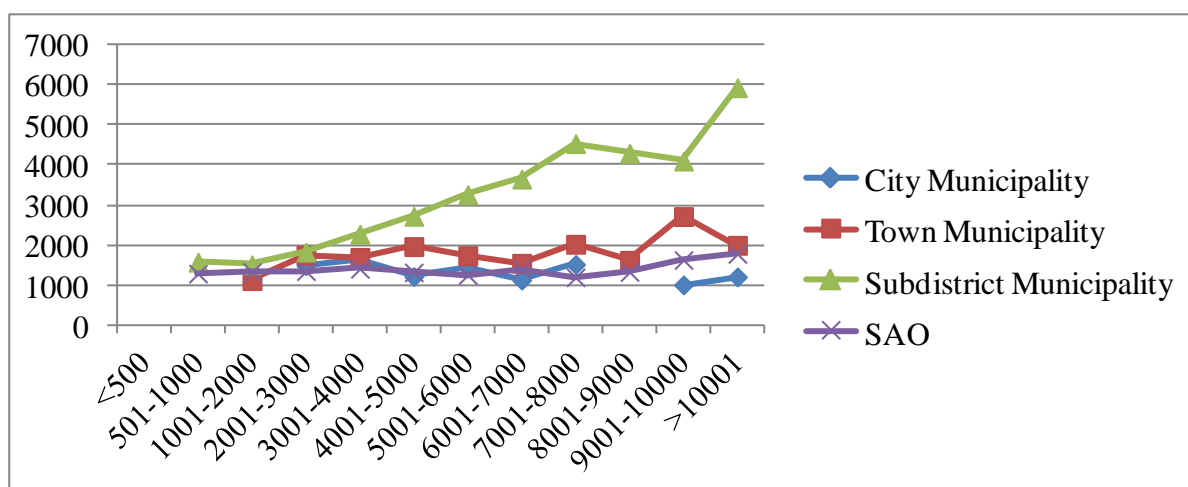


Figure 5.12 Local Government Revenue before General Grant and Average General Grant between 2009 and 2012

Source: Department of Local Administration, 2010-2013.

The Gini coefficient in Table 5.24 and Figure 5.13 analyzed fiscal disparities before and after general grant allocation for fiscal years 2009 to 2012, and found descending disparities after grant allocation, from a coefficient of 0.262 to 0.221 (see more detail in Appendix F). To a certain extent, the allocation resulted in reducing disparities despite disparities remaining.

Table 5.24 Fiscal Disparities in General Grant Revenue and Local Government Revenues before and after General Grant Allocation for Fiscal Years 2009 to 2012

Types of revenue (Per capita)	N	Gini coefficient	Std. Err.	t
General grant revenue	31402	0.246	0.002	110.04
Local gov't revenue before general grant allocation	31402	0.262	0.002	153.83
Local gov't revenue after general grant allocation	31402	0.221	0.002	134.04

Source: Department of Local Administration, 2010-2013.

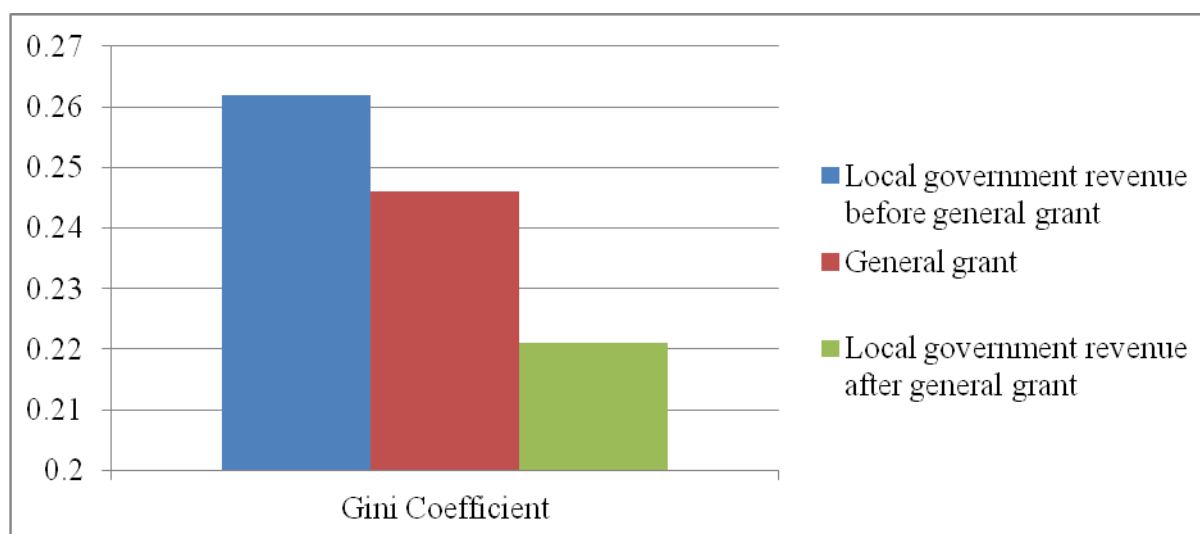


Figure 5.13 Fiscal Disparities in General Grant Revenue and Local Government Revenues before and after General Grant Allocation for Fiscal Years 2009 to 2012

Source: Department of Local Administration, 2010-2013.

The Lorenz curves in Figure 5.14 measured the disparities in local revenues and revealed declining trends of disparities after general grant allocation. However, the disparities before and after allocation were not much different.

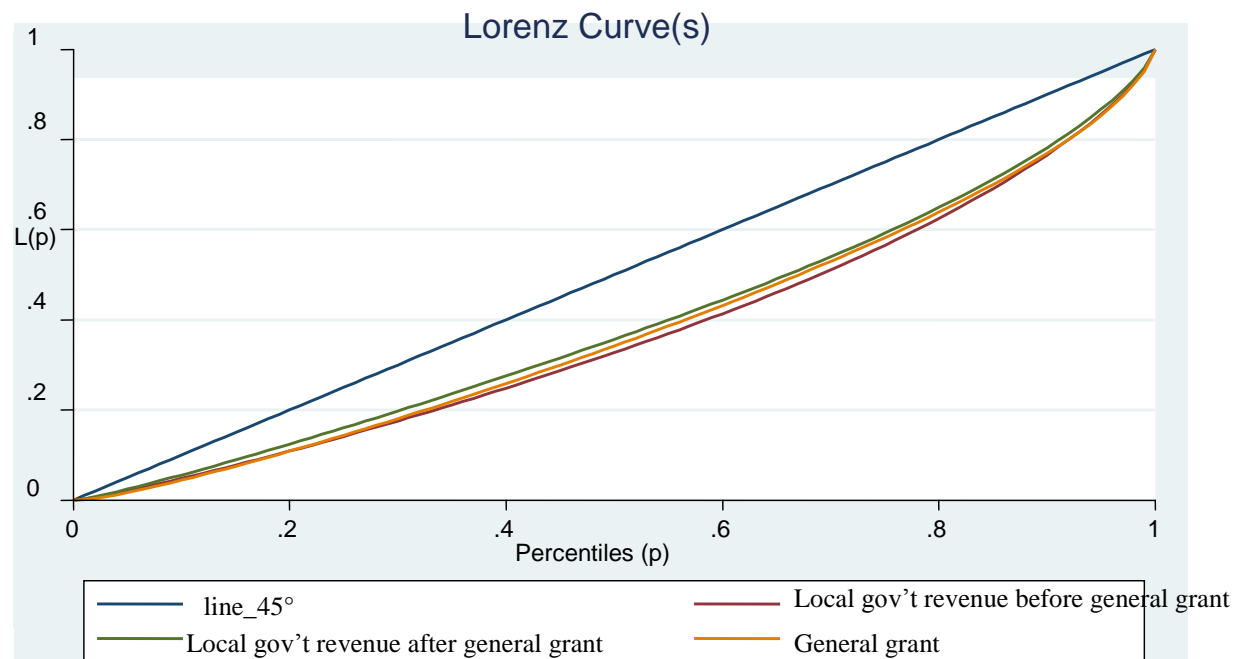


Figure 5.14 Disparities in Local Government Revenues before and after General Grant Allocation for Fiscal Years 2009 to 2012

Source: Department of Local Administration, 2010-2013.

Measuring by year, as in Table 5.25 and Figure 5.15, the Gini coefficient found fiscal disparities in the general grant and local revenues before and after general grant allocation (See more detail in Appendix G). Between 2010 and 2012, larger disparities existed in the local government revenues before allocation (Gini coefficient of 0.243 in 2010, 0.251 in 2011 and 0.258 in 2012). The general grant was added after allocation, causing less disparities (Gini coefficient of 0.230 in 2009, 0.229 in 2010, 0.251 in 2011 and 0.201 in 2012). Still, disparities persisted in spite the transfer of general grant.

Table 5.25 Fiscal Disparities in General Grant Revenue and Local Government
Revenues before and after General Grant Allocation by Year

Types of revenue (per capita)	Gini coefficient			
	2009	2010	2011	2012
N	7851	7850	7850	7851
Local gov't revenue before general grant allocation	0.259	0.243	0.251	0.258
General grant revenue	0.246	0.298	0.214	0.193
Local gov't revenue after general grant allocation	0.230	0.229	0.215	0.201

Source: Department of Local Administration, 2010-2013.

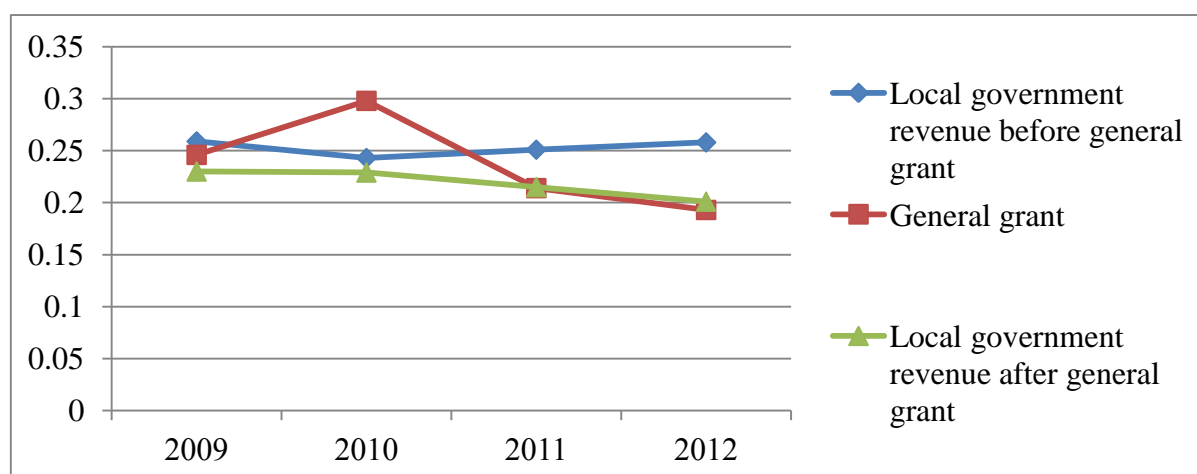


Figure 5.15 Fiscal Disparities in General Grant Revenue and Local Government Revenues
before and after General Grant Allocation by Year

Source: Department of Local Administration, 2010-2013.

5.3.2 General Grant and Local Fiscal Disparities at the Regional Level

Table 5.26 and Figure 5.16 are statistics of average revenues of local government organizations in all regions before and after general grant allocation. The local government revenues are the sum of local own and shared tax revenues before

allocation. The Vicinity earned the highest local revenues of 3,908 baht per capita, but the least allocated grant of 1,201 baht per capita. Opposite to the Northeastern Region, its local organizations had the lowest revenues before allocation, but received the second lowest grant allocation of 1,524 baht per capita after the Vicinity. Yet, this Region's sum total of all revenues, only 3,552 baht per capita, remained lower than other regions. General grant allocation was not inverse with local revenue.

Table 5.26 Average Revenues of Local Government before and after General Grant Allocation for Fiscal Years 2009 to 2012 by Region

Unit: Baht per capita				
Region	No. of local government organization	Local gov't revenue before general grant allocation	General grant	Local gov't revenue after general grant allocation
northeast	11,865	2,028.4	1,524.2	3,552.6
north	6,772	2,442.2	1,528.2	3,970.4
south	4,760	2,621.0	1,723.5	4,344.5
east	2,333	3,315.3	1,528.2	4,843.5
west	2,172	2,650.4	1,551.0	4,201.4
central	2,240	3,263.1	1,596.2	4,859.3
vicinity	1,260	3,908.5	1,201.7	5,110.2
Total	31,402	2,509.6	1,549.6	4,059.2

Source: Department of Local Administration, 2010-2013.

Unit: Baht per capita

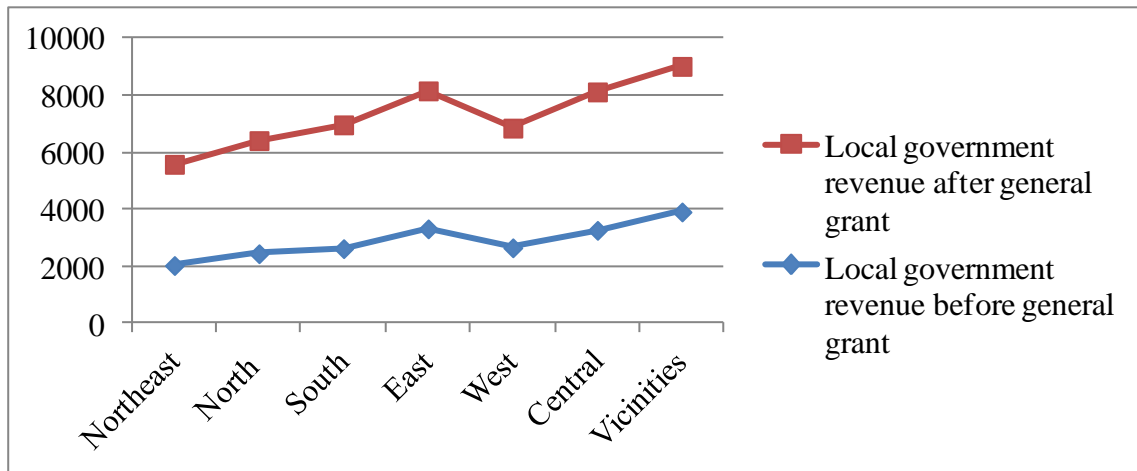


Figure 5.16 Average Revenues of Local Government before and after General Grant Allocation by Region

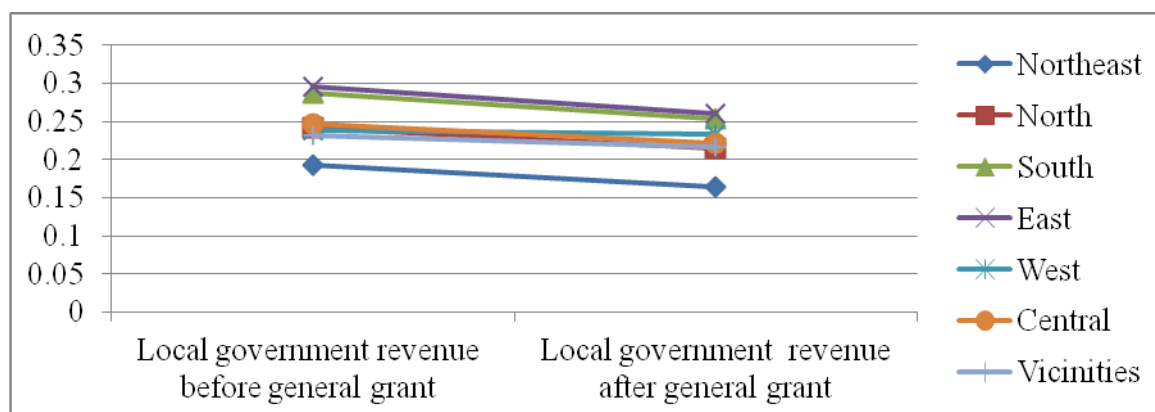
Source: Department of Local Administration, 2010-2013.

Table 5.27 and Figure 5.17 present the Gini coefficient measurement for fiscal disparities in revenues before and after general grant allocation for fiscal years 2009 to 2012 by region. The greatest disparities in revenues before grant allocation were in the Eastern Region, with a coefficient of 0.295, followed by the South, the Center, the North, the West, the Vicinity and the Northeast respectively. Such disparities in every region became less after allocation. Yet, the Eastern Region faced the greatest disparities with Gini coefficient of 0.261, followed by the Southern, the Western, the Central and the Northeastern Regions. This implies that, regardless of grant allocation, fiscal inequalities in all region still grew because there were large gaps of disparities among them (the greatest disparity in the East was 0.261, while the smallest disparity in the Northeast was 0.165).

Table 5.27 Fiscal Disparities for Fiscal Years 2009 to 2012 by Region

Region	N	Gini coefficient (Per capita)		
		Local revenue		Local revenue after
		before general grant	General grant	general grant
		allocation		allocation
Northeast	11865	0.193	0.194	0.165
North	6772	0.242	0.245	0.214
South	4760	0.287	0.289	0.253
East	2333	0.295	0.28	0.261
West	2172	0.238	0.289	0.233
Central	2240	0.246	0.265	0.222
Vicinity	1260	0.231	0.299	0.216
Total	31402	0.262	0.246	0.221

Source: Department of Local Administration, 2010-2013.

**Figure 5.17** Fiscal Disparities before and after General Grant Allocation for Fiscal Years 2009 to 2012

Source: Department of Local Administration, 2010-2013.

In Table 5.28 and Figure 5.18, the general grant allocation after 2010 resulted in a reduction in fiscal disparities between local governments, especially in four regions (Northeast, North, South and West). The allocation slightly influenced the disparities in the East and Center. Both had quite stable disparities (the East had Gini coefficient of 0.254, 0.255 and 0.250 in 2010, 2011 and 2012 respectively, and the Center 0.231, 0.21 and 0.21 for the same years. The Vicinity had a fluctuation of disparities between 2009 and 2012.

Table 5.28 Fiscal Disparities before and after General Grant Allocation by Region and by Year

Region	Types of revenue	Gini coefficient			
		2009	2010	2011	2012
Northeast	Local revenue before general grant				
	allocation	0.183	0.176	0.174	0.184
	General grant	0.188	0.247	0.165	0.135
North	Local revenue after general grant				
	allocation	0.174	0.182	0.156	0.137
	Local revenue before general grant				
South	allocation	0.236	0.224	0.226	0.237
	General grant	0.251	0.267	0.226	0.199
	Local revenue after general grant				
East	allocation	0.229	0.217	0.208	0.196
	Local revenue before general grant				
	allocation	0.293	0.27	0.276	0.279
West	General grant	0.287	0.366	0.24	0.227
	Local revenue after general grant				
	allocation	0.265	0.274	0.244	0.222
Center	Local revenue before general grant				
	allocation	0.296	0.277	0.282	0.295
	General grant	0.301	0.294	0.261	0.232

Table 5.28 (Continued)

Region	Types of revenue	Gini coefficient			
		2009	2010	2011	2012
West	Local revenue after general grant allocation	0.276	0.254	0.255	0.25
	Local revenue before general grant allocation	0.237	0.228	0.223	0.227
	General grant	0.289	0.368	0.249	0.221
Central	Local revenue after general grant allocation	0.25	0.251	0.217	0.203
	Local revenue before general grant allocation	0.247	0.231	0.232	0.238
	General grant	0.257	0.324	0.223	0.212
Vicinity	Local revenue after general grant allocation	0.233	0.231	0.21	0.21
	Local revenue before general grant allocation	0.226	0.206	0.214	0.224
	General grant	0.299	0.374	0.255	0.235
	Local revenue after general grant allocation	0.225	0.219	0.197	0.203

Source: Department of Local Administration, 2010-2013.

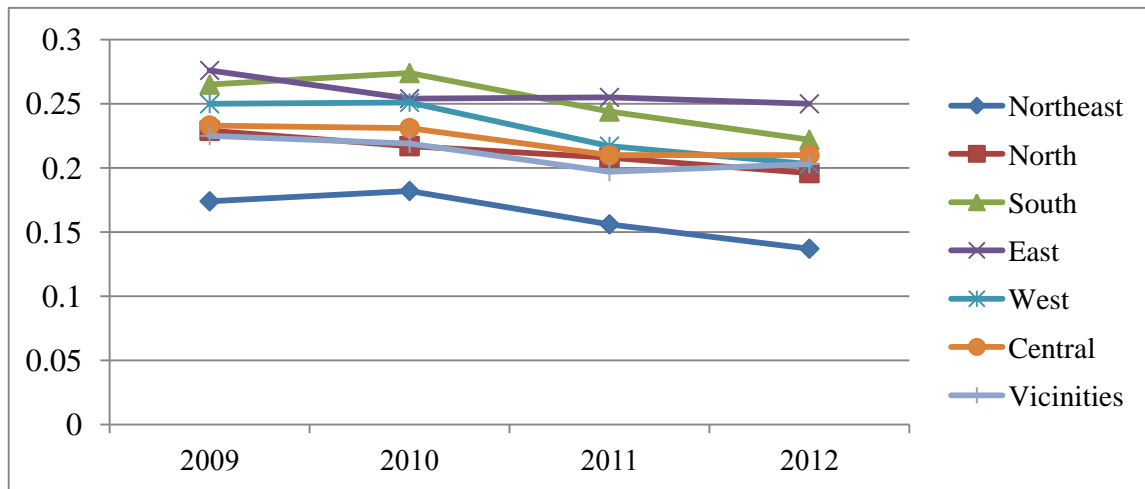


Figure 5.18 Fiscal Disparities after General Grant Allocation by Region and by Year
Source: Department of Local Administration, 2009-2012.

5.3.3 General Grant and Fiscal Disparities in Each Type of Local Government Organization

Table 5.29 presents the average revenues of each organization type before and after general grant allocation between fiscal years 2009 and 2012. The SAOs gained the lowest revenue (2,189 baht per capita) and the lowest grant (1,340 baht per capita). Even after allocation, its revenue ranked the lowest (3,530 baht per capital or 1.6 times lower than the Subdistrict Municipality).

Table 5.29 Average Revenues of Each Type of Local Government Organization
 before and after General Grant Allocation for Fiscal Years 2009 to 2012

Unit: Baht per capita

Types of local government organization	N	Local revenue		Local revenue after general grant allocation
		before general grant allocation	General grant	
PAO	301	628.25	121.1	749.35
Municipality				

Table 5.29 (Continued)

Unit: Baht per capita				
Types of local government organization	N	Local revenue before general grant allocation	General grant	Local revenue after general grant allocation
City Municipality	104	4,689.59	1,383.57	6,073.17
Town Municipality	600	4,511.75	1,775.79	6,287.55
Subdistrict Municipality	7,319	3,400.16	2,252.49	5,652.65
SAO	23,078	2,189.83	1,340.25	3,530.07
Total		2,509.6	1,549.65	4,059.25

Source: Department of Local Administration, 2010-2013.

Table 5.30 indicates fiscal changes of each local government organization type for fiscal years 2009 to 2012. The SAOs received the least revenues before and after general grant allocation every year. Differences of revenues before allocation between the SAOs and sub-district municipalities reduced every year, or 1.6 times in 2009, 1.52 in 2010, 1.50 in 2011 and 1.46 in 2012. Nevertheless, it turned out that revenue differences between them grew after allocation. The municipalities had higher revenues than the SAOs at 1.8 times higher in 2009, 1.54 in 2010, 1.59 in 2011 and 1.47 in 2012.

Table 5.30 Fiscal Statistics of Each Type Local Government Organization before and after General Grant Allocation by Year

Unit: Baht per capita

Fiscal year	Types of local government organization	Local gov't revenue before general grant allocation	General grant	Local gov't revenue after general grant allocation
2009	PAO	566.35	161.11	727.46
	Municipality			
	City Municipality	3,788.75	2,445.82	6,234.56
	Town Municipality	3,764.8	3,093.53	6,858.33
	Subdistrict Municipality	2,987.49	3,000.76	5,988.24
	SAO	1,778.1	1,508.03	3,286.12
	Total	2,042.8	1,815.97	3,858.76
2010	PAO	618.91	75.29	694.19
	Municipality			
	City Municipality	4,619.6	730.87	5,350.48
	Town Municipality	4,647.58	1,003.16	5,650.74
	Subdistrict Municipality	3,483.42	2,119.39	5,602.81
	SAO	2,287.52	1,336.68	3,624.2
	Total	2,602.16	1,500.23	4,102.39
2011	PAO	623.5	125.54	749.03
	Municipality			
	City Municipality	4,771.7	1,246.73	6,018.43
	Town Municipality	4,702.43	1,569.68	6,272.11
	Subdistrict Municipality	3,435.08	2,108.39	5,543.47
	SAO	2,275.69	1,203.49	3,479.19
	Total	2,592.81	1,417.47	4,010.27

Table 5.30 (Continued)

Unit: Baht per capita				
Fiscal year	Types of local government organization	Local gov't revenue before general grant allocation	General grant	Local gov't revenue after general grant allocation
2012	PAO	703.25	122.47	825.72
	Municipality			
	City Municipality	5,387.95	1,231.18	6,619.13
	Town Municipality	4,861.27	1,496.2	6,357.46
	Subdistrict Municipality	3,597.58	1,952.12	5,549.7
	SAO	2,453.65	1,300.39	3,754.03
	Total	2,800.65	1,464.9	4,265.55

Source: Department of Local Administration, 2010-2013.

The general grant is integral to lessening fiscal disparity and promoting fiscal equalization, as in Table 5.31 and Figures 5.19-5.20 (See more detail in Appendix H). Before the grant allocation, disparities in local government organizations varied from highest to lowest as follows: Subdistrict Municipality (0.281), Town Municipality (0.22), SAO (0.203) and City Municipality (0.156). Such descending order remained unchanged even after allocation, but disparities declined as follows: Subdistrict Municipality (0.261), Town Municipality(0.198), SAO (0.145) and City Municipality (0.126). The disparities between organizations widened over all. The disparities between the SAOs and subdistricts changed from 0.061 to 0.063, while the Subdistrict Municipalities and Town Municipalities similarly changed from 0.017 to 0.053 after allocation. This comes from the fact that the allocation positively influences the disparities within the organization, but not between organizations.

Table 5.31 Fiscal Disparities of Each Type of Local Government Organization
before and after General Grant Allocation for Fiscal Years 2009 to 2012

Types of local government organization	N	Gini coefficient		
		Local revenue before general grant allocation	General grant revenue	Local revenue after general grant allocation
PAO	301	0.281	0.308	0.248
Municipality				
City Municipality	104	0.156	0.275	0.126
Town Municipality	600	0.220	0.326	0.198
Subdistrict Municipality	7319	0.281	0.301	0.261
SAO	23078	0.203	0.162	0.145

Source: Department of Local Administration, 2010-2013.

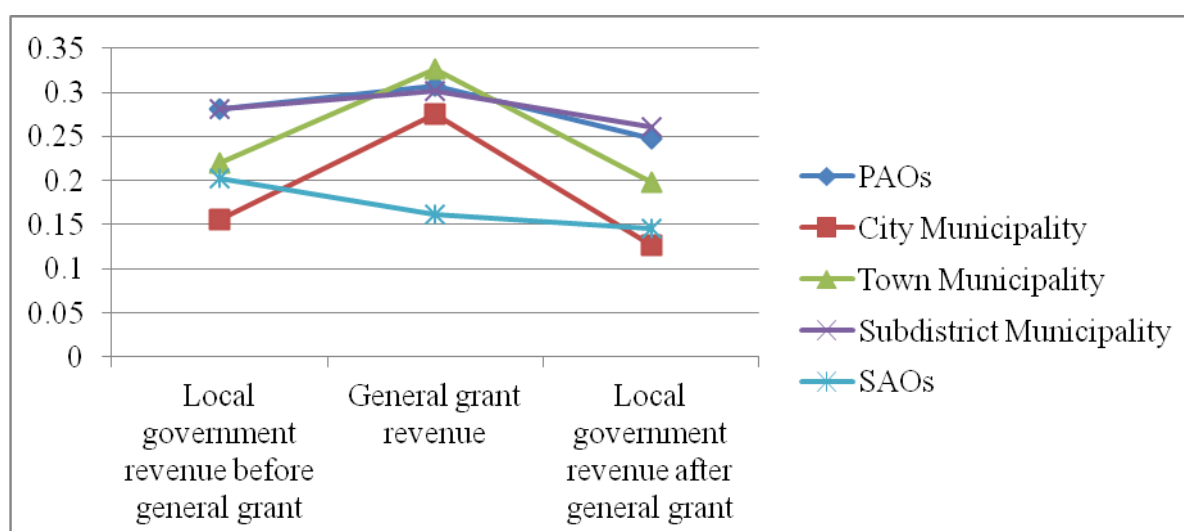


Figure 5.19 Fiscal Disparities within Each Type of Local Government Organization
before and after General Grant Allocation for Fiscal Years 2009 to 2012

Source: Department of Local Administration, 2010-2013.

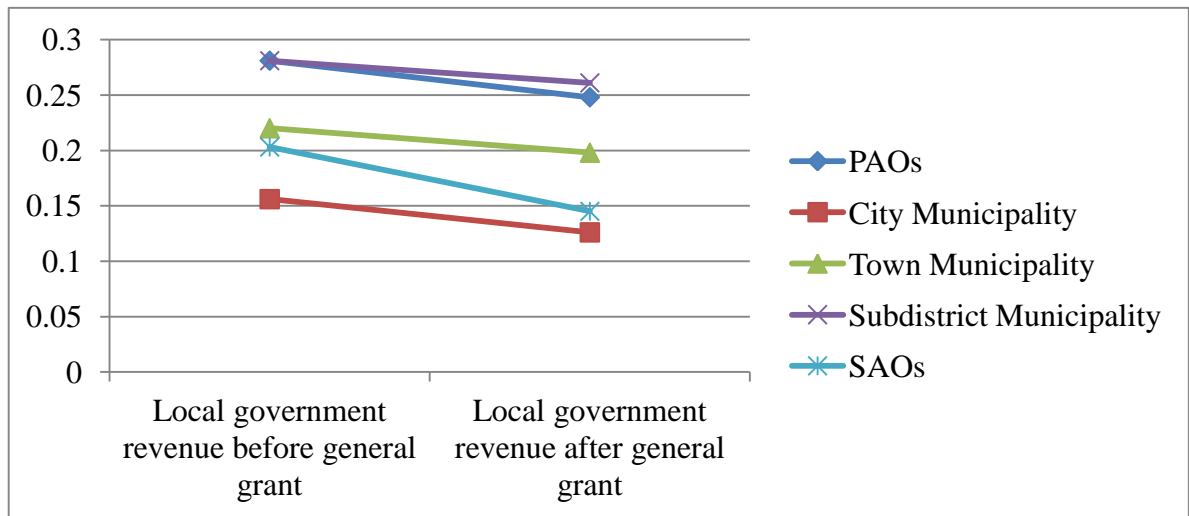


Figure 5.20 Fiscal Disparities within Each Type of Local Government Organization before and after General Grant Allocation for Fiscal Years 2009 to 2012

Source: Department of Local Administration, 2010-2013.

Fiscal disparities are illustrated by type of local government organization for fiscal years 2009 to 2012 in Table 5.32 and Figure 5.21 (See more detail in Appendix I). After the general grant allocation, SAOs in the Eastern Region (Gini coefficient of 0.192), Subdistrict Municipalities in the Southern Region (Gini coefficient of 0.307), Town Municipalities in the Central Region (Gini coefficient of 0.264), City Municipalities in the Eastern Region and PAOs in the Southern Region (Gini coefficient of 0.275) had the greatest disparities. In brief, the result confirmed that general grant allocation relieved the differences of fiscal disparity among the regions in all types of local administrative organization (LAO). However, the result shows that the allocation decreased fiscal disparity only within SAOs of every region, but for other types, the allocation increased fiscal disparity in some regions. For example, the fiscal disparity for Subdistrict Municipalities in the Western and Vicinity regions were higher after grant allocation. In the Western region, the Gini coefficient was 0.207, and increased to 0.260 after general grant allocation. Meanwhile, in the Vicinity, fiscal disparity grew from 0.207 to 0.218. In addition, City Municipalities in the Central and the Vicinity region also experienced more fiscal disparity after general grant allocation.

Table 5.32 Fiscal Disparities before and after General Grant Allocation for Fiscal Years 2009 to 2012 by Type of Local Government Organization and by Region

Types of local government organization	Region						
	Northeast	North	South	East	West	Central	Vicinity
PAO							
N	77	68	56	32	24	24	20
Local gov't revenue before general grant allocation	0.169	0.132	0.302	0.268	0.061	0.199	0.156
General grant revenue	0.286	0.278	0.329	0.272	0.331	0.286	0.239
Local gov't revenue after general grant allocation	0.143	0.109	0.275	0.218	0.080	0.164	0.148
City Municipality							
N	17	23	29	7		4	24
Local gov't revenue before general grant allocation	0.111	0.126	0.126	0.180	-	0.027	0.027
General grant revenue	0.236	0.239	0.239	0.264	-	0.203	0.203
Local gov't revenue after general grant allocation	0.088	0.095	0.095	0.142	-	0.082	0.082
Town Municipality							
N	128	96	121	86	48	46	75
Local gov't revenue before general grant allocation	0.134	0.210	0.289	0.192	0.144	0.283	0.152
General grant revenue	0.290	0.339	0.299	0.300	0.332	0.363	0.271
Local gov't revenue after general grant allocation	0.135	0.196	0.241	0.169	0.110	0.264	0.143
Subdistrict Municipality							
N	2641	1756	950	641	551	547	233
Local gov't revenue before general grant allocation	0.238	0.262	0.314	0.268	0.256	0.282	0.207
General grant revenue	0.240	0.303	0.355	0.309	0.316	0.319	0.366

Table 5.32 (Continued)

Types of local government organization	Region						
	Northeast	North	South	East	West	Central	Vicinity
Local gov't revenue after general grant allocation	0.215	0.253	0.307	0.250	0.260	0.269	0.218
SAO							
N	9002	4829	3604	1567	1549	1619	908
Local gov't revenue before general grant allocation	0.129	0.176	0.196	0.255	0.161	0.204	0.221
General grant revenue	0.134	0.157	0.189	0.158	0.180	0.167	0.207
Local gov't revenue after general grant allocation	0.098	0.134	0.148	0.192	0.138	0.160	0.186

Source: Department of Local Administration, 2010-2013.

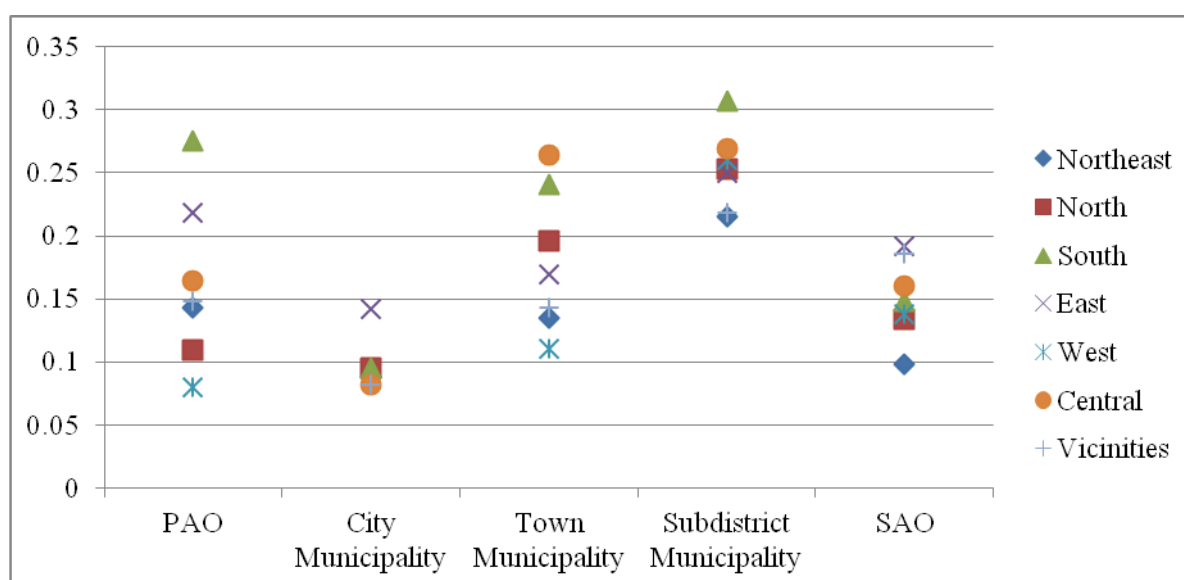


Figure 5.21 Fiscal Disparities within Each Type of Local Government Organization after General Grant Allocation by Region

Source: Department of Local Administration, 2010-2013.

Table 5.33 and Figure 5.22 reports the results of Gini coefficient analysis of fiscal disparities before and after general grant allocation by year, from 2009 to 2012. The city, town and Subdistrict Municipalities experienced fluctuating disparities. From 2010, the disparities of the SAOs decreased every year. By comparing between each local organization, the highest disparities were for the Subdistrict Municipalities and the lowest were for the City Municipalities every year.

Table 5.33 Fiscal Disparities within Each Type of Local Government Organization before and after General Grant Allocation by Year

Types of local government organization	Gini coefficient							
	2009		2010		2011		2012	
	Before*	After**	Before	After	Before	After	Before	After
PAO	0.300	0.250	0.262	0.245	0.279	0.253	0.268	0.232
City Municipality	0.113	0.098	0.152	0.138	0.127	0.101	0.145	0.122
Town Municipality	0.214	0.213	0.200	0.190	0.212	0.180	0.219	0.188
Subdistrict Municipality	0.282	0.268	0.277	0.279	0.276	0.249	0.280	0.248
SAO	0.194	0.138	0.179	0.165	0.190	0.139	0.199	0.124

Source: Department of Local Administration, 2010-2013.

Note: * Before = The total amount of local own revenue and shared tax revenue

**After = The total amount of local own revenue, shared tax revenue and general grant

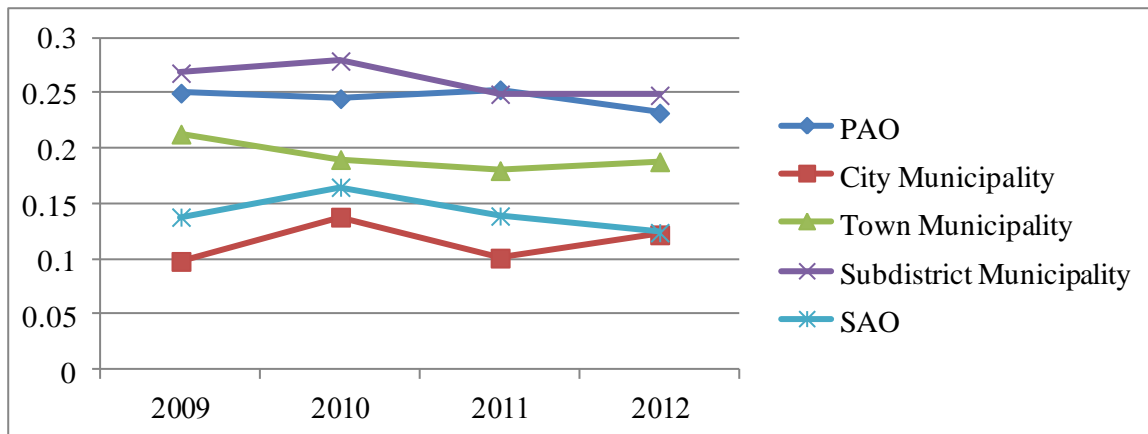


Figure 5.22 Fiscal Disparities within Each Type of Local Government Organization after General Grant Allocation by Year

Source: Department of Local Administration, 2010-2013.

Table 5.34 and Figures 5.23-5.26 look into fiscal disparities within in each type of local government organization before and after general grant allocation by region (See more detail in Appendix J). The Gini coefficient shows the result that, after the allocation, SAOs in the East had the greatest disparities in revenues, while those in the Northeast experienced the lowest disparities every year (Figure 5.23). Subdistrict Municipalities in the South had the largest disparities between 2009 and 2011, and such disparities decreased in 2012, whereas Subdistrict Municipalities in the East and the Vicinity tended to have the largest disparities (Figure 5.24). Town Municipalities in the South had growing disparities more than those in other regions every year after 2010 (Figure 5.25). City Municipalities in the East faced fluctuating disparities each year (Figure 5.26).

Table 5.34 Fiscal Disparities of each Type of Local Government Organization by Region and by Year

Fiscal year	Types of local government organization	Northeast		North		South		East		West		Central		Vicinity	
		Before*	After**	Before	After	Before	After	Before	After	Before	After	Before	After	Before	After
2009	PAO	0.160	0.128	0.132	0.104	0.301	0.277	0.287	0.213	0.061	0.092	0.198	0.153	0.139	0.127
	City Municipality	0.028	0.048	0.111	0.087	0.134	0.112	0*	0*	*	*	0.000	0.000	0.055	0.083
	Town Municipality	0.116	0.160	0.220	0.210	0.269	0.218	0.182	0.177	0.121	0.090	0.278	0.259	0.171	0.188
	Subdistrict														0.242
	Municipality	0.233	0.219	0.265	0.265	0.324	0.309	0.261	0.262	0.254	0.268	0.283	0.281	0.224	
	SAO	0.111	0.095	0.163	0.133	0.193	0.142	0.254	0.188	0.157	0.134	0.204	0.154	0.206	0.173
2010	PAO	0.135	0.129	0.104	0.092	0.273	0.260	0.233	0.201	0.048	0.057	0.177	0.155	0.112	0.105
	City Municipality	0.088	0.083	0.073	0.040	0.136	0.146	0.173	0.183			0.000	0.000	0.053	0.070
	Town Municipality	0.108	0.131	0.190	0.172	0.256	0.230	0.172	0.159	0.116	0.104	0.265	0.274	0.149	0.137
	Subdistrict														
	Municipality	0.233	0.227	0.256	0.256	0.307	0.343	0.265	0.255	0.258	0.291	0.279	0.290	0.221	0.257
	SAO	0.108	0.133	0.155	0.153	0.174	0.177	0.223	0.186	0.142	0.173	0.184	0.172	0.179	0.175
2011	PAO	0.152	0.138	0.110	0.091	0.297	0.273	0.263	0.206	0.033	0.069	0.189	0.151	0.186	0.181
	City Municipality	0.094	0.070	0.080	0.049	0.128	0.113	0.075	0.053			0.000	0.000	0.064	0.050

Table 5.34 (Continued)

Fiscal year	Types of local government organization														
		Northeast	North	South	East	West	Central	Vicinity							
2012	Town Municipality	0.105	0.092	0.190	0.169	0.303	0.250	0.181	0.161	0.133	0.090	0.260	0.238	0.130	0.116
	Subdistrict														
	Municipality	0.231	0.205	0.255	0.246	0.309	0.286	0.254	0.235	0.242	0.238	0.276	0.251	0.183	0.186
	SAO	0.105	0.080	0.156	0.126	0.180	0.135	0.244	0.192	0.145	0.121	0.187	0.152	0.206	0.172
	PAO	0.158	0.111	0.139	0.120	0.296	0.264	0.258	0.217	0.038	0.075	0.179	0.152	0.127	0.120
	City Municipality	0.058	0.046	0.144	0.122	0.129	0.118	0.132	0.104			0.000	0.000	0.068	0.043
	Town Municipality	0.140	0.119	0.205	0.185	0.300	0.246	0.184	0.158	0.128	0.091	0.270	0.241	0.115	0.107
	Subdistrict														
	Municipality	0.240	0.203	0.260	0.243	0.309	0.283	0.273	0.248	0.248	0.239	0.276	0.252	0.175	0.185
	SAO	0.112	0.059	0.168	0.112	0.189	0.118	0.258	0.186	0.147	0.102	0.195	0.153	0.229	0.188

Source: Department of Local Administration, 2010-2013.

Note: * Local revenue before general grant allocation = The total amount of local own revenue and shared tax revenue

** Local revenue after general grant allocation = The total amount of local own revenue, shared tax revenue and general grant

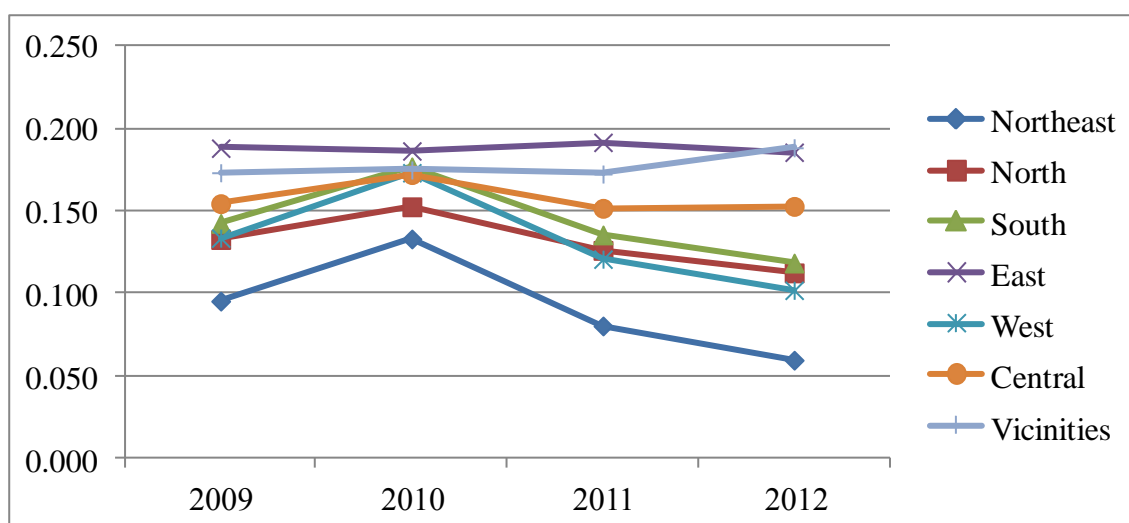


Figure 5.23 Fiscal Disparities of SAOs after General Grant Allocation by Region and by Year

Source: Department of Local Administration, 2010-2013.

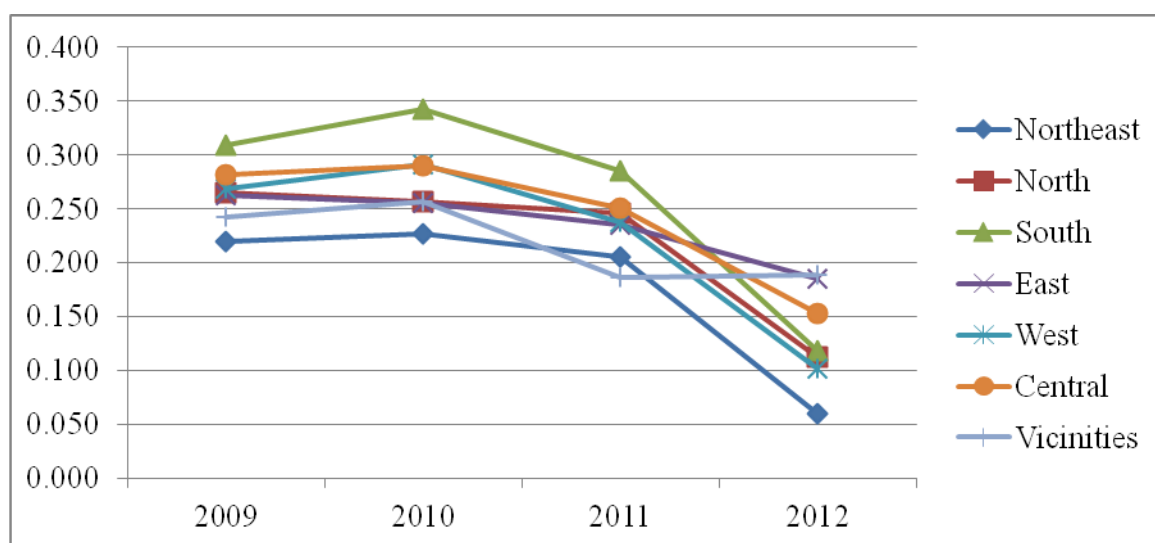


Figure 5.24 Fiscal Disparities of Subdistrict Municipalities after General Grant Allocation by Region and by Year

Source: Department of Local Administration, 2010-2013.

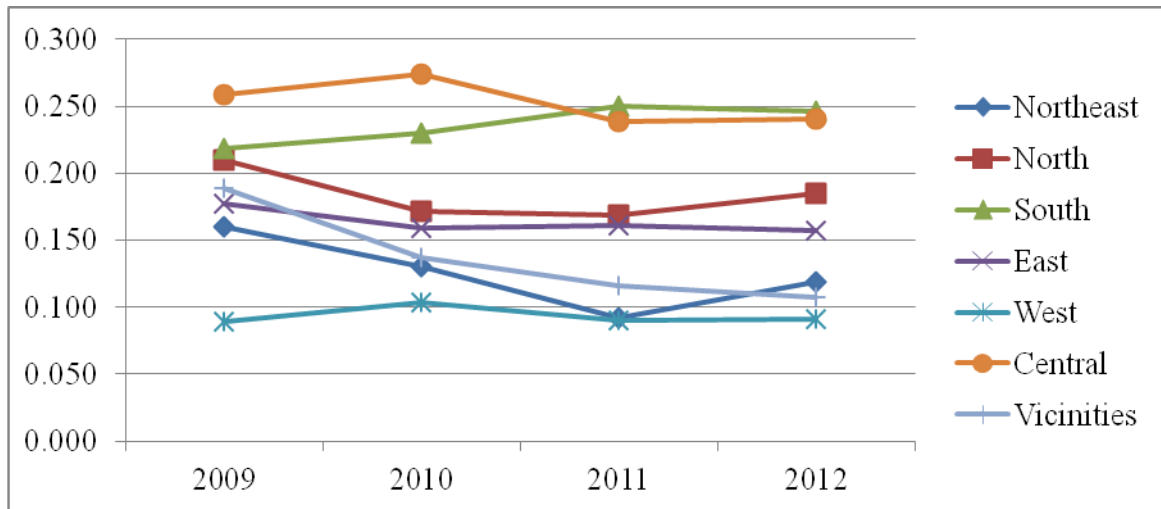


Figure 5.25 Fiscal Disparities of Town Municipalities after General Grant Allocation by Region and by Year

Source: Department of Local Administration, 2010-2013.

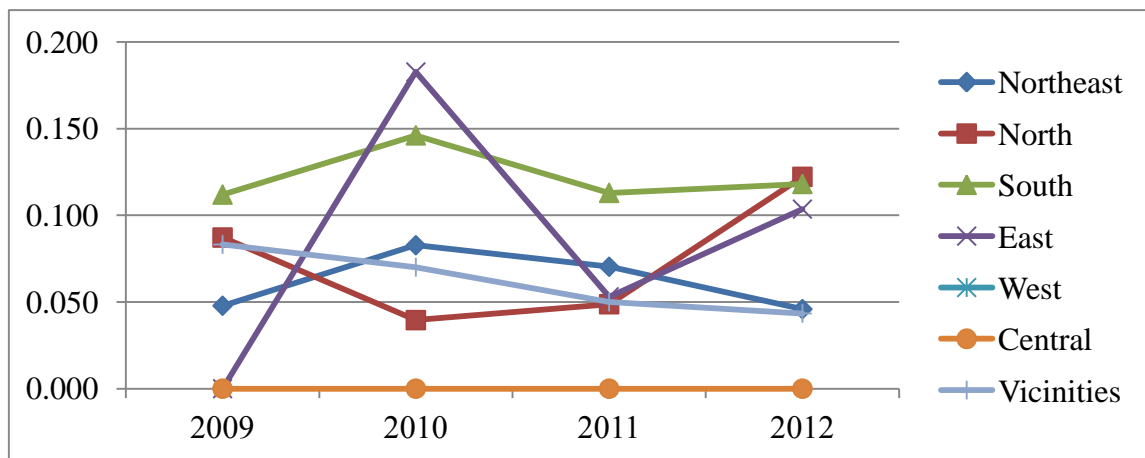


Figure 5.26 Fiscal Disparities of City Municipalities after General Grant Allocation by Region and by Year

Source: Department of Local Administration, 2010-2013.

To sum up, this Chapter 5 makes clear about the overall revenues and fiscal disparities by exploring every source of revenue and comparing between disparities and types of local government organizations for fiscal years 2009 to 2012. Results in this Chapter were analyzed in order to investigate horizontal fiscal disparities in Chapter 7.

CHAPTER 6

MEASURING LOCAL FISCAL EQUALIZATION OF SPECIFIC GRANTS

Chapter 6 presents the analysis of the specific grant distributed from the Department of Local Administration to local government organizations between 2009 and 2012. The unit of analysis is 75 provinces, replacing the local government organizations of which data are unavailable. Furthermore, the analysis excludes the newly established Buengkhan Province due to data unavailability. Of the two parts contained within this chapter, the first one analyzes the specific grant allocated by the Department of Local Administration to local government organizations. The analysis takes account of fiscal disparity, the relationship between specific grant allocation and local expenditure needs (such as for welfare, education, the poor and on gross provincial product) and between politics and allocation. The second part examines the specific grant approved for flagship (or urgent) projects of local government organizations that have required immediate attention to local development and problems to avoid unnecessary damages. Unlike other specific grant projects, of which the grant money is allocated per capita (for example the elderly pension project that uses the number of elderly living within a local jurisdiction in its calculation), the allocation for flagship (or urgent) projects is added with certain conditions, including criteria identified by the National Decentralization Committee and review and approval by another committee established by the Department of Local Administration. This study analyzed the specific grant allocation for flagship projects in 2011 and 2012 and made a comparison between the PAO, municipality, and the SAO. The study excluded the specific grant allocation for flagship projects in 2009 and 2010 due to incomplete data.

6.1 Specific Grant Allocation

As shown in Figure 6.1 and Table 6.1, the allocation of the specific grant between 2007 and 2012 is growing year. From 9,281 million baht in 2007, the specific grant allocation increased to 119,497.08 million baht in 2012, or a 12.87 times increase in the five-year period. However, the overall general grant allocation decreased every year between 2007 and 2012. In brief, the escalation of the specific grant exceeded that of the general grant. To illustrate, the specific grant made up merely 20% of the total grant before 2007, but then rose above 50% from 2011 during the period of decline of the general grant.

Unit: Million baht

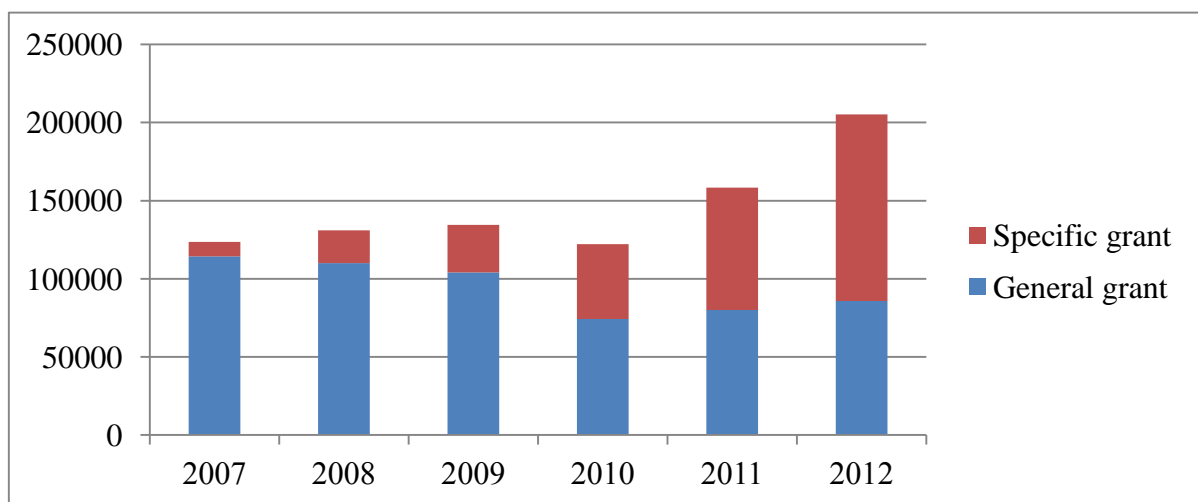


Figure 6.1 Comparison of General Grant and Specific Grant Allocated to Local Government Organizations between 2007 and 2012

Source: Department of Local Administration, 2013a.

Table 6.1 Percentage of General Grant and Specific Grant between 2007 and 2012

Unit: Million baht

Fiscal Year	General Grant	%	Specific Grant	%	Total Grant
2007	114,293.00	92.48	9,281.00	7.51	123,574.00
2008	109,997.00	83.91	21,077.00	16.08	131,074.00
2009	104,099.00	77.34	30,484.00	22.65	134,583.00
2010	74,271.00	59.24	51,091.3	39.24	125,363.04
2011	80,029.00	50.53	78,346.43	49.46	158,375.43
2012	85,695.00	41.76	119,497.08	58.23	205,192.08

Source: Department of Local Administration, 2013b.

Figure 6.2 presents projects that used the specific grant and the amount of grant money allocated for those projects in 2009. Totally, the government assigned 30,484.63 million baht for the specific grant and one third of this, or 12,000 million baht, was earmarked for flagship (urgent) projects under local government organizations. Following these urgent projects were projects relating to education which received 7,612.46 million baht (such as transferred educational equipment, building construction, equipment and construction of childcare centers, health treatment, house rent and pension for teachers and child center). Next were environmental projects (environment preservation and action plan) with 1,809.26 million baht and water resource projects (such as electric water pump, tap water and water shortage in Nakhon Rachasima).

Unit: Million baht

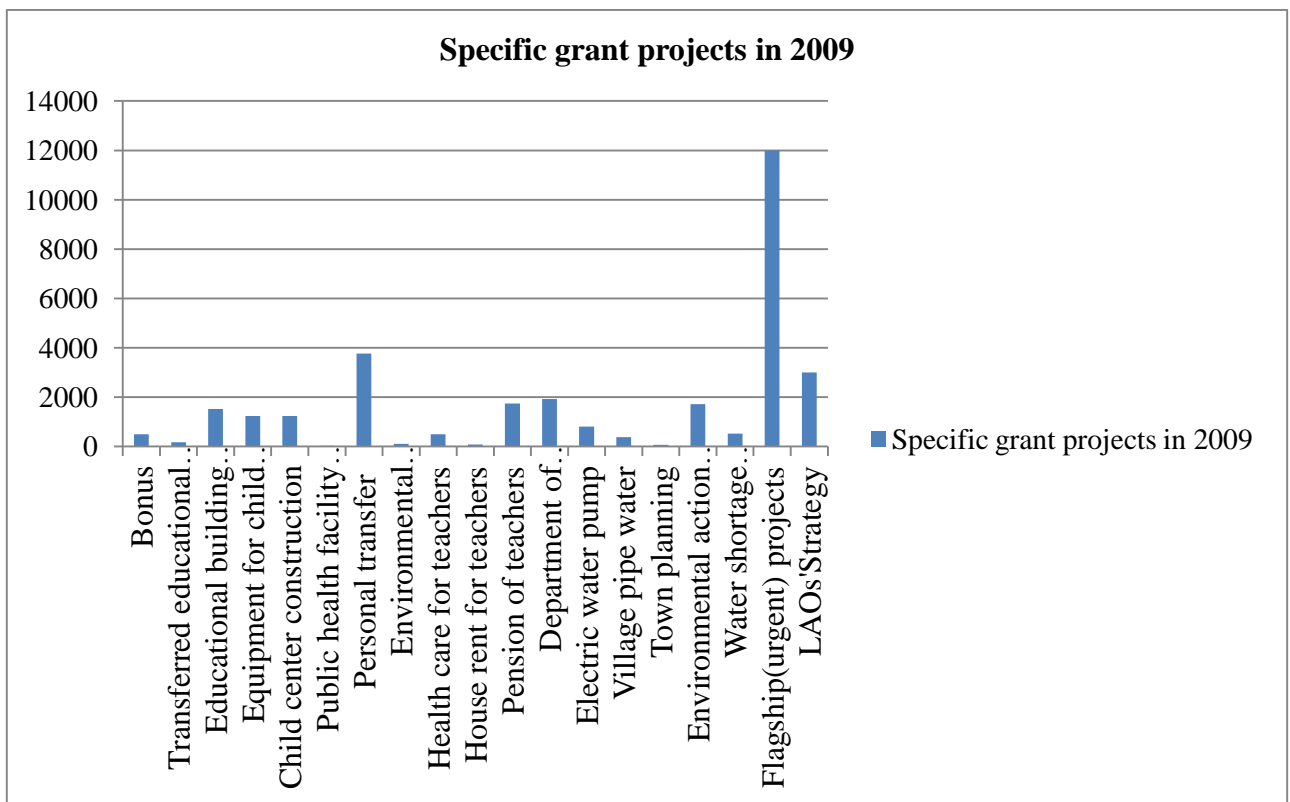


Figure 6.2 Specific Grant Projects and the Their Budgets in 2009

Source: Department of Local Administration, 2013a.

Figure 6.3 breaks down the allocation of the specific grants to projects in 2010 under Mr. Abhisit Vejjajiva's government which added three projects in response to its policy. These additions were welfare for the elderly, 15-year free education and health volunteers in the villages. The specific grant in 2010 rose to 51,091.30 million baht, which included 28,523.291 million baht for government projects that consumed 55.82% of the total specific grant. Most of the allocation went to projects targeted at the elderly. In this year, none of the allocation for their flagship or urgent projects and strategic projects for local development was allocated to local governments.

Unit: Million baht

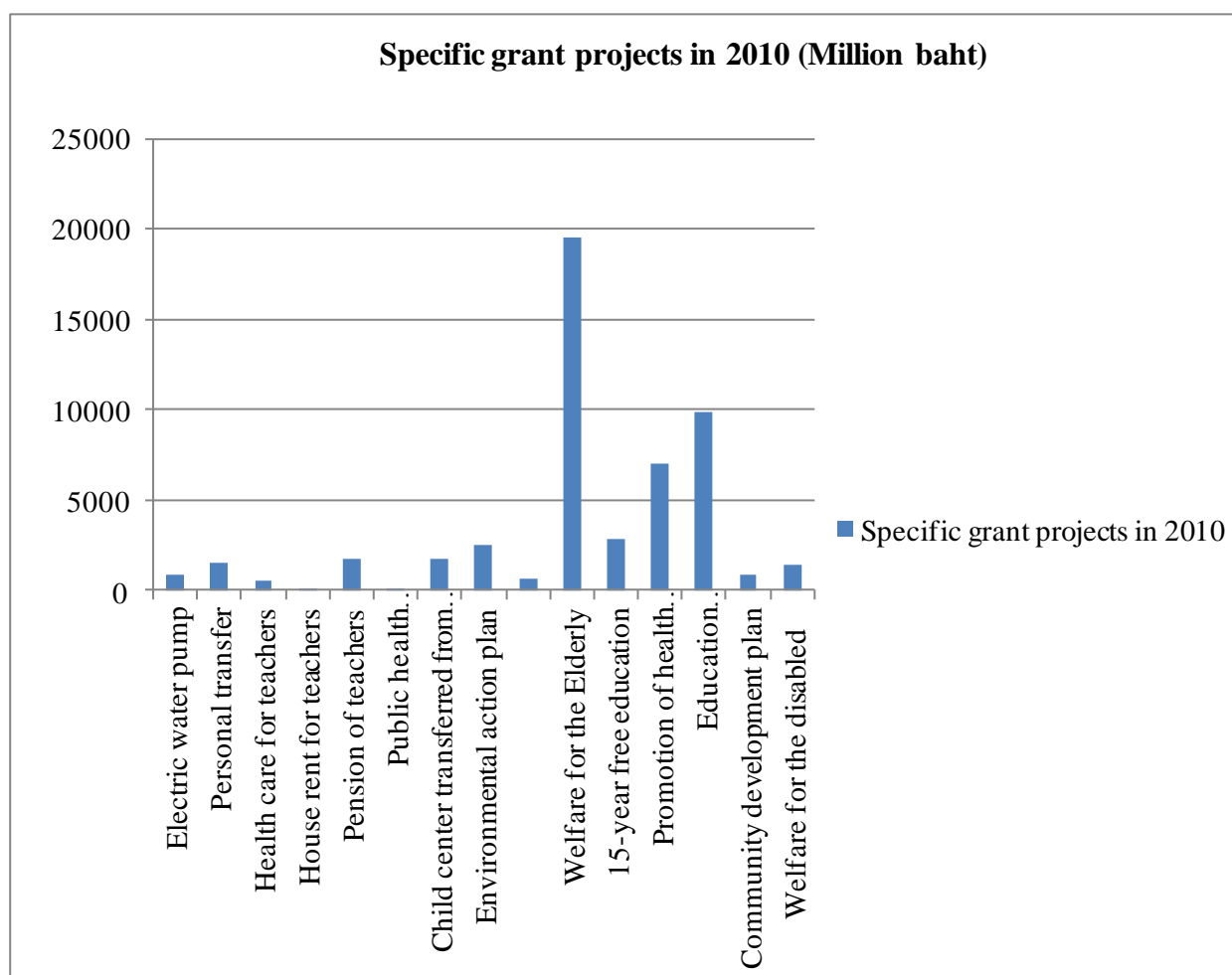


Figure 6.3 Specific Grant Projects and the Their Budgets in 2010

Source: Department of Local Administration, 2013a.

In 2011, 78,346.43 million baht in specific grants was allocated as shown Figure 6.4. The first three projects that benefited from the grant were the project on welfare for the elderly (31,068.31 million baht), salary and wage for teachers (11,226.82 million baht) and flagship (urgent) projects (8,142.11 million baht). The allocation per capita was calculated for the first two projects. The third one relied upon conditions and consideration of the review committee established by the Department of Local Administration.

The allocated grants can be classified into four purposes, namely welfare, education, water source and environment. The grant for welfare (social security for

the elderly and disabled) was the largest fund for this year at 35,807.89 million baht. The second largest fund, or 23,161.29 million baht, was for education (compulsory education that included expenditures on health treatment, house rent, pension, child center and construction, education equipment for local schools, salary for teachers and related wages and the 15-year free education). The third and fourth were on the environment and water resource management respectively.

Unit: Million baht

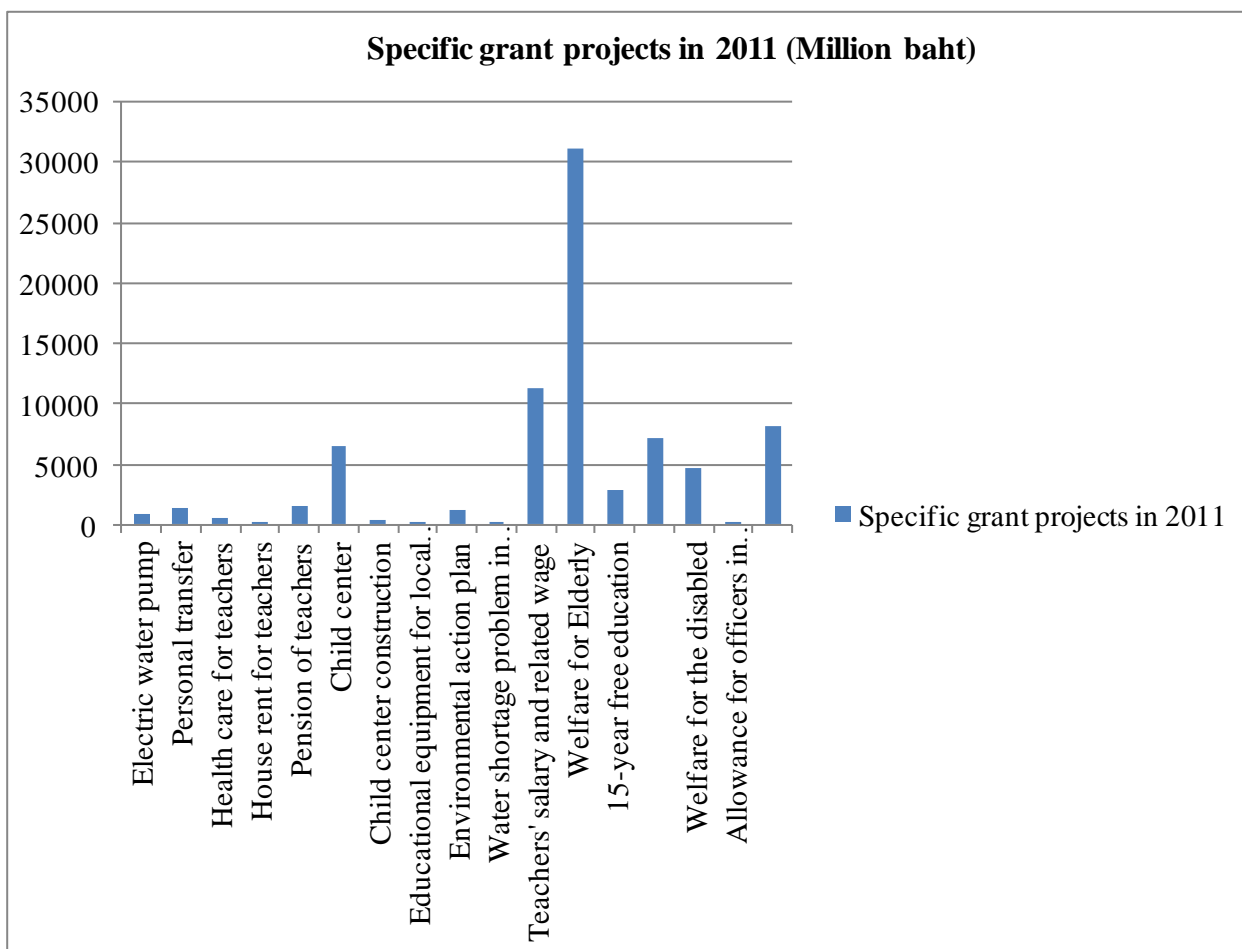


Figure 6.4 Specific Grant Projects and the Their Budgets in 2011

Source: Department of Local Administration, 2013a.

The total specific grant allocation of 119,497.07 million baht for 2012 is presented in Figure 6.5. The projects for social welfare for the elderly received the

highest fund, followed by projects for salary and wages for education personnel, flood relief and urgent development.

Unit: Million baht

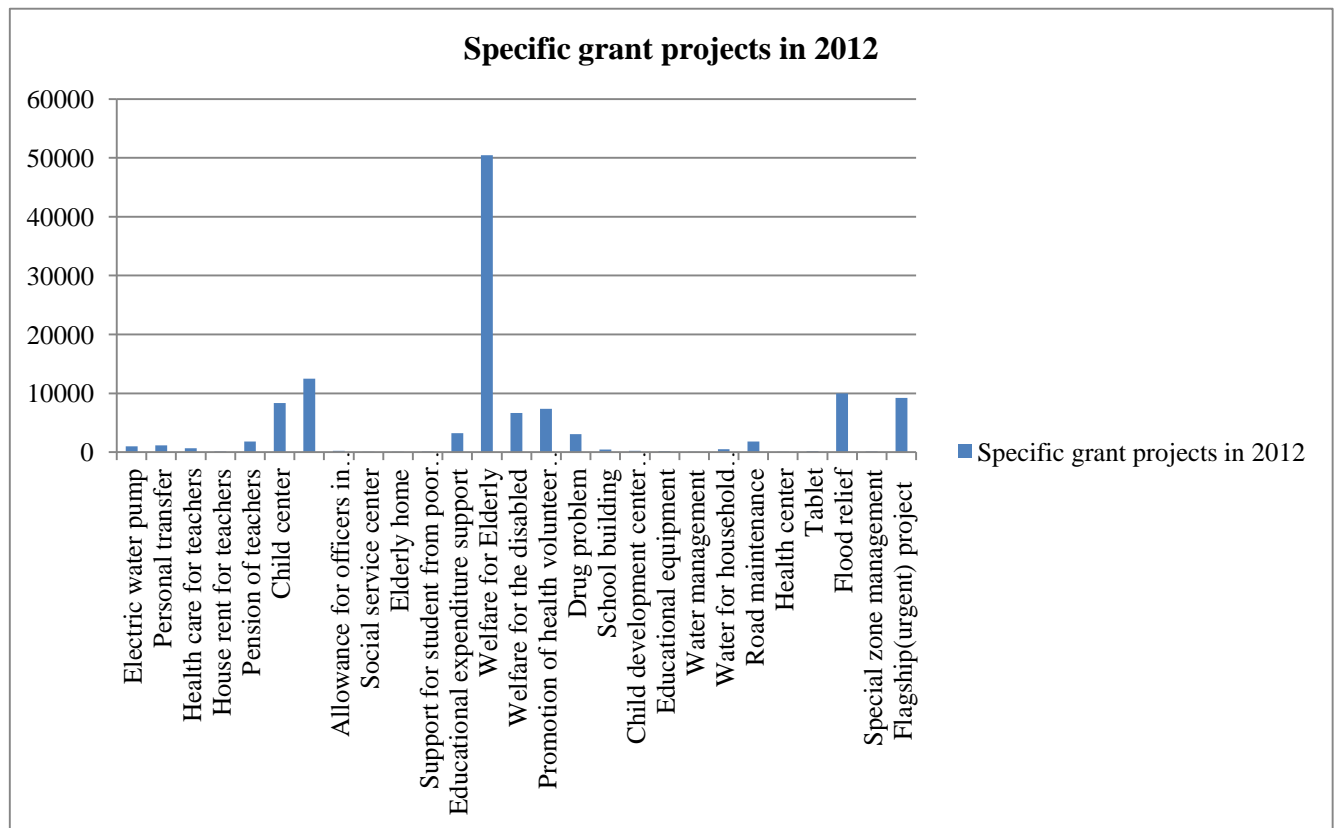


Figure 6.5 Specific Grant Projects and the Their Budgets in 2012

Source: Department of Local Administration, 2013a.

Table 6.2 presents the mean of per capita grant of both the general and specific types. The specific grant per capita grew in the four-year period from 2009, up to 2.8 times by 2012. The escalation, nonetheless, gave local government organizations a decline in fiscal autonomy. When comparing with the general grant, the proportion of specific grant appeared higher annually, with the mean at 1.40 times in 2012.

Table 6.2 Mean of General Grant and Specific Grant per Capita, and Ratio of Specific Grant to General Grant from 2009 to 2012

Unit: Baht per capita

Types of Grants	2552	2553	2554	2555
Specific grant	733.5	881.5	1,437.8	2,108.4
General grant	1,912.0	1,352.9	1,468.5	1,524.4
Ratio of specific grant to general grant (mean)	0.38	0.68	0.99	1.40

Source: Department of Local Administration, 2010-2013.

Table 6.3 presents percentile changes in the specific grant allocation between 2009 and 2012. The difference among provinces receiving the lowest grant and highest grant grew greater each year. The difference in grant amount was 448 baht per head in 2009 and rose to 1,025 baht in 2012.

Table 6.3 10th, 25th, 50th, 75th and 90th Percentile of the Specific Grant between 2009 and 2012

Unit: Baht per capita

Fiscal Year	N	p10	p25	p50	p75	p90	p90- p10
2009	75	533.3	579.9	692.9	875.5	981.4	448.1
2010	75	586.1	755.3	853.0	1,008.4	1,170.0	583.9
2011	75	1,112.3	1,267.8	1,414.7	1,598.5	1,747.8	635.5
2012	75	1,663.6	1,754.9	2,021.6	2,326.0	2,688.6	1025
2009-2012		606.9	776.3	1,174.5	1,698.4	2,119.3	1512.4

Source: Department of Local Administration, 2010-2013.

Table 6.4 shows the list of top ten provinces receiving lowest and highest specific grants between 2009 and 2012. Provinces with the least allocated grants were Samut Prakan, Pathum Thani, Chachoengsao and Rayong. Uttaradit ranked among ten provinces with the highest allocation each year.

Table 6.4 Top Ten Provinces Receiving the Lowest and Highest Specific Grants between 2009 and 2012

Unit: Baht per head

Fiscal Year	10 provinces with lowest grant	Specific grant per capita	10 provinces with highest grant	Specific grant per capita
2009	Pathum Thani	302.76	Satun	1,349.20
	Samut Prakan	400.75	Phangnga	1,314.08
	Chachoengsao	460.70	Mae Hong Son	1,254.26
	Trad	466.51	Nakhon Tatchasima	1,179.01
	Surin	471.81	Uttaradit	989.41
	Chanthaburi	490.32	Phetchaburi	987.97
	Kamphang Phet	511.57	Ang Thong	986.80
	Chiang Mai	533.35	Tak	981.38
	Sakon Nakhon	539.99	Mukdahan	971.46
	Saraburi	541.77	Yasothon	954.88
2010	Amnat Charoen	412.47	Chai Nat	1,543.80
	Surin	445.75	Phetchaburi	1,465.28
	Pathum thani	510.07	Uttaradit	1,449.49
	Kamphang Phet	543.52	Samut Songkhram	1,336.92
	Samut Prakan	549.01	Nakhon ratchasim	1,241.19
	Buriram	553.99	Phuket	1,239.99
	Krabi	562.64	Sing Buri	1,214.42
	Mae Hong Son	586.13	Nakhon SiTammarat	1,170.00
	Sakon Nakhon	618.00	Sukhothai	1,150.29
	Nakhon Phanom	631.75	Maha Sarakham	1,143.58

Table 6.4 (Continued)

Fiscal Year	10 provinces with lowest grant	Specific		Specific grant per capita
		grant per capita	10 provinces with highest grant	
2011	Bungkan	306.49	Chai Nat	2,205.19
	Samut Prakan	813.31	Uttaradit	2,060.82
	Pathum Thani	818.75	Ang Thong	2,049.48
	Krabi	1,082.09	Samut Songkhram	1,914.23
	Ranong	1,087.81	Nong Khai	1,904.13
	Rayong	1,089.09	Phetchaburi	1,816.93
	Trad	1,103.13	Nakhon Ratchasim	1,774.4
	Nong Bua Lam Phu	1,112.32	Maha Sarakham	1,747.79
	Sakon Nakhon	1,121.01	Phrae	1,739.37
	Chachoengsao	1,122.29	Phichit	1,720.72
2012	Samut Prakan	1,121.64	Ang Thong	3,851.91
	Pathum Thani	1,187.57	Phrae	3,358.38
	Krabi	1,433.04	Nan	3,228.35
	Rayong	1,469.57	Kalasin	2,920.75
	Nonthaburi	1,581.70	Yasothon	2,886.42
	Phetchabun	1,635.64	Chai Nat	2,884.80
	Naratiwat	1,636.45	Maha Sarakham	2,766.70
	Sakon Bakhon	1,663.61	Sukhothai	2,688.56
	Songkhla	1,682.25	Mukdahan	2,653.93
	Trad	1,684.38	Uttaradit	2,652.46

Source: Department of Local Administration, 2010-2013.

As presented in Table 6.5, most specific grants were allocated to the Southern Region in 2009, with 807 baht per capita. The shift began in 2010 when the Central Region was in receipt of the highest allocation. However, the Vicinities Region remained the recipient of the lowest allocation during the entire four-year period.

Table 6.5 Specific Grant Allocation by Region by Year

Unit: Baht per capita

Region	2009	2010	2011	2012	Total
Northeast	729.4	769.6	1,407.4	2,232.1	1,306.3
North	772.6	920.3	1,518.9	2,291.0	1,375.7
South	807.0	878.8	1,370.5	1,840.6	1,320.4
East	596.2	848.2	1,265.7	1,821.8	1,132.9
West	780.4	1,072.7	1,523.3	2,124.7	1,375.2
Central	770.3	1,085.2	1,706.7	2,515.4	1,519.4
Vicinities	529.1	785.1	1,096.3	1,609.4	1,004.9
Total	733.5	881.5	1437.8	2108.4	1290.3

Source: Department of Local Administration, 2010-2013.

Figure 6.6 and 6.7 present the equality of distribution of the specific and general grants between 2009 and 2012. This study found more of an equal distribution of the general grant than the specific one. The variation in general grant was also less. The specific grant's distribution per capita ranged from 700 to 2,000 baht (Figure 6.7).

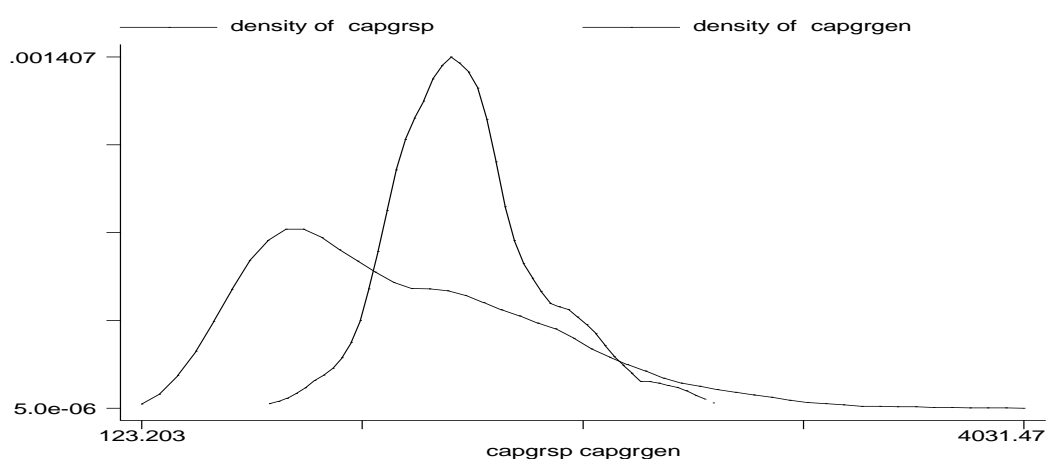


Figure 6.6 Equality of per Capita Distribution of the Specific Grant and General Grant between 2009 and 2012

Source: Department of Local Administration, 2010-2013.

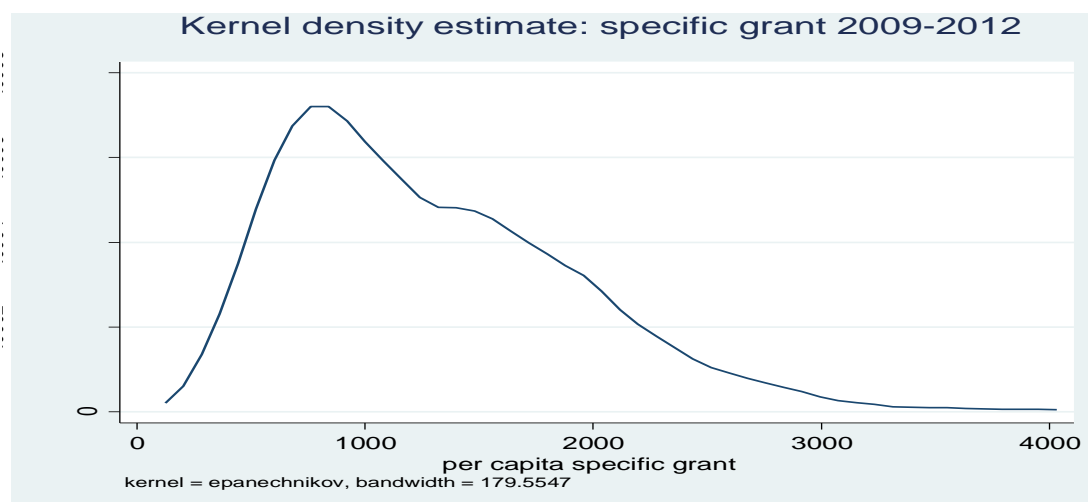


Figure 6.7 Equality of per Capita Distribution of Specific Grant between 2009 and 2012

Source: Department of Local Administrative, 2010-2013.

The steepness of the Lorenz curve of the general grant inclines less than the specific grant curve, meaning that the inequality of distribution was found more in the specific grant (Figure 6.8).

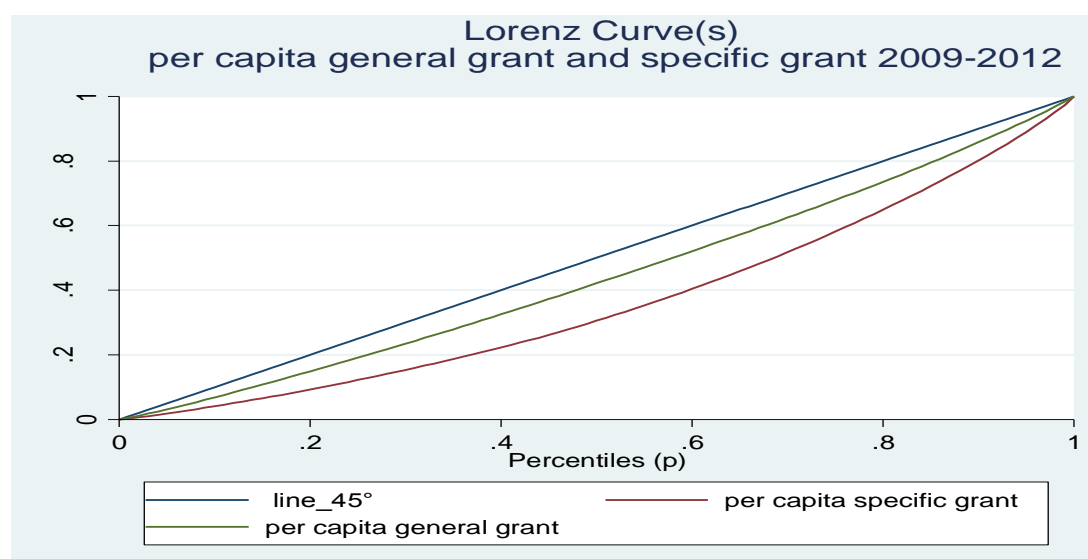


Figure 6.8 Inequality Measure of Distribution of General Grant and Specific Grant by Lorenz Curve between 2009 and 2012

Source: Department of Local Administration, 2010-2013.

The Gini Coefficient in Table 6.6 and Figure 6.9 proves that the disparity existing in the specific grant is greater than the general grant. The disparity of the specific grant dropped between 2009 and 2011, but increased in 2012.

Table 6.6 Disparity of the General Grant and Specific Grant Measured by Gini Coefficient between 2009 and 2012

Fiscal Year	N	Gini coeff.			Gini coffeff.		
		Specific grant	Std. Err.	t	General grant	Std.Err.	t
2009	75	0.150	0.013	11.49	0.083	0.007	11.98
2010	75	0.144	0.013	11.3	0.100	0.009	10.57
2011	75	0.108	0.013	8.5	0.080	0.010	7.94
2012	75	0.121	0.012	10.36	0.080	0.009	8.57

Source: Department of Local Administration, 2010-2013.

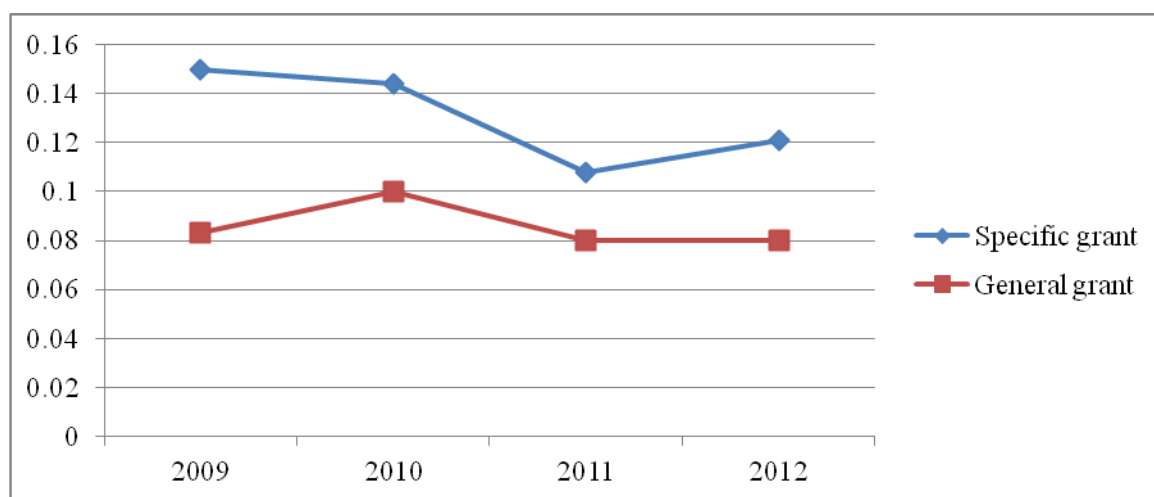


Figure 6.9 Disparity of the General Grant and Specific Grant Measured by Gini Coefficient between 2009 and 2012

Source: Department of Local Administration, 2010-2013.

In Table 6.7, the Gini coefficient reveals the disparity of the specific grant allocation at the regional level between 2009 and 2012. A great disparity occurred in the Vicinities every year.

Table 6.7 Disparity of the Specific Grant at the Regional Level Measured by Gini Coefficient by Year

Region	Gini coefficient of per capita specific grant				Total
	2009	2010	2011	2012	
Northeast	0.136	0.143	0.085	0.091	0.287
North	0.136	0.134	0.084	0.116	0.268
South	0.151	0.122	0.069	0.072	0.216
East	0.113	0.078	0.065	0.053	0.244
West	0.095	0.130	0.088	0.064	0.229
Central	0.123	0.124	0.095	0.140	0.275
Vicinities	0.166	0.146	0.108	0.155	0.267

Source: Department of Local Administration, 2010-2013.

The Gini coefficient measured the disparity between the ratios of specific and general grants allocated to each region between 2009 and 2012 (Table 6.8 and Figure 6.10). The greatest disparity was in the different regions in each year, namely East in 2009, South in 2010, Northeast in 2011, and North in 2012.

Table 6.8 Disparity between the Ratios of Specific Grant to General Grant at the Regional Level Measured by Gini Coefficient by Year

Region	Gini coefficient of ration of specific grant to general grant			
	2009	2010	2011	2012
Northeast	0.127	0.185	0.104	0.095
North	0.095	0.155	0.086	0.120

Table 6.8 (Continued)

Region	Gini coefficient of ration of specific grant to general grant			
	2009	2010	2011	2012
South	0.135	0.212	0.087	0.119
East	0.162	0.118	0.100	0.076
West	0.069	0.117	0.071	0.064
Central	0.093	0.077	0.059	0.107
Vicinities	0.144	0.154	0.099	0.104

Source: Department of Local Administration, 2010-2013.

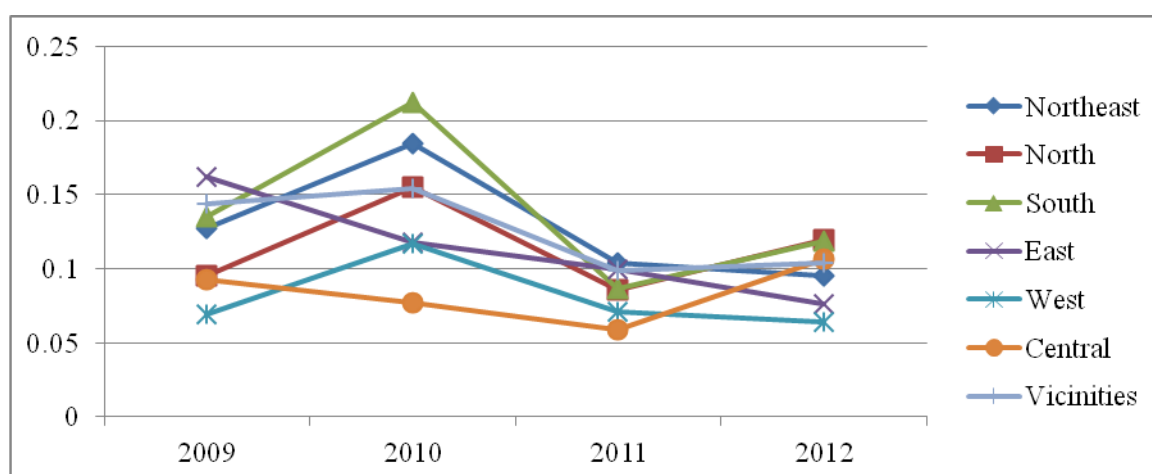


Figure 6.10 Disparity between the Ratios of Specific Grant to General Grant at the Regional Level between 2009 and 2012

Source: Department of Local Administration, 2010-2013.

Table 6.9 presents per capita specific grant and gross provincial product on average, and the ratio of people living in poverty, the elderly, children, the disabled and patients between 2009 and 2012. The lowest gross provincial product per capita and the highest poverty ratio were found in the Northeast. The Central Region had the highest ratio of the elderly and patients, while the East faced a pipe water shortage more than others.

Table 6.9 Four-Year Average of per Capita Specific Grant and Gross Provincial Product per Capita, and the Ratio of People Living in Poverty, the Elderly, Children, the Disabled and patients between 2009 and 2012

Region	Per capita specific grant	Per capita GPP*	Poverty ratio*	Elderly *	No water*	Children*	Disabled*	Patients*
Northeast	1306.30	47.51	0.21	0.11	0.10	0.20	0.02	2.52
North	1375.71	72.72	0.21	0.13	0.12	0.18	0.02	3.59
South	1230.49	133.51	0.14	0.11	0.27	0.23	0.01	2.65
East	1132.98	374.13	0.16	0.12	0.35	0.20	0.02	2.99
West	1375.26	107.96	0.19	0.14	0.10	0.18	0.01	3.72
Central	1519.41	180.76	0.14	0.15	0.06	0.18	0.02	3.88
Vicinities	1004.98	368.35	0.06	0.11	0.05	0.19	0.01	2.96
Total	1292.08	141.03	0.17	0.12	0.15	0.20	0.02	3.07

Source: Department of Local Administration (DLA) and the National Economic and Social Development Board (NESDB) 2010-2013.

Note: * Poverty ratio = proportion of people living in poverty in total population

Per capita GPP= Gross Provincial Product per capita

Elderly= Share of elderly persons in total population

Children= Share of children in total population

Disabled= Share of disabled persons in total population

Patients= Share of patients in total population

No water=Percentage of households without pipe water

Table 6.10 shows the multiple linear regression analysis conducted with quantitative variable-both independent and dependent. In the analysis, the dependent variable is per capita specific grant, and independent variables are the gross provincial product and the population of elderly, children, the disabled, patients and households without pipe water for each province. A significance of less than 0.05 means that independent variables significantly influence the dependent variable. A significance

of more than 0.05 means no significant influence. The analysis reveals that the number of poor, elderly, children and disabled influenced changes in per capita specific grant, with statistical significance at .05. The gross provincial product and number of patients and households without pipe water pose no influence on the grant.

Table 6.10 Multiple Linear Regression Analysis of the Relationship between Specific Grant and Gross Provincial Product, and the Number of People Living in Poverty, who are Elderly, who are Children, who are Disabled, who are Patients and the Number of Households without Pipe Water for each Province

Per capita specific grant	Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
Poverty ratio*	-1074.6	281.7	-3.8	0.000*	-1629.0	-520.2
Per capita GPP*	0.1	0.2	0.4	0.667	-0.3	0.5
Elderly*	9814.2	2586.2	3.8	0.000*	4724.3	14904.1
Children*	7124.7	1592.6	4.5	0.000*	3990.4	10259.1
Disabled*	57740.9	6102.2	9.5	0.000*	45731.0	69750.8
Patients*	45.3	42.5	1.1	0.287	-38.3	128.9
No water*	-374.3	228.9	-1.6	0.103	-824.8	76.2
_cons	-2238.8	537.4	-4.2	0.000	-3296.4	-1181.1
R-squared=0.407						

Source: Department of Local Administration (DLA) and The National Economic and Social Development Board (NESDB) 2010-2013.

Note: * Poverty ratio = proportion of people living poverty in total population

Per Capita GPP= Gross Provincial Product per capita

Elderly= Share of elderly people in total population

Children= Share of children in total population

Disabled= Share of disabled people in total population

Patients= Share of patients in total population

No water=Percentage of household without pipe water

Table 6.11 illustrates the relationship between politics and specific grant allocation. Political parties that win the majority vote are likely to draw in policies that favor their political strongholds. Back in 2009 (under the Democrat Party's administration), the Southern Region benefited from the specific grant more than other regions. It received 806 baht per capita. Later in 2012, under the Pheu Thai Party's administration, such benefit fell upon the Central, the Northern and the Northeastern regions, which received 2,515 baht, 2,291 baht and 2,232 baht per capita respectively.

Table 6.11 Specific Grant Allocation under Administration of the Democrat Party in 2009 and the Pheu Thai Party in 2012

Unit: Baht per person		
Region	2009 (Democrat's government)	2012 (Pheu Thai's Government)
Northeast	729.42	2,232.13
North	772.65	2,291.00
South	806.98	1,840.56
East	596.22	1,821.77
West	780.38	2,124.68
Central	770.33	2,515.42
Vicinities	529.05	1,609.42
Total	733.48	2,102.88

Source: Department of Local Administration, 2010, 2012.

The top ten provinces receiving high specific grants during the time of the Democrat Party's and the Pheu Thai Party's administration are presented in Table 6.12. In 2009, under the Democrat government, Satun received the greatest amount of specific grant, or 1,349 baht per capita, followed by Phangnga with 1,314 baht per capita. During the Pheu Thai's domination in 2012, the highest amount was allocated to Ang Thong at 3,851 baht per capita, and to Phrae at 3,358 baht per capita.

Table 6.12 Comparison among Top-Ten Provinces Receiving the Highest Specific Grant Allocation under the Administration of the Democrat Party and the Pheu Thai Party

Unit: Baht

2009 (Democrat's government)		2012 (Pheu Thai's government)	
Province	Per capita specific grant	Province	Per capita specific grant
Satun	1,349.20	Ang Thong	3,851.91
Phangnga	1,314.08	Phrae	3,358.38
Mae Hong son	1,254.26	Nan	3,228.35
Nakhon Ratchasim	1,179.01	Kalasin	2,920.75
Uttaradit	989.41	Yasothon	2,886.42
Phetchaburi	987.97	Chai Nat	2,884.80
Ang Thong	986.80	Maha Sarakham	2,766.70
Tak	981.38	Sukhothai	2,688.56
Mukdahan	971.46	Mukdahan	2,653.93
Yasothon	954.88	Uttaradit	2,652.46

Source: Department of Local Administration, 2010, 2012.

6.2 A Case Study: Specific Grant Allocation for Flagship (Urgent) Projects of Local Government Organizations

The specific grant allocation for flagship or urgent projects for development under local government organization was first launched during the 2009 fiscal year. Two major reasons explain the selection of this allocation in this study. First, these projects require particular criteria set by the National Decentralization Committee, and have the Department of Local Administration establish a committee to review and approve the projects. Other projects rely on expenditure needs such as projects on the social security of the elderly and disabled which use the demographics in the calculations for grant money, similar to projects on teacher's salary which also need

the number of teachers as a basis. Second, flagship projects carry a large budget. In 2009, the Government did allocate most of the budget for such projects. The allocation dropped to the third rank in 2011 and 2012 behind the projects for elderly welfare and teacher's salary. This study made a comparison of allocation for flagship projects in 2011 and 2012 only. Before this, during the 2010 fiscal year, the Department of Local Administration was not given the budget for flagship projects, but for those on the elderly and the disabled, and community development plans. The study did analyze allocation for flagship projects to municipalities and SAOs countrywide.

6.2.1 Research Results

Figure 6.11 shows the proportion of the specific grant for flagship projects to the total specific grant between 2011 and 2012. A total of 78,346.43 million baht in specific grants was allotted from the government in 2011, and 8,142.11 million baht, or 10.4%, was shared for these projects. The total specific grant increased in the next year to 119,497.07 million baht, and 7.7%, or 9,198.20 million baht, was for these urgent projects.

Unit: Million baht

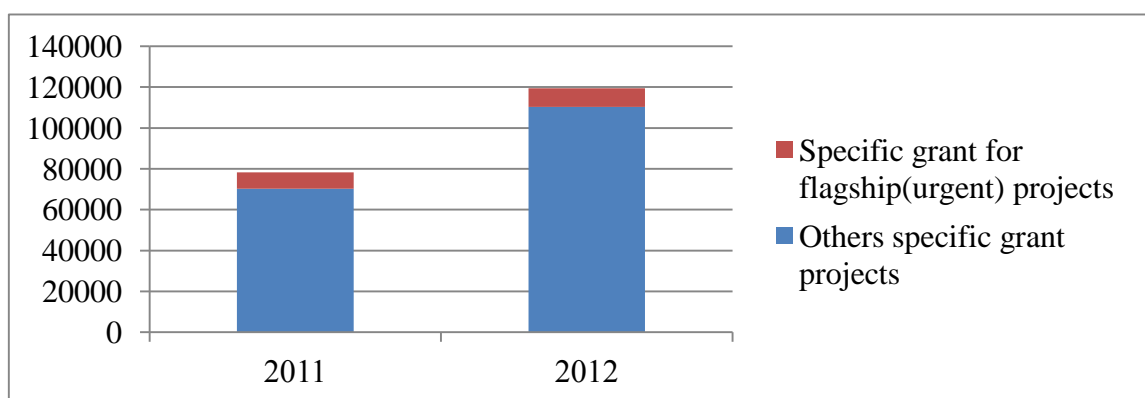


Figure 6.11 Proportion of Specific Grant for Flagship (Urgent) Projects of Local Government Organizations and Total Specific Grant between 2011 and 2012

Source: Department of Local Administration, 2011, 2012.

Table 6.13 shows that between 2011 and 2012, the first three local organizations that gained the largest shares of specific grants for flagship projects were the SAO, municipality and PAO. SAO, however, had a 3.89% reduction of the grant in 2012, while municipalities and PAO, received 10.6 and 79.35% increase during the same year respectively.

Table 6.13 Comparison of Specific Grants for Flagship (Urgent) Projects between 2011 and 2012

Unit: Baht per capita

Fiscal Year	N	Population	Local government organizations	Specific grant per capita for flagship projects
2011	76	57,726,015	PAO	23.74
	27	2,547,728	City municipality	30.54
	149	3,904,025	Town municipality	42.81
	1884	13,598,123	Subdistrict municipality	96.35
	5715	37,676,139	SAO	138.41
2012	76	57,962,482	PAO	42.58
	29	2,664,982	City municipality	44.48
	167	4,217,981	Town municipality	48.09
	2072	15,078,366	Subdistrict municipality	103.44
	5507	36,001,279	SAO	134.69

Source: Department of Local Administration, 2011-2012.

According to Table 6.14 and Figure 6.12, 5,431 flagship projects were funded through specific grants during the fiscal year of 2011. Among these, 3,631 projects worth 5,214,888,000 baht, or 64% of the total specific grant, were for the SAOs. The total grant for these urgent projects increased for the fiscal year of 2012, but SAOs received less allocation, at 4,849,136,800 baht, or 52% of the total grant. In the meantime, PAOs and municipalities received an increased allocation.

Table 6.14 Number of Projects Receiving Specific Grants for Flagship (Urgent)
Projects between 2011 and 2012

Fiscal Year	Local government organizations	Number of projects	Amount (Baht)	Percent
2011	PAO	866	1,370,183,500	17
	Municipality			
	City Municipality	19	77,796,000	0.96
	Town Municipality	64	167,119,000	2.05
	Subdistrict Municipality	851	1,310,124,000	16.09
	SAO	3,631	5,214,888,000	64.06
	Total	5,431	8,140,110,500	
2012	PAO	1,257	2,467,942,600	26.83
	Municipality			
	City Municipality	24	118,536,700	1.29
	Town Municipality	64	202,833,100	2.21
	Subdistrict Municipality	804	1,559,649,400	16.96
	SAO	2,708	4,849,136,800	52.72
	Total	4,857	9,198,098,600	

Source: Department of Local Administration, 2011-2012.

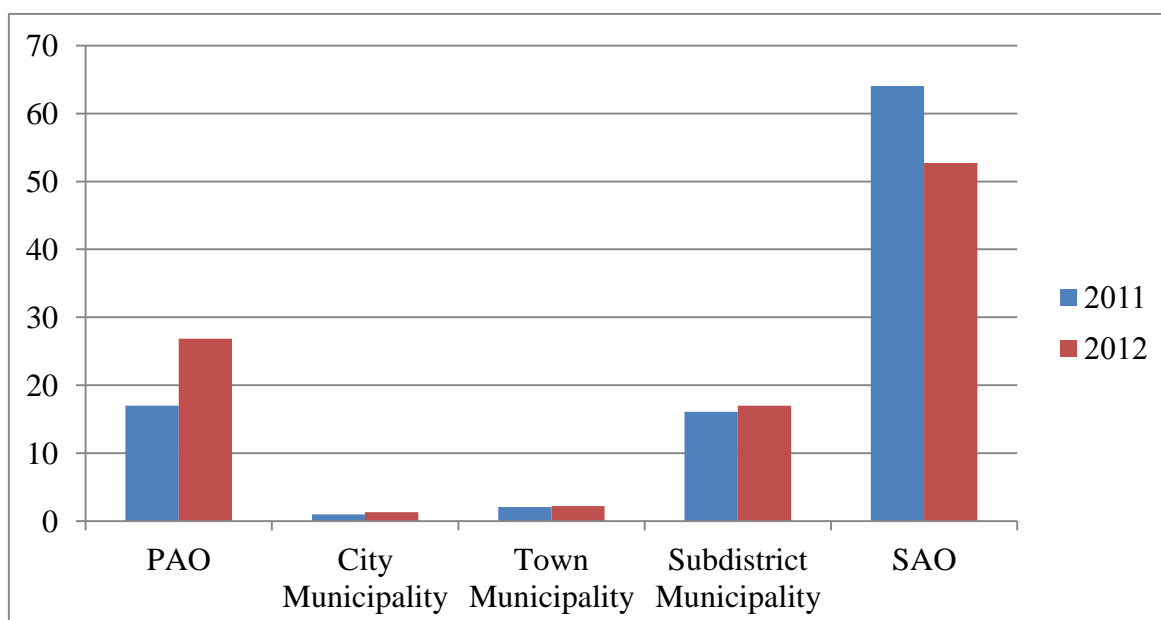


Figure 6.12 Percentage of Specific Grants for Flagship (Urgent) Projects between
2011 and 2012

Source: Department of Local Administration, 2011, 2012.

Only a percentage of local government organizations were funded for flagship (urgent) projects between 2011 and 2012. Out of 5,719 SAOs in total, less than half, or 2,422 organizations (42%), gained a share of the total specific grant for their urgent development projects for the fiscal year of 2011. For the next fiscal year, only 1,621 (29%) of 5,509 SAOs received such funding support (Table 6.15).

Table 6.15 Percentage of Local Government Organizations Funded for Flagship (Urgent) Projects between 2011 and 2012

Fiscal Year	Local government organizations	Total no. of local government organizations	No. of local government organizations funded	Percentage of local government organizations funded
2011	PAO	76	39	51.31
	City Municipality	27	12	44.44
	Town Municipality	149	36	24.16
	Subdistrict Municipality	1,884	596	31.63
	SAO	5,715	2,422	42.37
	Total	7,851	3,105	39.54
2012	PAO	76	43	56.57
	City Municipality	29	10	34.48
	Town Municipality	167	27	16.16
	Subdistrict Municipality	2,072	453	21.86
	SAO	5,507	1,621	29.43
	Total	7,851	2,154	27.43

Source: Department of Local Administration, 2011, 2012.

During the fiscal year of 2011, five PAOs received specific grants for their 50 urgent development projects approximately, while 37 PAOs were denied grants. For the fiscal year of 2012, up to 200 urgent projects of two PAOs were funded, while 33 PAOs were not (Table 6.16).

Table 6.16 Number of Projects and PAOs Receiving Specific Grants for Flagship
(Urgent) Projects between 2011 and 2012

Fiscal Year 2011			Fiscal Year 2012		
No. of projects	No. of PAOs	Percent	No. of projects	No. of PAOs	Percent
0	37	48.68	0	33	43.42
1	4	5.26	1	6	7.89
2	3	3.95	2	3	3.95
3	3	3.95	3	5	6.58
4	2	2.63	4	1	1.32
5	2	2.63	5	3	3.95
6	1	1.32	6	2	2.63
7	3	3.95	8	2	2.63
9	1	1.32	10	1	1.32
10	1	1.32	11	1	1.32
11	1	1.32	12	1	1.32
12	1	1.32	13	1	1.32
15	1	1.32	15	1	1.32
20	1	1.32	20	1	1.32
24	1	1.32	22	1	1.32
26	1	1.32	24	1	1.32
27	1	1.32	25	1	1.32
30	2	2.63	29	1	1.32
32	1	1.32	31	1	1.32
33	1	1.32	35	1	1.32
34	2	2.63	42	1	1.32
38	1	1.32	62	2	2.63
54	1	1.32	63	1	1.32
73	1	1.32	82	3	3.95
94	2	2.63	218	1	1.32
102	1	1.32	243	1	1.32

Source: Department of Local Administration, 2011, 2012.

Six city municipalities failed to receive the specific grants for their urgent projects for the fiscal years of 2011 and 2012. However, one city municipality succeeded in funding support for their eight projects for the fiscal year of 2012 (Table 6.17).

Table 6.17 Number of Projects and City Municipalities Receiving Specific Grants for Flagship (Urgent) Projects between 2011 and 2012

Fiscal Year 2011			Fiscal Year 2012		
No. of projects	No. of city municipalities	Percent	No. of projects	No. of city municipalities	Percent
0	15	55.56	0	21	72.41
1	7	25.93	1	4	13.79
2	4	14.81	2	3	10.34
4	1	3.70	3	2	6.90
			8	1	3.45

Source: Department of Local Administration, 2011, 2012.

For the fiscal year of 2012, there was an increase of 23% of town municipalities that earned specific grants for their flagship projects compared to the fiscal year of 2011. This percentage included 138 town municipalities, and two of them succeeded in earning grants for more than ten projects (Table 6.18).

Table 6.18 Number of Projects and Town Municipalities Receiving Specific Grants for Flagship (Urgent) Projects between 2011 and 2012

Fiscal Year 2011			Fiscal Year 2012		
No. of projects	No. of town municipalities	Percent	No. of projects	No. of town municipalities	Percent
0	112	75.17	0	138	82.63
1	26	17.45	1	14	8.38
2	6	4.03	2	7	4.19
5	1	0.67	3	3	1.80
6	1	0.67	4	1	0.60
7	1	0.67	11	1	0.60
8	1	0.67	12	1	0.60

Source: Department of Local Administration, 2011, 2012.

Many subdistrict municipalities were unsuccessful in obtaining the specific grants for flagship projects during fiscal years 2011 and 2012. For the fiscal year of 2012 alone, the grants were out of reach for 1,617 municipalities, but were fulfilled for 61 municipalities, each with more than three projects and one municipality with more than 40 projects.

Table 6.19 Number of Projects and Subdistrict Municipalities Receiving Specific Grants for Flagship (Urgent) Projects between 2011 and 2012

Fiscal Year 2011			Fiscal Year 2012		
No. of projects	No. of sub-district municipalities	Percent	No. of projects	No. of sub-district municipalities	Percent
0	1288	68.37	0	1617	78.04
1	446	23.67	1	307	14.82
2	92	4.88	2	85	4.10

Table 6.19 (Continued)

Fiscal Year 2011			Fiscal Year 2012		
No. of projects	No. of sub-district municipalities	Percent	No. of projects	No. of sub-district municipalities	Percent
3	39	2.07	3	26	1.25
4	8	0.42	4	11	0.53
5	3	0.16	5	6	0.29
6	5	0.27	6	8	0.39
7	1	0.05	7	3	0.14
9	1	0.05	8	1	0.05
12	1	0.05	9	2	0.10
			11	1	0.05
			12	1	0.05
			17	1	0.05
			40	1	0.05

Source: Department of Local Administration, 2011, 2012

Table 6.20 presents that there are many SAOs which did not receive specific grants. In the fiscal year of 2012, 3,888 organizations did not receive the funding, which was completely different from the 221 organizations which each had more than three projects funded.

Table 6.20 Number of Projects and SAOs Receiving Specific Grants for Flagship (Urgent) Projects between 2011 and 2012

Fiscal Year 2011			Fiscal Year 2012		
No. of projects	No. of SAOs	Percent	No. of projects	No. of SAOs	Percent
0	3297	57.69	0	3888	70.60
1	1657	28.99	1	1054	19.14

Table 6.20 (Contonued)

Fiscal Year 2011			Fiscal Year 2012		
No. of projects	No. of SAOs	Percent	No. of projects	No. of SAOs	Percent
2	499	8.73	2	346	6.28
3	166	2.90	3	113	2.05
4	55	0.96	4	43	0.78
5	30	0.52	5	31	0.56
6	8	0.14	6	9	0.16
7	3	0.05	7	5	0.09
8	2	0.03	8	3	0.05
11	1	0.02	9	6	0.11
12	1	0.02	10	4	0.07
			11	3	0.05
			12	3	0.05
			20	1	0.02

Source: Department of Local Administration, 2011, 2012.

Data in Table 6.21 are the numbers of local government organizations receiving specific grants for their flagship (urgent) projects in both 2011 and 2012. There were 32% of PAO, 22% of City municipality, 13% of SAO, 10% of subdistrict municipality, and 6% of town municipality which received specific grant for flagship (urgent) projects in both 2011 and 2012. (See Appendix K, Appendix L, Appendix M, Appendix N, Appendix O).

Table 6.21 Number of Local Government Organizations Receiving Specific Grants for Flagship (Urgent) Projects in both 2011 and 2012

Local government organizations	No. of local government organizations	No. of local government organization receiving specific grants in both 2011 and 2012	Percentage of local government organizations receiving specific grants in both 2011 and 2012
PAO	76	25	32.89
Municipalities			
City Municipality	27*	6	22.22
Town Municipality	149*	9	6.04
Subdistrict Municipality	1884*	190	10.08
SAO	3631*	478	13.16

Source: Department of Local Administration, 2011, 2012.

Note: * number of city municipalities, town municipalities, subdistrict municipalities and subdistrict administrative organizations in 2011

The trend of the proportion of specific grant allocation is growing every year. Furthermore, in 2012, it was more than fifty percent of the total intergovernmental grant allocation. This large amount of allocation effects directly to local development. Although its allocation method and its purpose are different from general grant allocation, it is crucial to analyze in order to understand the Thai intergovernmental transfer system. Therefore, to complete analyzing the horizontal fiscal imbalances, all research results of specific grant allocation in this chapter are used in the analysis of Chapter 7.

CHAPTER 7

ANALYSIS RESULTS INTERGOVERNMENTAL GRANT AND HORIZONTAL FISCAL BALANCE

The analysis in Chapter 7 presents data from the quantitative studies in Chapter 5 and 6, and the qualitative interviews with two groups of key informants which were the grant users and the grant regulators. The two parts of this Chapter bring out the analyses and impacts. The first part is concerned with the analysis of Thailand's grant distribution system and fiscal equalization. This part contains 1) the situation of local finance, 2) the situation of local fiscal disparities included in revenues, and before and after general grant allocation, and 3) the factors which lead to fiscal equalization among local government organizations. The second part presents the impacts of the grant allocation system on local governments.

7.1 Thai Intergovernmental Grant Distribution and Fiscal Equalization

7.1.1 Situation of Local Government Finance

7.1.1.1 Intergovernmental Grant

1) Grants are an essential source of revenue for local government organizations and contribute at least 40% of total revenue. Between 2009 and 2012, upward trends of grant allocation emerged as the Government increased the grant allocation up to 1.5 times.

2) The grant limits fiscal autonomy, or in other words, comes with many conditions. Thailand has two types of grant similar to many countries, but different in allocation. Firstly, the proportion of general grant to specific grant is different from others. The Thai Government distributes the specific grant more than the general grant. Over 50% of the allocated grant is the specific type that benefits the Government's policies or objectives. The specific grant comes with conditions, controlling the use of discretion on the grant money. Secondly, theoretically the

general grant is revenue for local governments and gives them autonomy to make decisions on the use of money based on their responsibilities, but in fact, only 30% of the total allocated grant allows such decision autonomy. This is because the Thai general grant is broken down into the general grant specified by responsibilities and by purpose. The latter, not different from the specific grant, has conditions or activities assigned by the Government, barring autonomy at the local level. Around 70% of the grants with conditions (general grant specified by purpose and specific grant) befall local government organizations, and this implies that they cannot utilize the grant money freely.

3) Local governments had a grant revenue of 2,320 baht per capita on average between 2009 and 2012, which tended to increase every year, except 2010 during the economic recession. Following the local own source revenue, the grant revenue was the second on rank for the differences between local governments receiving low and high grant allocation (p90/p10). Local governments in the Northeastern Region received the lowest grant of just 2,136 baht per capita, while those in the Central Region received the highest at up to 2,524 baht per capita. SAOs received the lowest grant revenue which was 1.6 times less than Subdistrict municipalities. However, SAOs received an increasing grant every year (not over 800 baht per capita).

4) A comparison of local governments revenues before and after general grant allocation reveals an average revenue of 2,509 baht per capita before allocation (the sum of local own revenues and shared tax revenues) and general grant of 1,549 baht per capita. Revenue differences between local governments with high and low revenues (p90/p10) before allocation increased every year after 2010; however, differences dropped after allocation, from 2.72 to 2.4, 2.59 to 2.41, 2.68 to 2.29 and 2.77 to 2.11 between 2009 and 2012 respectively.

Looking at fiscal statistics before and after general grant allocation by region, the Vicinity earned the highest revenue at 3,908 baht per capita before allocation, and earned the lowest grant of 1,201 baht per capita. The Northeastern Region earned the lowest revenue before allocation, but the second lowest grant, or 1,524 baht per capita, after the Vicinity. This region still ranked first in earning the lowest revenue at 3,552 baht per capita even after allocation.

By comparing between types of local government organizations, the lowest revenue of 2,189 baht per capita before general grant allocation belonged to SAOs, which also received the lowest grant of 1,340 baht per capita. All revenues were calculated after allocation and made only 3,530 baht per capita, or 1.6 times lower than the total revenue of Subdistrict Municipalities. Differences in revenues of SAOs and Subdistrict Municipalities before allocation reduced annually, from 1.6 times in 2009 to 1.52, 1.50 and 1.46 times in 2010, 2011 and 2012 respectively. However, after allocation, such differences rose to 1.8, 1.54, 1.59 and 1.47 times in the same years,

5) There are seven critical points after analyzing the specific grant.

(1) The Government raised the specific grant for local government organizations annually from 30,484.63 million baht in 2009 to 119,497.07 million baht in 2012, which was over 50% of the total grant, or a 3.9 times rise over four years.

(2) Projects under the specific grant and the grant amount were unfixed. First, the Government distributed the specific grant for 19 projects in 2009, and 12,000 million baht, or one third of the total specific grant, was rushed to flagship (urgent) projects for development. Second, the new government in 2010, under Mr. Abhisit Vejjajiva, added three projects to serve the Government's policies. These projects, namely income security for the elderly, the 15- year free education and the village health volunteer, made up more than 51,091.3 million baht. The Government's projects consumed a total of 28,523,291,500 million baht, or 55.82% of the total specific grant, and the highest budget was for projects targeted at the elderly. In 2010, none of the budget was allocated for the specific grant for urgent development or flagship projects and projects for local government organization strategies. Third, the top three projects receiving the highest budget in 2011 were projects for income security for the elderly, teacher salaries and wages, and flagship development. The grant money for the first two projects was based on the population in the jurisdiction. Money for the third one relied upon conditions and a reviewing committee appointed by the Department of Local Administration. This study broke down granted projects into four budget groups: welfare, education, water source and

environment. Welfare projects (income security for the elderly and welfare for the disabled) received the highest budget. Education projects ranked second highest (compulsory education, health care, house rent, pension, childcare center and construction, school equipment, teacher salaries and wages and 15-year free education). The third and fourth place went to environmental projects and water source management respectively. Fourth, in 2012, 27 projects received the specific grant of 119,497.07 million baht. Among these, projects on income security for the elderly stayed at the top of the highest grant projects. Next were projects for teacher salaries and wages, flood relief and the local government organizations' development projects.

(3) Comparing between provinces, the differences between those receiving low and high grants has been increasing annually. The difference of 448 baht per capita in 2009 climbed up to 1,025 baht per capita in 2012. Between 2009 and 2012, the lowest revenue from specific grant was 606 baht per capita and the highest was 2,119 baht per capita. The bottom five provinces receiving the least specific grant were Samutprakarn, Pathum Thani, Chachoengsao, Krabi and Rayong respectively. Uttaradit had its place in the top ten provinces receiving the highest allocation every year. The Vicinity was allocated the smallest grant every year as well, unlike the Southern Region that received the biggest share in 2009 and the Central Region from 2010 to 2012.

(4) The distribution of the general grant was dispersed better than the specific grant. The scatter of general grant allocation was more systematic and caused less variation than specific grant. Therefore, the specific grant allocation was unequally allocated and caused more fiscal disparities than general grant allocation.

(5) Factors or necessities were left out of consideration for specific grant allocation. This study found a relationship between the specific grant and its allocation per capita to projects. The regression analysis proved the relationships between the specific grant and variables. The grant allocation per capita was related to the number of elderly, children and disabled in the population, not Gross Provincial Product, number of poor people, patients and number of households without tap water.

(6) Some areas had a concentration of specific grants, but not areas where the grants were needed. In 2011, local government organizations received the grant for 5,431 flagship (urgent) projects. When looking at the local organization type, SAOs had the highest number of funded projects and at the highest value, or 5,214,888,000 baht for 3,631 projects or 64% of total specific grant for flagship projects. Of the 5,719 SAOs in total, 2,422 SAOs, or 42%, received the grant for flagship projects; 45 SAOs received grants for more than five projects and two SAOs received the grant for more than 10 projects. In the next year, 478 SAOs, or 13%, received the grant again, and so did six City Municipalities or, 22%, nine Town Municipalities, or 6%, and 190 Subdistrict Municipalities, or 10%.

The grant for SAOs became less in 2012, but not for municipalities. SAOs had a 3.89% reduction, or only 52% of the specific grant for flagship development. Municipalities, on the other hand, had a 79% increase. Out of 5,509 SAOS, only 1,621, or 29% received the grant; 221 of these recipients had the grant for more than three projects per organization, 1,054 recipients received the money for one project per organization and 3,888 received none. At the municipality level, one City Municipality received the grant for its eight development projects and other 21 municipalities did not receive any. As for Town Municipalities, 138 of them received none of the grant for flagship projects, while two held the grants for more than 10 projects per organization. Of the Subdistrict Municipalities, 61 held the grant for more than three projects per organization, one municipality did for 40 projects and 1,617 municipality earned none.

(7) The interview with executives from local administrative organizations reported about different methods or channels, either regular or irregular, of special grant allocation. In the first method, the organization follows the regular procedure of specific grant allocation which is the submission of a project proposal for a specific grant. The allocation may not be possible without constant follow-up of the proposal or connection with key politicians. Despite these constraints, some organizations make the regular allocation possible. In the second method, sometimes the allocation relies on chief executives of local organizations and their capacity to negotiate or make direct contact with local politicians or leaders. In this case, the organization still submits its project proposal for a specific grant allocation. However,

after talks with local politicians, many organizations gain the allocation. In other words, the more contact the organization has with influential people, the more chance of grant allocation.

In the third method, the organization waits for local politicians (their member of the House of Representatives) to inform about projects to be implemented in their areas. If there is a project, the organization develops the proposal for that project. This method has a relationship with the budgets of local politicians and signals for achievable allocation. Therefore, the organization will gain the allocation if acting in response to any projects of the local politicians. It should be noted that, however, these projects are assigned by the Government and may not suit the locality. In the Fourth method, this is a kind of reciprocal exchange to gain both project and specific grant allocation. Local politicians may have projects for their areas while their local organizations also express the need for any of these projects. The organizations are required to develop the project proposals. This method may involve the exchange of benefits among concerned parties and it falls on the chief executives of the local organizations to manage the exchanges.

The first method features the allocation which is not considered the “hidden budget or member of the House of Representatives budget” for the specific grant, while the remaining three promote inequality among local administrative organizations. Therefore, the option to solve the specific grant allocation problem is to fix the “hidden budget or member of the House of Representatives budget”.

7.1.1.2 Local Own Revenue

On the whole, the local own revenue made 271 baht per capita for local governments, and there was a likeliness of more revenue not over 10 baht per capita per year. During the four year period, their local own revenues increased 24% (from 250 baht per capita in 2009 to 308 baht per capita in 2012). Differences in local own revenues of local governments having lowest and highest revenues (p90/p10) were 14.59, 16.4, 15.55 and 12.68 times in 2009, 2010, 2011 and 2012 respectively. The organizations with the lowest revenues (10th percentile) had revenues of 37, 35, 39 and 52 baht per capita from 2009 to 2012. The group with the highest revenue (90th percentile) had 544, 578, 611 and 669 baht per capita in the same years.

The lowest local own revenue of 137 baht per capita was with the Northeast local governments, while the highest of 839 baht per capita was for the Vicinity. There was a six times difference of revenues between these two regions. When coming to lower-tier organizations, SAOs earned the least local own revenue at only 189 baht per capita. However, these revenues climbed up slightly by around 10 baht per capita each year.

7.1.1.3 Shared Tax Revenue

Shared tax revenues contributed 2,237 baht per capita for local governments generally. The least revenue was 1,890 baht per capita in the Northeastern Region, or six times lower than the highest revenue of 3,069 baht per capita in the Vicinity. Compared with other revenues, there was the least differences between local organizations having high and low shared tax revenues. SAOs earned the least revenue from shared tax at 2,000 baht per capita, which differed from Subdistrict Municipalities at 950 baht, or 1.4 times lower than Subdistrict Municipalities.

7.1.1.4 Total Revenue

The average total revenue was 4,829 baht per capita, which seemed to grow every year; there was an increase of 36% in the four year period. The total revenue of the Northeastern local governments, 4,164 baht per capita, was less than other regions, and was different from the Vicinity of which the total revenue, 6,094 baht per capita, grew much more than others. SAOs gained the lowest total revenue despite the annual increase being higher than the increase of total revenue of Subdistrict Municipalities. The differences in total revenues of SAOs and Subdistrict Municipalities looked less and less every year, from 1.78 times in 2009 to 1.67 times in 2010, 1.5 times in 2011 and 1.36 times in 2012.

In summary, among local government organizations, the number of SAOs was the highest (6,089 in 2009, 5,767 in 2010, 5,715 in 2011 and 5,507 in 2012). SAOs had the largest area per capita (0.01268 Km² per capita), and around 37 million people living in within the boundaries governed by SAOs. However, SAOs earned the lowest revenues from all sources. On the other hand, the Subdistrict Municipalities ranked the second highest in number with around 13 million people. It, however, had 2.36 times the local own revenue, 1.4 times the shared tax revenue and 1.6 times the grant revenue of SAOs.

On average, the lowest revenues from all sources remained with the Northeastern local government organizations. They had the local own revenue of 137 baht per capita which was six times, or 839 baht per capita, lower than the Vicinity. The Northeast had the shared tax revenue of 1,890 baht per capita, while the Vicinity had 3,069 baht per capita which was 1.6 times higher. The Northeast earned the grant revenue of 1.18 times less than the Central region.

7.1.2 Fiscal Disparity in Local Governments

The Decentralization Plans and Process Act, B.E. 2542 assigned the Committee of Decentralization to Local Government Organization to plan and set allocation criteria for grant allocation. Practically, the Committee allocated the grant to local governments so as to balance fiscal disparities among them. A more balanced disparity supported standard public services nationwide. This study found that the following.

- 1) By comparing between lower-tier local government organizations, SAOs experienced disparities in local own revenues more than other organizations, and Subdistrict Municipalities experienced the same in shared tax revenues, grant revenues and total revenues more than others (Gini coefficient of 0.263, 0.271 and 0.248). Fiscal disparities existed in all types of local government organizations and in descending order of revenues from the local own revenue, grant revenue and shared tax revenue. Between 2009 and 2012, SAOs and Subdistrict Municipalities had a likeliness of slightly decreasing disparities in the local own revenue every year. In spite of such a decreasing trend, both SAOs and Subdistrict Municipalities were still the top two with the highest disparities. The disparities in shared tax revenue of SAOs, Subdistrict Municipalities and Town Municipalities climbed after 2010. However, the disparity in this revenue of Subdistrict Municipalities stayed highest every year.

- 2) High disparities remained in grant revenue. Analyses of disparities in grant revenue between 2009 and 2012 by Gini coefficient and Lorenz curves found a disparity of 0.283, which was the second highest after the disparity in local own revenue. The disparities in grant revenue reduced annually (0.321 in 2010, 0.237 in 2011 and 0.223 in 2012). The least disparities were found in the shared tax revenue, but they were on the rise every year (0.214 in 2010, 0.219 in 2011 and 0.227 in 2012).

3) Analyzing by region, the greatest disparity in grant revenue was for the Vicinity (0.365), followed by the Center, the East, the West, the South, the North and the North respectively. The trends of descending disparities of all regions (except the Central and Vicinity Regions) emerged after 2010. Subdistrict Municipalities had disparities in grant revenue higher than other local government organizations. There were downward trends of these disparities in sub-district and Town Municipalities, while SAOs and City Municipalities seemed to have fluctuating trends of the same disparities. City Municipalities in the Western and Central Regions had lower disparities than those in other regions. Subdistrict Municipalities in the Western and Central Regions had the highest disparities in grant revenue.

4) As to the disparities in total revenue, the Eastern Region had the most disparity (0.266), followed by the Southern, Vicinity, Western, Central, Northern and Northeastern Regions. Generally, great disparities remained in Subdistrict Municipalities in every region, and minimally declined every year. Unstable disparities fell on SAOs and Town Municipalities. The declining trends of total revenue disparities emerged after 2010 except in the Vicinity.

5) The analysis of local government's fiscal disparities before and after general grant allocation reported that the allocation somewhat alleviated disparities, from 0.262 to 0.221.

(1) As shown in Figure 7.1, between 2010 and 2012, fiscal disparities in local revenues before general grant allocation went up every year (0.243, 0.251 and 0.258), and then dropped after allocation between 2009 and 2012 (0.230, 0.229, 0.215, and 0.201).

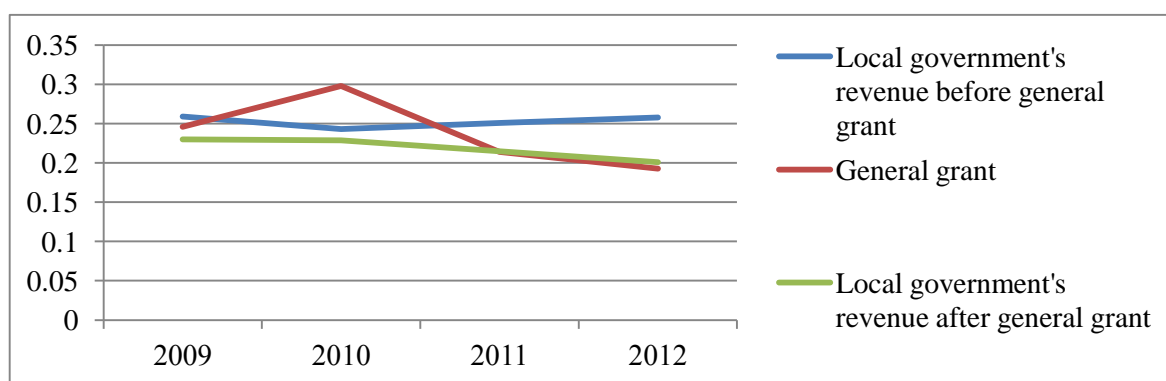


Figure 7.1 Fiscal Disparities before and after General Grant Allocation by Year

Source: Department of Local Administration, 2010-2013.

(2) The regional analysis of disparities before and after general grant allocation reveals that the highest Gini coefficient of 0.295 before allocation was for the Eastern Region. The Southern, Central, Northern, Western, Vicinity and Northeastern Regions had lower Gini coefficients respectively. Lessened disparities in all regions were visible after allocation. The Eastern Region still stayed on top of regions having high disparities in revenues (0.261), followed by the Southern, Western, Central, Northern and Northeastern Regions. The analyses confirmed a reduction in fiscal disparities after allocation, but not fiscal equities among regions as the after-allocation-disparities remained high (the East had the highest disparity of 0.261, and the Northeast had the lowest disparity of 0.165) as shown in Figure 7.2.

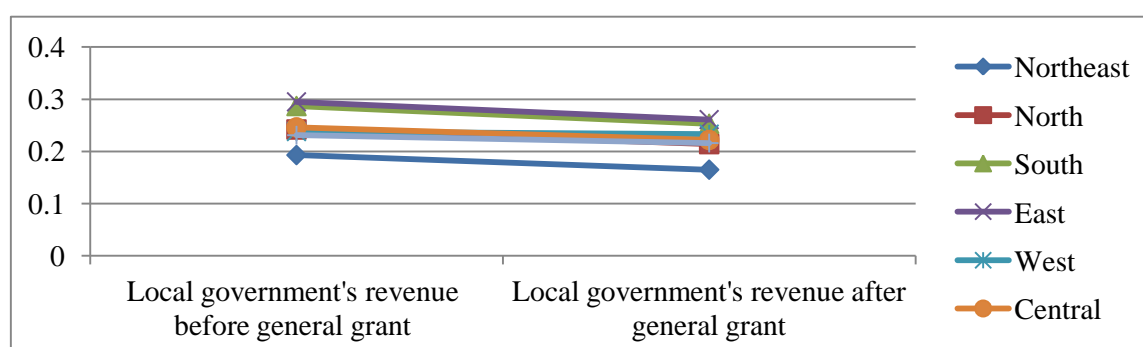


Figure 7.2 Fiscal Disparities before and after General Grant Allocation between 2009 and 2012 by Region

Source: Department of Local Administration, 2010-2013.

(3) By region, fiscal disparities after general grant allocation were down every year after 2010, and especially evident in the Northeastern, Northern, Southern and Western Regions. The Eastern and Central Regions experienced minimally, but stable, lessened disparities (0.254, 0.255 and 0.250 in 2010, 2011 and 2012 for the East and 0.231, 0.21 and 0.21 in the same years for the Center). There was a fluctuation in disparities in the Vicinity from 2009 to 2012 (Figure 7.3).

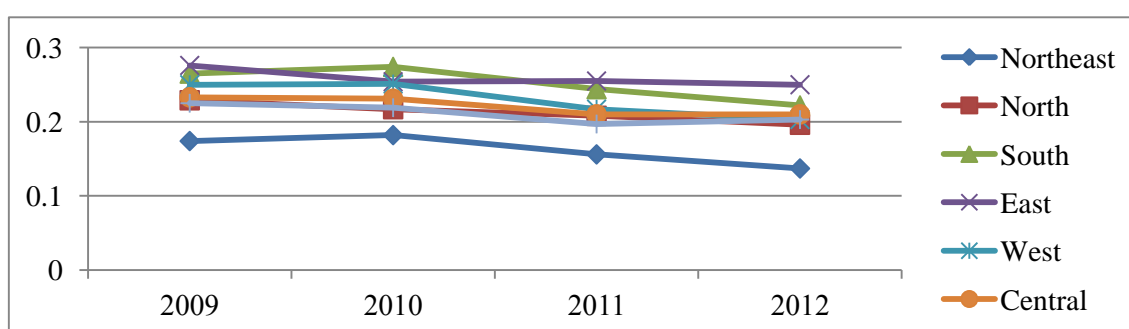


Figure 7.3 Fiscal Disparities after General Grant Allocation between 2009 and 2012 by Region

Source: Department of Local Administration, 2009-2012.

(4) Before general grant allocation, the highest disparities were found for Subdistrict Municipalities (0.281), Town Municipalities (0.22), SAOs (0.203) and City Municipalities (0.156). This order remained unchanged even after allocation, but disparities were reduced 0.261, 0.198, 0.145 and 0.126 respectively) as shown in Figure 7.4. However, there was a general increase in fiscal disparities between local organizations. The disparity between SAOs and Subdistrict Municipalities before allocation was 0.61, which rose to 0.063 after allocation. Similarly, the disparity of 0.017 rose to 0.053 for Subdistrict Municipalities and Town Municipalities. It can be said that, the allocation could reduce the disparities within a type of organizations, and also widen the disparities among the different types.

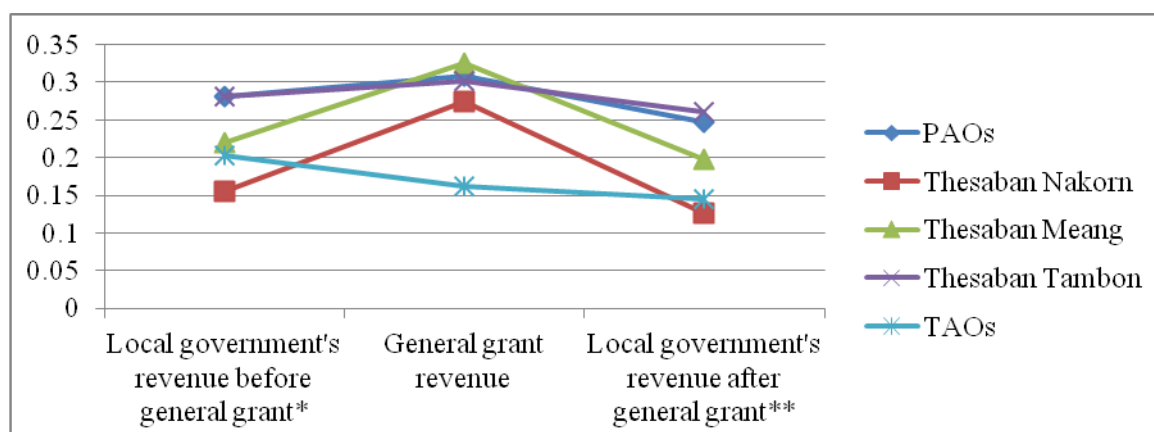


Figure 7.4 Fiscal Disparities before and after General Grant Allocation by Type of Local Government Organization between 2009 and 2012

Source: Department of Local Administration, 2010-2013.

Note: * Local revenue before general grant allocation = The total amount of local own revenue and shared tax revenue

** Local revenue after general grant allocation = The total amount of local own revenue, shared tax revenue and general grant

(5) There was a fluctuation of disparities after allocation for city, town and sub-district municipalities. The greatest disparity occurred with sub-district municipalities, and the smallest disparity remained for city municipalities every year. A reduction of disparities was detectable annually after 2010 in SAOs only.

(6) When analyzing by local organization type in each region, SAOs in the Eastern Region had the greatest disparities in revenues after grant allocation every year, while those in the Northeast had the lowest (Figure 7.5). At the municipality level, Subdistrict Municipalities in the South had the greatest disparities between 2009 and 2011, which fell after 2012. When Subdistrict Municipalities in the South fell, Subdistrict Municipalities in the East and the Vicinity experienced the highest disparities instead (Figure 7.6). At the Town Municipality level, Southern Town Municipalities tended to have annually increasing disparities, which were higher than those in other regions after 2010 (Figure 7.7). About City Municipalities, those in the Eastern Region experienced higher and fluctuating disparities than other regions (Figure 7.8).

In brief, the result confirm that the allocation decreased fiscal disparity only within SAOs of every region, but in other types of local administrative organization, the allocation increased fiscal disparity in some regions. For example, the fiscal disparity in the Subdistrict Municipalities in the Western and Vicinity regions were higher after grant allocation. In the Western region, the Gini coefficient was 0.207, which went up to 0.260 after general grant allocation. Meanwhile, in the Vicinity, fiscal disparity grew from 0.207 to 0.218. In addition, City Municipalities in the Central and the Vicinity regions also experienced more higher disparities after general grant allocation.

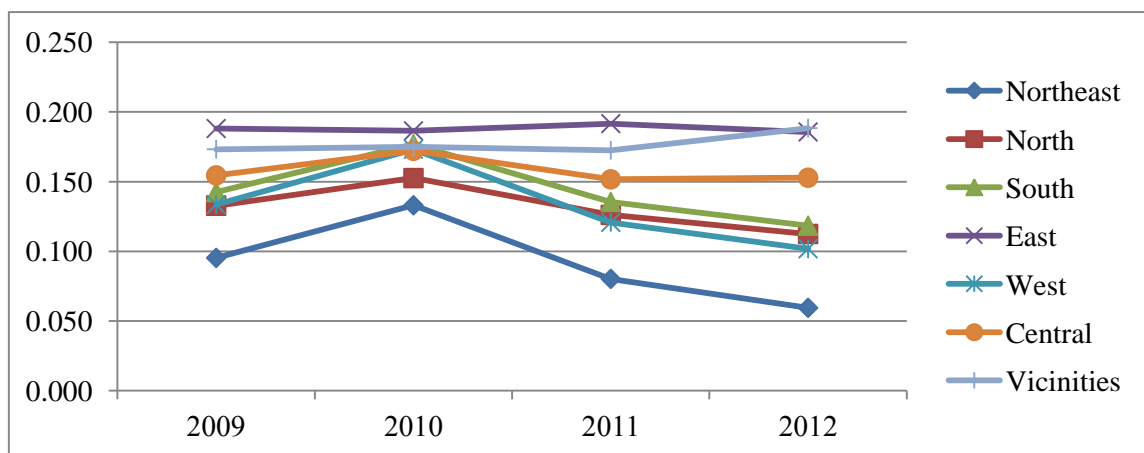


Figure 7.5 Fiscal Disparities of SAOs after General Grant Allocation between 2009 and 2012 by Region and by Year

Source: Department of Local Administration, 2010-2013.

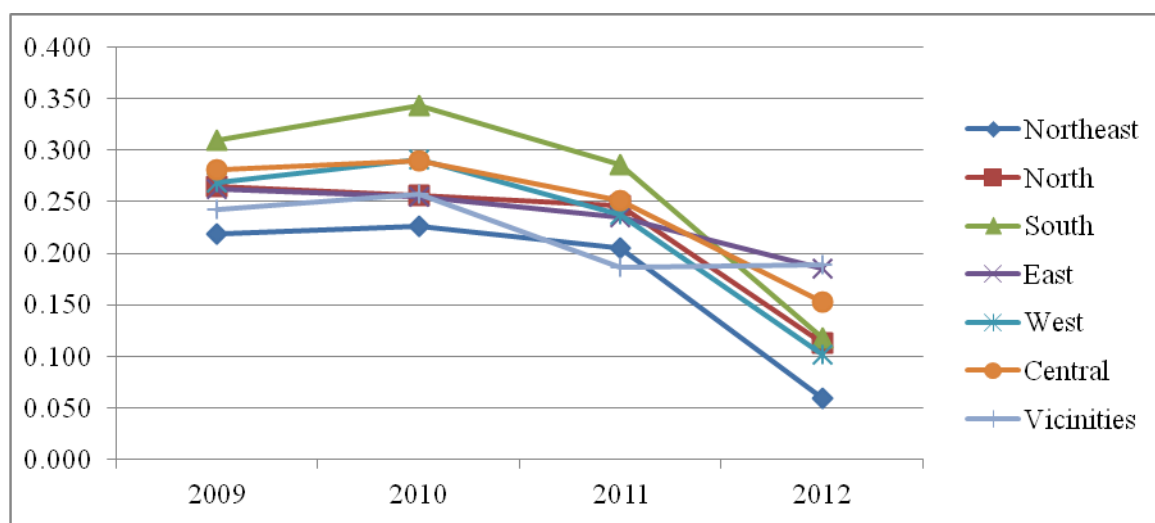


Figure 7.6 Fiscal Disparities of Subdistrict Municipalities after General Grant Allocation between 2009 and 2012 by Region and by Year

Source: Department of Local Administration, 2010-2013.

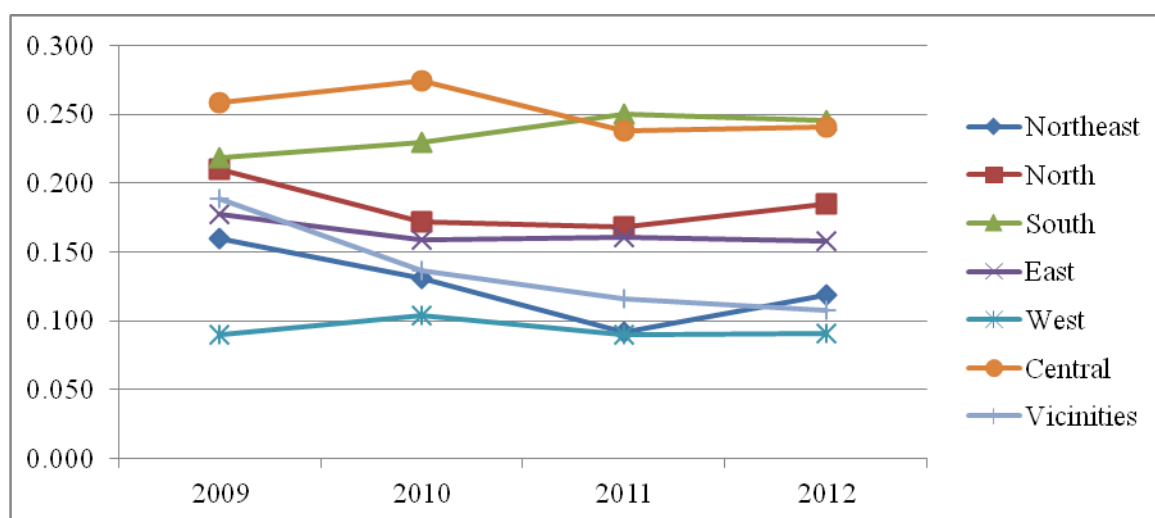


Figure 7.7 Fiscal Disparities of Town Municipalities after General Grant Allocation between 2009 and 2012 by Region and by Year

Source: Department of Local Administration, 2010-2013.

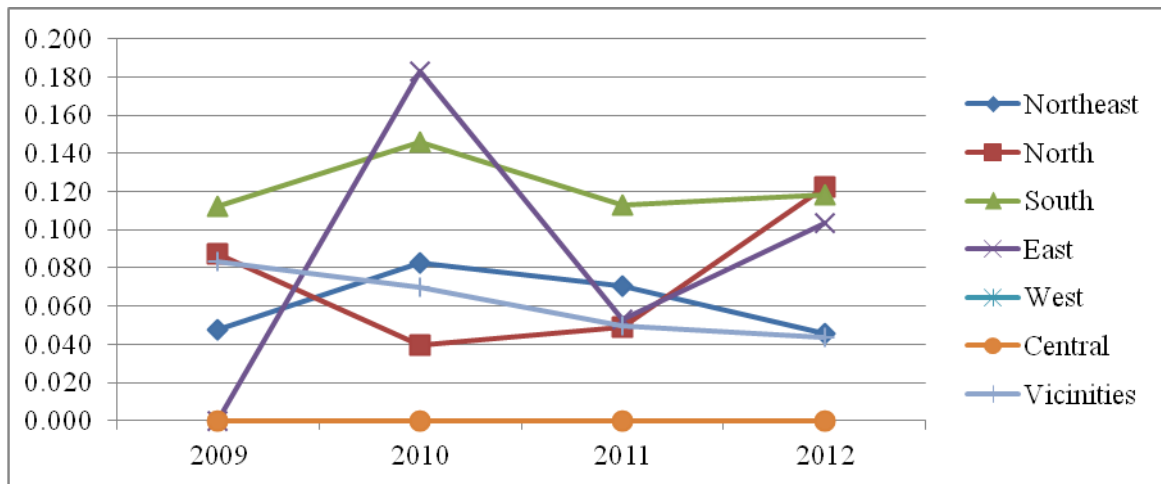


Figure 7.8 Fiscal Disparities of City Municipalities after General Grant Allocation between 2009 and 2012 by Region and by Year

Source: Department of Local Administration, 2010-2013.

6) Comparing with the specific grant, less disparities were found with the general grant. Major reasons behind this are that most general grants are allocated on a per capita bases, while the specific grants involve many factors, from political factors, and others. The specific grant includes budgets (the representative's budget for provincial development) proposed by MPs, and come with budget procedures that indirectly welcome political interference. To explain from the beginning, the local organization proposes a project for budget approval. The project should also have been written into the organization's three-year plan. The next process deals with the provincial project reviewing committee to review the project based on criteria set by the Committee of Decentralization to Local Government Organization. The Department of Local Administration then does the review and selects projects. Criteria and priority are left aside during the selection process so that the selected projects are possibly tied to the local organization's relationship with decision makers or their capacities to lobby them. This introduces an exchange of interests such as a deduction in the percentage of the approved budget and a strengthening of political strongholds. Therefore, more disparities will arise if the relationship between local organizations and politicians or decision makers is well established. This good relationship guarantees project approval and grant allocation, and even repeated

allocation. Consequently, small local organizations, particularly SAOs which have no lobbying skills, are less likely to have their projects approved.

7.1.3 Factors to Fiscal Disparities in Local Governments

7.1.3.1 Institutional Arrangement Factor and its Dependence

1) The structure of the Committee of Decentralization to Local Government Organization does not allow the committee to have more power for determining the direction of grant allocation.

The Committee is a mechanism and a regulator of grant allocation. The criteria for grant allocation are set by the Committee. The Committee's structure, chaired by the Prime Minister or Deputy Prime Minister, has influence on the allocation that causes disparities due to a lack of budgeting independence. By having a politician sitting as the Chair, there is more political interference and a growing possibility of money being allocated to the Government's strongholds. As seen in the years under the Democrat Party's government, most of the grants were distributed to the Southern Region. Similarly Yingluck's government approved the grants allocated for her political base in the central, northern and northeastern regions.

The government's intervention to grant allocation is rather common, as in 2010 when Prime Minister Abhisit Vejjajiva added three more projects, to serve the Government's policy for the grant. These projects, namely income security for the elderly, the 15-year free education and the village health volunteer, made up 28,523,291,500 million baht, or 55.82%, of the total specific grant. The next government, under Ms. Yingluck Shinawatra, had the one tablet per child computer project that consumed 170 million baht. These projects of the policy makers increased the amount of grant, but in turn somewhat limited the autonomy of the jurisdiction to utilize the grant money. The jurisdictions indeed were channels of money for the Government who should have assigned the projects to the concerned ministries, not local organizations, to administer these projects.

The role of the Decentralization Committee was questionable in spite of having experts that would come to a decision upon academic criteria expectedly. In fact, the expert committees are powerless to determine the direction of

grant allocation criteria. Their decisions tend to meet political objectives, rather than for public benefit. The grant allocation criteria set each year are not much different. This means that, despite new criteria being made, the grant allocation still does not meet the academic criteria.

2) The acquirement of the Committee of Decentralization to Local Government Organization and its dependence

The Committee is composed of representatives from three groups, namely concerned government organizations, experts and local government organizations. However, it appears that having representatives from the first two groups tends to lead to budget disparities. In the first group, 11 representatives are appointed by position (Interior Minister, Finance Minister, Permanent Secretary of Interior, Permanent Secretary of Finance, Permanent Secretary of Education, Permanent Secretary of Public Health, Secretary General of the Council of the State, Secretary General of the Civil Service Commission, Secretary General of the National Economic and Social Development Board, Director of the Bureau of the Budget and Director General of the Department of Local Administration). All of these 11 members are under the Prime Minister, and this goes beyond the bounds of the possibility for them to freely make decisions and express their opinions. The second group of 12 experts also has less independence. Initially, they are selected by the Expert Selection Committee made of the Permanent Secretary of the Office of the Prime Minister as the Committee Chair, Permanent Secretary for Finance, Permanent Secretary for Interior, Secretary General of the Office of the Higher Education Commission, Secretary General of the Council of the State, Secretary General of the Civil Service Commission, Secretary General of the National Economic and Social Development Board and Director General of the Department of Local Administration. This Selection Committee nominates qualified candidates for the Prime Minister's consideration. New nominations will continue until the Prime Minister makes a final decision. Political interference in expert selection means a link between selected experts and politicians. The link blocks the Committee's freedom to exercise power, and without this, the grant allocation rests upon a compromise with politicians.

3) Department of Local Administration and its interference in budget allocation

The Department of Local Administration of the Ministry of Interior makes indirect intervention to control local authorities through the budget plans. Founded during Thaksin Shinawatra's first government, the Department of Local Administration approves the allocation framework proposed by the Office of the Committee of Decentralization to Local Government Organization. The Office then proposes the framework to the Department of Local Administration for budgeting approval for local grants, and transferring the approved grants to the local government organizations. Practically, the Department has the power to consider the grant allocation, particularly the specific grant, and select the projects for the specific grant. Political interference normally makes its way into the selection process. In addition to this, the Department centralizes the power using the specific grant when dealing with local government organizations. Thus, local organizations are required to obey the Department and disparities in grant allocation are undeniable.

7.1.3.2 Grant Allocation Criteria

1) Criteria Against the Needs of Local Government

This study provides the allocation of the general grant specified by responsibilities as an example. The Decentralization Committee allocates the grant using population and equal share between the same types of local government organizations. About 30% of the total grant falls under this criteria. This simple formula, however, is not predictable for local government organizations as a fixed grant per capita is not specified. Similar to the general grant specified by purpose, most of this grant's allocation adopts the population as a basis. This allocation fails to meet the real needs for budget requirements and fiscal equity. This method can only reflect a certain extent of expenditure needs.

2) Non-registered or Hidden Population and Migrant Laborers

The non-registered population is excluded from the allocation criteria that establishes population using house registration only. The characteristic of non-registered are people migrate into an area in order to live or work and do not report their migration, the permanent migration, often longer than the permitted time and without registering an application within 15 days, or those migrate to work in the workplace area and leave out after finish their job. To give some examples, Rayong is a newly developed industrial city that needs industrial growth. The province attracts

people from other provinces to work. It is predictable that the non-registered population within ten years (2010-2020) in this province will grow from 487,859 to at least 796,510, or the non-registered population will grow by 308,651 people or 1.75 times during ten years. Similarly, Phuket, which has tourist destinations and education institutions, has a large migrant population which comes to work and study. These migrants do not apply for official change of house registration. Phuket, in 2011, had a total population of around 800,000-1,000,000, and only 347,664 were registered (Manager online, 2010). Samut Prakarn is a province developed for the growth of the industrial sector and the population. Lots of internal migrants flow into this province. In 2008, the registered population was at 1,137,945 and non-registered was approximately 800,000 (Chemical Emergency Response Center, 2008). Samut Sakorn, in 2007, had a total population of 469,934, and around 200,000 migrant laborers.

Non-registered people have requirements and demands for public services provided by local government organizations that consequently have increased expenditures for existing services. The non-registered migrants are blamed for pollution and social problems that require a budget to find solutions. From all that is mentioned here, the number of non-registered people should be counted in grant allocation criteria, and this is to empower local governments to better perform their responsibilities and functions.

3) Local Factors

The criteria for grant allocation leave out a variety of indicators such as certain conditions, needs, geographical differences, population density, the poverty line and infrastructure of each local government organization. Local organizations located in the non-economic zone may encounter difficulties to seek more revenues. Some local governments may have expenditure needs due to geographical and demographic restrictions. Different conditions of local government organizations do not fall into the “one size fits all” criteria that brings in large inequities instead of manageable criteria that well suit organizations.

4) Lack of Local Statistics

Background information of governing areas is critical to grant allocation. Local organizations themselves are short of records or data collection or

have non-systematic collection, incomplete data and data centers. Reasons given here are that all local government organizations have neither a statistical office nor a statistician for collecting and systematizing data at the local level. Therefore, the development of statistical data and relevant systems is not possible. It is a fact that data related operations are allowed for all organizations, but it will become useless if their executives give no attention to it. With this attention, budgeting for staff and further collaboration for data will support statistical operations. Change of executive officers also affects the continuity and efficiency of collected data. Links of data between organizations and centralized data are also missing, causing difficulties in data collection and analysis. As to the Department of Local Administration as the coordinating center for local data, it fails to collect complete data.

Efforts for data collection by local government organizations are a must and need support from the Decentralization Committee as well as the Department of Local Administration. Coverage of data collection and its completeness pave the ground for development plans and proper criteria for grant allocation.

7.2 Intergovernmental Grant Allocation and its Impact for Local Governments

7.2.1 Fiscal Autonomy of Local Governments

Despite depending so much on the grant which increases every year, fiscal autonomy of local government organizations is questionable as many (over 40%) encounter limited discretion over the grant. First, there is a limitation on the specific grant. This grant is larger than the general grant, especially in 2012 when the value of specific grants allocated to local governments reached 119,497.08 million baht, or 58.2% of the total grant. By nature of the specific grant, conditions of using the grant money are decided in order to serve the Government's policies. This is different from the general grant, for which jurisdictions have more autonomy to make decisions over the money.

Second, the general grant allows, theoretically, local governments to make decisions on the grant money freely. This statement is partially true. For the general grant specified by responsibility, local governments make use of the grant money

based on the organization's responsibilities. The other type of general grant is based on purpose set by the Government such as grants for projects on public health, school milk, school lunch, sports stadium maintenance, HIV/AIDS patient's allowance, local education management, compensation for unrests in the five Southern provinces and the like. The grant by responsibility empowers local governments to have more independence. This grant, however, was allocated in a small amount - only 27% of the total grant in 2012 (or 41% of total revenue of the local government organizations). Such a small grant disabled organizations to offer public services sufficiently and efficiently.

Third, projects that serve the Government's policies limit autonomy of jurisdictions. Through specific grant allocation, 44.61% was for the Government's projects (28,523,291,500 baht in 2010). There was an upward trend of increasing grant based on numbers of eligible people. Projects on the elderly income security increased from 10,970.74 million baht in 2009 to 50,449.08 million baht in 2012. Projects on the welfare for the disabled did the same, from 1,532.86 million baht in 2009 to 6,663.20 million baht in 2012, as did other projects such as school lunch from 10,133.30 million baht in 2009 to 16,272.49 million baht in 2012, and school milk from 7,938.9 million baht to 10,836.04 million in the same years. Projects for village health volunteers had up to 7,370.64 million baht in 2012. A total of 44.61% of grants serving these projects implies a lack of autonomy of local government organizations who act as grant couriers not grant users who could utilize the grant money for the provisions of public services.

7.2.2 Unpredictability

All local government organizations are required to plan annual budgets including an estimation of expenditures and revenues. As for local revenues, the estimation covers six types of revenue: duty and tax; fee, fine and license; property; infrastructure and business; grant; and miscellaneous revenue. The most difficult estimation is of the grant because of its unfixed criteria and fluctuation upon the economic situation and the State revenue. In addition, in fact, the specific grant is unpredictable for all local organizations as it relies on the discretion of the Specific Grant Committee. The budget estimation, thus, follows the previous years' unstable

estimation. Many local organizations face difficulties to plan and budget and submit the next year's budget plan on August 15 of every year. Budget shortages and unpredictability result in delayed or reduced public services at the end. The predictability of the grant is essential so that local government organizations can rely on a continued budget. The government should systematize the grant and its allocation. Having all these, local organizations should be able to plan their budget ahead of time.

7.2.3 Existence of Fiscal Disparity

The analyses in Chapters 5 and 6 report an existence of fiscal disparities and differences in and between local government organizations after general grant allocation. The per capita revenue is collected from three sources, namely local own revenue, shared tax revenue and grant revenue. Local organizations having small revenues also received small grants and this is a reverse trend according to the principle of equalization. As presented in Table 7.1, SAOs in the Northeastern Region had the smallest revenue of 1,815 baht per capita, and received smaller grants than those in the Southern Region that had revenues of 1.2 times higher before grant allocation. Following SAOs in the Vicinity, SAOs in the Center earned the second highest revenue, but ranked third for the highest grant. The principle of equalization was applicable to SAOs in the Vicinity, meaning that they earned the highest revenue and received the lowest grant. Table 7.1 and Figure 7.9 confirm that grant allocation at present tends not to promote fiscal horizontal equity or pro-poor allocation.

Table 7.1 SAO Revenue before General Grant Allocation and the Amount of the General Grant between 2009 and 2012

Unit: Baht per capita

Region	SAOs' revenue before general grant allocation	General grant
Northeast	1,815.20	1376.88
North	2118.41	1316.21

Table 7.1 (Continued)

Region	SAOs' revenue before general grant allocation	General grant
South	2168.51	1451.89
East	2833.24	1223.46
West	2254.71	1250.51
Central	3010.19	1338.44
Vicinitys	3684.60	1019.60

Source: Department of Local Administration, 2010-2013.

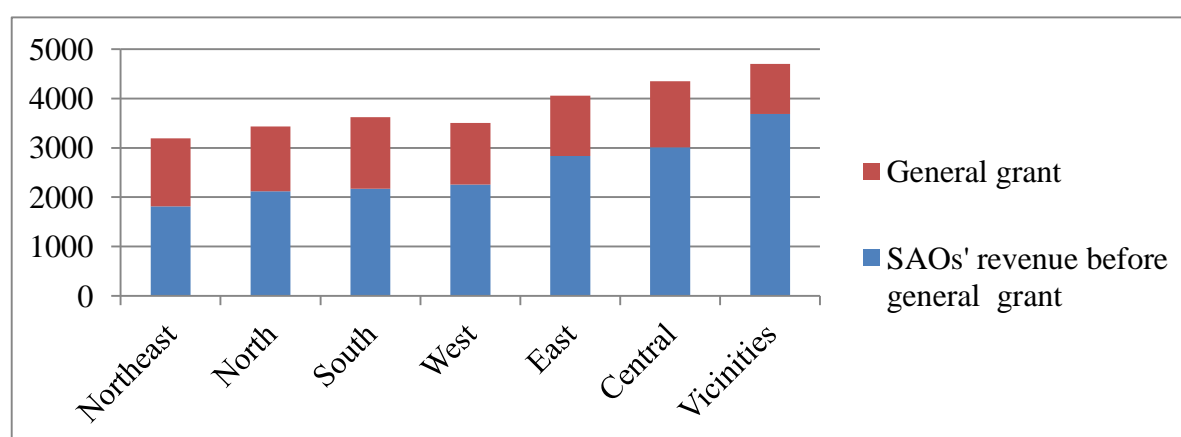


Figure 7.9 SAO Revenue before General Grant Allocation and the Amount of General Grant between 2009 and 2012

Source: Department of Local Administration, 2010-2013.

Revenues of Subdistrict Municipalities and SAOs had greater differences after general grant allocation. The Subdistrict Municipalities earned a revenue of 3,400 baht per capita, and SAOs earned 2,189 baht per capita before allocation with a difference of 1,211 baht per capita. After allocation, the Subdistrict Municipalities had 2,252 baht per capita and SAOs had 1,340 baht per capita, increasing the difference to 2,122 baht per capita. When analyzing by year, more differences emerged between

these two. The sub-district municipalities earned 1.6, 1.52, 1.50 and 1.46 times the revenue of SAOs before grant allocation in 2009, 2010, 2011 and 2012 respectively. The allocation widened the differences in revenues between them. It increased the revenue of the Subdistrict Municipalities 1.8, 1.54, 1.59 and 1.47 times higher than the SAOs in the same years.

The Gini coefficient analysis proved that the grant was not meant for fiscal equalization. In descending order of fiscal disparities before allocation, the Gini coefficients for Subdistrict Municipalities, Town Municipalities, SAOs and City Municipalities were 0.281, 0.22, 0.203 and 0.156 respectively between 2009 and 2012. After grant allocation, the coefficients became smaller but maintained a similar rank with 0.261 for sub-districts, 0.198 for towns, 0.145 for SAOs and 0.126 for cities. However, disparities between types of organizations widened after allocation. The disparities between SAOs and Subdistrict Municipalities rose to 0.063 from 0.061. Sub-district and Town Municipalities experienced the same situation - an increased disparity between the two from 0.017 to 0.053. In fact, the grant for local government organizations could reduce disparities within the organizations, but increase disparities between types of organization.

7.2.4 Concentration of Specific Grant

The specific grant allocation has two methods. The first one is per capita allocation such as projects for the disabled, income security for the elderly, and salary, house rent and health care for teachers. The second one is the reviewing process. This process involves a committee established by the Department of Local Administration. The committee reviews and selects projects proposed by local government organizations such as projects for local development and childcare centers. During the four years (2009-2012), the concentration of specific grant allocation was low, whereas the needs for grants was generally widespread. In 2012, only 27% of local government organizations (16% of Town Municipalities, 21% of Subdistrict Municipalities and 29% of SAOs) received the grant for their flagship projects. Among recipients of grants allocated for more than three projects per organization, there were 61 municipalities (1,617 received no grant) and 221 SAOs (3,888 received no grant). Repeated allocation occurred with 6 City Municipalities

(22%), 9 Town Municipalities (6%), 190 Subdistrict Municipalities (10%) and 478 SAOs (13%). This repeated allocation led the grant to be concentrated with some local government organizations, while some local government organizations incurred consequences from never receiving any specific grant.

7.2.5 Pork Barrel Politics

Grant allocation motivated pork barrel as the discretion on (specific) grant allocation was exercised by the Department of Local Administration that assigned a committee to determine the allocation. The committee, however, often encountered interference from politicians and high-ranking government officers, all with the power of budget decisions. Politicians or high-ranking government officials tended to insert their influence in the distribution process of the grants. By doing so, some of the grant money would somehow be legally or illegally given to these politicians or government officials for their 'effort.' Some view this practice as a win-win game since local governments would also gain bigger grants. But in reality not everyone gets their fair share. In order to gain the grants, one needs more than just luck or good reasons, but favoritism, networking, political patronage or lobbying is required.

From the beginning of the specific grant proposal, all local governments proposed projects for specific grants to the district administrative organization who would deliver these proposals to the Provincial Administrative Organization for inclusion in the province's plan. The next process included a reviewing committee at the provincial level to determine flagship (urgent) projects. This process was the start of interference through personal relationships, networks and lobbies. Well settled relationships with the provincial reviewing committee produced a likeliness of project approval. Approved projects were then submitted to the Department of Local Administration. Grant allocation to local governments was very much like joint interests when some of the approved grants were turned into interests shared among interest groups. The interests could be monetary or others. All attempts made along the process for grant allocation resulted in a loss of budget to the State or budget leakage.

In addition, national politicians or local representatives made attempts to use the grant money in their strongholds. Therefore, they tried their best to force

concerned authorities to approve budgets for their electoral districts. The approved budgets brought them reputation and popularity, and the money could be distributed to election campaigners to make purchases or business deals with government organizations.

CHAPTER 8

CONCLUSION AND RECOMMENDATION

Part 1 presents the summary of horizontal fiscal disparities between 2009 and 2012, the comparison between four lower tier organizations (City Municipality, Town Municipality, Subdistrict Municipality and SAO) before and after the general grant allocation, and impacts of allocation on local government organizations; Part 2 provides recommendations for improvement of the allocation for equalization; Part 3 describes the limitations to this study; and Part 4 recommends further study.

8.1 Summary

8.1.1 Fiscal Disparities of Local Governments

Differences in the capacities of local government organizations to seek revenues are the reason for fiscal horizontal gaps. The grant is meant as financial aid to local government organizations for fiscal equity for the provision of standardized public services, which is the end result. The general grant, in particular, is a means of fiscal horizontal equalization or narrowing differences between these organizations. No matter how high or low the revenue capacity, the local government organizations are to provide the same standard public services, and so the allocated grant should be transferred to those with low fiscal capacities or high public service costs.

During the period of study, from Fiscal Year 2009 to 2012, the Gini coefficient proves that Thailand still experienced fiscal horizontal imbalance. The disparity of 0.26 before general grant allocation persisted in the local governments, and declined to 0.22, or only a 0.04 reduction, after allocation. At the regional level, the disparities persistently stayed high even though decreasing slightly after allocation. The Gini coefficient of 0.295 represents the highest disparity, which existed in the Eastern Region even after allocation. The Southern, Central, Northern, Western, Vicinity and Northeastern regions had lesser disparities respectively. The

general grant allocation could somewhat reduce disparities, but not for fiscal equalization among regions as seen from the large disparities (0.261 for the Eastern and 0.165 for the Northeastern regions). Among types of local administrative organization, the allocation decreased fiscal disparity only within SAOs of every region, but in other types of local administrative organization, the allocation increased fiscal disparity in some region. For example, the fiscal disparity in sub-district municipalities in the Western and Vicinity regions were higher after grant allocation. In the Western region, the Gini coefficient was 0.207, and increased to 0.260 after general grant allocation. Meanwhile, in the Vicinity, fiscal disparity grew from 0.207 to 0.218. In addition, city municipalities in the Central and the Vicinity regions also experienced greater fiscal disparity after general grant allocation.

The analyses of disparities in lower tier local government organizations before and after general grant allocation found that sub-district organizations had the greatest disparities before and after allocation, followed by Town Municipalities, SAOs and City Municipalities. Disparities in SAOs could be reduced most after allocation (0.058), followed by City Municipalities (0.03), Town Municipalities (0.022) and Subdistrict Municipalities (0.02).

The following presents the large fiscal disparities (disparity greater than 0.2) of three local government organizations, namely Subdistrict Municipality, Town Municipality and SAO.

1) Fiscal Disparities between Subdistrict Municipalities

The number of Subdistrict Municipalities with a population over 13 million ranked second highest after SAOs, but had the greatest disparity before allocation. The disparity remained highest after allocation, with a minimal reduction of just 0.02 (from 0.281 to 0.261). The disparities fluctuated annually. When analyzing by region, sub-districts within each region had fiscal disparities different from each other, both before and after allocation. The measurement by Gini coefficient reports the highest disparity before and after allocation for Subdistrict Municipalities in the Southern Region. They had a Gini coefficient of over .03, while other regions were at 0.20-0.28.

2) Fiscal Disparities between Town Municipalities

Following Subdistrict Municipalities, the disparities of Town Municipalities reduced from 0.22 before grant allocation to 0.198 after allocation. The

disparities fluctuated every year. The highest disparity remained in Town Municipalities in the Central region. Those in the South had the highest disparities before and after allocation from 2011 onwards.

3) Fiscal Disparities between SAOs

SAOs outnumbered (other types of local government organization 6,089 in 2009, 5,767 in 2010, 5,715 in 2011 and 5,507 in 2012) and occupied the largest governing area (0.01268 square kilometers per capita) with over 37 million people, but achieved the third highest disparity. The disparity before general grant allocation was 0.203 and decreased to 0.145 after allocation. So, when compared to other organizations, disparities of SAOs were the most reduced. In addition, there was a decreasing trend of fiscal disparities of SAOs every year since 2010. The disparities of SAOs in the Eastern Region grew larger than other regions every year.

8.1.2 Impacts of Grant Allocation on Local Government Organizations

1) Fiscal autonomy of local governments was compromised because they relied heavily on the grant which increased year by year. Despite an annual increase, only around 30% was the general grant specified by responsibility which authorized organizations to make their own discretion over using the grant money. The remaining 70% of the total grant removed the autonomy from local organizations, including 20% for general grant specified by purpose and 50% for specific grant that was mostly allocated for the government's projects such as the pension for the elderly and school lunch.

2) Because of non-fixed criteria and fluctuation, the grant for local governments was unpredictable, making it difficult for budget estimation of both future expenditure and revenue. The estimation was made only based on the previous years' budget, but this practice was still far from accurate due to the instability of the grant allocation. The specific grant was more complicated because it was determined by the Specific Grant Committee. The unpredictability put a strain on organizations to budget the next year's projects accurately. And because of an unpredictable budget, the provision of public services might be suspended, discontinued or reduced.

3) The principle of filling up fiscal gap should be applied. This means local organizations having small revenues should receive large grants. In this study,

SAOs in the Northeastern Region gained the lowest revenue, but the grant was lower than those in the South which had 1.2 times the revenue before allocation. The revenue before allocation of SAOs in the Central Region was the second highest after the Vicinity, and these SAOs received the third highest grant. The general grant allocation instead widened the revenue differences between SAOs and municipalities. It was the grant for SAOs in the Vicinity that was allocated according to the principle. The Gini coefficient analysis reiterates faulty functioning of the general grant. In descending order of organizations with disparities before general grant allocation, there was Subdistrict Municipalities, Town Municipalities, SAOs and City Municipalities. This order was unchanged after allocation. However, after allocation the disparities of each type of local organization reduced, but disparities between types of organizations increased. The disparities between SAOs and sub-district organizations changed from 0.061 to 0.063, and between sub-district and Town Municipalities from 0.017 to 0.053. Generally, an insignificant reduction of disparities in organizations was achievable after allocation, but the allocation also widened gaps in disparities between organizations.

4) A concentration of the specific grant occurred in some areas compared to a higher number of areas in need of the grant. In 2012, only 27% of local government organizations received the grant for their flagship projects. Sixty-one Subdistrict Municipalities received the grant for more than three projects per municipality and 1,617 municipalities received no grant. Two hundred and twenty-one SAOs received the grant for more than three projects per organization and 3,888 SAOs received none. Six City Municipalities (22%), 9 City Municipalities (6%), 190 Subdistrict Municipalities (10%) and 478 SAOs (13%) received grants more than once. The repetition of allocation resulted in a concentration of grants, and negative impacts occurred on some organizations that had never received grants.

5) Grant allocation motivated pork barrel as the discretion on (specific) grant allocation was exercised by the Department of Local Administration which assigned a committee to determine the allocation. Politicians, high-ranked officers and interest groups exerted their influence for grant distribution and pork barrel. Through pork barrel, local governments put forth efforts for specific grant approval through favoritism, networking, political patronage, lobbying and others, in order to receive

increasing grants as shares of interests. Meanwhile, when some of the approved grants are approved, benefits are shared among those with joint interests such as politicians, high-ranked officers and interest groups. The benefits could be monetary or otherwise, depending on the deals reached when lobbying. In addition, national politicians or local representatives made great efforts to use the grant money in their strongholds. Therefore they tried their best to force concerned authorities to approve the budget for their respective electoral districts. The approved budget brought them reputation and popularity, and the money could be distributed to election campaigners who would make business deals with government organizations. All attempts made along the process for grant allocation resulted in the loss of budget for the State.

8.2 Recommendations for Reduction of Fiscal Disparities

8.2.1 Recommendation 1: Developing Equalization Transfer-formula

Dissimilar social, economic and geographic conditions are related to unequal costs of public services. Importantly, the Government should design particular grants to fill up these gaps. The grant is indeed aimed at fiscal equalization among local government organizations and the equalization guarantees horizontal equality or equal access to standard public services, and sufficient revenues for localities to support those public services. This method does not require an equal amount of grant for all organizations, but depends on fiscal capacities and fiscal needs of each organization. The proposed formula is also decided by various variables and the use of correct indicators so that the formula will equalize organizations. The advantages of the formula are varied. The first advantage is the foreseeable revenue or predictability that assures local governments' unobstructed spending and secures revenues. The second is that the precise formula and calculation is not susceptible to political intervention. These lead to fairer allocation. Next, the formula promotes self-autonomy of local organizations, allowing freedom of discretion on the grant money. The formula also builds up revenue adequacy of local organizations for their expenditure responsibilities. Lastly, it promotes equity among local government organizations.

However, factors which could be considered when using the formula are needs for the grant, background data for allocation, operational costs, and other conditions. All are essential components for the formula that will produce an allocation based on differences of governing areas (population density, area size, population living under the poverty line, proportion of elderly to school-age population, and level of needs for infrastructure), unequal fiscal capacities and an imbalance between revenues and expenditures. To create a formula for grant equalization, the formula may rely on fiscal capacity or expenditure needs, or both. Japan, as an example, allocates the grant using both components for each local government organization. The Japanese Government sets the local allocation tax from five major sources and allocates the grant according to the formula that covers both local basic needs and basic fiscal capacities. The local allocation tax is distributed annually to local governments to close fiscal gaps. This means that local governments with expenditures for public service provision more than revenues will be the recipients of the grant. This study provides an example using the Japanese formula which applies both fiscal capacities and expenditure needs (Mochida, 2008). This complex calculation requires the following necessities.

- 1) There must be a law that clearly specifies the sources of grant such as personal income tax, corporate income tax, alcohol tax, value added tax and tobacco tax.

- 2) The grant is allocated to local government organizations with financial needs rather than financial revenue.

- 3) A calculation for expenditure needs is conducted by means of dividing public services into groups, and calculating the standard expenditure needs from the number of units to be measured (job description or number of beneficiaries), and then multiplying by unit costs and by the modification coefficients. To give an example, the calculation for road construction considers the length of the road, the cost of road construction per kilometer, and the modification coefficient. This coefficient varies depending on economic and social conditions. The reasons of this may be economies of scale, population density and different costs of living.

- 4) To calculate for standard fiscal revenue, there needs to be accurate sources of revenues for calculation and detailed formula that produces local real

revenues. In Japan, the standard fiscal revenue of each locality is calculated from the sum of revenues from two sources which are local taxes and local transfer taxes.

$$C_i = G \times (B_{ij} \times t_j) + LTT_i$$

where G is 0.75 of local taxes (for municipality) or 0.80 of local taxes (for province),

B_{ij} is the tax base,

t_j is the standard tax rate on the tax base, and

LTT_i is the revenue from local transfer tax.

After the calculation of local revenues and financial needs, the grant is allocated to local governments with financial needs, not financial revenues.

Different from Japan, it may be difficult and time-consuming for Thailand to adopt a grant allocation system based on both fiscal capacity and expenditure needs because of local data limitations such as scarce records, non-detailed records, and discontinued and inaccessible data. However, Thai equalization can give priority to tax raising capacity because, according to Blöchliger (2014), the revenue raising capacity across local governments are greater than expenditure needs in all countries. If equalization relies on tax raising capacity, the formula should depend on a few core indicators that reflect local differences in tax-raising capacity (Blöchliger 2014). However, if the formula design for equalization begins with the expenditure needs, the following steps should be taken. Firstly, the government identifies sources of general grant. Secondly, local expenditures are divided according to expenditure functions (such as for education or health). Thirdly, the per capita rules are used and calculated for expenditure needs. Fourthly, the adjustment of expenditure should adopt coefficients for upward or downward expenditure needs based on special needs or differential costs of service provisions. On the other hand, in the future, if local data is complete, the expenditure needs based allocation may be changed to an adoption of both expenditure needs and revenue capacities in order to fill up fiscal gaps and correct equalization.

What is to be considered when using the formula for fiscal equalization is that there must be sufficient and updated local records and a variety of formulas for different local government organizations (those having low revenue may use a particular formula). In addition, formulas should be based on a few main indicators which reflect the differences in revenue raising capacity or expenditure needs of local administrative organizations. Besides these, all formulas used must be followed up by constant monitoring and evaluation of grant use. Formula adjustments may be needed if appropriate. The formula must not lessen tax efforts of local governments. Finally, evaluation of success from grant use is a requirement in order to be in line with the real problems and needs of the Government and local governments. The formula should be designed by an independent body to avoid intervention and to achieve fiscal equalization and reflect the real local needs.

8.2.2 Recommendation 2: Reducing Some Specific Grant Projects

There are three major situations for specific grants. First, there is an annual growth of specific grant and no clear proportion of the grant allocation. The grant consumed 22% of the total grant in 2009, and increased to 58% in 2012 (119,497.08 million baht), which was over 50% of the total grant or a 3.9 times increase within four years. Therefore, local government organizations had more specific grant than the general grant. Second, most allocated specific grant to local organizations was to serve the government's policies. The government's three granted projects (social security for the elderly, 15-year free education and village health volunteer) consumed half, or 55.82%, of the total specific grant in 2010. Third, some areas benefited from a concentration of specific grant. The grant in 2011 was for 5,431 flagship (urgent), projects and most of these projects (3,631 projects worth 5,214,888,000 million baht or 64% of the total grant for flagship projects) belonged to SAOs. Out of 5,719 SAOs, 2,422 SAOs, or 42% received the specific grant for urgent needed development. Furthermore, 45 SAOs received the grant for more than five projects per organization, and two SAOs received the grant for more than 10 projects per organization. In 2012, 221 SAOs were granted for more than three projects per organization, while 1,054 SAOs had the grant for just one project per organization and 3,888 received no grant at all. Repeated allocation was seen for 478 SAOs (13%), 6 City Municipalities (22%), 9 Town Municipalities (6%) and 190 sub-district organizations (10%).

It is recommended that only key projects that serve the principle of specific grant allocation be considered. This recommendation views the specific grant a key to motivation, compensation for externalities and a mechanism to achieve the target of national policies. The grant motivates local governments to run specific programs for the Government. The compensation for externalities or spillover effects for local organizations as providers of public services means that people beyond a given boundary can access such services. This specific grant enables local governments to make services available for people from other areas. Finally, the grant entices local governments to comply with the government's policies. Therefore, the specific grant projects which do not relate to the specific grant principles, should not be considered.

According to this recommendation, some projects will be deleted from the project list for approval; for instance, all government projects (pensions for the elderly and disabled, village health volunteers, and school lunch and school milk). The grant money for these projects should go to the responsible organizations directly, such as the Ministry of Social Development and Human Security for the pension for the elderly projects, Ministry of Public Health for village health volunteer projects and Ministry of Education for school lunch projects. The deletion would bring about a 44.61% reduction of specific grant money. As to flagship projects that do not rely upon the real needs of local governments, but heavily upon the discretion of the Committee, a lesser number of these projects can lessen the grant budget up to 7.6% (based on the budget in 2012). Furthermore, this would lead to less political interference. Reasons are that the flagship or urgent project is the major source of interest for politicians, high-ranked officers and relevant networks. This grant further strengthens political patronage and strongholds. In addition, it cuts the repeated allocation which also invites problems of unequal development.

In addition, this recommendation also suggests that the proportion of specific grant should be limited. The proportion of specific grant should not be higher than the general grant, or not greater than 30% of the total grant. Furthermore, the allocation based on expenditure needs suits the specific grant and the expenditure should be estimated from the costs of a standard level services. Moreover, if not meant for just financial assistance, but participation, belonging, collective responsibility and fiscal self-reliance, the specific grant should be distributed in the form of a matching grant

which is jointly granted by both local governments and the central Government. An additional recommendation for genuine benefits to localities is that there should be clear objectives, monitoring, enforcement and a non-biased grant committee for accountable utilization of grant money and avoidance of inefficient resource use and corruption.

8.2.3 Recommendation 3: Improving Institutional Arrangement for Fiscal Equalization Transfer

As fiscal disparities between local government organizations are unavoidable, the role of concerned organizations or committees is crucial to fiscal equalization. The institutional arrangement for grant allocation can be structured to fulfill the equalization objective because it is directly involved in decision making on intergovernmental transfer. For Thailand, the present problems of institutional arrangement related to fiscal equalization are independence, professionalism, and interference from politics. Firstly, the Prime Minister or Deputy Prime Minister is the Chair and this is a channel for political interference in grant allocation and determination in favor of politicians. Hence, it is recommended that the Chair be selected by the Chair Selection Committee. Secondly, 11 committee members who are representatives from concerned organizations form the committee structure and are under the Prime Minister, and this prevent them from exercising discretion or expressing opinions in opposition to the Prime Minister. Thirdly, the existing selection process authorizes the Prime Minister to approve 11 experts to the Committee. In addition, nominating committees for expert committee members are mostly from concerned organizations. Therefore, this selection process may allow political interference.

To improve the current Thai institutional arrangement for more efficiency of equalization, an alternative can be adopted. According to Shah (2005), the alternate institutional arrangements for fiscal equalization transfers from across different countries can be broadly classified into five models: central government agency, independent agency (grants commission), intergovernmental forum, national legislature, and sub-national government. The national government agency model is the most common model in which the decision making relies on the central

government agency. Typically, either the President or Prime Minister's office or the Minister of Finance takes responsibilities for policy making and implementation of equalization transfers. Some countries use this form, for example China, Italy, Netherlands, Poland, Switzerland and Ukraine. The independent agency, or grants commission model, is this agency which is created by the central Government either to the executive or legislature on a periodic basis. Australia, India, the Republic of South Africa and Uganda are examples. The intergovernmental forum model is a consultations design. This form emphasizes consultation among various orders of government, sharing of responsibility and shared decision making on equalization transfers. Canada, Germany and Indonesia are countries which rely on this model. Meanwhile the national legislature requires the enactment of legislation to provide a legal basis for intergovernmental transfers. Lastly, the sub-national government forum, or local government association or non-governmental organization model, is an institutional partner in institutional arrangements. It is probable that the forum can take a more effective role if equipped with institutional and technical capacities to work with national government counterparts and if sufficiently acting for all local governments (Martinez-Vazquez & Boex, 2001). According to Ahmad (2013), there is no best practice of institutional arrangement. The institutional arrangement should be based on a country's constitutional background and historical context.

For Thailand, the independent agency model may be suggested in order to give more independence and professionalism to the process, while decreasing interference from politics. The decision on the equalization would serve nationwide interests because the independent agency would empower experts to perform the complicated functions. The criteria which are associated with grant distribution would be based more on academic fundamentals. This model has a Chair with expertise in finance or with experience in finance, administration and economics. In addition, the grant committees also gather representatives from various sectors such as local government organizations, retired government persons, financial experts, and others. The influence from the Prime Minister as the Chair is eliminated. All members would have the Chair, not the Prime Minister, supervising their performance. This grants the Committee autonomy to fill up fiscal gaps and fix revenue and expenditure problems of both the Government and local governments. The Committee is even authorized to

administer tax allocation to the Government and local governments, develop criteria for fair distribution of grant and revenue for local governments, and monitor grant allocation. According to Martinez-Vazquez & Boex (2001), the independent agency or grants commission model has greater impartiality and objectivity in administering fiscal equalization. The example of a successful independent agency institution is with Australia. The independent Grants' Commission is established to determine how taxes should be distributed to achieve horizontal fiscal equalisation. It is an independent body which composes of a Chairperson and a maximum of five members appointed by the federal Government in consultation with the states (Shah, 2005). There are sixty staff members as the permanent Secretariat. The Commission provides recommendations based on data provided by them and independent statistical sources (The Commonwealth Grants Commission, 2015). According to Dollery and Worthington (1996), the commission calculates the relative needs of different states in terms of a budget deficit. This allows political factors to have little influence.

All three recommendations above could decrease the fiscal inequality. A well-specified formula in recommendation 1 brings more transparency, reliability and predictability, and is less subject to fiscal constraints and political interference. Meanwhile, the development of an institutional arrangement as in recommendation 3 is important in order to fulfill the equalization objectives. The revision in recommendation 2 is relevant only to the specific grants which serve the objectives of motivation, compensation for externalities and the mechanism to achieve the target of national policies is allocated to local governments.

8.3 Limitations of the Study

There are at least three limitations found for this study.

- 1) Data gained from all types of local government organizations throughout the country in the four year period limited an attempt for primary data collection by the researcher. Only secondary data from the Department of Local Administration, Ministry of Interior, were made available for this study.

- 2) Access to local government organizations for data concerning the specific grant was not feasible, unlike access to units in all provinces. The situation of

this grant type could only be explored to a limited extent instead of being penetrated into profound detail of each local government organization.

3) Local data were scattered as not much was collected in the past. The non-systematized data weakened this study's attempt to make a more detailed analyses for validated fiscal equalization. This study, hence, only made comparisons between local revenues through the use of per capita revenue.

8.4 Recommendations for Studies in the Future

Knowledge about local fiscal disparities benefits people's quality of living and people would be able to access standard public services if the local government organizations achieve fiscal equalization. Further studies that reflect the facts of disparities would promote changes in policies and new alternatives to close fiscal gaps and correct inequalities. Due to the aforementioned limitations, only some facts of fiscal disparities and inequalities were presented. The studies in the future may be conducted for more insightful analyses on the following issues.

1) Only the revenue capacity was used for fiscal equalization analyses in this study. If sufficient data and relevant indicators are available for analyses of both revenue capacity and expenditure needs, future studies will well represent the situation of fiscal disparities that is more concordant with the facts.

2) Although over 50% of the total grant was for the specific grant and this study could only look into detail of specific grants at the provincial level, future studies should make analyses of detailed features of the specific grant allocated to local government organizations nationwide. These analyses will provide a clear picture of problems with the allocation of the specific grant.

3) To achieve more accuracy in data collection, the next study is best to use the original data collected by the investigator conducting the research if possible. This study used secondary data which were collected by others, and could have been manipulated from the original source.

4) The equalization and its impacts should be periodically monitored, such as every five years. The question would be as to what extent equalization reduces inequality among local administrative organizations, and how it effects the efficiency of the public services provided.

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APPENDICES

APPENDIX A

Table A1 Region and Province's Code, and Province Name

Region	Code	Province name
Northeast	101	Khonkaen
	102	Udonthani
	103	Loei
	104	Nongkhai
	105	Mukdahan
	106	Nakhonpanom
	107	Sakonnakorn
	108	Kalasin
	109	Nakhonratchasima
	110	Chaiyaphum
	111	Yasothon
	112	Ubonratchathani
	113	Roiet
	114	Burirum
	115	Surin
	116	Maharakam
	117	Sisaket
	118	Nhongbualamphu
	119	Amnatchareon
	120	
North	201	Chiangmai
	202	Lampang
	203	Uttradit
	204	Maehongson
	205	Chiangrai
	206	Prae
	207	Lamphun
	208	Nan
	209	Phayao
	210	Nakhonsawan
	211	Phitsanulok
	212	Kamphaengpetch
	213	Utaithani
	214	Sukhothai
	215	Tak

Table A1 (Continued)

Region	Code	Province name
South	216	Phichit
	217	Phetchabun
	301	Phuket
	302	Suratthani
	303	Ranong
	304	Phangnga
	305	Krabi
	306	Chumpon
	307	Nakhonsithammarat
	308	Songkhla
	309	Satun
	310	Yala
	311	Trang
	312	Narathiwat
East	313	Pattalung
	314	Pattani
	401	Chonburi
	402	Chacheongsao
	403	Rayong
	404	Trad
	405	Chantaburi
	406	Nakhonnayok
	407	Prachinburi
	408	Srakaew
West	501	Ratchaburi
	502	Kanjanaburi
	503	Prachuabkirikhant
	504	Phechaburi
	505	Suphanburi
	506	Samutsongkram
Central	601	Saraburi
	602	Singburi
	603	Chainat
	604	Angthong
	605	Lopburi
	606	Ayuthaya
Vicinity	702	Samutprakan
	703	Prathumthani
	704	Sumutsakorn
	705	Nakhonpathom
	706	Nonthaburi

APPENDIX B

Table B1 Fiscal Disparities in Local Own Revenue, Shared Tax Revenue, Grant Revenue and Total Revenue in Fiscal Year 2009-2012

Types of revenue(Per capita)	N	Gini	Std. Err.	t	P>t	[95% Conf. Interval]
Own revenue	31402	0.628	0.004	149.78	0	0.620 0.637
Shared tax revenue	31402	0.232	0.001	157.44	0	0.229 0.235
Grant revenue	31402	0.283	0.002	169.39	0	0.280 0.286

Source: Department of Local Administration, 2010-2013.

APPENDIX C

Table C1 Fiscal Disparities in Local Government Revenue by Year between 2009 and 2012

Fiscal				Std.		
year	Types of revenue(per capita)	N	Gini	Err.	t	P>t
2009	Own revenue	7851	0.632	0.008	78.03	0
	Shared tax revenue		0.223	0.003	66.35	0
	Local revenue before general grant allocation*		0.259	0.004	69.6	0
	General grant revenue		0.246	0.004	68.94	0
	Local revenue after general grant allocation**		0.230	0.003	68.71	0
2010	Own revenue	7850	0.638	0.008	84.92	0
	Shared tax revenue		0.214	0.003	74.91	0
	Local revenue before general grant allocation		0.243	0.003	77.41	0
	General grant revenue		0.298	0.007	45.73	0
	Local revenue after general grant allocation		0.229	0.004	62.21	0
2011	Own revenue	7850	0.631	0.008	83.78	0
	Shared tax revenue		0.219	0.003	76.3	0
	Local revenue before general grant allocation		0.251	0.003	76.22	0
	General grant revenue		0.214	0.003	67.78	0
	Local revenue after general grant allocation		0.215	0.003	71.65	0
2012	Own revenue	7851	0.609	0.010	60.71	0
	Shared tax revenue		0.227	0.003	82.02	0
	Local revenue before general grant allocation		0.258	0.003	74.08	0
	General grant revenue		0.193	0.003	67.15	0
	Local revenue after general grant allocation		0.201	0.003	64.38	0

Source: Department of Local Administration, 2010-2013.

Note: * Local revenue before general grant allocation = The total amount of local own revenue and shared tax revenue

** Local revenue after general grant allocation = The total amount of local own revenue, shared tax revenue and general grant

APPENDIX D

Table D1 Fiscal Disparities in Fiscal Year 2009-2012 by Region

Types of revenue (Per capita)	Region	N	Gini	Std. Err.	t	P>t	[95% Conf.	Interval]
Own revenue	Northeast	11865	0.526	0.005	105.56	0	0.516	0.536
	North	6772	0.534	0.007	81.86	0	0.521	0.547
	South	4760	0.636	0.008	76.71	0	0.620	0.652
	East	2333	0.658	0.013	51.82	0	0.633	0.682
	West	2172	0.518	0.010	53.42	0	0.499	0.537
	Central	2240	0.613	0.011	53.36	0	0.590	0.635
	Vicinities	1260	0.470	0.026	18.23	0	0.419	0.520
Shared tax revenue	Northeast	11865	0.179	0.002	103.77	0	0.176	0.183
	North	6772	0.229	0.003	66.91	0	0.222	0.236
	South	4760	0.253	0.005	53.86	0	0.244	0.262
	East	2333	0.243	0.005	52.33	0	0.234	0.252
	West	2172	0.224	0.006	40.62	0	0.213	0.235
	Central	2240	0.215	0.005	39.71	0	0.205	0.226
	Vicinities	1260	0.209	0.006	35.69	0	0.197	0.220
Local government revenue before general grant	Northeast	11865	0.193	0.002	103.14	0	0.190	0.197
	North	6772	0.242	0.003	71.25	0	0.235	0.248
	South	4760	0.287	0.005	57.03	0	0.277	0.297
	East	2333	0.295	0.006	46.56	0	0.283	0.308
	West	2172	0.238	0.005	43.45	0	0.227	0.248
	Central	2240	0.246	0.006	44.34	0	0.235	0.256
	Vicinities	1260	0.231	0.009	25.41	0	0.214	0.249
General grant revenue	Northeast	11865	0.194	0.002	86.32	0	0.190	0.199

Table D1 (Continued)

Types of revenue (Per capita)	Region	N	Gini	Std.	t	P>t	[95%	
				Err.			Conf.	Interval]
Local government revenue After general grant	North	6772	0.245	0.004	56.38	0	0.237	0.254
	South	4760	0.289	0.008	34.35	0	0.272	0.305
	East	2333	0.280	0.007	40.42	0	0.266	0.293
	West	2172	0.289	0.008	36.43	0	0.274	0.305
	Central	2240	0.265	0.008	32.48	0	0.249	0.281
	Vicinities	1260	0.299	0.012	25.98	0	0.276	0.321
	Northeast	11865	0.165	0.002	88.36	0	0.162	0.169
	North	6772	0.214	0.003	63.43	0	0.208	0.221
	South	4760	0.253	0.005	47.04	0	0.243	0.264
	East	2333	0.261	0.005	47.57	0	0.250	0.272
	West	2172	0.233	0.006	40.78	0	0.221	0.244
	Central	2240	0.222	0.006	39.08	0	0.211	0.233
	Vicinities	1260	0.216	0.008	25.97	0	0.200	0.233

Source: Department of Local Administration, 2010-2013.

APPENDIX E

Table E1 Fiscal Disparities by Region by Year between 2009 and 2012

Fiscal year	Region	Types of revenue(Per capita)	Gini coefficient	Std. Err.	t	P>t	[95% Conf. Interval]
2009	Northeast	Own revenue	0.522	0.011	45.58	0	0.500 0.545
		Shared tax revenue	0.166	0.004	47.31	0	0.159 0.173
		Local revenue before general grant allocation	0.183	0.004	46.39	0	0.175 0.191
		General grant revenue	0.188	0.004	45.18	0	0.180 0.197
		Local revenue after general grant allocation	0.174	0.004	43.73	0	0.166 0.182
	North	Own revenue	0.526	0.013	39.5	0	0.500 0.552
		Shared tax revenue	0.222	0.008	26.67	0	0.206 0.238
		Local revenue before general grant allocation	0.236	0.008	29.73	0	0.221 0.252
		General grant revenue	0.251	0.008	30.52	0	0.235 0.267
		Local revenue after general grant allocation	0.229	0.007	31.17	0	0.215 0.244
	South	Own revenue	0.639	0.018	35.11	0	0.603 0.674
		Shared tax revenue	0.249	0.011	22.09	0	0.227 0.271
		Local revenue before general grant allocation	0.293	0.012	25	0	0.270 0.316
		General grant revenue	0.287	0.009	30.3	0	0.269 0.306
		Local revenue after general grant allocation	0.265	0.010	26.25	0	0.245 0.285
	East	Own revenue	0.654	0.027	24.43	0	0.601 0.706
		Shared tax revenue	0.234	0.011	20.69	0	0.212 0.256
		Local revenue before general grant allocation	0.296	0.014	21.18	0	0.269 0.323

Table E1 (Continued)

Fiscal year	Region	Types of revenue(Per capita)	Gini coefficient	Std. Err.	t	P>t	[95% Conf. Interval]
2010	West	General grant revenue	0.301	0.013	22.71	0	0.275 0.327
		Local revenue after general grant allocation	0.276	0.011	24.3	0	0.254 0.298
		Own revenue	0.518	0.021	24.91	0	0.477 0.559
		Shared tax revenue	0.221	0.012	19.12	0	0.198 0.244
		Local revenue before general grant allocation	0.237	0.011	20.68	0	0.214 0.259
		General grant revenue	0.289	0.013	21.98	0	0.263 0.315
	Central	Local revenue after general grant allocation	0.250	0.012	21.42	0	0.227 0.273
		Own revenue	0.613	0.026	23.72	0	0.562 0.664
		Shared tax revenue	0.210	0.011	18.44	0	0.188 0.232
		Local revenue before general grant allocation	0.247	0.012	20.62	0	0.224 0.271
		General grant revenue	0.257	0.016	16	0	0.226 0.289
		Local revenue after general grant allocation	0.233	0.012	18.76	0	0.209 0.257
	Vicinities	Own revenue	0.489	0.034	14.54	0	0.423 0.555
		Shared tax revenue	0.183	0.012	15	0	0.159 0.207
		Local revenue before general grant allocation	0.226	0.015	14.63	0	0.196 0.257
		General grant revenue	0.299	0.020	14.64	0	0.259 0.339
		Local revenue after general grant allocation	0.225	0.015	15.47	0	0.196 0.253
		Own revenue	0.536	0.010	56.38	0	0.517 0.555
	Northeast	Shared tax revenue	0.163	0.003	48.25	0	0.156 0.169
		Local revenue before general grant allocation	0.176	0.004	49.07	0	0.169 0.183
		General grant revenue	0.247	0.006	44.77	0	0.236 0.258
		Local revenue after general grant allocation	0.182	0.004	48.43	0	0.175 0.190

Table E1 (Continued)

Fiscal year	Region	Types of revenue(Per capita)	Gini coefficient	Std. Err.	t	P>t	[95% Conf. Interval]	
	North	Own revenue	0.549	0.013	40.83	0	0.523	0.575
		Shared tax revenue	0.211	0.006	33.58	0	0.199	0.224
		Local revenue before general grant allocation	0.224	0.006	35.7	0	0.211	0.236
		General grant revenue	0.267	0.011	24.06	0	0.245	0.289
		Local revenue after general grant allocation	0.217	0.007	31.32	0	0.203	0.230
	South	Own revenue	0.647	0.016	40.19	0	0.616	0.679
		Shared tax revenue	0.237	0.009	27.04	0	0.220	0.254
		Local revenue before general grant allocation	0.270	0.009	28.87	0	0.252	0.289
		General grant revenue	0.366	0.027	13.7	0	0.313	0.418
		Local revenue after general grant allocation	0.274	0.014	19.8	0	0.247	0.301
	East	Own revenue	0.662	0.026	25.28	0	0.611	0.714
		Shared tax revenue	0.223	0.010	22.44	0	0.204	0.243
		Local revenue before general grant allocation	0.277	0.012	22.9	0	0.253	0.300
		General grant revenue	0.294	0.016	18.33	0	0.263	0.325
		Local revenue after general grant allocation	0.254	0.011	22.53	0	0.232	0.276
	West	Own revenue	0.524	0.020	26.8	0	0.486	0.562
		Shared tax revenue	0.216	0.012	18.07	0	0.192	0.239
		Local revenue before general grant allocation	0.228	0.012	19.57	0	0.205	0.251
		General grant revenue	0.368	0.021	17.67	0	0.327	0.409
		Local revenue after general grant allocation	0.251	0.013	19.48	0	0.225	0.276
	Central	Own revenue	0.627	0.024	26.5	0	0.581	0.674
		Shared tax revenue	0.199	0.011	17.68	0	0.177	0.221
		Local revenue before general grant allocation	0.231	0.011	20.42	0	0.209	0.253

Table E1 (Continued)

Fiscal year	Region	Types of revenue(Per capita)	Gini coefficient	Std. Err.	t	P>t	[95% Conf. Interval]
2011	Vicinity	General grant revenue	0.324	0.020	16.32	0	0.285 0.362
		Local revenue after general grant allocation	0.231	0.012	18.97	0	0.207 0.254
		Own revenue	0.449	0.031	14.67	0	0.389 0.509
		Shared tax revenue	0.180	0.013	14.31	0	0.155 0.204
		Local revenue before general grant allocation	0.206	0.013	15.98	0	0.181 0.232
		General grant revenue	0.374	0.029	12.84	0	0.317 0.432
		Local revenue after general grant allocation	0.219	0.016	13.62	0	0.187 0.250
		Own revenue	0.525	0.009	60.88	0	0.508 0.542
		Shared tax revenue	0.159	0.003	48.27	0	0.153 0.166
		Local revenue before general grant allocation	0.174	0.004	48.49	0	0.167 0.181
		General grant revenue	0.165	0.004	43.7	0	0.157 0.172
		Local revenue after general grant allocation	0.156	0.004	43.11	0	0.149 0.163
	North	Own revenue	0.543	0.013	40.95	0	0.517 0.569
		Shared tax revenue	0.210	0.006	33.24	0	0.198 0.223
		Local revenue before general grant allocation	0.226	0.006	35.29	0	0.213 0.239
		General grant revenue	0.226	0.007	32.08	0	0.212 0.239
		Local revenue after general grant allocation	0.208	0.006	33.14	0	0.196 0.220
		Own revenue	0.641	0.016	38.93	0	0.609 0.674
	South	Shared tax revenue	0.238	0.010	23.13	0	0.218 0.258
		Local revenue before general grant allocation	0.276	0.011	25.48	0	0.255 0.297
		General grant revenue	0.240	0.009	25.54	0	0.222 0.259
		Local revenue after general grant allocation	0.244	0.010	25.24	0	0.225 0.263

Table E1 (Continued)

Fiscal year	Region	Types of revenue(Per capita)	Gini coefficient	Std. Err.	t	P>t	[95% Conf. Interval]	
	East	Own revenue	0.659	0.026	24.98	0	0.607	0.711
		Shared tax revenue	0.227	0.008	26.9	0	0.210	0.243
		Local revenue before general grant allocation	0.282	0.013	21.96	0	0.257	0.308
		General grant revenue	0.261	0.012	21.71	0	0.238	0.285
		Local revenue after general grant allocation	0.255	0.011	23.24	0	0.233	0.276
	West	Own revenue	0.515	0.019	27.18	0	0.478	0.552
		Shared tax revenue	0.207	0.010	20.2	0	0.187	0.227
		Local revenue before general grant allocation	0.223	0.010	21.76	0	0.203	0.243
		General grant revenue	0.249	0.012	21.48	0	0.226	0.271
		Local revenue after general grant allocation	0.217	0.010	20.96	0	0.197	0.237
	Central	Own revenue	0.619	0.023	26.55	0	0.573	0.665
		Shared tax revenue	0.196	0.010	18.92	0	0.175	0.216
		Local revenue before general grant allocation	0.232	0.011	21.45	0	0.211	0.253
		General grant revenue	0.223	0.012	18.05	0	0.199	0.247
		Local revenue after general grant allocation	0.210	0.011	19.77	0	0.190	0.231
	Vicinity	Own revenue	0.441	0.031	14.35	0	0.381	0.502
		Shared tax revenue	0.196	0.011	17.4	0	0.174	0.218
		Local revenue before general grant allocation	0.214	0.012	18.02	0	0.191	0.238
		General grant revenue	0.255	0.018	14.24	0	0.220	0.290
		Local revenue after general grant allocation	0.197	0.012	16.88	0	0.175	0.220
2012	Northeast	Own revenue	0.508	0.010	49.12	0	0.488	0.528
		Shared tax revenue	0.169	0.003	49.02	0	0.162	0.175

Table E1 (Continued)

Fiscal year	Region	Types of revenue(Per capita)	Gini coefficient	Std. Err.	t	P>t	[95% Conf. Interval]	
		Local revenue before general grant allocation	0.184	0.004	48.59	0	0.176	0.191
		General grant revenue	0.135	0.003	40.43	0	0.129	0.142
		Local revenue after general grant allocation	0.137	0.004	36.95	0	0.130	0.144
	North	Own revenue	0.509	0.013	40.13	0	0.485	0.534
		Shared tax revenue	0.224	0.007	32.49	0	0.210	0.237
		Local revenue before general grant allocation	0.237	0.007	34.88	0	0.224	0.250
		General grant revenue	0.199	0.007	29.6	0	0.185	0.212
		Local revenue after general grant allocation	0.196	0.007	30.05	0	0.184	0.209
	South	Own revenue	0.615	0.017	37.18	0	0.582	0.647
		Shared tax revenue	0.246	0.008	30.45	0	0.230	0.262
		Local revenue before general grant allocation	0.279	0.009	30.45	0	0.261	0.297
		General grant revenue	0.227	0.008	29.01	0	0.212	0.243
		Local revenue after general grant allocation	0.222	0.009	25.85	0	0.205	0.239
	East	Own revenue	0.651	0.026	25.48	0	0.601	0.701
		Shared tax revenue	0.238	0.008	29.22	0	0.222	0.254
		Local revenue before general grant allocation	0.295	0.012	23.9	0	0.270	0.319
		General grant revenue	0.232	0.011	20.38	0	0.210	0.254
		Local revenue after general grant allocation	0.250	0.011	23.58	0	0.230	0.271
	West	Own revenue	0.507	0.019	26.17	0	0.469	0.545
		Shared tax revenue	0.211	0.010	20.19	0	0.191	0.232
		Local revenue before general grant allocation	0.227	0.010	21.71	0	0.207	0.248
		General grant revenue	0.221	0.011	19.61	0	0.199	0.243

Table E1 (Continued)

Fiscal year	Region	Types of revenue(Per capita)	Gini coefficient	Std. Err.	t	P>t	[95% Conf. Interval]
		Local revenue after general grant allocation	0.203	0.011	19.2	0	0.182 0.224
	Central	Own revenue	0.589	0.021	27.55	0	0.547 0.630
		Shared tax revenue	0.209	0.011	19.34	0	0.188 0.230
		Local revenue before general grant allocation	0.238	0.011	22.12	0	0.217 0.259
		General grant revenue	0.212	0.012	17.45	0	0.188 0.236
		Local revenue after general grant allocation	0.210	0.011	19.95	0	0.189 0.231
	Vicinities	Own revenue	0.491	0.086	5.7	0	0.322 0.660
		Shared tax revenue	0.187	0.011	16.8	0	0.165 0.209
		Local revenue before general grant allocation	0.224	0.026	8.55	0	0.173 0.276
		General grant revenue	0.235	0.018	12.88	0	0.199 0.270
		Local revenue after general grant allocation	0.203	0.022	9.03	0	0.159 0.247

Source: Department of Local Administration, 2010-2013.

Note: * Local revenue before general grant allocation = The total amount of local own revenue and shared tax revenue

** Local revenue after general grant allocation = The total amount of local own revenue, shared tax revenue and general grant

APPENDIX F

Table F1 Fiscal Disparities in General Grant Revenue and Local Government
Revenues before and after General Grant Allocation in Fiscal Year between
2009 to 2012

Types of revenue (Per capita)	N	Gini	Std. Err.	t	P>t	[95% Conf.	Interval]
General grant revenue	31402	0.246	0.002	110.04	0	0.242	0.251
Local revenue before general grant allocation	31402	0.262	0.002	153.83	0	0.258	0.265
Local revenue after general grant allocation	31402	0.221	0.002	134.04	0	0.218	0.224

Source: Department of Local Administration, 2010-2013.

APPENDIX G

Table G1 Fiscal Disparities in General Grant Revenue and Local Government Revenues before and after General Grant Allocation by Year between 2009 and 2012

Fiscal							[95%	
year	Types of revenue(Per capita)	N	Gini	Std. Err.	t	P>t	Conf.	Interval]
2009	General grant revenue	7851	0.24648	0.0035751	68.94	0	0.2394702	0.2534843
	Local revenue before general grant allocation		0.25946	0.003728	69.6	0	0.252152	0.2667654
	Local revenue after general grant allocation		0.23033	0.0033524	68.71	0	0.2237636	0.2369045
2010	General grant revenue	7850	0.29772	0.0065102	45.73	0	0.2849611	0.3104805
	Local revenue before general grant allocation		0.24255	0.0031334	77.41	0	0.2364115	0.248694
	Local revenue after general grant allocation		0.22925	0.0036851	62.21	0	0.2220268	0.2364723
2011	General grant revenue	7850	0.21399	0.0031573	67.78	0	0.2078057	0.220182
	Local revenue before general grant allocation		0.25064	0.0032885	76.22	0	0.2441991	0.2570896

Table G1 (Continued)

Fiscal							[95%	
year	Types of revenue(Per capita)	N	Gini	Std. Err.	t	P>t	Conf.	Interval]
	Local revenue after general grant allocation		0.21538	0.003006	71.65	0	0.2094858	0.2212692
2012	General grant revenue	7851	0.19324	0.0028778	67.15	0	0.1876019	0.1988826
	Local revenue before general grant allocation		0.25773	0.0034788	74.08	0	0.2509078	0.2645445
	Local revenue after general grant allocation		0.20112	0.0031241	64.38	0	0.1949967	0.207243

Source: Department of Local Administration, 2010-2013.

APPENDIX H

Table H1 Fiscal Disparities of each Type of LAO before and after General Grant Allocation in Fiscal Year 2009 to 2012

Types of LAOs	Types of revenue(Per capita)	N	Gini	Std.	t	P>t	[95%	
				Err.			Conf.	Interval
PAOs	Local revenue before general grant allocation	301	0.281	0.015	18.78	0	0.252	0.311
	General grant revenue		0.308	0.012	26.1	0	0.285	0.331
	Local revenue after general grant allocation		0.248	0.013	18.44	0	0.222	0.274
Municipalities								
City municipalities	Local revenue before general grant allocation	104	0.156	0.012	12.76	0	0.132	0.180
	General grant revenue		0.275	0.022	12.37	0	0.231	0.319
	Local revenue after general grant allocation		0.126	0.010	12.39	0	0.106	0.146
Town municipalities	Local revenue before general grant allocation	600	0.220	0.010	23.04	0	0.201	0.239
	General grant revenue		0.326	0.011	30.24	0	0.305	0.347
	Local revenue after general grant allocation		0.198	0.007	26.74	0	0.184	0.213
Subdistrict municipalities	Local revenue before general grant allocation	7319	0.281	0.003	95.8	0	0.275	0.287
	General grant revenue		0.301	0.005	63.2	0	0.291	0.310

Table H1 (Continued)

Types of LAOs	Types of revenue(Per capita)	N	Gini	Std.	t	P>t	[95%	
				Err.			Conf.	Interval
SAOs	Local revenue after general grant allocation	23078	0.261	0.003	86.17	0	0.255	0.267
	Local revenue before general grant allocation		0.203	0.002	102.64	0	0.200	0.207
	General grant revenue		0.162	0.001	130.99	0	0.160	0.165
	Local revenue after general grant allocation		0.145	0.001	102.84	0	0.143	0.148

Source: Department of Local Administration, 2010-2013.

APPENDIX I

Appendix II Fiscal Disparities before and after General Grant Allocation in Fiscal Year 2009 to 2012 by Type of Local Government Organization and by Region

Region	Types of LAOs	N	Types of revenue(Per capita)	Gini	Std.		t	P>t	[95% Conf. Interval]
					Err.				
Northeast	PAOs	77	Local revenue before general						0.192
			grant allocation	0.169	0.011	14.75	0	0.147	
			General grant revenue	0.286	0.018	15.59	0	0.25	0.322
	Municipalities		Local revenue after general						
			grant allocation	0.143	0.01	14.67	0	0.124	0.162
	City Municipalities	17	Local revenue before general						
			grant allocation	0.111	0.019	5.79	0	0.073	0.149
			General grant revenue	0.236	0.057	4.13	0	0.124	0.348
			Local revenue after general						
			grant allocation	0.088	0.019	4.7	0	0.051	0.125

Appendix I1 (Continued)

Region	Types of LAOs	N	Types of revenue(Per capita)	Std.		t	P>t	[95% Conf. Interval]	
				Gini	Err.				
North	Town Municipalities	128	Local revenue before general grant allocation	0.134	0.009	14.86	0	0.116	0.152
			General grant revenue	0.29	0.026	11.34	0	0.24	0.34
			Local revenue after general grant allocation	0.135	0.009	15.42	0	0.118	0.152
	Subdistrict Municipalities	2641	Local revenue before general grant allocation	0.238	0.003	81.01	0	0.233	0.244
			General grant revenue	0.24	0.004	55.32	0	0.231	0.248
			Local revenue after general grant allocation	0.215	0.003	75.67	0	0.209	0.22
	SAOs	9002	Local revenue before general grant allocation	0.129	0.001	96.47	0	0.126	0.132
			General grant revenue	0.134	0.002	81.75	0	0.13	0.137
			Local revenue after general grant allocation	0.098	0.001	85.03	0	0.096	0.1
	PAOs	68	Local revenue before general grant allocation	0.132	0.01	12.61	0	0.111	0.152

Appendix I1 (Continued)

Region	Types of LAOs	N	Types of revenue(Per capita)	Std.		t	P>t	[95% Conf.	Interval]
				Gini	Err.				
	Municipalities	23	General grant revenue	0.278	0.024	11.7	0	0.231	0.324
			Local revenue after general grant allocation	0.109	0.008	12.99	0	0.092	0.125
			Local revenue before general grant allocation	0.126	0.02	6.42	0	0.087	0.164
			General grant revenue	0.239	0.042	5.69	0	0.157	0.321
			Local revenue after general grant allocation	0.095	0.021	4.48	0	0.054	0.137
			Local revenue before general grant allocation	0.21	0.013	15.83	0	0.184	0.237
	Town Municipalities	96	General grant revenue	0.339	0.025	13.64	0	0.29	0.387
			Local revenue after general grant allocation	0.196	0.012	15.85	0	0.172	0.22
			Local revenue before general grant allocation	0.262	0.006	47.31	0	0.251	0.272
	Subdistrict Municipalities	1756	General grant revenue	0.303	0.008	37.24	0	0.287	0.319

Appendix I1 (Continued)

Region	Types of LAOs	N	Types of revenue(Per capita)	Std.		t	P>t	[95% Conf.	Interval]
				Gini	Err.				
South	SAOs	4829	Local revenue after general grant allocation	0.253	0.006	43.82	0	0.242	0.264
			Local revenue before general grant allocation	0.176	0.004	46.74	0	0.168	0.183
			General grant revenue	0.157	0.002	67.97	0	0.153	0.162
			Local revenue after general grant allocation	0.134	0.003	51.7	0	0.129	0.139
			Local revenue before general grant allocation	0.302	0.045	6.65	0	0.213	0.392
			General grant revenue	0.329	0.028	11.88	0	0.275	0.384
	PAOs	56	Local revenue after general grant allocation	0.275	0.041	6.69	0	0.195	0.356
			Local revenue before general grant allocation	0.156	0.015	10.31	0	0.127	0.186
			General grant revenue	0.315	0.049	6.49	0	0.22	0.411
			Local revenue after general grant allocation	0.275	0.041	6.69	0	0.195	0.356
			Local revenue before general grant allocation	0.156	0.015	10.31	0	0.127	0.186
			General grant revenue	0.315	0.049	6.49	0	0.22	0.411

Appendix I1 (Continued)

Region	Types of LAOs	N	Types of revenue(Per capita)	Std.		t	P>t	[95% Conf.	Interval]
				Gini	Err.				
	Town Municipalities	121	Local revenue after general grant allocation	0.134	0.013	10.12	0	0.108	0.16
			Local revenue before general grant allocation	0.289	0.027	10.6	0	0.236	0.343
			General grant revenue	0.299	0.024	12.38	0	0.252	0.346
			Local revenue after general grant allocation	0.241	0.022	11.03	0	0.198	0.284
			Local revenue before general grant allocation	0.314	0.009	33.13	0	0.295	0.332
			General grant revenue	0.355	0.02	17.56	0	0.315	0.394
	Subdistrict Municipalities	950	Local revenue after general grant allocation	0.307	0.011	27.9	0	0.285	0.328
			Local revenue before general grant allocation	0.196	0.004	44.53	0	0.187	0.204
			General grant revenue	0.189	0.003	57.68	0	0.183	0.196
			Local revenue after general grant allocation	0.148	0.003	45.79	0	0.142	0.155
	SAOs	3604	Local revenue after general grant allocation	0.148	0.003	45.79	0	0.142	0.155
			Local revenue before general grant allocation	0.196	0.004	44.53	0	0.187	0.204
			General grant revenue	0.189	0.003	57.68	0	0.183	0.196
			Local revenue after general grant allocation	0.148	0.003	45.79	0	0.142	0.155
			Local revenue before general grant allocation	0.196	0.004	44.53	0	0.187	0.204
			General grant revenue	0.189	0.003	57.68	0	0.183	0.196

Appendix I1 (Continued)

Region	Types of LAOs	N	Types of revenue(Per capita)	Std.		t	P>t	[95% Conf.	Interval]
				Gini	Err.				
East	PAOs	32	Local revenue before general						
			grant allocation	0.268	0.024	11.17	0	0.221	0.316
			General grant revenue	0.272	0.026	10.28	0	0.22	0.323
			Local revenue after general						
	Municipalities		grant allocation	0.218	0.025	8.78	0	0.169	0.266
			Local revenue before general						
			grant allocation	0.18	0.027	6.6	0	0.126	0.233
			General grant revenue	0.264	0.11	2.39	0.01	0.047	0.48
			Local revenue after general						
			grant allocation	0.142	0.033	4.31	0	0.078	0.207
	Town Municipalities	86	Local revenue before general						
			grant allocation	0.192	0.015	12.48	0	0.161	0.222
			General grant revenue	0.3	0.026	11.37	0	0.248	0.352
			Local revenue after general						
			grant allocation	0.169	0.011	15.33	0	0.147	0.19

Appendix I1 (Continued)

Region	Types of LAOs	N	Types of revenue(Per capita)	Std.		t	P>t	[95% Conf. Interval]	
				Gini	Err.				
West	Subdistrict	641	Local revenue before general						
	Municipalities		grant allocation	0.268	0.009	31.22	0	0.251	0.285
			General grant revenue	0.309	0.01	30.95	0	0.29	0.329
			Local revenue after general						
		1567	grant allocation	0.25	0.007	35.13	0	0.236	0.264
	SAOs		Local revenue before general						
			grant allocation	0.255	0.01	24.73	0	0.235	0.276
			General grant revenue	0.158	0.005	32.09	0	0.148	0.167
			Local revenue after general						
		24	grant allocation	0.192	0.008	22.75	0	0.175	0.208
	PAOs		Local revenue before general						
			grant allocation	0.061	0.008	7.88	0	0.046	0.076
			General grant revenue	0.331	0.049	6.72	0	0.234	0.427
			Local revenue after general						
			grant allocation	0.08	0.012	6.91	0	0.058	0.103

Appendix I1 (Continued)

Region	Types of LAOs	N	Types of revenue(Per capita)	Gini	Std. Err.	t	P>t	[95% Conf. Interval]
	Municipalities							
			Local revenue before general grant allocation					
	City Municipalities		General grant revenue					
			Local revenue after general grant allocation					
			Local revenue before general grant allocation					
	Town Municipalities	48	grant allocation	0.144	0.014	10.22	0	0.117 0.172
			General grant revenue	0.332	0.033	9.99	0	0.267 0.398
			Local revenue after general grant allocation	0.11	0.011	9.8	0	0.088 0.132
	Subdistrict		Local revenue before general grant allocation					
	Municipalities	551	grant allocation	0.256	0.011	23.99	0	0.235 0.276
			General grant revenue	0.316	0.011	27.64	0	0.293 0.338
			Local revenue after general grant allocation	0.26	0.009	29.1	0	0.242 0.277

Appendix I1 (Continued)

Region	Types of LAOs	N	Types of revenue(Per capita)	Std.		t	P>t	[95% Conf. Interval]	
				Gini	Err.				
Central	SAOs	1549	Local revenue before general						
			grant allocation	0.161	0.003	47.06	0	0.155	0.168
			General grant revenue	0.18	0.008	22.5	0	0.164	0.195
			Local revenue after general						
			grant allocation	0.138	0.004	38.11	0	0.131	0.145
			Local revenue before general						
	PAOs	24	grant allocation	0.199	0.016	12.24	0	0.167	0.231
			General grant revenue	0.286	0.028	10.22	0	0.231	0.341
			Local revenue after general						
			grant allocation	0.164	0.016	10.35	0	0.133	0.195
	Municipalities	4	Local revenue before general						
			grant allocation	0.027	0.003	10.2	0	0.022	0.032
			General grant revenue	0.203	0.13	1.56	0.118	-0.052	0.459
			Local revenue after general						
			grant allocation	0.082	0.046	1.8	0.072	-0.007	0.171

Appendix I1 (Continued)

Region	Types of LAOs	N	Types of revenue(Per capita)	Std.		t	P>t	[95% Conf. Interval]	
				Gini	Err.				
	Town Municipalities	46	Local revenue before general grant allocation	0.283	0.034	8.28	0	0.216	0.35
			General grant revenue	0.363	0.037	9.84	0	0.291	0.435
			Local revenue after general grant allocation	0.264	0.026	10.28	0	0.214	0.315
	Subdistrict Municipalities	547	Local revenue before general grant allocation	0.282	0.011	24.74	0	0.26	0.304
			General grant revenue	0.319	0.015	21.15	0	0.29	0.349
			Local revenue after general grant allocation	0.269	0.012	23.34	0	0.246	0.291
	SAOs	1619	Local revenue before general grant allocation	0.204	0.005	39.92	0	0.194	0.214
			General grant revenue	0.167	0.004	45.59	0	0.16	0.174
			Local revenue after general grant allocation	0.16	0.004	42.14	0	0.153	0.168
	Vicinities PAOs	20	Local revenue before general grant allocation	0.156	0.024	6.43	0	0.108	0.203
			grant allocation						

Appendix I1 (Continued)

Region	Types of LAOs	N	Types of revenue(Per capita)	Std.		t	P>t	[95% Conf. Interval]
				Gini	Err.			
	Municipalities		General grant revenue	0.239	0.038	6.23	0	0.164 0.315
			Local revenue after general grant allocation	0.148	0.022	6.62	0	0.104 0.192
			Local revenue before general grant allocation	0.101	0.013	8	0	0.077 0.126
	City Municipalities	24	General grant revenue	0.271	0.047	5.73	0	0.179 0.364
			Local revenue after general grant allocation	0.077	0.011	6.82	0	0.055 0.099
			Local revenue before general grant allocation	0.152	0.011	13.76	0	0.13 0.173
	Town Municipalities	75	General grant revenue	0.271	0.044	6.12	0	0.184 0.358
			Local revenue after general grant allocation	0.143	0.013	11.21	0	0.118 0.168
			Local revenue before general grant allocation	0.207	0.011	18.43	0	0.185 0.229
	Subdistrict Municipalities	233	General grant revenue	0.366	0.02	18.59	0	0.327 0.404

Appendix I1 (Continued)

Region	Types of LAOs	N	Types of revenue(Per capita)	Std.		t	P>t	[95% Conf.	Interval]
				Gini	Err.				
	SAOs	908	Local revenue after general						
			grant allocation	0.218	0.013	16.95	0	0.192	0.243
			Local revenue before general						
			grant allocation	0.221	0.013	17.33	0	0.196	0.246
			General grant revenue	0.207	0.009	22.66	0	0.189	0.225
			Local revenue after general						
			grant allocation	0.186	0.011	17.02	0	0.164	0.207

Source: Department of Local Administration, 2010-2013.

APPENDIX J

Appendix J1 Fiscal Disparities of each Type of Local Government Organization by Region and by Year between 2009 and 2012

Fiscal year	Region	Types of LAOs	Types of revenue	N	Gini coefficient	Std. Err.	t	P>t	[95% Conf.	Interval]
2009	Northeast	PAOs	Local revenue after	19	0.128	0.019	6.74	0	0.091	0.165
			general grant allocation							
			Local revenue before		0.16	0.029	5.51	0	0.103	0.217
			general grant allocation							
		City Municipalities	Local revenue after	4	0.048	0.019	2.49	0	0.01	0.085
			general grant allocation							
			Local revenue before		0.028	0.007	3.75	0	0.013	0.043
			general grant allocation							
		Town Municipalities	Local revenue after	30	0.16	0.018	8.82	0	0.124	0.195
			general grant allocation							
			Local revenue before		0.116	0.016	7.41	0	0.085	0.147
			general grant allocation							

Appendix J1 (Continued)

Fiscal					Gini	Std.			[95%	
year	Region	Types of LAOs	Types of revenue	N	coefficient	Err.	t	P>t	Conf.	Interval]
		Subdistrict	Local revenue after							
		Municipalities	general grant allocation	526	0.219	0.006	35.37	0	0.207	0.231
			Local revenue before							
			general grant allocation		0.233	0.008	30.47	0	0.218	0.249
		SAOs	Local revenue after							
			general grant allocation		0.095	0.002	54.37	0	0.092	0.099
			Local revenue before							
			general grant allocation		0.111	0.003	42.49	0	0.105	0.116
		PAOs	Local revenue after							
	North		general grant allocation	17	0.104	0.012	8.35	0	0.079	0.128
			Local revenue before							
			general grant allocation		0.132	0.015	8.65	0	0.102	0.162
			Local revenue after							
		City Municipalities	general grant allocation	5	0.087	0.057	1.54	0.1	-0.024	0.198
			Local revenue before							
			general grant allocation		0.111	0.086	1.28	0.2	-0.059	0.28

Appendix J1 (Continued)

Fiscal					Gini	Std.			[95%	
year	Region	Types of LAOs	Types of revenue	N	coefficient	Err.	t	P>t	Conf.	Interval]
		Town	Local revenue after							
		Municipalities	general grant allocation	23	0.21	0.029	7.22	0	0.153	0.267
			Local revenue before							
			general grant allocation		0.22	0.039	5.59	0	0.143	0.297
		Subdistrict	Local revenue after							
		Municipalities	general grant allocation	348	0.265	0.013	20.26	0	0.239	0.29
			Local revenue before							
			general grant allocation		0.265	0.014	19.45	0	0.238	0.291
			Local revenue after							
		SAOs	general grant allocation		0.133	0.005	25.54	0	0.123	0.143
			Local revenue before							
			general grant allocation		0.163	0.009	17.95	0	0.145	0.181
			Local revenue after							
	South	PAOs	general grant allocation	14	0.277	0.111	2.48	0	0.058	0.495
			Local revenue before							
			general grant allocation		0.301	0.132	2.27	0	0.041	0.56

Appendix J1 (Continued)

Fiscal					Gini	Std.			[95%	
year	Region	Types of LAOs	Types of revenue	N	coefficient	Err.	t	P>t	Conf.	Interval]
			Local revenue after							
		City Municipalities	general grant allocation	7	0.112	0.016	7.06	0	0.081	0.143
			Local revenue before							
			general grant allocation		0.134	0.028	4.83	0	0.08	0.189
		Town	Local revenue after							
		Municipalities	general grant allocation	28	0.218	0.036	6.09	0	0.148	0.288
			Local revenue before							
			general grant allocation		0.269	0.051	5.26	0	0.169	0.37
		Subdistrict	Local revenue after							
		Municipalities	general grant allocation	207	0.309	0.018	16.88	0	0.274	0.345
			Local revenue before							
			general grant allocation		0.324	0.025	13.04	0	0.275	0.373
			Local revenue after							
		SAOs	general grant allocation	934	0.142	0.007	21.24	0	0.129	0.156
			Local revenue before							
			general grant allocation		0.193	0.011	17.69	0	0.171	0.214

Appendix J1 (Continued)

Fiscal year	Region	Types of LAOs	Types of revenue	N	Gini coefficient	Std. Err.	t	P>t	[95% Conf.	Interval]
			Local revenue after							
	East	PAOs	general grant allocation	8	0.213	0.056	3.81	0	0.103	0.322
			Local revenue before							
			general grant allocation		0.287	0.055	5.23	0	0.18	0.395
			Local revenue after							
		City Municipalities	general grant allocation	1	0	.	.	.	.	.
			Local revenue before							
			general grant allocation		0	.	.	.	.	.
		Town	Local revenue after							
		Municipalities	general grant allocation	19	0.177	0.02	8.77	0	0.138	0.217
			Local revenue before							
			general grant allocation		0.182	0.04	4.52	0	0.103	0.261
		Subdistrict	Local revenue after							
		Municipalities	general grant allocation	143	0.262	0.014	18.39	0	0.234	0.29
			Local revenue before							
			general grant allocation		0.261	0.018	14.32	0	0.225	0.297

Appendix J1 (Continued)

Fiscal					Gini	Std.			[95%	
year	Region	Types of LAOs	Types of revenue	N	coefficient	Err.	t	P>t	Conf.	Interval]
		SAOs	Local revenue after general grant allocation	413	0.188	0.017	11.07	0	0.155	0.221
			Local revenue before general grant allocation		0.254	0.023	11.21	0	0.209	0.298
	West	PAOs	Local revenue after general grant allocation	6	0.092	0.019	4.78	0	0.054	0.13
			Local revenue before general grant allocation		0.061	0.029	2.12	0	0.005	0.117
		City Municipalities	Local revenue after general grant allocation	0						
			Local revenue before general grant allocation							
		Town	Local revenue after general grant allocation	12	0.09	0.018	5.04	0	0.055	0.124
		Municipalities	Local revenue before general grant allocation		0.121	0.018	6.63	0	0.085	0.157

Appendix J1 (Continued)

Fiscal					Gini	Std.			[95%	
year	Region	Types of LAOs	Types of revenue	N	coefficient	Err.	t	P>t	Conf.	Interval]
		Subdistrict	Local revenue after							
		Municipalities	general grant allocation	125	0.268	0.017	15.51	0	0.235	0.302
			Local revenue before							
			general grant allocation		0.254	0.024	10.59	0	0.207	0.301
		SAOs	Local revenue after							
			general grant allocation	400	0.134	0.005	24.94	0	0.123	0.144
			Local revenue before							
			general grant allocation		0.157	0.008	20.65	0	0.142	0.172
		PAOs	Local revenue after							
	Central		general grant allocation	6	0.153	0.056	2.73	0	0.043	0.262
			Local revenue before							
			general grant allocation		0.198	0.069	2.88	0	0.063	0.332
			Local revenue after							
		City Municipalities	general grant allocation	1	0	.	.	.	.	.
			Local revenue before							
			general grant allocation		0	.	.	.	.	.

Appendix J1 (Continued)

Fiscal					Gini	Std.			[95%	
year	Region	Types of LAOs	Types of revenue	N	coefficient	Err.	t	P>t	Conf.	Interval]
		Town	Local revenue after							
		Municipalities	general grant allocation	11	0.259	0.055	4.68	0	0.15	0.367
			Local revenue before							
			general grant allocation		0.278	0.074	3.73	0	0.132	0.423
		Subdistrict	Local revenue after							
		Municipalities	general grant allocation	120	0.281	0.026	10.75	0	0.23	0.332
			Local revenue before							
			general grant allocation		0.283	0.026	10.74	0	0.231	0.335
			Local revenue after							
		SAOs	general grant allocation	422	0.154	0.008	19.5	0	0.139	0.17
			Local revenue before							
			general grant allocation		0.204	0.012	17.06	0	0.181	0.228
			Local revenue after							
	Vicinities	PAOs	general grant allocation	5	0.127	0.047	2.7	0	0.035	0.219
			Local revenue before							
			general grant allocation		0.139	0.062	2.24	0	0.017	0.26

Appendix J1 (Continued)

Fiscal					Gini	Std.			[95%	
year	Region	Types of LAOs	Types of revenue	N	coefficient	Err.	t	P>t	Conf.	Interval]
			Local revenue after							
		City Municipalities	general grant allocation	5	0.083	0.022	3.79	0	0.04	0.126
			Local revenue before							
			general grant allocation		0.055	0.02	2.77	0	0.016	0.094
		Town	Local revenue after							
		Municipalities	general grant allocation	19	0.188	0.035	5.36	0	0.119	0.257
			Local revenue before							
			general grant allocation		0.171	0.025	6.71	0	0.121	0.221
		Subdistrict	Local revenue after							
		Municipalities	general grant allocation	53	0.242	0.027	8.86	0	0.189	0.296
			Local revenue before							
			general grant allocation		0.224	0.026	8.7	0	0.174	0.275
			Local revenue after							
		SAOs	general grant allocation	233	0.173	0.016	10.96	0	0.142	0.204
			Local revenue before							
			general grant allocation		0.206	0.02	10.05	0	0.166	0.246

Appendix J1 (Continued)

Fiscal					Gini	Std.			[95%	
year	Region	Types of LAOs	Types of revenue	N	coefficient	Err.	t	P>t	Conf.	Interval]
2010	Northeast	PAOs	Local revenue after	19	0.129	0.015	8.33	0	0.099	0.159
			general grant allocation							
			Local revenue before		0.135	0.021	6.48	0	0.094	0.176
			general grant allocation							
		City Municipalities	Local revenue after	4	0.083	0.009	9.64	0	0.066	0.1
			general grant allocation							
			Local revenue before		0.088	0.047	1.87	0.1	-0.004	0.18
			general grant allocation							
		Town Municipalities	Local revenue after	30	0.131	0.017	7.56	0	0.097	0.164
			general grant allocation							
			Local revenue before		0.108	0.017	6.33	0	0.074	0.141
			general grant allocation							
		Subdistrict Municipalities	Local revenue after	678	0.227	0.007	31.93	0	0.213	0.24
			general grant allocation							
			Local revenue before							
			general grant allocation		0.233	0.005	43.83	0	0.223	0.244

Appendix J1 (Continued)

Fiscal					Gini	Std.			[95%	
year	Region	Types of LAOs	Types of revenue	N	coefficient	Err.	t	P>t	Conf.	Interval]
		SAOs	Local revenue after general grant allocation		0.133	0.003	47.42	0	0.128	0.139
			Local revenue before general grant allocation		0.108	0.002	44.99	0	0.103	0.113
	North	PAOs	Local revenue after general grant allocation	17	0.092	0.011	8.47	0	0.071	0.113
			Local revenue before general grant allocation		0.104	0.012	8.65	0	0.08	0.128
		City Municipalities	Local revenue after general grant allocation	6	0.04	0.019	2.12	0	0.003	0.076
			Local revenue before general grant allocation		0.073	0.026	2.84	0	0.023	0.123
	Town		Local revenue after							
	Municipalities		general grant allocation	22	0.172	0.023	7.54	0	0.127	0.216
			Local revenue before general grant allocation		0.19	0.026	7.4	0	0.14	0.24

Appendix J1 (Continued)

Fiscal					Gini	Std.			[95%	
year	Region	Types of LAOs	Types of revenue	N	coefficient	Err.	t	P>t	Conf.	Interval]
		Subdistrict	Local revenue after							
		Municipalities	general grant allocation	452	0.256	0.013	19.3	0	0.23	0.282
			Local revenue before							
			general grant allocation		0.256	0.01	24.81	0	0.236	0.276
		SAOs	Local revenue after							
			general grant allocation		0.153	0.005	31.83	0	0.143	0.162
			Local revenue before							
			general grant allocation		0.155	0.006	25.19	0	0.143	0.167
		PAOs	Local revenue after							
	South		general grant allocation	14	0.26	0.103	2.51	0	0.057	0.462
			Local revenue before							
			general grant allocation		0.273	0.113	2.41	0	0.051	0.496
		City Municipalities	Local revenue after							
			general grant allocation	7	0.146	0.02	7.45	0	0.108	0.185
			Local revenue before							
			general grant allocation		0.136	0.02	6.82	0	0.097	0.174

Appendix J1 (Continued)

Fiscal					Gini	Std.			[95%	
year	Region	Types of LAOs	Types of revenue	N	coefficient	Err.	t	P>t	Conf.	Interval]
		Town	Local revenue after							
		Municipalities	general grant allocation	28	0.23	0.046	5.05	0	0.141	0.32
			Local revenue before							
			general grant allocation		0.256	0.05	5.13	0	0.158	0.353
		Subdistrict	Local revenue after							
		Municipalities	general grant allocation	228	0.343	0.033	10.42	0	0.278	0.408
			Local revenue before							
			general grant allocation		0.307	0.016	18.86	0	0.276	0.339
			Local revenue after							
		SAOs	general grant allocation	913	0.177	0.006	27.55	0	0.164	0.189
			Local revenue before							
			general grant allocation		0.174	0.008	21.9	0	0.158	0.189
			Local revenue after							
	East	PAOs	general grant allocation	8	0.201	0.06	3.37	0	0.084	0.318
			Local revenue before							
			general grant allocation		0.233	0.058	4.01	0	0.119	0.347

Appendix J1 (Continued)

Fiscal					Gini	Std.			[95%	
year	Region	Types of LAOs	Types of revenue	N	coefficient	Err.	t	P>t	Conf.	Interval]
			Local revenue after							
		City Municipalities	general grant allocation	2	0.183	0		0	0.183	0.183
			Local revenue before							
			general grant allocation		0.173	0		0	0.173	0.173
		Town	Local revenue after							
		Municipalities	general grant allocation	20	0.159	0.018	9	0	0.124	0.194
			Local revenue before							
			general grant allocation		0.172	0.028	6.22	0	0.118	0.226
		Subdistrict	Local revenue after							
		Municipalities	general grant allocation	154	0.255	0.015	17.37	0	0.226	0.284
			Local revenue before							
			general grant allocation		0.265	0.016	16.71	0	0.234	0.296
			Local revenue after							
		SAOs	general grant allocation	399	0.186	0.016	11.92	0	0.156	0.217
			Local revenue before							
			general grant allocation		0.223	0.019	11.59	0	0.185	0.261

Appendix J1 (Continued)

Fiscal year	Region	Types of LAOs	Types of revenue	N	Gini coefficient	Std. Err.	t	P>t	[95% Conf.	Interval]
	West	PAOs	Local revenue after general grant allocation	6	0.057	0.017	3.28	0	0.023	0.091
			Local revenue before general grant allocation		0.048	0.021	2.33	0	0.008	0.089
		City Municipalities	Local revenue after general grant allocation	0						
			Local revenue before general grant allocation							
		Town Municipalities	Local revenue after general grant allocation	12	0.104	0.028	3.7	0	0.049	0.159
			Local revenue before general grant allocation		0.116	0.016	7.49	0	0.086	0.146
		Subdistrict Municipalities	Local revenue after general grant allocation	136	0.291	0.021	13.91	0	0.25	0.332
			Local revenue before general grant allocation		0.258	0.023	11.02	0	0.212	0.304

Appendix J1 (Continued)

Fiscal					Gini	Std.			[95%	
year	Region	Types of LAOs	Types of revenue	N	coefficient	Err.	t	P>t	Conf.	Interval]
		SAOs	Local revenue after general grant allocation	389	0.173	0.01	17.58	0	0.154	0.193
			Local revenue before general grant allocation		0.142	0.006	24.5	0	0.13	0.153
	Central	PAOs	Local revenue after general grant allocation	6	0.155	0.03	5.21	0	0.097	0.213
			Local revenue before general grant allocation		0.177	0.035	5.05	0	0.109	0.246
		City Municipalities	Local revenue after general grant allocation	1	0	.	.	.	.	.
			Local revenue before general grant allocation		0	.	.	.	.	.
	Town		Local revenue after							
	Municipalities		general grant allocation	11	0.274	0.073	3.75	0	0.131	0.417
			Local revenue before general grant allocation		0.265	0.081	3.28	0	0.107	0.424

Appendix J1 (Continued)

Fiscal					Gini	Std.			[95%	
year	Region	Types of LAOs	Types of revenue	N	coefficient	Err.	t	P>t	Conf.	Interval]
		Subdistrict	Local revenue after							
		Municipalities	general grant allocation	140	0.29	0.024	12	0	0.242	0.337
			Local revenue before							
			general grant allocation		0.279	0.024	11.77	0	0.233	0.326
		SAOs	Local revenue after							
			general grant allocation	402	0.172	0.008	22.61	0	0.157	0.187
			Local revenue before							
			general grant allocation		0.184	0.01	18.58	0	0.165	0.204
		PAOs	Local revenue after							
	Vicinities		general grant allocation	5	0.105	0.038	2.8	0	0.032	0.179
			Local revenue before							
			general grant allocation		0.112	0.045	2.45	0	0.022	0.201
			Local revenue after							
		City Municipalities	general grant allocation	5	0.07	0.035	2.02	0	0.002	0.138
			Local revenue before							
			general grant allocation		0.053	0.032	1.67	0.1	-0.009	0.116

Appendix J1 (Continued)

Fiscal					Gini	Std.			[95%	
year	Region	Types of LAOs	Types of revenue	N	coefficient	Err.	t	P>t	Conf.	Interval]
		Town	Local revenue after							
		Municipalities	general grant allocation	19	0.137	0.021	6.62	0	0.096	0.177
			Local revenue before							
			general grant allocation		0.149	0.02	7.32	0	0.109	0.189
		Subdistrict	Local revenue after							
		Municipalities	general grant allocation	53	0.257	0.029	8.99	0	0.201	0.313
			Local revenue before							
			general grant allocation		0.221	0.027	8.29	0	0.169	0.273
			Local revenue after							
		SAOs	general grant allocation	233	0.175	0.017	10.21	0	0.141	0.208
			Local revenue before							
			general grant allocation		0.179	0.015	12.22	0	0.15	0.208
			Local revenue after							
2011	Northeast	PAOs	general grant allocation	19	0.138	0.021	6.42	0	0.096	0.18
			Local revenue before							
			general grant allocation		0.152	0.022	6.82	0	0.108	0.195

Appendix J1 (Continued)

Fiscal					Gini	Std.			[95%	
year	Region	Types of LAOs	Types of revenue	N	coefficient	Err.	t	P>t	Conf.	Interval]
			Local revenue after							
		City Municipalities	general grant allocation	4	0.07	0.035	2.03	0	0.002	0.138
			Local revenue before							
			general grant allocation		0.094	0.057	1.66	0.1	-0.017	0.206
		Town	Local revenue after							
		Municipalities	general grant allocation	31	0.092	0.013	7.15	0	0.067	0.118
			Local revenue before							
			general grant allocation		0.105	0.015	7.25	0	0.077	0.134
		Subdistrict	Local revenue after							
		Municipalities	general grant allocation	682	0.205	0.005	42.75	0	0.195	0.214
			Local revenue before							
			general grant allocation		0.231	0.005	44.52	0	0.22	0.241
			Local revenue after							
		SAOs	general grant allocation		0.08	0.002	46.29	0	0.077	0.084
			Local revenue before							
			general grant allocation		0.105	0.002	44.92	0	0.101	0.11

Appendix J1 (Continued)

Fiscal					Gini	Std.			[95%	
year	Region	Types of LAOs	Types of revenue	N	coefficient	Err.	t	P>t	Conf.	Interval]
			Local revenue after							
	North	PAOs	general grant allocation	17	0.091	0.01	9.02	0	0.071	0.111
			Local revenue before							
			general grant allocation		0.11	0.012	9.14	0	0.086	0.133
			Local revenue after							
		City Municipalities	general grant allocation	6	0.049	0.009	5.27	0	0.031	0.067
			Local revenue before							
			general grant allocation		0.08	0.023	3.49	0	0.035	0.125
		Town	Local revenue after							
		Municipalities	general grant allocation	24	0.169	0.021	8.18	0	0.128	0.209
			Local revenue before							
			general grant allocation		0.19	0.023	8.37	0	0.146	0.234
		Subdistrict	Local revenue after							
		Municipalities	general grant allocation	458	0.246	0.01	23.81	0	0.226	0.266
			Local revenue before							
			general grant allocation		0.255	0.01	24.36	0	0.234	0.275

Appendix J1 (Continued)

Fiscal					Gini	Std.			[95%	
year	Region	Types of LAOs	Types of revenue	N	coefficient	Err.	t	P>t	Conf.	Interval]
		SAOs	Local revenue after general grant allocation		0.126	0.005	26.98	0	0.117	0.135
			Local revenue before general grant allocation		0.156	0.007	23.12	0	0.143	0.169
	South	PAOs	Local revenue after general grant allocation	14	0.273	0.101	2.71	0	0.075	0.471
			Local revenue before general grant allocation		0.297	0.12	2.49	0	0.063	0.531
		City Municipalities	Local revenue after general grant allocation	7	0.113	0.016	7.11	0	0.082	0.144
			Local revenue before general grant allocation		0.128	0.023	5.68	0	0.084	0.173
		Town	Local revenue after							
		Municipalities	general grant allocation	31	0.25	0.051	4.92	0	0.15	0.349
			Local revenue before general grant allocation		0.303	0.06	5.02	0	0.185	0.422

Appendix J1 (Continued)

Fiscal					Gini	Std.			[95%	
year	Region	Types of LAOs	Types of revenue	N	coefficient	Err.	t	P>t	Conf.	Interval]
		Subdistrict	Local revenue after							
		Municipalities	general grant allocation	234	0.286	0.018	16.08	0	0.251	0.32
			Local revenue before							
			general grant allocation		0.309	0.023	13.72	0	0.265	0.353
		SAOs	Local revenue after							
			general grant allocation	904	0.135	0.006	21.45	0	0.123	0.148
			Local revenue before							
			general grant allocation		0.18	0.009	21.17	0	0.164	0.197
		PAOs	Local revenue after							
	East		general grant allocation	8	0.206	0.066	3.1	0	0.076	0.336
			Local revenue before							
			general grant allocation		0.263	0.061	4.31	0	0.144	0.382
			Local revenue after							
		City Municipalities	general grant allocation	2	0.053	0		0	0.053	0.053
			Local revenue before							
			general grant allocation		0.075	0		0	0.075	0.075

Appendix J1 (Continued)

Fiscal					Gini	Std.			[95%	
year	Region	Types of LAOs	Types of revenue	N	coefficient	Err.	t	P>t	Conf.	Interval]
		Town	Local revenue after							
		Municipalities	general grant allocation	23	0.161	0.026	6.28	0	0.111	0.211
			Local revenue before							
			general grant allocation		0.181	0.03	6.01	0	0.122	0.24
		Subdistrict	Local revenue after							
		Municipalities	general grant allocation	166	0.235	0.013	17.59	0	0.209	0.261
			Local revenue before							
			general grant allocation		0.254	0.017	15.2	0	0.221	0.287
			Local revenue after							
		SAOs	general grant allocation	384	0.192	0.018	10.5	0	0.156	0.227
			Local revenue before							
			general grant allocation		0.244	0.022	11.14	0	0.201	0.287
			Local revenue after							
	West	PAOs	general grant allocation	6	0.069	0.028	2.51	0	0.015	0.123
			Local revenue before							
			general grant allocation		0.033	0.02	1.61	0.1	-0.007	0.072

Appendix J1 (Continued)

Fiscal					Gini	Std.			[95%	
year	Region	Types of LAOs	Types of revenue	N	coefficient	Err.	t	P>t	Conf.	Interval]
			Local revenue after							
		City Municipalities	general grant allocation	0						
			Local revenue before							
			general grant allocation							
		Town	Local revenue after							
		Municipalities	general grant allocation	12	0.09	0.016	5.76	0	0.059	0.121
			Local revenue before							
			general grant allocation		0.133	0.024	5.55	0	0.086	0.181
		Subdistrict	Local revenue after							
		Municipalities	general grant allocation	139	0.238	0.016	14.65	0	0.206	0.269
			Local revenue before							
			general grant allocation		0.242	0.02	12.17	0	0.203	0.282
			Local revenue after							
		SAOs	general grant allocation	386	0.121	0.005	22.9	0	0.11	0.131
			Local revenue before							
			general grant allocation		0.145	0.007	22.05	0	0.132	0.158

Appendix J1 (Continued)

Fiscal					Gini	Std.			[95%	
year	Region	Types of LAOs	Types of revenue	N	coefficient	Err.	t	P>t	Conf.	Interval]
			Local revenue after							
	Central	PAOs	general grant allocation	6	0.151	0.039	3.84	0	0.074	0.228
			Local revenue before							
			general grant allocation		0.189	0.027	6.91	0	0.135	0.242
			Local revenue after							
		City Municipalities	general grant allocation	1	0	.	.	.	.	.
			Local revenue before							
			general grant allocation		0	.	.	.	.	.
		Town	Local revenue after							
		Municipalities	general grant allocation	11	0.238	0.063	3.77	0	0.114	0.362
			Local revenue before							
			general grant allocation		0.26	0.08	3.27	0	0.104	0.416
		Subdistrict	Local revenue after							
		Municipalities	general grant allocation	142	0.251	0.022	11.28	0	0.207	0.294
			Local revenue before							
			general grant allocation		0.276	0.023	12.08	0	0.231	0.321

Appendix J1 (Continued)

Fiscal					Gini	Std.			[95%	
year	Region	Types of LAOs	Types of revenue	N	coefficient	Err.	t	P>t	Conf.	Interval]
		SAOs	Local revenue after general grant allocation	400	0.152	0.007	22	0	0.138	0.165
			Local revenue before general grant allocation		0.187	0.009	19.94	0	0.169	0.206
	Vicinities	PAOs	Local revenue after general grant allocation	5	0.181	0.035	5.2	0	0.113	0.249
			Local revenue before general grant allocation		0.186	0.041	4.53	0	0.105	0.266
		City Municipalities	Local revenue after general grant allocation	7	0.05	0.016	3.06	0	0.018	0.082
			Local revenue before general grant allocation		0.064	0.014	4.52	0	0.036	0.092
	Town		Local revenue after							
	Municipalities		general grant allocation	17	0.116	0.021	5.49	0	0.074	0.157
			Local revenue before general grant allocation		0.13	0.022	5.8	0	0.086	0.173

Appendix J1 (Continued)

Fiscal					Gini	Std.			[95%	
year	Region	Types of LAOs	Types of revenue	N	coefficient	Err.	t	P>t	Conf.	Interval]
2012	Northeast	Subdistrict	Local revenue after	63	0.186	0.023	7.96	0	0.14	0.232
			general grant allocation							
		Municipalities	Local revenue before		0.183	0.02	9.31	0	0.144	0.221
			general grant allocation							
		SAOs	Local revenue after	223	0.172	0.013	13.29	0	0.147	0.198
			general grant allocation							
			Local revenue before		0.206	0.015	13.49	0	0.176	0.236
			general grant allocation							
		PAOs	Local revenue after	20	0.111	0.012	9.02	0	0.087	0.135
			general grant allocation							
			Local revenue before		0.158	0.019	8.37	0	0.121	0.195
			general grant allocation							
		City Municipalities	Local revenue after	5	0.046	0.012	3.69	0	0.022	0.07
			general grant allocation							
			Local revenue before							
			general grant allocation		0.058	0.017	3.51	0	0.026	0.09

Appendix J1 (Continued)

Fiscal					Gini	Std.			[95%	
year	Region	Types of LAOs	Types of revenue	N	coefficient	Err.	t	P>t	Conf.	Interval]
		Town	Local revenue after							
		Municipalities	general grant allocation	37	0.119	0.016	7.62	0	0.088	0.149
			Local revenue before							
			general grant allocation		0.14	0.02	7.14	0	0.101	0.178
		Subdistrict	Local revenue after							
		Municipalities	general grant allocation	755	0.203	0.005	43.67	0	0.194	0.213
			Local revenue before							
			general grant allocation		0.24	0.005	45.8	0	0.23	0.251
			Local revenue after							
		SAOs	general grant allocation		0.059	0.002	30.33	0	0.056	0.063
			Local revenue before							
			general grant allocation		0.112	0.003	39.39	0	0.106	0.117
			Local revenue after							
	North	PAOs	general grant allocation	17	0.12	0.017	7.14	0	0.087	0.153
			Local revenue before							
			general grant allocation		0.139	0.019	7.44	0	0.103	0.176

Appendix J1 (Continued)

Fiscal					Gini	Std.			[95%	
year	Region	Types of LAOs	Types of revenue	N	coefficient	Err.	t	P>t	Conf.	Interval]
			Local revenue after							
		City Municipalities	general grant allocation	6	0.122	0.063	1.93	0.1	-0.002	0.247
			Local revenue before							
			general grant allocation		0.144	0.073	1.97	0	0.001	0.287
		Town	Local revenue after							
		Municipalities	general grant allocation	27	0.185	0.024	7.61	0	0.137	0.233
			Local revenue before							
			general grant allocation		0.205	0.03	6.91	0	0.147	0.263
		Subdistrict	Local revenue after							
		Municipalities	general grant allocation	498	0.243	0.01	24	0	0.223	0.263
			Local revenue before							
			general grant allocation		0.26	0.01	24.83	0	0.24	0.281
			Local revenue after							
		SAOs	general grant allocation		0.112	0.006	19	0	0.101	0.124
			Local revenue before							
			general grant allocation		0.168	0.008	20.25	0	0.151	0.184

Appendix J1 (Continued)

Fiscal					Gini	Std.			[95%	
year	Region	Types of LAOs	Types of revenue	N	coefficient	Err.	t	P>t	Conf.	Interval]
			Local revenue after							
	South	PAOs	general grant allocation	14	0.264	0.1	2.63	0	0.067	0.46
			Local revenue before							
			general grant allocation		0.296	0.109	2.72	0	0.083	0.509
			Local revenue after							
		City Municipalities	general grant allocation	8	0.118	0.02	6.05	0	0.08	0.156
			Local revenue before							
			general grant allocation		0.129	0.029	4.43	0	0.072	0.186
		Town	Local revenue after							
		Municipalities	general grant allocation	34	0.246	0.053	4.6	0	0.141	0.351
			Local revenue before							
			general grant allocation		0.3	0.066	4.52	0	0.17	0.43
		Subdistrict	Local revenue after							
		Municipalities	general grant allocation	281	0.283	0.013	21.67	0	0.258	0.309
			Local revenue before							
			general grant allocation		0.309	0.015	20.69	0	0.28	0.338

Appendix J1 (Continued)

Fiscal					Gini	Std.			[95%	
year	Region	Types of LAOs	Types of revenue	N	coefficient	Err.	t	P>t	Conf.	Interval]
		SAOs	Local revenue after general grant allocation	853	0.118	0.006	19.12	0	0.106	0.131
			Local revenue before general grant allocation		0.189	0.009	22.09	0	0.172	0.206
	East	PAOs	Local revenue after general grant allocation	8	0.217	0.061	3.55	0	0.097	0.337
			Local revenue before general grant allocation		0.258	0.06	4.26	0	0.139	0.376
		City Municipalities	Local revenue after general grant allocation	2	0.104	0		0	0.104	0.104
			Local revenue before general grant allocation		0.132	0		0	0.132	0.132
		Town	Local revenue after							
		Municipalities	general grant allocation	24	0.158	0.025	6.34	0	0.109	0.206
			Local revenue before general grant allocation		0.184	0.034	5.42	0	0.117	0.25

Appendix J1 (Continued)

Fiscal					Gini	Std.			[95%	
year	Region	Types of LAOs	Types of revenue	N	coefficient	Err.	t	P>t	Conf.	Interval]
		Subdistrict	Local revenue after							
		Municipalities	general grant allocation	178	0.248	0.015	16.6	0	0.218	0.277
			Local revenue before							
			general grant allocation		0.273	0.018	15.53	0	0.238	0.307
		SAOs	Local revenue after							
			general grant allocation	371	0.186	0.017	10.95	0	0.152	0.219
			Local revenue before							
			general grant allocation		0.258	0.021	12.49	0	0.218	0.299
		PAOs	Local revenue after							
	West		general grant allocation	6	0.075	0.03	2.53	0	0.017	0.133
			Local revenue before							
			general grant allocation		0.038	0.02	1.88	0.1	-0.002	0.078
		City Municipalities	Local revenue after							
			general grant allocation	0						
			Local revenue before							
			general grant allocation							

Appendix J1 (Continued)

Fiscal					Gini	Std.			[95%	
year	Region	Types of LAOs	Types of revenue	N	coefficient	Err.	t	P>t	Conf.	Interval]
		Town	Local revenue after							
		Municipalities	general grant allocation	12	0.091	0.019	4.82	0	0.054	0.127
			Local revenue before							
			general grant allocation		0.128	0.027	4.79	0	0.076	0.181
		Subdistrict	Local revenue after							
		Municipalities	general grant allocation	151	0.239	0.016	14.77	0	0.208	0.271
			Local revenue before							
			general grant allocation		0.248	0.02	12.59	0	0.21	0.287
			Local revenue after							
		SAOs	general grant allocation	374	0.102	0.005	20.23	0	0.092	0.112
			Local revenue before							
			general grant allocation		0.147	0.007	22.53	0	0.134	0.16
			Local revenue after							
	Central	PAOs	general grant allocation	6	0.152	0.03	5.11	0	0.093	0.21
			Local revenue before							
			general grant allocation		0.179	0.033	5.38	0	0.114	0.245

Appendix J1 (Continued)

Fiscal					Gini	Std.			[95%	
year	Region	Types of LAOs	Types of revenue	N	coefficient	Err.	t	P>t	Conf.	Interval]
			Local revenue after							
		City Municipalities	general grant allocation	1	0	.	.	.	.	.
			Local revenue before							
			general grant allocation		0	.	.	.	.	.
		Town	Local revenue after							
		Municipalities	general grant allocation	13	0.241	0.061	3.94	0	0.121	0.361
			Local revenue before							
			general grant allocation		0.27	0.07	3.84	0	0.132	0.408
		Subdistrict	Local revenue after							
		Municipalities	general grant allocation	145	0.252	0.021	11.74	0	0.21	0.294
			Local revenue before							
			general grant allocation		0.276	0.021	12.9	0	0.234	0.318
			Local revenue after							
		SAOs	general grant allocation	395	0.153	0.008	19.39	0	0.137	0.168
			Local revenue before							
			general grant allocation		0.195	0.01	18.98	0	0.174	0.215

Appendix J1 (Continued)

Fiscal					Gini	Std.			[95%	
year	Region	Types of LAOs	Types of revenue	N	coefficient	Err.	t	P>t	Conf.	Interval]
			Local revenue after							
	Vicinities	PAOs	general grant allocation	5	0.12	0.046	2.59	0	0.029	0.211
			Local revenue before							
			general grant allocation		0.127	0.044	2.91	0	0.041	0.213
			Local revenue after							
		City Municipalities	general grant allocation	7	0.043	0.014	3	0	0.015	0.072
			Local revenue before							
			general grant allocation		0.068	0.009	7.73	0	0.05	0.085
		Town	Local revenue after							
		Municipalities	general grant allocation	20	0.107	0.018	6	0	0.072	0.142
			Local revenue before							
			general grant allocation		0.115	0.015	7.48	0	0.085	0.146
		Subdistrict	Local revenue after							
		Municipalities	general grant allocation	64	0.185	0.025	7.47	0	0.137	0.234
			Local revenue before							
			general grant allocation		0.175	0.021	8.53	0	0.135	0.215

Appendix J1 (Continued)

Fiscal					Gini	Std.			[95%	
year	Region	Types of LAOs	Types of revenue	N	coefficient	Err.	t	P>t	Conf.	Interval]
			Local revenue after							
		SAOs	general grant allocation	219	0.188	0.033	5.7	0	0.124	0.253
			Local revenue before							
			general grant allocation		0.229	0.039	5.95	0	0.154	0.305

Source: Department of Local Administration, 2010-2013.

APPENDIX K

Table K1 Number of Provincial Administrative Organizations (PAOs) Receiving Specific Grants for Flagship (urgent) Projects in both 2011 and 2012

No. of PAOs	No. of PAOs receiving urgent projects in both 2011 and 2012	Percent of PAOs receiving urgent projects in both 2011 and 2012	PAOs' name receiving urgent projects in both 2011 and 2012
76	25	32.89	Khonkaen PAO Chaiyaphum PAO Nakhonnayok PAO Nakhonpanom PAO Nakhonratchasima PAO Nakhonsithammarat PAO Nan PAO Prachuabkirikhant PAO Prachinburi PAO Ayuthaya PAO Phayao PAO Maharakam PAO Maehongson PAO Yasothon PAO Yala PAO Roiet PAO Lampang PAO Loei PAO Sisaket PAO Sakonnakorn PAO Sukhothai PAO Nongkhai PAO Nhongbualamphu PAO Ubonratchathani PAO

Source: Department of Local Administration, 2011, 2012.

APPENDIX L

Table L1 Number of City Municipalities Receiving Specific Grants for Flagship
(urgent) Projects in both 2011 and 2012

No. of city municipalities	No. of city municipalities receiving urgent projects in both 2011 and 2012	Percent of city municipalities receiving urgent projects in both 2011 and 2012	City municipalities' name receiving urgent projects in both 2011 and 2012
27*	6	22.22	Chiangmai City Municipality Nakhonsawan City Municipality Rayong City Municipality Leamchabang City Municipality Omnoi City Municipality Ubonratchathani City Municipality

Source: Department of Local Administration, 2011, 2012.

Note: *number of City Municipalities in 2011

APPENDIX M

Table M1 Number of Town Municipalities Receiving Specific Grants for Flagship (urgent) Projects in both 2011 and 2012

No. of town municipalities	No. of town municipalities receiving urgent projects in both 2011 and 2012	Percent of town municipalities receiving urgent projects in both 2011 and 2012	Town municipalities' name receiving urgent projects in both 2011 and 2012
149*	9	6.04	Kra Thum Lom Town municipality
			Khlong Hae Town municipality
			Taphan Hin Town municipality
			Ta Khli Town municipality
			Mueang Kaen Phatthana Town municipality
			Sana Rak Town municipality
			Song Phi Nong Town municipality
			Nong Prue Town municipality
			Lom Sak Town municipality

Source: Department of Local Administration, 2011, 2012.

Note: * number of Town Municipalities in 2011

APPENDIX N

Table N1 Number of Subdistrict Municipalities Receiving Specific Grants for Flagship(urgent) Projects in both 2011 and 2012

No. of Sub-district municipalities	No. of Sub-district municipalities receiving urgent projects in both 2011 and 2012	Percent of Sub-district municipalities receiving urgent projects in both 2011 and 2012	Sub-district municipalities' name receiving urgent projects in both 2011 and 2012			
1884*	190	10.08	Klang Wiang	Tha Pla Duk	Pa Faek	San Pa Muang Sak Lek
			Kong Din	Tha Pha	Pa Maet	
			Kan Tuat Ramuan	Tha Yang Tha Wang	Ping Khong	Sam Ngam Phatthana
			Kanchanadit	Thong	Pha Suk	Sai Nam Kham
			Kut Wa	Tha Luang	Phop Phra	Sam Nak Thon
			Kao Liao	Thi Wang	Pha Tong	Suwannakhuha
			Ko Tao	Thung Kracho	Phraek Ha	Some Sai
			Ko Sichang	Thung Ku La	Pho Ngam	Suea Hok
			Khamin	Thung Sai	Phon	Ngao
			Khun Tah Le	Thung Phueng	Phai Sali	Nong Kung
			Khao Chiak	Sai Yoi	Fak Huai	Nong Khun

Table N1 (Continued)

No. of Sub-district municipalities	No. of Sub-district municipalities receiving urgent projects in both 2011 and 2012	Percent of Sub-district municipalities receiving urgent projects in both 2011 and 2012	Sub-district municipalities' name receiving urgent projects in both 2011 and 2012			
			Khao Ni Phan	That Na Weng	Fa Ham	Nong Chang Khuen
			Khao Baisi	That Phanom	Phu Sing	Nong Saeng
			Khao Phra Non	Na Kea	Ma Kham Khu Map Kah	Nong Bua
			Khao Hua Chaing	Na Khu	Phatthana	Nong Pla Lai
			Khlong Lan Phatthana	Nang Lue	Muang kLang	Nong Phue
			Khuan Khanun	Na Chueak	Mueang Ngai	Nong Po
			Kham Bong	Na Di	Mueang Pan	Nong Mamong
			Kham Muang	Na Thom	Mueang Suang	Nong Ri
			Kham Mueat Kaew	Na Yai Am	Mae Ka	Nong Han
			Kham Ahuan	Nao	Mea Ku	Lak Mueang
			Khung Taphao	Ni wet	Mae Kham	Lum Din
			Khok Kok Muang	Noen Kham	Mae Charao	Huai Krot Phatthana
			Khok Tum	Noen Po	Mea Chan	Huai Krachao

Table N1 (Continued)

No. of Sub-district municipalities	No. of Sub-district municipalities receiving urgent projects in both 2011 and 2012	Percent of Sub-district municipalities receiving urgent projects in both 2011 and 2012	Sub-district municipalities' name receiving urgent projects in both 2011 and 2012			
			Khok Ma	Non Sang	Mae Tan	Huai Ngu
			Ngio	Borrabue	Mae Tuen	Huai Yai
			Jong Thanon	Buak Khang	Mae Faek	Wai Niao
			Chan Chawa	Botru	Mae Yao	Han Kha
			Champi	Bang Phae	Mae Ramat	Hua Saphan
			Chaopraya Surasak	Bang Lamung	Yang Talat	Hua No Kham
			Ban Chat Paway	Bnag Len	Rom Mueang	Hin Tok
			Chai Varee	Bang Sare	Rahan	Muang Nga
			Chang Sai	Bang Ya Phrae	Rim Ping	Muang Jee
			Chum Saeng	Ban Klang	Lum Phunchad	Lao Yai
			Chang Mai	Ban Kho	Li	Akkha Kham
			Dong Yen	Ban Chang	Wang Kaphi	Ang Thong
			Don Sai	Ban Du	Wang Blong	Aow Payoon

Table N1 (Continued)

No. of Sub-district municipalities	No. of Sub-district municipalities receiving urgent projects in both 2011 and 2012	Percent of Sub-district municipalities receiving urgent projects in both 2011 and 2012	Sub-district municipalities' name receiving urgent projects in both 2011 and 2012			
			Don Sak	Ban Daen	Wang Sa La	Udom Tham
			Dan Khun Thot	Ban Tom	Wang Sombun	Um Phang
			Ton Thong	Ban No	Vichit	Um Mao
			Takhiang Tia	Ban Pae	Wiang Ka Long	
			Tak Fa	Ban Mung	Wiang Thoeng	
			Thoen Buri	Ban Suan	Si Wichai	
			Thamen Chai	Plong	Si Song Khram	
			Tha Kat Nuea	Plai Bang	Sa La Klang	
			Tha Kham	Pua	Sop Bong	
			Tha Khao Plueak	Pa Ko Dam	Som Wang	
			Tha Khum Ngoen	Pa Ngio	Saphang Thong	
			Tha Chang	Pa Sang	Suan Phueng	
			Tha Thung Luang	Pa Daet	San Sai	

Source: Department of Local Administration, 2011, 2012.

Note: * number of Subdistrict Municipalities in 2011

APPENDIX O

Table O1 Number of SAOs Receiving Specific Grants for Flagship (urgent) Projects in both 2011 and 2012

No. of SAOs	No. of SAOs receiving urgent projects in both 2011 and 2012	Percent of SAOs receiving urgent projects in both 2011 and 2012	SAOs' name receiving urgent projects in both 2011 and 2012				
3631*	478	13.16	Kra Jae	Tako	Bo	Phag Yang	Sila Thip
			Kra Som	Takhian Thong	Borklua Nue	Phu Sawan	Sila Phet
			Krud	Tanao Sri	Bo Ngoen	Phaeng	Sathan
			Klat Luang	Tamayung	Bo Tham	Pho Si	Sanam Khli
			Lalan Ta	Ta Lo Ha Lo	Bo Win	Pho Phra	Soppong
			Kong Koy	Tub Tao	Bo Su Phan	Phri Khia	Sop Mae Kha
			Ka Pang	Tak Daet	Bo Hin	Muang Kham	Som Sa-at
			Ka Lai	Tan Chum	Bannang Sareng	Maha Sawat	Samo Khon
			Kanjana	Ta Wang	Bua Chum	Maha Son	Sa Khwan
			Kham Phi	Tanot	Bua Thong	Maruebo Tok	Sa Nok Kaew

Table O1 (Continued)

No. of SAOs	No. of SAOs receiving urgent projects in both 2011 and 2012	Percent of SAOs receiving urgent projects in both 2011 and 2012	SAOs' name receiving urgent projects in both 2011 and 2012				
			Kut Ta Phet	Thawon Wattana	Bang Krathum	Ma Luan	Sa Bua
			Kut Noi	Tham Thalu	Bang Kachai	Map Pong	Suan Taeng
			Kud Nam Sai	Tham Rong	Bang Kro	Mueang Phan	Sawi
			Kao-Kham	Song Kanong	Bang Khanun	Mae Kon	Sa-at Chai Si
			Koh Kho Khao	Song Tham	Bang Khwan	Mae Kasa	Sa-e
			Koh Taphao	Thong Fa	Bang Khan	Mae Ku	Sak Long
			Khao Tal	Thong Lang	Bang Ngam	Mae Kha	San Ti Khiri
			Koh Ta Liang	Thon Hong	Bang Ta Then	Mae Jadee Mai	San Pa Tong
			Keo Proet	Thamen Chai	Bang Nam Chuet	Mae Tan	San Makheth
			Keo Phia	Thap Kung	Bang Bai Mai	Mae Tho	Sakhon
			Koh Phlapphla	Thap Put	Bang Phueng	Mae Tho	Samnak Thon
			Koh Sriboya	Thap Man	Bang Ra	Mae Tha Lop	Samnak Bok

Table O1 (Continued)

No. of SAOs	No. of SAOs receiving urgent projects in both 2011 and 2012	Percent of SAOs receiving urgent projects in both 2011 and 2012	SAOs' name receiving urgent projects in both 2011 and 2012				
			Koeng	Tah Ko	Bang Rakam	Mae Na	Sichon
			Kaeng Sian	Tha Khuen	Bang Rup	Mae Na Wang	Su Khirin
			Krai Nok	Tha Khun Ram	Bang Sakao	Mae Phung	Sung Noen
			Krai Nai	Tha Champa	Bang Suan	Mae Rai	Sung Men
			Khuang Pao	Tha Chi	Bang Si Thong	Mae Loi	Sema
			Koi Soong	Tha Sung	Bang Luang	Mae Lat	Sao Thong Chai
			Khunkhong	Tha Din Dam	Bacho	Mae Salong Nok	Saen Hai
			Khwao Rai	Tha Duea	Ban Kum	Mae Salit	Hong Charoen
			Khao Kala	Tha Tan	Ban Kho	Mae Soi	Nong Krang
			Khao Prai	Tha Sai	Ban Kham	Mae San	Nong Klap
			Khao Wrang	Tan Ta Wan	Ban Khaem	Mae Sakhon	Nong Klang Dong
			Khao Ro	Tha Phon	Ban San	Mae Sam Laep	Nong Kathao

Table O1 (Continued)

No. of SAOs	No. of SAOs receiving urgent projects in both 2011 and 2012	Percent of SAOs receiving urgent projects in both 2011 and 2012	SAOs' name receiving urgent projects in both 2011 and 2012				
			Khao Wiset	Tha Maka	Ban Ton	Mae Sun	Nong Kung Yhap Ma
			Khao Sam Sip Hap	Tha Yiam	Ban Tio	Mae La	Nong Khwai
			Klong Kra Jang	Tha Rap	Ban Tun	Mae Ho	Nong Khu Khat
			Klong Klung	Tha Rae	Ban Nai Dong	Mae Ai	Nong Takai
			Klong Chanuan	Tha Rai	Ban Bua	Mae U-su	Nong Thao
			Klong Chelom	Tha Li	Ban Boek	Mo Kro	Nong Nang
			Klong Dan	Tha Sala	Ban Puang	Mai Fat	Nong Bua Nuea
			Klong Sai	Tha Song Yang	Ban Pao	Ya Ta	Nong Pla Mor
			Klong Maning	Tha Sathon	Ban Paeng	Yarom	Nong Pling
			Klong Ya	Tha Sut	Ban Fang	Yaha	Nong Phok
			Khlong Sombun	Tha Sen	Ban Ruean	Yang Piang	Nong Phon Ngam
			Khlong Sa	Tha Sao	Ban Sang	Yan Sue	Nong Prong

Table O1 (Continued)

No. of SAOs	No. of SAOs receiving urgent projects in both 2011 and 2012	Percent of SAOs receiving urgent projects in both 2011 and 2012	SAOs' name receiving urgent projects in both 2011 and 2012				
			Kuan Grod	Tha It	Ban Suan	Yu Wa	Nong Mek
			Khuan Nori	Tha U-thae	Ban On	Ruam Chit	Nong Mae Taeng
			Khuan Ru	Thamnop	Ban Ueam	Rong Fong	Nang Suang
			Kho Thong	Thung Ko	Bana	Ram	Nong Hong
			Khon Kam	Thung Kha	Baro	Rao Ton Chan	Nang Lom
			Ka La Mae	Thung Tao	Bueng Kok	Rong	Nong Lao
			Kam Kok Soong	Thung Sai Thong	Bueng Samakkhi	Rai Khok Rai Mai	Mak Khiap
			Kham Toei	Thung Nui	Bueng Senat	Phatthana	Lom Kao
			Khom Na Dee	Thung Benca	Bung Kkhla	La-ngu	Huang Namkhaw
			Kum Pee	Thung Fai Thung Yang	Bung Namtao	Lalai	Huai Toei
			Kui Muang	Mueang	Bot	Lawia	Huai Thua Tai
			Khok Kham	Thung Yao	Prakhon Chai	Lahan	Huai Sai

Table O1 (Continued)

No. of SAOs	No. of SAOs receiving urgent projects in both 2011 and 2012	Percent of SAOs receiving urgent projects in both 2011 and 2012	SAOs' name receiving urgent projects in both 2011 and 2012				
			Khok Ta Bong	Thung Samo	Plong	Lat Khang	Huai Sai Nuea
			Khok Prong	Thung Luang	Plaknu	Lat Takhian	Huai Nam khao
			Hhok Peep	Tham Ma Mun	Pla Khao	Lan Dokmai	Huai Pu Ling
			Khok Phu	Nakhon Pamak	Po Phan	Lan Tak Fa	Huai Mun
			Kohk Lam	Na Kluea	Pa Lian	Lam Thap	Huai Yang
			Khok Sa Lud	Na Kha	Pan Tae	Lam Sai	Huai Rong
			Khok Sung	Na Kho Ruea	Pak Chaem	Lam Narai	Huai Sak
			Ngang	Na Choeng Khi Ri	Pak Song	Lam Huai Lua	Huai Samran
			Jom Sa Wan	Na Saeng	Pak Nakhon	Wang Krot	Hua Dong
			Jed Riew	Na Duea		Wang Kwang	Hua Don
			Che Di Hak	Natong Vadhana	Pang Ta Wai		Hua Pho
			Chae Son	Na Ta Khwan	Pang Ma Kha	Wang Khaem	Hua Mueng

Table O1 (Continued)

No. of SAOs	No. of SAOs receiving urgent projects in both 2011 and 2012	Percent of SAOs receiving urgent projects in both 2011 and 2012	SAOs' name receiving urgent projects in both 2011 and 2012				
			Chak Ka Don	Na Tan	Pa Daet	Wang Khrai	Hat Nang Kaeo
			Chat Tra Kan	Na Thon	Pa Pae	Wang Chaphlu	Hat Yai
			Chee Thuan	Na Thap Hai	Pa Faek	Wang Cha-on	Hin Kaew
			Chee Wan	Na Tham Nuea	Pa Phlu	Wang Nam Sap	Hin Khon
			Choeng Tha Le	Na Thung	Pa Phutsa	Wang Nam Lat	Hin Lat
			Chiang Khian	Napu Pom	Pa Rai	Wang Bot	Lao Dok Mai
			Chiang Dao	Na Phaya	Pa Wai	Wang Pong	Laem Klat
			Chiang Thong	Na Phala	Purong	Wang Phai	Laem Rang
			Chua Plong	Na Yong Nuea	Piang Luangm	Wang Phaya	Laem Sak
			Chai Wan	Na Suan	Paera	Wang Manao	Long Khod
			Sab Takheing	Na San	Phak Khuang	Wang Maprang	Ao Luek Noi
			Sub Perb	Na Som	Phueng Ruang	Wang Mok	Hai Yont

Table O1 (Continued)

No. of SAOs	No. of SAOs receiving urgent projects in both 2011 and 2012	Percent of SAOs receiving urgent projects in both 2011 and 2012	SAOs' name receiving urgent projects in both 2011 and 2012			
			Sub Ma Krud	No Luang Sen	Phai Khuang	Wang Yang
			Dom	Na Reng	Phai Sing	Wang Luek
			Don Ngua	Nam Kum	Phong Tuek	Wang Samrong
			Don Ta Phet	Nam Dip	Phong Tuek	Wang Mi
			Don Rak	Nam Tok	Phanom Set	Wang it hok
			Doi Ngam	Nam Phut	Phrom Phiram	Wat
			Doi Lo	Noa Phai	Phar Kaew	Wat Ko
			Doi Hang	Nam Ron	Phar Thaen	Wat Khanun
			Dan Chak	Nikhom Khao Bo Kaew	Phra Phioeng	Wat Lamut
			Din Daeng	Nikhom Phatthana	Phra Luang	Wat Su Wan
			Din Udom	Non Daeng	Phru Din Na	Wawi
			Daeng Mo	Non Na Chan	Phur Tiao	Wiang Kan

Table O1 (Continued)

No. of SAOs	No. of SAOs receiving urgent projects in both 2011 and 2012	Percent of SAOs receiving urgent projects in both 2011 and 2012	SAOs' name receiving urgent projects in both 2011 and 2012			
			Ton Phueng	Non Phi Ban	Phlong Ta Lam	Si Khiri Mat
			Ton Mapharao	No Rasi	Phluang Thong	Si Dong Yen
			Tapiang Tia	Non Suwan	Phlai Wat	Si Maha Phot
				Nai Mueang	Phato	Si Somdet
			To Lang	Borabue	Phang Khon	Sala Lamduan

Source: Department of Local Administration, 2011, 2012.

Note: *number of Subdistrict Administrative Organizations in 2011

BIOGRAPHY

NAME

Darunee Pumkaerw

ACADEMIC BACKGROUND

Master of politics and public policy,
University of Macquarie, Australia (2009)

Master of Arts (Government),
Political Science programme in Government
Chulalongkorn University, Bangkok (2004)
Bachelor of Business Administration,
(Marketing) Kasetsart University, Bangkok
(2000)

EXPERIENCES

University Lecturer at Ubon Ratchathani
University

ACADEMIC PAPERS

Fiscal Disparity in Local Governance and
Idea for Grant Allocation Reform
Fiscal Disparity in Local Governance: A
Case Study of Ubon Ratchathani Province
Local Government Finance: Expanding the
Revenue Base and Reducing Fiscal Disparity